

letters

Nuclear-freeze rebuttal

Harold Feiveson and Frank von Hippel (January, page 36) admit that a key factor behind counterforce development (such as the MX missile) is the "effort by the US to make credible its willingness to use nuclear weapons in areas where US conventional forces alone might be insufficient to deter Soviet aggression." Their argument against this rationale seems to be their assertion of the "chimera of limited [strategic nuclear] war." In a crisis situation, however, a significant Soviet advantage in hard-target-kill capability will inhibit our use of *tactical* (battlefield weapons of low yield, say, 1 kiloton) nuclear weapons as well, with serious implications for crisis resolution. Consider the following scenario.

A severe crisis in Central Europe leads to localized but intense skirmishes between NATO and Warsaw Pact forces in which the three-to-one advantage of the latter in conventional weaponry and men proves decisive. The Soviets, feeling self-confident and self-righteous, decide to press their advantage to force a favorable outcome by military means. NATO military commanders request use of tactical nuclear weapons to prevent capitulation. The Soviets broadcast a warning to all NATO countries that any use of nuclear weapons will be seen as an unacceptable escalation, to be followed by Soviet retaliation against American land-based missile sites.

The credibility of the Soviet threat is debated by Western governments. The Western leaders' experts inform them that a Soviet attack might be able (say, with 50% probability) to destroy 90% of those missiles that are sufficiently accurate to use in a counterattack against Soviet missile sites, that the remaining 10% could not destroy a significant fraction of the remaining Soviet land-based missiles, and that our bomber- and submarine-launched missiles are accurate enough to be used only against population centers (which would lead to mutual suicide). The Western leaders, though unsure of the Soviets' willingness to carry out their threat, deny NATO commanders the use of tactical nuclear weapons and instead choose to negotiate peace with

the Soviets on terms decidedly to the disadvantage of the Western Alliance.

If we change this scenario by assuming an American MX missile force perceived as highly survivable (say, with 50% probability of survival, perhaps with anti-ballistic missile and other defenses to bolster this perception), the Soviets could not credibly threaten. It is more likely then that skirmishes would not escalate to full-scale attacks, but would instead be resolved more or less evenly by crisis negotiations.

Without a survivable counterforce, our conventional forces must be perceived as roughly equivalent to the Soviets' in each region where we have vital interests. The Soviets' large numerical advantage in conventional forces, however, renders this unlikely at present. (The Israeli experience in Lebanon against Arab troops may have proved our technological superiority, but it is highly doubtful that NATO troops can overcome the three-to-one advantage of the well-trained Soviet force by technology in conventional weapons alone, at least not in this decade.)

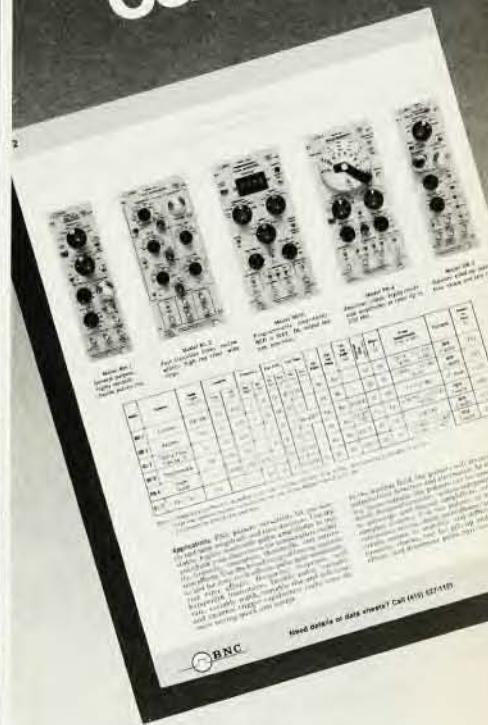
Presumably, Feiveson and von Hippel are not in favor of a clearly perceived inferiority in conventional forces if they are against deployment of a survivable counterforce. Does it follow that they advocate the gigantic build-up in our conventional forces needed to rectify the balance, with the attendant militarization of our society and sharp drop in our standard of living?

Surely the answer to mutual security lies in the phased reduction by the superpowers of *both* nuclear and conventional forces. This most desired of outcomes seems improbable indeed. I therefore conclude that a nuclear freeze at this time, without a survivable counterforce, serves to diminish, rather than enhance, the prospects for peace.

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1/83
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THE AUTHORS COMMENT: We welcome Leon Sutton's letter because it affords us the opportunity to comment on several widely believed myths that help

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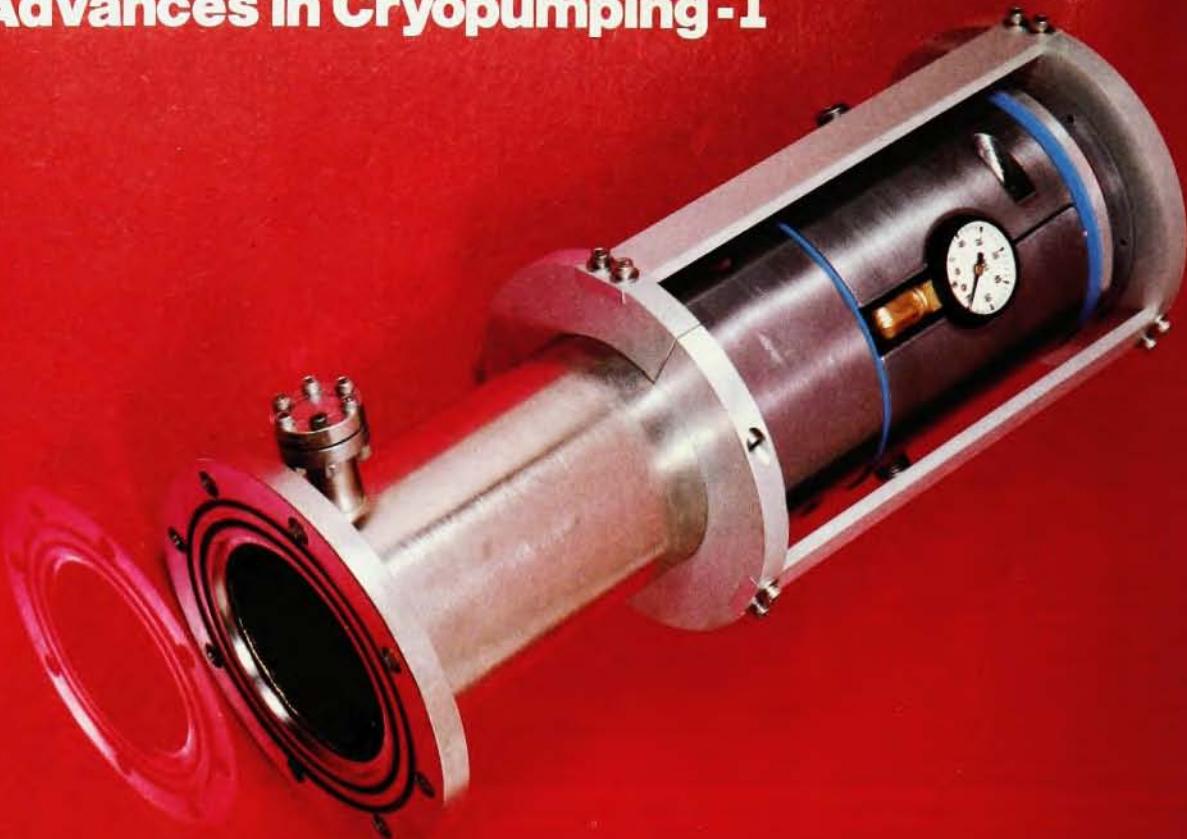


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drive the arms race:

► The Warsaw Pact has a "three-to-one advantage... in conventional weaponry and men" in Central Europe
 ► US "bomber- and submarine-launched missiles are accurate enough to be used only against population centers..."

► The only appropriate response to a Soviet first strike against US missile silos would be a "counterattack against Soviet missile sites"

(Other such myths are discussed in reference 1.)

With respect to the conventional balance in Central Europe, while it is true, as frequently cited, that the Warsaw Pact has a two-to-one advantage in number of divisions located in Central Europe, it also appears to be true (although hardly ever mentioned) that these divisions on average have only slightly over one half the manpower and firepower of the average NATO division.² The net result is that the Warsaw Pact has an advantage of approximately 1.2 to 1, *not* of 3 to 1 as Sutton claims, in conventional weaponry and men in Central Europe. This approximate balance (which could be maintained if NATO made the decision to mobilize its reserves within about a week after the Warsaw Pact) in combination with the potential advantages of the defense, the doubtful reliability of some of the non-Soviet units which comprise approximately one half of the Warsaw Pact's divisions in Central Europe, and the natural and man-made barriers to mechanized armies in West Germany, make a conventional defense of Western Europe feasible.²

Sutton is also mistaken when he asserts that the nuclear weapons carried by US bombers and submarines are too inaccurate to be used for any other purpose than "city-busting." The bombs and cruise missiles on US bombers are sufficiently accurate to destroy even hardened missile silos. Furthermore, US submarine-launched missiles, with median miss distances less than 500 meters, are accurate enough to destroy virtually any of the thousands of military facilities that US strategic planners have thought worth targeting. A list of examples of such targets was given by the Defense Department to the Senate Armed Services Committee in 1980. It includes nuclear-weapons storage sites, nuclear submarine bases, airfields, caserns, supply depots, marshalling points, ammunition storage facilities, tank and vehicle storage yards, and key communication facilities.³

As we pointed out in our article, a counterattack on Soviet missile silos after a Soviet first strike is an extremely implausible justification for the US

acquisition of a new generation of more accurate silo-killing ballistic missile warheads. If the leadership of the Soviet Union were deranged enough to undertake such a first strike, they would almost assuredly put their remaining land-based missiles in a launch-on-warning posture with the result that any counterattack against these missiles would result in the destruction of empty holes.

Sutton argues for strategic counterforce capabilities because he believes that they would give the US more freedom to use tactical nuclear weapons. This illustrates one of the major theses of our article: that many want counterforce capabilities in order to *lower* the nuclear threshold. More important, however, it illustrates a too-widespread inability to understand the implications of the levels of overkill possessed by both "superpowers."

As pointed out in our article, a large-scale attack against strategic weapons of either the US or the USSR would cause tens of millions of deaths. How can anyone assume no response from a nation that had suffered such an attack and still had thousands of surviving deliverable nuclear weapons at its disposal? Yet this is the key assumption implicit in such concerns as that about the "window of vulnerability" which continue to drive the nuclear arms race.

References

1. Frank von Hippel, "The Myths of Edward Teller," *Bulletin of the Atomic Scientists*, March 1983, page 6.
2. John Mearsheimer, "Why the Soviets Can't Win Quickly in Central Europe," *International Security*, Summer 1982.
3. Desmond Ball, "US Strategic Forces: How Would They Be Used?" *International Security*, Winter 1982/1983, page 31.

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2/83

Physics and love

I've noticed a lot of interest among physicists in spiritual matters lately. It's no wonder; the world faces a momentous choice: annihilation or transformation.

Everything happening in the world now represents a cry from humanity for a transformation. We are engaged in a planetary struggle with fear—the fear of each other and to some extent the fear of ourselves and of spirit. Fear will eventually lead to annihilation.

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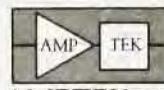
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