Testimony by Henry S. Rowen on the Vladivostok Agreement Before the International Security and Scientific Affairs Subcommittee of the House Committee on International Relations

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I welcome the opportunity to appear before this Committee to discuss the agreement recently arrived at in Vladivostok as well as the entire Strategic Arms Limitation Talks process. I believe that it is an urgent matter that the Congress pay more attention to the SALT process and the decision of the Committee to hold these hearings is to be commended.

Since this is my first appearance before this Committee, I would like to say something about my background in this area. I am Professor of Public Management at Stanford University. In the past I have been Deputy Assistant Secretary of Defense for International Security Affairs, Assistant Director of the Bureau of the Budget and President of the Rand Corporation. With respect to my research activities in this area, from the early 1950s I have contributed to some of the major analyses of strategic power and to concepts of deterrence; for example, I was a co-author of a work which formulated the "second strike" concept about which we have heard so much in SALT. Recently I have been actively involved in work on the requirements for deterrence and strategic doctrine in the light of rapidly changing military technologies.

The views I express here are, of course, my personal ones.

The first question that I wish to address is whether or not the agreement outlined at Vladivostok meets the national security interests of the U.S. This question is not easy to answer; in the six months since the summit the text of the agreement has not been made public. However, based on public information I believe the agreement does not meet the national security interests of the U.S. I will state the reasons why I reach this conclusion. The second question, then, is what changes should be made in order for it to meet these needs? I will also have some observations to make on this question. But first some general comments on Vladivostok and the SALT process.

Basic Defects and Contradictions in Vladivostok and in the Entire Salt Process

The Vladivostok agreement has been criticized by conservatives as giving away too much to the Soviets and by liberals as setting ceilings on forces which are too high. There is merit in both criticisms, but neither of them goes to the heart of the problem not only with Vladivostok but with the entire SALT process. In my view, the U.S. approach to SALT suffers from a number of serious defects. 1) It has been based on a strategic concept which is wrong and which has been rejected by the Administration in other important policy contexts; 2) It is premised on the faulty notion that we have been engaged in an "uncontrolled arms race;" 3) It is internally inconsistent on matters of great importance; 4) It is based on premises which are clearly not shared by the Soviet Union; 5) It argues unpersuasively that without SALT I things would have been even worse; 6) It makes dubious claims that equality has been provided for; 7) It assumes that the very concept of controlling "strategic" arms is a meaningful objective per se; 8) It assumes that preservation of the status quo is to be preferred to an adaptive process of change; and 9) It assumes that the practice of summitry and "back channel" diplomacy is the appropriate way to generate useful agreements.

The Implicit Assumption of Mutual Assured Destruction

Perhaps the most fundamental defect in the U.S. approach to SALT is the mutual assured destruction doctrine, the doctrine that holds that any use of nuclear weapons will inevitably result in civil destruction on a genocidal scale. This is a doctrine which holds that the appropriate criterion for developing and procuring a nuclear force is its use against civil populations; moreover, this is all essential if an ever-escalating arms race or a nuclear war is to be prevented. Therefore, the levels of "strategic" arms don't matter because there is a large excess of "overkill" on both sides. Nor is equality or equivalence in forces needed. Even agreement is really unnecessary; unilateral reductions can be made. However, in other contexts high government officials including the President, his National Security Advisor and the Secretary of Defense, have wisely attacked this doctrine as being inconsistent with American values

and security interests. They have advocated a policy of increasing discriminateness and flexibility in the use of both non-nuclear and nuclear force. In short, it has been recognized in non-SALT contexts that it would not be to our interest, or to that of the Soviet Union or to any other nation, to engage in indiscriminate nuclear warfare. This would be suicidal. Yet this is the basic assumption in SALT. It has the effect one might expect: if what is at stake is degrees of "overkill," then allowing the Soviets a preponderance in warheads or throwweight or not counting classes of Soviet bombers able to hit the continental U.S. in the agreement is not a matter of much importance, merely a technical detail. It appears that the President's Advisor on National Security who has argued so cogently and persuasively for flexibility and restraint in the planning and use of nuclear forces should meet the Secretary of State who, in defending SALT, holds that the levels and types of strategic forces do not matter because it will not affect the capacity of either side to destroy human life. The formulation of the Secretary of State, assuming that the forces are well protected, can be launched, can penetrate to target and are directed against population and population only, is correct enough. The great powers possess more than enough nuclear weaponry to kill hundreds of millions of people. But the formulation of the National Security Advisor implies that this is the wrong criterion by which to judge these forces. In this instance I agree with the National Security Advisor.

I do not want to be misunderstood. I am not in favor of simply multiplying numbers of launchers, vehicles or nuclear warheads. I would be quite happy to see these numbers reduced. But the criteria that are appropriate for making decisions in these matters are complex. They have not been employed adequately in SALT.

The Assertion That We Have Been In An Uncontrolled Arms Race

A central argument in SALT is the arresting of what is called the "strategic arms race." We are told that SALT I made a beginning in putting these armaments under some restraint, that the most dangerous thing to aim for is a qualitative edge over one's major rivals, that for the first time the arms race is being levelled off, or capped, or has reached a ceiling. Some latitude must be given

to the rhetorical inflation which is customary in these matters. Nevertheless, there is a problem in reconciling such effusions with the fact that real U.S. spending for these arms fell from the late fifties to 1972 by a factor of 2 to 3.5, depending on how one does the reckoning. Moreover, total megatonnage in the strategic forces fell by 60% and the total number of offensive and defensive warheads by 25%. (To be sure, the number of offensive warheads doubled; not all of the indexes declined.) Note that these indexes declined before the SALT negotiations began. Also note that the Vladivostok agreement has produced the interpretation that spending for strategic arms would have to go up.

The SALT arms race rhetoric also refers to a qualitative arms race. The assumption here is that new technology is bad per se. This is an assumption that permeates the SALT process. It was central in the arguments which led to the treaty limiting anti-ballistic missile defenses even after our proposed deployment of ABMs had been shifted to the protection of fixed ICBMs and even though such defenses promised to increase stability. It appears in proposals to limit mobile ICBMs or cruise missiles despite the fact that such innovations promise to provide better protected forces or, with cruise missiles, reduce dependence on nuclear weapons in the defense of allies. In reality new technology can be good or bad for U.S. security depending on how it is used. New technology introduced in the 1960s increased stability of the military balance and enabled us to reduce strategic budgets. I don't want us to forego such possibilities in the future. New weapons that reduce dependence on nuclear weapons for the defense of allies or reduce first strike instabilities or improve the controllability of forces are generally thought to be good and I agree. Some SALT limits have had the opposite effect.

There Exist Large Inconsistencies

It is inevitable that there are inconsistencies among the objectives of public policy. Choices and trade-offs have to be made. But some of these inconsistencies occur at a fundamental level in SALT. For example, a security objective often cited in SALT is reducing the incentive for one side to launch a large scale nuclear

attack against the other. This is the "first-strike" stability objective. Concern here has focussed on growing vulnerability of ICBM silos. This has been a reason for seeking limits on total numbers of missiles, missile throwweight and MIRV limitations. Yet SALT virtually eliminated the principal means of providing protection to these fixed land based forces, the ABM. The growing vulnerability of our Minutemen missiles (a problem which is tempered by the belief that our SLBM and alert aircraft forces are largely survivable) was significantly worsened by SALT I. In that case, saving the agreement was thought to be more important than saving the force.

I have cited the inconsistency between the position that on the one hand we should seek to limit and constrain any use of nuclear weapons and on the other hand that none of this makes any difference. Other inconsistencies are related to the concepts of the quantitative and qualitative arms race which the SALT process is supposed to halt. One might expect that if SALT doesn't seem to make things safer it should at least save us money. But Vladivostok sets a ceiling for missiles and aircraft that tends to impel us to buy more systems or delay the retirement of some others.

Another example concerns our lack of bargaining leverage. Much has been made by our principal SALT negotiator since the beginning of the weakness of the U.S. bargaining position. Only in the field of ABM technology did we have a clear advantage and it is no accident that the two sides arrived at the most far reaching agreement in this area. But, it has often been lamented, we had little bargaining leverage in offensive systems because we had so few new systems in the pipeline. Clearly the mood of the Congress over the last several years has not been supportive of increases in the defense budget. The only way significant increases in R&D for new strategic programs could have been obtained would have been for the President to have engaged in a major effort to explain the importance of such programs to the Congress and public. Making a case for "bargaining chips" would not have been good enough. But the Administration was boxed in by its stopping-the-arms-race rhetoric and by the effort to promote detente. Unlike the Soviets, we could not simultaneously promote detente and push for an increase in arms. A choice was made and it was to continue to leave our negotiators with little leverage.

Inconsistencies have abounded. SALT, when criticized, is defended in terms of the blessings of detente; detente, when viewed skeptically, is supposedly saved by the accomplishments of SALT.

How is it possible for an arena of policy to be so rich in inconsistencies? It appears to be the product of a process in which there are few objectives other than arriving at agreement and then the next agreement and so on with little attention paid to substantive and enduring interests of U.S. security.

The Soviets Operate on Different Premises Than We Do

The conclusion that there is too much overkill and that nuclear force levels don't matter very much does not seem to have been accepted by the Soviets. They have been diligently adding to their long range rocket and bomber forces and developing and deploying new missiles (four ICBMs, two SLBMs versions) and a new strategic bomber. Moreover, there is reason to believe that they have still other new systems in the R&D pipeline. During the course of the 1960s and '70s our intelligence estimators went from thinking that the Soviets would accept a position of inferiority in these arms to believing that they would go for parity only to find that they are shooting for clear superiority in important dimensions. Meanwhile, during this period we were cutting back on expenditures in real terms for strategic offensive and defensive arms. Evidently the Soviets have been operating on a different theory. It is a theory that is most unlikely to include actually waging a nuclear war, but it is one that evidently sees some advantage in military strength--even having more or better nuclear arms. This, in their view, nudges the world correlation of forces along a little faster in the direction in which they say it is moving anyway.

SALT to them appears to be a means, not to the end of reducing strategic instability or the level of arms, but to the end of gaining an advantage in the continuing competition with the U.S.

We tend to assume that the Soviet Union, like the U.S., faces the choice between arms control and competition. It isn't understood that the Soviets have chosen both: to compete with us using arms control as one tactic among others.

Although the Soviet Union does not appear to share our view of the perils of the arms competition, it's spokesmen do not refrain from playing back our rhetoric on this topic. Though our strategic budgets have been going down and our new weapons introductions lagging while the Soviets have been going up, Mr. Brezhnev has recently complained bitterly about our soaring defense budget and our new military systems which he says are forcing them to greater efforts. He does not lack a fine, unselfconscious sense of how to negotiate in a competitive rather than a cooperative spirit.

The Argument that Things Would Have Been Even Worse

If there had been no agreement in SALT I or at Vladivostok, we are told, the Soviets would have built up much more than they have in strategic arms. (The problem, then, was not really an arms race because we weren't running fast enough.) Is this then the heart of the argument? In 1972 we were told that the U.S. had to settle for inferiority in the number of missile submarines (62 vs. 44) because the Soviets were building at the rate of 8 or 9 per year, would go on to build 80 or 90 in five years, and because we had none under construction. In short, we faced a growing numerical margin about which we could do nothing in the next five years. After Vladivostok we are told that the U.S. intelligence projections showed that the Soviets, in absence of the agreement, would have increased their strategic offensive capacity even more than they can do under the agreement.

What do such assertions mean? It does not mean that the Soviets will be able to kill significantly more Americans. Nor does it mean that our fixed based forces will be significantly less vulnerable since this will be determined mostly by the number of warheads the Soviets can deliver and by their accuracy, parameters which are not going to be significantly limited by this or any agreement. Operationally it means 1) that the Soviets must retire some old missiles, SS-7s, 8s, 9s, and 11s, if they want to buy a lot of new ones and stay within the limit of 2400 total, and 2) that they might not be able to have as many MIRVed missiles in the 1980-85 period than in the absence of the agreement, (assuming that they don't withdraw from the agreement by then).

These putative limitations on the Soviets should be viewed skeptically in light of our sorry performance in making long run estimates of the size and character of Soviet strategic forces. Perhaps we are being spared an even worse fate but there is no question but that the Soviets under SALT I have continued to carry out a major build-up of strategic arms. They will be able to continue this build-up under Vladivostok. The evidence is overwhelming that they intend to exploit every advantage open to them to the full: modifications to silos to increase the size of the missiles, cold launch to increase missile throwweight, new missile launching submarines, and the introduction of new, larger, MIRVed and more accurate missiles in large numbers and long range bombers. Soviet expenditures for these arms can be expected to continue to grow; there is no reason to expect that these expenditures will grow any less rapidly than they would in the absence of the agreement.

There is no comparable set of forces at work in the U.S. Those who have been concerned about the high Vladivostok levels can relax. Political realities within the U.S. are very likely going to keep us from attempting to match the Soviets in these expenditures.

Vladivostok Does Not in Fact Provide for Equality in Strategic Forces:

Vladivostok is a big improvement over SALT I in terms of providing for equal treatment in the parameters of forces explicitly mentioned in the agreement. Equality, or equivalence, expressed in terms of "equal aggregates" is, of course, the central claim of Vladivostok: 2400 strategic systems on both sides, 1320 of which may be MIRVed. But how should strategic capacity be measured? There is no single index which adequately represents "strategic" power: not the number of missiles, launchers, throwweight, warheads, megatonnage or equivalent megatonnage, silo hardness, missile or bomber range, accuracy, or dollars. These are all useful measures, but there are many others I have omitted. Taken in combination, they of course contain more information about relative strength than any single one does. But even then it is a fallacy to maintain that the essence of strategic power is represented completely or even adequately by these parameters. This does not mean that nothing is known or that anyone's guess is as good as anyone else's. These are incomplete

but useful indexes. However, the negotiating process inevitably singles out a few of them for incorporation in an agreement. The agreement may explicitly limit some, indirectly affect others and leave the rest unaffected. Those omitted are not necessarily less important. They may be harder to measure or to control, as in the case of accuracy, clearly an important parameter.

In Vladivostok a few of the many possible important parameters were incorporated in the agreement in a way which leaves the U.S. in an inferior position in some of these or in other parameters. Specifically, the U.S. is left in an inferior position in 1) heavy ICBMs (which we are precluded from acquiring because of the silo limitations carried over from SALT I), 2) total missile throwweight (again because of silo limitations, although we could increase our throwweight capacity within existing constraints), and 3) strategic bombers (if the Soviet proposal for not counting it, as reported by the press, is accepted by us). Why has this occurred? The simplest explanation is that these disparities were the price of an agreement. Vladivostok defenders say that some of these, for example the disparity in throwweight, merely codify an existing situation, one produced by the U.S. choosing to buy small missiles and the Soviets large ones. I do not favor efforts to match Soviet throwweight or even to undertake a major effort in increasing missile size. However, and this is the central point, <u>there is a big difference between disparities which flow from unilateral decisions which can be changed on the basis of new technology or changed circumstances and our accepting in principle an unequal position intended to exist for a long period of time</u>. In the circumstances of the 1960s and early 1970s it appeared sensible to U.S. decision makers to opt for improving the protection, accuracy, and flexibility of our strategic forces. They decided not to add significantly to throwweight or to add launchers or vehicles. But experience has shown that changes frequently have to be made on a strategic posture if it is to remain economical and effective. We have had to make a number of basic changes in the past several decades and we will have to make some major ones in the next decade. For example, we will need to find an alternative to silo based ICBMs. We may also have to make some now unexpected changes. Anyone who claims to see clearly

our strategic posture needs through 1985 cannot be taken seriously. Therefore, it is a serious error to accept inferiority in any important parameter of military power.

Throwweight Is Not a Phony Issue

The argument is sometimes made that the throwweight issue is "phony". This amounts to saying that all warheads are the same, big or little, and that the number of them doesn't matter either--at least in the range of numbers implied by Vladivostok. For if warheads were different, then the side with more or better ones would have an advantage. The notion that all warheads are the same is difficult to square with the fact that there is nearly a factor of 1000 between the yield of the smallest nuclear warhead in the U.S. strategic force and the largest one in the Soviet force. (A factor of 1000 was about the difference between the yield of the largest conventional bomb used in WWII and the Hiroshima bomb.)

A recent piece of evidence that suggests that not all bombs are the same is the announcement last week that the U.S. is considering assigning additional Poseidon missiles to SACEUR for European theater defense in order to free up European based fighter bombers for other, including non-nuclear, missions. The warheads in question are at the low end of the yield range of those now available in the strategic force, as they should be for assignment to Europe.

Warhead size also makes a difference in capacity to destroy hard silos. The probability of destroying a hardened silo varies as the two-thirds power of the weapon yield; a factor of 1000 difference in yield for a given accuracy means a factor of 100 difference in hard target destruction capacity. The large payload of Soviet missiles is providing serious grounds for concern about the sruvivability of Minuteman missiles. At best, this "phony" issue is likely to end up costing the taxpayers a fair amount of money for an alternative to silo based Minuteman.

American spokesmen have been know to remark that you don't get hit with launchers, you get hit with warheads. This American argument has also been picked up by Chairman Brezhnev. But disparities in throwweight imply disparities in warheads, an index of power of great importance according to both American and Soviet authorities. We can add this item to our list of SALT inconsistencies.

The estimated disparity in total missile throwweight between the Soviet Union and the U.S. implied by Vladivostok is about a factor of 2 to 3. This means that, with equivalent technology, they could have 2 to 3 times as many warheads as the U.S. I don't know what they would do with that many warheads and they presumably couldn't deploy them all by 1985, but I am not certain that they will forgo building a lot more warheads than we do. I do not argue that there is now an urgent need for the U.S. to have large payload missiles or that we should multiply warheads more than we are. It is just that this is an uncertain and changing world and high confidence in these matters is unwarranted. I have said that there is no one index of strategic power. It would be a mistake to allow any one index which happens to have received attention in SALT to dominate the design of our force. But throwweight is at least more fundamental than some, such as total megatonnage or even the number of warheads.

What I would emphasize is not the addition of capabilities which copy those of the Soviets in large missiles but those which <u>outwork</u> large, fixed missiles.

<u>The Unequal Treatment of Bombers</u>

In the recent negotiations somehow Backfire got left out of the limits. Backfire is a new strategic bomber similar to the U.S. B-1.

The Chairman of the JCS estimates that Backfire could carry out two-way subsonic missions with limited low level penetration against virtually all of the U.S. He also estimates that it is capable of delivering weapons on "1¼" way missions (meaning with recovery in friendly or neutral territory) without refueling. No reason has been made public for its proposed non-limitation. One conjecture, on the basis of circumstantial evidence is that its being left out was offered for the Soviet dropping of the issue of U.S. fighter bombers stationed in Europe and elsewhere, some of which are capable of reaching the Soviet Union, although their missions are for the defense of allies. This is the Forward Based System (or FBS) issue. (We have no reason to feel that the Soviets are doing us a favor on the FBS issue; the Soviet missiles and aircraft targeted on our allies have also not been limited nor have a number of Soviet systems able to reach the continental U.S.) In SALT I

we took the position that FBS was non-negotiable. Perhaps it later became negotiable. But whatever the reason, the exclusion of Backfire should not be accepted by the Congress. It is blatantly inconsistent with the inclusion of the U.S. B-52s and B-1s.

Nor should we agree to the non-counting of another type of Soviet bomber, the approximately 800 Badger medium bombers. This bomber is similar to the 1485 B-47s which used to make up almost all of our strategic forces in the 1950s and early 1960s. During the 1960s the Defense Secretary, in opposing the JCS on the issue of a larger strategic force budget, dropped the Badgers from the list of Soviet forces we regarded as "strategic." However, these bombers, if refueled, are capable of attacking the U.S. on 1¼ way missions. The carrying out of such missions should not be thought of as wildly impractical. Calculations made on the basis of unclassified data show that this this is precisely the type of mission, with no return to homeland, that would have to be carried out by most of our B-52s. The reason why the longer range B-52 would have to be operated in this way is the formidable Soviet air defense system (which has about 10,000 SAM launchers and 2600 fighter interceptors). These defenses force B-52s to make low altitude penetrations. Because every mile transited at low altitude causes the B-52 to give up something like three miles of flight at optimum altitude, the need to penetrate at low altitude prevents them from making two way missions. The Badgers could penetrate U.S. air space at high altitude against the vestigal U.S. air defense system (zero SAMs and, by 1976, only 230 fighter interceptors) especially if a few defense busting missiles are sent in first. Perhaps 200-300 of the 800 Badgers could be launched simultaneously, refueled in the air, sent against the U.S. and recovered in safety. At least this number should also be counted in any SALT II agreement. (Symmetry suggests that we might also offer to include FB-111s able to carry out deep missions against the Soviet Union.)

Should the Cruise Missile Be Limited?

The Soviets have for a long time had cruise missiles, both air and sea launched. In fact, current Soviet submarine based cruise missiles launched from off our coasts could reach a large proportion of targets in the continental U.S. and improvements to these missiles

are to be expected. (U.S. submarines, if they were equipped with missiles of equal range could not achieve anything like comparable coverage because most Soviet targets are deeper inland.) These Soviet missiles, although clearly usable in such "strategic" missions, are not counted in SALT.

The current U.S. cruise missile had its origins in a proposal by Secretary of Defense Laird in 1972 that the U.S. develop such a missile as part of a package of strategic initiatives. By now it has evolved into a sea launched (submarine and possibly surface ship) and air launched vehicle. The air launched version is intended for "strategic" missions, and the sea based version for both tactical (meaning short range and non-nuclear) and strategic (meaning long range and nuclear) versions.

The Defense Department justification for the strategic version of the cruise missile has centered on its role in nuclear conflict. Air launched cruise missiles could help bombers to penetrate by diluting defenses and either air or sea launched missiles could be sent against primary targets. The trouble with this justification is that it seems to offer no more than still another way to attack the Soviet Union with nuclear weapons (by adding a "fourth arm" to the nuclear triad of ICBMs, bombers and sea launched ballistic missiles). The question, not unreasonably, is raised, why do we need it?

In my view, both the proponents of the strategic version of the cruise missile and many of the critics fundamentally misperceive its significance. The cruise missile incorporates basic technology that is bringing about a revolution in military capabilities and doctrine. The increasing precision possible in the delivery of weapons, even at very long ranges, is making possible the substitution of small weapons for large ones. This greatly increases the effectiveness and discriminateness with which force can be applied. Small nuclear weapons can be substituted for large ones and, most importantly, for many missions it may be possible for non-nuclear warheads to be substituted for nuclear ones. These developments will do a great deal to help set limits to the scope and level of conflict. And the prospect of being able to take more effective action, with less