

# F. A. S. PUBLIC INTEREST REPORT

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## BOTH HAWKS AND DOVES SHOULD INSIST ON REDUCTIONS OF MIRVed ICBMs

The burning strategic issue of the day is the issue of land-based (Minuteman) missile vulnerability. Will the Soviet Union have—in fact or appearance—the ability to destroy the land-based ICBM component of the U.S. triad by the mid-1980s? If so, should America buy a new land-based missile with new basing? And should it equip its MX land-based missiles with the accuracy necessary to do the same to the Soviet force?

The first alternative is expensive (tens of billions of dollars). Nevertheless, last month, the Administration decided to move into full scale development of the MX missile without even knowing how it would be based. Why is it violating, at such potential expense, the most elemental “fly before you buy” rule—and doing so despite the discouraging recent experience of finding that 30 different basing methods have already been found wanting? The answer, of course, is the pressure to placate the hawkish-leaning undecided Senate votes on SALT.

### Precipitous MX Decisions: A Price of SALT

Individuals will have to decide for themselves how far this major price of SALT goes to negate its overall advantages. But the technological future impending is absolutely clear. Unless something intervenes, the period of the SALT II agreement, running to 1985, will see the vulnerability of U.S. land-based missiles to Soviet land-based missiles. And with the 1985 deployment of MX, undoubtedly armed with the requisite warheads and accuracy to do the same to the Soviets, the Soviet land-based force will be forced to redeployment. Thus the period of SALT III, as well as of SALT II, will be bedeviled by events set in motion right now.

Still worse, the alternative of counterforce is likely, should nuclear escalation begin, to encourage each side to fire first—in a reciprocating cycle of fear of otherwise firing last.

The one obvious solution to this new round of arms race that has, predictably, not reached public consciousness is: disarmament. The two sides could agree to phase out the MIRVed component of their land-based missile force. With only single-headed missiles

left, the party firing first would succeed in destroying, at most, only one missile with each single-warheaded attacking missile. He would therefore lack positive incentive to strike first. And he would have no negative incentive to do so (no fear of waiting) because there would be no danger that the other side might have incentive to strike him first. The agreement would be verified by prohibiting all flight tests of MIRVed land-based missiles.

It is true that such disarmament would not return the superpowers to the pre-MIRV era because submarines would still have MIRVed missiles. But the size, accuracy and numbers of the sub-launched missiles are not such, in this era, as would threaten the land-based missile forces.

### Why Not Phase Out the MIRVed ICBMs

The two sides have agreed in SALT II to have at most 820 land-based MIRVed missiles. In fact, the United States now has 550 and the USSR about 570, but theirs are growing. If each side were to dismantle a sizable fraction each year, the mid-1980s would see the absence of land-based MIRVed missiles, rather than a dramatic threat to Minuteman.

But would the Russians agree? These MIRVed missiles are their newest ones and expensive. Nor are our own Minuteman III missiles obsolete. Would the two sides agree to dismantle usable equipment? This is, of course, like asking: Could disarmament be “for real”?

There is a live opportunity to make it so during the ratification of the SALT II treaty. Doves who want disarmament could, if they had the wit to do so, join with hawks concerned over the vulnerability of Minuteman, to instruct negotiators to resolve promptly the forthcoming concerns of Minuteman vulnerability through reductions of strategic weapons, in the subsequent negotiations.

This would be in analogy to the resolution passed after SALT I in which negotiators in SALT II were instructed to assure “equal aggregates” in any sub-

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## LAST-MINUTE ADDITIONS

On the day this newsletter was going into page proofs, three Senators (Mark Hatfield, George McGovern, and William Proxmire) were on the Senate floor threatening to withhold their support from the SALT II agreement. They expressed concern about the inability of the SALT process to do much about controlling the offensive weapons arms race and voiced opposition to the MX among other new expenditures. Among the commitments mentioned which could regain some or all of the Senators' support on SALT II was such land-based missile reductions as would make MX unnecessary—reductions like those of the above editorial.

Readers can gauge the merit of the Senators' announced antipathy to the MX missile by reading the Garwin testimony on

pages 3-4. As for the course of the arms race, revealing insights into its extraordinary momentum can be seen in the excerpts from the Arms Control Impact Statements provided on pages 4-6.

Also on this same day, General George Seignious, Director of the Arms Control and Disarmament Agency (ACDA) is being operated upon for circulatory problems and may be hospitalized for some time thereafter. He was confirmed earlier by the Senate by voice vote—the always slight inclination of the Senate to express disapproval of this nomination being further depressed by whispered reports of his illness.

On pages 7 & 8, some comments on the fighting in Asia are provided, which, at press time, still threatened world peace. □

Continued from page 1

sequent agreement. It would not amend the SALT II agreement, but simply give the sense of the Senate as to its desires for the future—a sense strengthened by being attached to the treaty document and subsequently signed by the President.

The Administration would, at the moment, surely oppose such an effort because it would fear an inability to strike the requisite bargain with the Russians. It really wants disarmament agreements to maintain detente even as do the Russians. Neither superpower administration now expects disarmament to matter except in a largely cosmetic fashion, if ever they did.

Thus, while agreements once touted as "better than nothing" are sold now as "maintaining the process," few believe the process is going anywhere on comprehensive offensive weapon agreements. Those who will still urge that it be taken seriously are normally called by the press "ardent" disarmers. On the contrary, smart money in the Administration, shaken by the prospect of a close SALT II vote, is already scaling down its ambitions for SALT III to a series of bite-size agreements or, alternatively, a grand (show up the Russians) proposal. The latter is unlikely to be agreed if only because it will be proposed in 1980 after the SALT II agreement has set back any Soviet incentive to agree to 1985 (when the SALT II agreement runs out and it needs a new SALT agreement to achieve its motivating political goals of maintaining a modicum of detente).

#### Detente or Disarmament?

The unity of the disarmament community is itself hampered by a feeling that detente rather than disarmament is the only achievable goal. But recognition is growing that the institutionalized misuse of disarmament to achieve only political goals will eventually wear thin and backfire.

There is, thus far, little second-guessing of the ABM treaty on defensive weapons. But the results of the effort, in SALT I, and SALT II, to limit offensive weapons have persuaded a segment of the defense community that the Russians have exploited the previous treaties to improve their defense situation vis a vis our own. Obviously a certain amount of jockeying is inevitable under treaties. If the treaties themselves give a good downward impulse to the arms situation, each side will still be advantaged, notwithstanding minor shifts in relative position. Unfortunately, if the treaties in question are not sufficiently substantive, the jockeying, or even the appearance of it, can dominate the terms of the agreements.

In any case, in this instance, the costs of *not* agreeing to rid oneself of the MIRVed missiles is going to be: tens of billions of dollars on our side in MX missile and new basing; tens of billions on the Soviet side in new basing—since our MX will threaten their existing land-based force; and a conceptually dangerous situation in which each side can, if it strikes first, rid the other of its land-based force with only a fraction of its own. All this plus a prolongation of arms race re-deployment over a decade or two.

Here surely is a situation in which disarmament can represent a clear and immediate solution to a pressing strategic problem; can save tens of billions of dollars;

and can avoid the arms control problem of temptations to fire first.

If such an effort is not made, the problem will not be traceable to the flaws in the plan but to flaws in the thinking of the superpower administrations. As Secretary of Defense Brown said in his recent posture statement, SALT agreements "can make the achievement of destabilizing future advantage even more difficult than is already the case, while allowing current vulnerabilities to be removed." This is such a case. This is a job for negotiated reductions. Can't one side or the other rise to the occasion and make a suitable proposal?

—Reviewed and Approved by the FAS Council

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## REGARDING THE MULTIPLE AIMPOINT SYSTEM (MAP)

*In this important testimony, Richard Garwin explains why he predicts, with some confidence, that the U.S. will not find the shell-game deployment (MAP) of its proposed new MX missile satisfactory and indeed, will view it, five years hence, as quite as vulnerable as strategists now see Minuteman land-based missiles. The dangers to the U.S. of encouraging the Soviet Union to deploy its own MAP deployment are forcefully explained also. The testimony is excerpted from February 7, 1979 hearings before the House Armed Services Committee.*

The discussions of MAP which stem from the refinement of the concept by its proponents tend inevitably to emphasize the advantages and to minimize the disadvantages of the system. This is not unusual in industrial, government, or defense worlds, because the expertise for review of such systems almost inevitably resides primarily with those who are interested in the deployment of such a system. Two major inconveniences are associated with the MPS system as presently considered and as presented so ably by General Allen.

### MAP Vulnerable To Pindown

The first is that it perpetuates and exaggerates a present disadvantage of the Minuteman ICBM system—its vulnerability to predictable “pindown” for hours by the Soviet Union. Thus, a detonation of approximately one megaton per minute of nuclear explosive in space above each Minuteman “wing” (of about 150 missiles) could prevent Minuteman from being launched, because of the fragility of the missile in boost phase to the intense x-rays from such an explosion. The warheads which produce such explosions need have no particular accuracy (miles instead of tenths of miles will do), need not have a reentry vehicle to protect the warhead in its accurate reentry through the atmosphere, and thus could be considerably more numerous than would warheads capable of threatening the actual destruction of silos. The “pin” could be initiated by SLBMs from Soviet weapons near U.S. shores, and after thirty minutes or so continued for a period of some hours with nuclear explosives delivered by MIRVed ICBMs. Thus there would be a requirement for approximately 200 SLBM MIRVs to pin down the six wings of Minuteman for about thirty minutes, with a continuing requirement of on the order of 1000 Soviet ICBM MIRVs for each three hours of pin required.

This predictable denial to the United States by the Soviet Union, of any capability to fire Minuteman, substantially negates the value which is assigned by many to the otherwise at-present unique capabilities of responsive command and control, pretty good accuracy, and the like. Unfortunately, all analyses of MAP systems show that the deployment area will be substantially smaller than that corresponding to a wing of Minuteman, thus requiring approximately the same amount of nuclear explosives per hour to pin the entire MAP force as is presently required for the six wings of Minuteman, taking into account feasible further hardening of the MX missile during its development program. Thus, in considering the utility of future “survivable” ICBM basing systems, one must reckon with the predictable denial of any utility of MAP, for periods of hours, at times of the Soviet Union’s choosing.

The other inconvenience of the MAP system is its cost as presently conceived under SALT. Because there is a limit of approximately 800 MIRVed ICBMs in SALT II, there is every incentive to make the MX missile for deployment in MAP as large as possible—mainly considered in the range of 10-11 RVs per missile. The present cost of replicating aimpoints (shelters) for the large MX missile is estimated to exceed \$2 M each, and full operating capability (“FOC”) for the MX-MAP is anti-

cipated in General Allen’s response some eleven years after the decision date—so approximately 1990.

It is important to note that the MAP system protects its missiles significantly only after the second half of the shelters are deployed, so that even if all 200 MX missiles were initially deployed, improved survivability would wait many years for the completion of the shelter system.

The ensuing discussion of means for improving accuracy of mobile ICBMs will demonstrate that against a fixed, nominal MAP deployment of some 4500 shelters, the Soviet Union could readily fit their existing missiles with enough RVs and of sufficient accuracy to destroy the shelters (each of which is considerably softer than a Minuteman silo); those who believe that something must be done about Minuteman force vulnerability will hardly be able to tolerate a similar vulnerability in the emerging MAP system.

Furthermore, if one contemplates enlarging the MAP system in order to stay well ahead of any conservative intelligence predictions as to the number of accurate RVs which the Soviet Union might have available for strike against the shelters, it seems clear that the Soviet Union could win that race even on the grounds of cost per reliable delivered RV compared with system cost per additional shelter. When one adds a number of aspects which in the eyes of the conservative defender (the United States) represent uncertainties or options available to the offense (the Soviet Union), the offensive advantage (apparently) becomes overwhelming:

- the offense should be willing to spend to destroy or threaten MAP much more than the cost of MAP—in principle limited only by the value of U.S. society or of political influence in the world,
- the defense must be committed in numbers against pure estimates of Soviet RV force available for first strike some years hence,
- capabilities demonstrated only in test are imputed by the U.S. to Soviet future operational forces, making no allowance for traditional bureaucratic inertia, inefficiency, and the like, and
- although our MAP deployment would be constrained by SALT, it would have to face an imagined force of Soviet RVs whose manufacture is not limited in any way by SALT-II (which controls launchers and not missiles). Thus, large numbers of additional missiles could be manufactured complete with RVs, stored in warehouses, and be available for first-strike firing from these warehouses.

All the above leads me to predict confidently that if the United States proceeded with the deployment of a MAP system, five years hence there would be as much concern and search for an alternative to MAP in view of its potential vulnerability as there is now a sense of urgency to do something about Minuteman.

### U.S. Problems With Soviet MAP Deployment

While some argue that it would be impossible for the Soviet Union to maintain concealment as to which shelters in a MPS system contain the real missile, while at the same time allowing us to verify with some accuracy the number of real missiles deployed in their MAP, I disagree technically. I believe that there are technical approaches in which the Soviet Union could use U.S.-supplied instrumentation in conjunction with U.S. photographic satellites and other “national means of verification” in a cooperative fashion to provide adequate assurance to the U.S. that the stated number of missiles deployed in a MAP was not in fact exceeded by more than 20% or so. I do not believe that it would be easy to negotiate such a verification system or that it would necessarily be worth to the U.S. the price the Soviet Union could well exact in the negotiations for having

to accept a system of verification which the S.U. could argue was unnecessarily stringent and intrusive.

The problem with a Soviet MAP, however, is not cheating on the numbers of missiles deployed during the lifetime of a SALT agreement but rather the potential of a "breakout" from a SALT agreement. The widespread emphasis in the United States since 1972 or thereabouts on the necessity for "essential equivalence" between S.U. and U.S. strategic forces (and the prominence of this concept in the present debate) argues strongly against encouraging (or even allowing the Soviet Union to lay the basis for and spend most of the money on) a system which with small additional investment would give them not only a real but a widely perceived, greatly expanded, securely based force of MIRVed missiles. Since it is the U.S. which has taken the initiative in arguing that provision for MAP is essential to a SALT II agreement and has placed such emphasis in SALT on the necessity to combine concealment with verifiability, we could hardly object to a Soviet system which the S.U. asserted plausibly was verifiable. In fact, General Allen says in his letter of 12/29/78, "we are planning initially on developing a system which will allow us to assert unilaterally that verification by NTM is reasonable." The arguments that figure so prominently in the advocacy of MAP:

- demonstrably invulnerable nature of the basing,
- responsive command and control,
- high accuracy, prompt retargeting ability, short flight time to target, hard target capability, and so on,
- relatively low operating cost and personnel requirements, and
- independence from warning,

would make those emphasizing essential equivalence unhappy if the Soviet Union had a very much larger such force than the U.S. But, in my opinion, there would be *no way* to assure such individuals that the Soviet Union would in fact have only 200 MX missiles deployed in a 6000-shelter MAP system—not 1000 or 1500 such missiles—within a few weeks after denunciation of a SALT agreement.

More quantitatively, a 4500-shelter, 200-MX U.S. system could have a 10-year system cost of about \$25 B. If one procures 200-MX missiles, the per-missile cost (aside from the R&D) would amount to about \$15 M for a missile alone. Thus, a force of 200-MX missiles could be procured for about \$3 B; the other \$22 B would be missile R&D, basing R&D, basing investment, and operations and support during the first 10 years of the system. If the missile cost follows a normal "85% learning curve" (for which the average cost of an item is reduced by 15% each time the quantity produced is doubled), the cost of a 1600-missile force would amount to only about \$8.6 M per missile, or some \$13.8 B for missile procurement. If the Soviet cost structure were similar to that for the U.S., the 200-MX force could thus be expanded to a 1600-MX force for an additional investment on the order of 43% of the \$25 B 10-year system cost—a severe temptation to the planners and a technical possibility which will have to be reckoned by those on our side who would apparently be satisfied with permitting the S.U. to deploy a MAP system.

But it is sometimes argued that this "breakout" potential exists even without MAP—that there are no controls now on missile production, and that the Soviet Union may well have produced on the order of two missiles for each current silo. Indeed. But there are two differences which would be important in the case of MAP.

- The first is that the missiles produced would (according to U.S. plans) be enclosed in canisters which are essentially capable of launching a missile (although technically, a canister and its missile would only be a launcher

when it was encased in an approved shelter). A main purpose of MAP (because of the need for large numbers of silos which do *not* contain missiles and hence must have a low per-shelter cost) is the near-autonomy of the canister from base support requirements. Thus, an MX missile in its canister is a far more potent technical threat than is an ordinary SS-19 missile. Furthermore, the basing structure for the breakout missiles would have been prepared totally openly, at zero cost assignable to the breakout decision.

- The second point is a political one. Having emphasized the importance of survivable basing, invulnerable command and control, and so on, we will have ascribed a large increment of value to the existence of a command and control (C&C) structure and the hard shelters—laying a firm foundation for the perception that "essential equivalence" would be violated if the Soviet Union denounced SALT and deployed breakout missiles in its MAP system. □

### ARMS CONTROL IMPACT STATEMENTS— 1980 FISCAL BUDGET

Under the Carter Administration, the Arms Control Impact Statements (ACIS) are becoming more and more interesting and useful; below are some highlights.

**ICBM Programs:** DOD has replaced the higher accuracy associated with the NS-20 guidance system which, a year ago, FAS complained about, as well as the MK-12A improved warhead. This will improve the U.S. ability to destroy hardened targets, but ACIS says that U.S. ICBMs are becoming "relatively more vulnerable" to Soviet improvements. Maneuvering reentry vehicles (MaRV) are being developed to evade ABM defenses (in case the ABM treaty broke down) or to improve accuracy. Also advanced MaRV and terminal sensors known as Precision Guided Reentry Vehicles (PGRVs) are under way.

**MX:** DOD still considering hardened shelters with vertical concrete tubes; about 20 to 25 per missile and the missile transporter shuttling the canister/launcher containing the missile from shelter to shelter. Alternatively shallow buried concrete trenches with 12-20 miles of trench per missile.

Concerning the implications of MX, ACIS says this: The addition of highly accurate MX missiles would give the US ICBM force a much improved time-urgent hard-target kill capability. A comparison of the relative capabilities of possible MX and other US ICBM/SLBM systems is shown in Table 3. [deleted]

The combined effects of potential advances (MINUTEMAN III/MK-12A, and TRIDENT II) in US counter-silo capabilities could put a large portion of Soviet ICBM silos at risk by 1990, if not before. Such a development might have destabilizing effects and a negative arms control impact. By the early 1990s, the US could have about [deleted] missile warheads (about [deleted] of which would be on ICBMs) available to target the approximately [deleted] Soviet ICBM silos (assuming no changes in Soviet fixed-silo basing), and other targets.

The potential capabilities of these warheads to destroy [deleted] Soviet ICBM silos are illustrated in Table 4 [deleted]. Since the Soviets presently maintain about [deleted] percent of their deployed strategic weapons and about [deleted] percent of their explosive megatonnage in ICBMs, it is probable that these potential capabilities are likely to be of considerable concern to Soviet leaders.

There may be political as well as military reasons to develop and deploy US hard-target kill capabilities, such as those represented by MX. It is generally accepted that the Soviets are increasing their own hard-target kill capability and by the mid 1980's will have a theoretical capability to destroy [deleted] percent of US fixed-launcher ICBMs. An asymmetry in this aspect of relative US and Soviet capabilities could lead to perceptions of Soviet advantage that could have adverse political and military implications, including: (1) greater Soviet and less US freedom of action in the employment of conventional forces; (2) greater Soviet latitude in the implicit utilization of nuclear strength for political coercion; and (3) the development of new perceptions of trends in relative US and Soviet strength among third countries that could have a wide, if hard-to-identify, impact on US foreign policy. Improved hard-target kill capabilities also could permit the US to maintain as relative capability against Soviet military and command/control targets which have been increasingly hardened.

On the other hand, time-urgent hard-target kill capabilities are just one measure of the strategic relationship. The overall strategic balance and offsetting US advantages do to a degree diminish the political significance which might be attributed to this facet of Soviet capabilities. Programmed improvements in our MINUTEMAN force will increase US time-urgent hard-target capabilities but will not eliminate the asymmetry with Soviet forces in this aspect, or reduce MINUTEMAN vulnerability. The US strategic bomber force, and in the future, cruise missiles, provide a significant retaliatory—although not time-urgent—hard-target capability that the Soviet forces are not projected to match. The strategic significance of Soviet hard-target capabilities will decline as we take steps to offset the vulnerability of US ICBMs, which are probably the most important targets of the more capable Soviet ICBMs.

It seems certain that the Soviets will have to recognize growing US counterforce capabilities in MX and other US strategic weapons as they are developed.

**Inertial Confinement Fusion:** Nuclear fusion initiated by lasers or other high-power sources will heat and compress small pellets containing fusionable fuel. It is believed that a "breakeven" point may be reached within ten years in which the energy produced by such fusion reactions would equal the energy used to cause the reactions. Significant civil energy production by inertial confinement fusion (ICF) is thought to be at least 40 years away.

It is obvious that this work raises very serious arms control questions inasmuch as entire relevant sections of the ACIS statement are classified: e.g. the relation of ICB to arms control agreements; effects on global and regional stability; technological implications; verification; etc.

**Large Area Ocean Surveillance Systems:** The U.S. has been expanding an underwater Sound Surveillance System since 1954 called SOSUS. It monitors general-purpose or attack submarines as well as nuclear-powered and ballistic missile submarines. SOSUS was expanded in the mid-1960s. SOSUS is said to be unique and ACIS says that "no other underwater surveillance system even remotely approximates it [deleted]." The oceans are getting noisier due to more shipping and oil drilling and Soviet submarines are getting quieter. SOSUS is being backfitted to respond to these enhanced needs. So far SOSUS has "demonstrated a substantial capability to detect submarines patrolling or transiting through SOSUS areas of coverage." A "large fraction" of the Soviet submarine force has been "subject to" SOSUS detection and tracking without diminishing Soviet interest in maintaining a modern SSBN force, according to ACIS. It is argued that this shows that

SOSUS will not, by itself, weaken Soviet confidence in the survivability of its sea-based strategic force. It is further argued that detection does not assure correct classification, which does not, in turn, assure successful localization, much less accurate weapon placement. ACIS says the U.S. has a "declaratory policy" of not developing an anti-SSBN capability. But it is admitted that Soviet assessments of SSBN vulnerability might affect their negotiations at SALT.

**Directed Energy Programs:** A High Energy Laser (HEL) program is underway to determine by the early 1980s, whether work on advanced development prototypes should begin that would incorporate lasers as weapons. Missions are classified, but space and space-related applications are included. Particle beam work is underway to study the pointing and tracking of electron beams and the technology for high pulse power. Air defense (defense against bombers) is one application. The U.S. scientific community is said to consider the "stringent requirements of PB weapons to render the developmental problems particularly acute" but not to doubt feasibility in principle. The Soviets seem to be working intensively on high-energy lasers.

The use of Directed Energy weapons for ballistic missile defense could be developed and tested under the ABM Treaty—but not deployed—so long as the BMD devices were fixed and land-based. Deployment would have to await discussions and amendment of the current ABM treaty.

Although particle beam weapons lack significant near term promise, the Russians have suggested in a disarmament working group that such weapons might lead to weapons of mass destruction and have drafted a proposal to ban development and manufacture of weapons using "charged and neutral particles to affect biological targets." The U.S. considers this effort impractical and therefore undesirable and thinks particle beam weapons, as currently conceived, would be point weapons and not weapons of mass destruction.

Overall the ACIS thinks that high energy laser and particle beam concepts represent important new technologies with many potential weapon applications, although some may never become feasible or cost-effective.

**Space Defense:** Impact statement rendered largely unreadable by classification deletions.

**Nuclear Bombs:** B61 Mods 3&4 and B83. Evidently these are bombs with "flexibility"—probably permitting authorities to dial the yield they wish. ACIS argues for them as helping "control escalation and reduce collateral damage."

**Civil Defense:** According to the ACIS, President Carter has directed that, while the U.S. would rely predominantly on strategic offensive forces for deterrence, the civil defense program should seek to:

—Enhance deterrence and stability in conjunction with our strategic offensive and other strategic defensive forces. [deleted]

—[deleted]

—provide some increase in the number of surviving population and for greater continuity of government, should deterrence [deleted] fail, [deleted]

—take advantage of the mobility of the population stemming from wide ownership of private automobiles, the extensive highway system, and the large number of non-urban potential housing facilities to achieve crisis relocation of the urban population."

In other words, there does seem to be a new directive for civil defense, one containing classified injunctions and certainly containing crisis evacuation.

According to the ACIS, the U.S. intelligence community

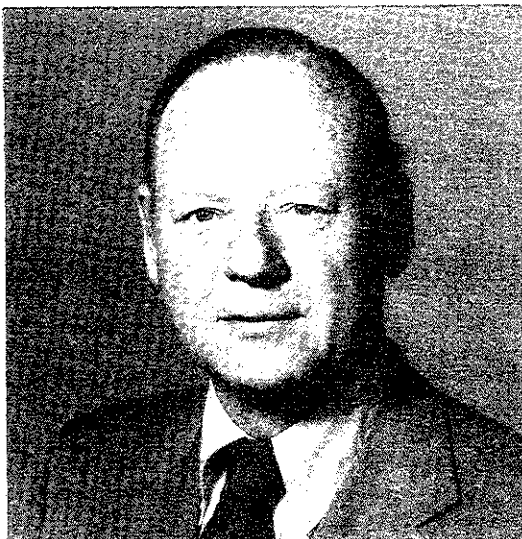
thinks that, with a week or more of preparations, most of the Soviet urban population could be evacuated. Pre-evacuation Soviet fatalities of 60 million would be reduced to 20 or 30 million if U.S. weapons continued to be targeted, as they are today, on recovery industry rather than population. But with retargeting, deaths would rise to 50 million. ACIS concludes that: "It is unlikely, however, that the possibility of Soviet evacuation and relocation could be used as a tool of intimidation to extract concessions from the U.S.."

**NAVSTAR Global Positioning System:** This will provide each user with the capability to determine quickly its position to better than 10 meters accuracy in three dimensions and its velocity to a few centimeters per second, anywhere, anytime. Methods are being considered to deny use of the system to unauthorized individuals. It will have three rings of eight satellites. Receivers, when placed on submarines willing to raise a suitable antenna above the water's surface, would improve the accuracy of Poseidon and Trident missiles by 30 to 50%. If the missiles themselves received the data, they could become even more accurate but, having become dependent upon a satellite that might be destroyed, the entire missile system would be at risk—hence the U.S. is not now planning to do this.

**Fuel Air Explosives:** Explosives generated by detonating gaseous volatile hydrocarbons provide blast effects over wide areas and became the source of criticism during the Vietnamese war as inhumane. ACIS claims they are no less humane than any other blast weapons although Sweden and Switzerland have called for a prohibition of one kind or another on these weapons at a rules of war conference.

**Airborne Strategic Offensive Systems:** ACIS says the U.S. has an "estimated lead of five or more years over the Soviet Union" in advanced cruise missile technology—small, light-weight, highly efficient engines, miniaturized computers, and advanced guidance systems. What happens when the five years is up?

ACIS says that cruise missile "could eventually raise troublesome SALT verification complications" because of their small size, the variety of platforms from which they can be reached, and the difficulty of determining from external configuration what the range, nuclear or conventional payload and mission is involved. The U.S. may have to set precedents itself to help the Soviets verify its distribution of cruise missiles if it expects to negotiate verifiable agreements with the Soviets in future. □



ACDA Director General George M. Seignious (USA ret.)

## THE SEIGNIOUS AFFAIR—PART II

On January 25 the Foreign Relations Committee met to hear General George M. Seignious (USA, ret.) in his confirmation hearing as ACDA Director. Earlier General Seignious had made the rounds of most of the Senators involved; from a practical political point of view, decisions on these matters are normally made well in advance of the hearings through these private hearings.

Chairman Frank Church opened the hearings by saying that the Committee had to consider the appropriateness of having a military officer in this job but that he had no predisposition to say that generals ought not be. Senator Jacob Javits, ranking Republican, said that the fact that the law was "silent" on having retired military officers in this position was a point in favor of General Seignious. Senator Pell said it was "poor judgment" on the part of the Administration to choose a general, and that he would vote for Senator John Culver's bill prohibiting such appointments in future.

Senator Fritz Hollings of South Carolina had come to introduce his constituent, General Seignious, and in a long, humorous, but pointed, series of sallies, he worked in the fact that an awful lot of Senators had military experience. Opposition to Seignious, if couched in anti-military terms, might gratuitously offend colleagues—a mistake for any Senator.

General Seignious had no prepared statement. He simply noted that military men knew the dangers and burdens of armament and that he felt he could carry out the charter of the Agency. He volunteered that he could return to his position as President of the Citadel military school anytime up to April 1. He indicated that the Ambassador to the SALT talks, Ralph Earle, would report through him to the State Department. And he continued to state—what he either believes or pretends to believe—that the opposition to him is based on a view that "because a man believes in a strong defense, he cannot believe in arms control."

### Soft Questioning

Senator Howard Baker came in and announced that he would support Seignious. In answers to soft questions from Senator Biden, General Seignious said he would support SALT II "in the form we expect." He said he had been on the SALT team only six to eight weeks, and much of that based at the Citadel (with the use of secure communications). He had then been ill for two to three months.

Senator S. I. Hayakawa allowed as how he had an honorary degree from the Citadel, and Senator Zorinsky asked how he had met a common friend, former SAC commander Russell Doherty. (This is the way most decisions of this kind are made.) Senator McGovern asked a revealing question about MX, which is excerpted on the next page; the answer by General Seignious characteristically invoked the high rhetoric of a civics book political consciousness. "Surely no one is serious in the belief that we will attack the Soviet Union first." But obviously the Russian military has to be serious in that belief and trying to avoid stirring the fears of the other side is what arms control is all about. The fact that Senators failed to pick up on answers like these seemed, in the immortal phrase of Simon and Garfunkel, to reflect "hearing without listening."

Senator John Glenn said he felt General Seignious's opponents were against him just because he was a military man. "Obviously" Senator Glenn could not agree because he, himself, was military. He went on to argue that "civilian mistakes had been greater than military mistakes" in Vietnam. One saw in this intervention how right Senators would be to fear being misunderstood by their militarily trained colleagues as "anti-military" just for wanting ACDA to be under civilian control. Glenn then said he would introduce a bill that would

legitimize such appointments so long as both the Director and Deputy Director of ACDA were not both retired military officers within ten years of their retirement. Thus was the gauntlet thrown down on the issue of civilian control of ACDA.

General Seignious had explained on December 13 at a news briefing why he had joined the anti-SALT Coalition for Peace Through Strength in these terms:

"I, as President of the Citadel, have an Advisory Council that is composed of outstanding Americans and two of those members of my Advisory Council were listed as members of the American Security Council. They were Admiral Moorer and General Lemnitzer, two men I respect very much. And believing that strength is necessary for peace and without knowing the specifics of the program, I was certain that it would be an association with these distinguished Americans that I could well profit from. So, I accepted membership in the American Security Council without reading its detailed programs."

Senator Javits raised this point and said, in paternal fashion, that he was sure General Seignious would learn from the experience.

Senator Church asked whether General Seignious had been urged by the Administration to resign from the Coalition and he said that he was "warned by friends in the delegation before I knew I was being considered for the job" that the Coalition was taking some extreme positions, "but no one told me they were against SALT."

#### Opponents Testify

On February 26, FAS testified for an hour and a half, followed by Women's Strike for Peace, SANE, Women's International League for Peace and Freedom, the United Methodistists, and others. The Americans for Democratic Action had sent a letter of opposition also. FAS testimony was quite well received and complimentary remarks about FAS were made, of one kind or another, by, among others, Senators Church, Javits, and Percy. But attendance was thinner even than on the day of the hearings of General Seignious.

On January 30, the Committee met in open session. Senator Richard Lugar of Indiana, one of the few Senators to sit through the entire hearings and one who had, in addition, obviously read the testimony, voted "no." His press release had summed up the situation in a sensible fashion: viz. the Senate ought not confirm individuals who are unlikely to work out in their job. Senator Jesse Helms also voted "no." Hayakawa said he felt the General's uniform was being "misused" but since he respected him personally, he would vote for him. Senator Baker said he could understand how Lugar felt because he "had been young once, but, fortunately, as they say, had outgrown it." (After this attempt at humor had obviously gone too far, he, in effect, apologized for it by indicating that he would protect Lugar's rights to avoid having the matter steamrolled precipitously to a Senate vote.)

Senator McGovern said the Senate had "invited this" appointment of a General by overreacting to the Warnke nomination. But, except for his remark, no Democratic Senator was prepared to say much. Senator Church said hearings would take place later in the year on the principle at issue, and he did hope that there would not be a *series* of generals appointed; he seemed more sympathetic now to the Culver bill.

At Senator Lugar's request, the hearings were to be printed and circulated to all Senators before the Committee on Foreign Relations moved to a Senate vote. Without Lugar's intervention, a pro forma vote would have been held and the opposition comments would not have been circulated in advance of it. (At press time, this vote had not yet been held, but its significance seemed likely to be, at most, the occasion for a useful colloquy.) □

## SEIGNIOUS ON MX

**Senator McGovern:** In the Protocol, as I understand it, the United States would be permitted to construct the so-called MX missile. That system, in addition to being mobile, will have big enough MIRVed warheads and sufficient accuracy and will be deployed in sufficient numbers so that it could be a pre-launch threat to the Soviet land-based missiles. Whenever we have had indications that they were moving toward a pre-launch capability that might threaten our land-based missiles, we have referred to that as dangerous and destabilizing, even though only 25 percent of our missile capability is on land, whereas 75 percent of theirs is land-based.

Isn't it possible that we could build a mobile system to defeat a possible Soviet counterforce or first strike capability without building into our own that kind of destabilizing capability?

**Mr. Seignious:** Senator, I think we must start from analysis, a brief one, of where we are now and why there is consideration for another solution to the land-based systems that we have now deployed.

The fact of the matter is that in the past few years, Soviet technology and Soviet testing has reached the point where their systems have been substantially more accurate with adequate yield that increasingly threatens our fixed ICBM fields. As a result of that threat, the alternative that is being examined by the United States, a mobile system that is not constrained by the treaty, is being examined on the basis that what we have will not be reliable enough to insure the strategic balance being maintained.

If they have this capability and it is a very destabilizing one due to the high numbers that they have—75 percent or 70 percent of their force is in the form of ICBM's—then I think it could reasonably be argued that if the United States had a more secure land-based ICBM system, it would be more stabilizing rather than destabilizing. Surely no one is serious in the belief that we will attack the Soviet Union first. □

## CHINESE HONEYMOON SHORTEST ON RECORD

At the reception for Vice Premier Teng at the Liaison Office of the People's Republic of China, a high U.S. official told FAS: "Now the hard work is to be done. What exactly is the nature of the relationship we should have with China? This will be more difficult to determine than was the normalization to achieve."

At that time, it appeared that the sky was the limit. Two weeks later, China attacked Vietnam and Washington was beginning to realize that life with China could be dangerous. The President declared that America would not become involved in wars between "communist nations"; so China has been relegated again to the "Commie" slot. And any notions of helping China arm itself to defend against the Russians were badly set back by the possibility that China would use those arms in unanticipated adventures.

The Russians, who are portraying the United States as having been sucked into a dangerous trap by Vice Premier Teng Hsiao-ping, may succeed in persuading the United States that this is the case. If the Chinese get the reputation of being too smart by half, and too shrewd in manipulation of American politics and political attitudes, it will redound badly for them in future. Their general reputation for inscrutability will encourage such apprehensions.

The Chinese are, in addition, so preoccupied with the struggle for influence with the Russians that they sometimes support very reactionary regimes so long as they can replace the

—Continued on page 8

Continued from page 7

Russians. American opinion has overlooked this tendency because it is also preoccupied with the Russians and because the Chinese influence, world-wide, seems small. But Chinese support of Zaire and Chile are examples that are beginning to be recognized by American liberals.

Still another potential source of American antipathy toward China stems from popular support for U.S.-Soviet disarmament agreements. The Chinese are unsympathetic toward such agreements. Such actions as the invasion of Cambodia may turn into, for the U.S., much resented stumbling blocks to the fulfillment of the SALT agreement if, as anticipated, they put off the resolution of the last few difficulties.

Furthermore, the Chinese themselves will not sign most arms control agreements. In particular, they are still testing nuclear weapons in the atmosphere and generating periodic protests here whenever the radioactive cloud from their tests is detected over our shores.

#### Rules of Detente?

The Russians complain that the Chinese told the President that they were planning to attack Vietnam. Did the President consult with the Russians? In the reverse situation, the United States would consider it a violation of the rules of detente if the Soviet Union did not discuss with it any advance knowledge the Soviets might get of impending attack upon one of our allies.

And what did the President tell the Chinese? According to one diplomatic report, the Chinese are offering to withdraw their support of the Pol Pot regime if the Vietnamese will get out of Cambodia and let Shianouk be put back in power.

Americans are going to have to decide two fundamental questions in dealing with the Chinese vis a vis the Russians. The first concerns sales of equipment that might assist military programs; much that we do sell the Soviet Union would enhance Chinese military capability, based as it is on a lower level. Ought we sell it to them?

Second, should restrictions on most favored nation treatment and other trade issues be encumbered with the same or different human rights standards?

FAS members with opinions on these subjects should write to us about them.

## WHOSE VIETNAM IS WHOSE?

It is all very confusing. According to an experienced political observer, *Cambodia is Vietnam's Vietnam* since it is now hopelessly morassed there. He says Japan never controlled more than the large towns when it invaded China. Now Vietnam, equally well hated by the inhabitants, is going to fail to control the Cambodian countryside.

On the other hand, it is widely said that *Vietnam has become China's Vietnam*. The Chinese, who say they only want to teach the Vietnamese a lesson not to fool around on the border, are getting mired down in Northern Vietnam. If and when they withdraw, the Vietnamese will certainly say they taught the Chinese a lesson.

But a visiting Chinese official says that, in fact, *Vietnam is China's Cuba*. Less than ninety miles off their shore and a Soviet satellite sticking in their craw, is what he has in mind.

Another observer, agreeing with him, said that the Chinese invasion is really *Teng's "Bay of Pigs."* Euphoric about his return to power, he may have thought his luck would carry him through anything, much as John F. Kennedy's confidence in his luck was overextended by his narrow election over Nixon and his rapid rise to the Presidency.

The Cubans obviously think that *Vietnam is Cuba* because they announced, within hours of the Chinese attack that Cuba would support Vietnam "to the last drop of our blood."

Finally to complete the analogies, the Russians think that *Teng's visit to America*—which preceded the invasion by two weeks—was the functional equivalent of their friendship treaty with Vietnam—which preceded the Vietnamese invasion of Cambodia by several weeks.

It appears that we are entering an era in which the phrase "proxy war" will come to have an entirely new meaning. The Chinese communique explaining their invasion said nothing about Cambodia. Thus one war, ostensibly about border problems, has become a proxy war for another. (Indeed, observers ask, would the Vietnamese be so foolish as to provoke the Chinese on their border when most of their divisions are off fighting in Cambodia?). Ironically, the United States has linked the two invasions in its U.N. call to get the Vietnamese out of Cambodia and the Chinese out of Vietnam. From the Soviet point of view, this is more support for the underlying Chinese motivation than even China is willing to admit!

Perhaps, we can expect the Soviet Union to invade Sinkiang next and to baldly announce that it has nothing to do with Southeast Asia but is just meant to straighten out the border there between Russia and China.

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