Central Intelligence Agency

Washington, D.C. 20505

OCA 87-5745
15 November 1987

The Honorable Henry Hyde
Ranking Minority Member
Permanent Select Committee on Intelligence
House of Representatives
Washington, D.C. 20515

Dear Mr. Hyde:

Enclosed is a sanitized copy of the minority report entitled Dissenting Views to the Report of the House Permanent Select Committee on Intelligence Support to Arms Control. The report is now unclassified. However, we are unable to declassify the information contained in your letter of 12 November.

Sincerely yours,

STAT [redacted]

William H. Webster
Director of Central Intelligence

Enclosure:
As Stated

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Remarks
D/OCA has advised DCI that response will be prepared for his signature.

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Executive Secretary
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THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release December 13, 1985

THE PRESIDENT'S UNCLASSIFIED REPORT ON
SOVIET NONCOMPLIANCE WITH ARMS CONTROL AGREEMENTS

The following is the text of a letter from the President to the Speaker of the House of Representatives and to the President of the Senate transmitting the President's report, in classified and unclassified versions, on Soviet noncompliance with arms control agreements as required by PL 99-145:

Dear Mr. Speaker (Dear Mr. President):

In response to Congressional requests as set forth in Public Law 99-145, I am forwarding herewith classified and unclassified versions of the Administration's report to the Congress on Soviet Noncompliance with Arms Control Agreements.

Detailed classified briefings will be available to the Congress early in the new year.

I believe the additional information provided, and issues addressed, especially in the detailed classified report, will significantly increase understanding of Soviet violations and probable violations. Such understanding, and strong Congressional consensus on the importance of compliance to achieving effective arms control, will do much to strengthen our efforts both in seeking corrective actions and in negotiations with the Soviet Union.

Sincerely,

/s/

Ronald Reagan

The unclassified report is attached.

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DISSENTING VIEWS

TO THE REPORT ON

INTELLIGENCE SUPPORT TO ARMS CONTROL

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INTRODUCTION

Had this investigation been conducted in a nonpolitical manner, we believe there are many important themes on which the entire Committee might have agreed. It seems, however, that the liberal majority's main ambition was to discredit prior administration compliance judgments and to refute any perception that verification difficulties are a real impediment to future treaties. Disproportionate emphasis on monitoring of nuclear testing agreements also coincides with legislative initiatives now being promoted in Congress.

Since facts revealed in the hearings often undercut this agenda, the report's objectivity is corroded by misleading analyses and assertions. Rather than refute each such statement in detail, we offer below a few examples of problems which are endemic to the majority report's methodology and which subvert the credibility of its conclusions.

Our primary focus, however, will be to summarize the central monitoring and verification issues as we see them, issues often neglected or miscast in the majority report.

SUMMARY OF FINDINGS

We face troublesome and often serious monitoring deficiencies in numerous areas relevant to present or contemplated treaties. Some of these areas include: manpower levels; chemical weapons, biological weapons, throw-weight; deployed mobile launchers; deployed ballistic missile warheads; non-deployed or "refire" ballistic missiles and warheads; cruise missiles; strategic weapons production; broad area search capability; conventional anti-ballistic missile (ABM) activities; retention of conventional anti-satellite (ASAT) capabilities; and directed energy weapons potentially useful for both unconventional ASAT and unconventional ABM applications. These must be considered deficiencies if the US seeks to verify treaties according to high, or in many cases even moderate, confidence levels, and especially if it wishes to do so in a timely manner.

Contrary to representations in the majority report, the US cannot verify Soviet adherence to major, militarily significant clauses of most existing and proposed arms treaties, including the Nuclear and Space Arms Talks in Geneva. Inability to monitor numbers of deployed MIRVed warheads under either SALT II and START, for instance, could under some scenarios allow the Soviets to get by with few or no net warhead reductions while the US slashed its own forces. If significant warhead reductions under START are added to those of an agreed INF treaty, the USSR's incentives to cheat will escalate greatly unless longstanding Soviet military strategy is completely altered.

The 1972 ABM Treaty has been the least verifiable pact to date. Five of eight publicly identified compliance problems on which definitive judgments were not reached fall under this agreement. Moreover, US Intelligence for

some years now has judged that the Soviets are preparing an option to deploy rapidly a widespread ABM defense, a policy which tears asunder the treaty's fundamental purpose. Using elementary precautions, the USSR could operate with virtual impunity under any treaties governing unconventional ABM and ASAT capabilities, including under the 1972 ABM Treaty if the latter is interpreted to restrict research and development on unconventional systems.

Attempts to keep tabs on various mobile missiles threaten to absorb a disproportionate amount of our assets, and we are nonetheless unlikely to defeat totally a determined Soviet denial and deception effort. The US will be unable to guarantee that all intermediate- and short-range missiles are destroyed under the proposed INF pact, the real issues being how many could be retained undetected and whether monitoring privileges will maximize opportunities to investigate any suspicious activities we may discover.

Cruise missile numbers and performance characteristics are even harder to monitor than are mobile ballistic missiles. Some deployment methods are more readily monitored than others. But, as demonstrated by the US strategic cruise missile program, air-, ground- and sea-launched versions can be variations on the same basic missile, a factor which further complicates monitoring of even a ban on selected deployment modes.

Verification obstacles regarding chemical and biological weapons pacts are insurmountable, and further violations should be anticipated because of the very poor Soviet record in this area.

Escalating and frequently illegal Soviet denial and deception practices which are fundamentally incompatible with arms control, plus technological advances allowing deployment of more concealable weapons, have reduced US ability to verify existing and future treaties. Past Soviet behavior and negotiating practices, Western expectations of compromise and the dynamics of summitry make it unlikely that verification provisions of future treaties will either provide for the best available monitoring resources or effectively protect their unimpeded operation.

We face a painful dilemma. Despite ongoing improvements in formidable US intelligence resources, we will be fortunate simply to halt erosion in our relative monitoring capability. We have been unable to enforce existing treaties, and any meaningful future pacts will be far more difficult to verify. We must consider frankly whether major cumulative arms control risks are more or less dangerous than an absence of real or theoretical restrictions on expanding Soviet military power. Declining Western support for defense spending, the continued popularity of the concept of arms control and other factors doubtless will also play a large role in these decisions. One hopes US leadership can devise and adhere to a strategy which will see beyond immediate problems and political agendas to maximize long-term Western security.

The current refrain is that treaties must and will be "verifiable." Clearly the Congress and the public are unprepared to face or assess the true strategic alternatives, and the administration has declined to intrude reality into this fantasy world.

The majority report, which brushes aside monitoring problems obvious even to the uninitiated while simultaneously claiming that we cannot prove violations under existing treaties, exemplifies a recurrent syndrome in US and allied arms control politics. Those uncritically committed to the concept of arms control seem irresistably driven to promote US negotiating concessions and to hail the virtue of resulting treaties. When compliance problems relating to those agreements later arise, these same people predictably will: deny evidence of violations; escalate standards of legal and evidential proof to unrealistic or inherently unattainable levels; and implicitly contend that the USSR must be considered innocent and the treaty retained if such standards allegedly are not achieved and regardless of the preponderance of the evidence. If these attitudes are accepted, "verification" becomes a meaningless, manipulated concept, a hopeless assignment and a perpetrated fraud.

Although a national intelligence estimate prepared at the outset of arms negotiations under this administration presented a forthright assessment of monitoring problems, elements of US Intelligence continue at times to misrepresent our capabilities, for instance by acquiescing in inaccurate descriptions, by failing to account voluntarily for Soviet deceptive practices acknowledged to be plausible and by offering misleading verbal or written assessments. The majority report prefers to rely on these aberrations as a basis for its assertions regarding the verifiability of issues being negotiated at the Nuclear and Space Arms Talks, rather than citing the national intelligence estimate and officials who faithfully present these agreed views. Historically, US Intelligence and especially US political leadership have overestimated US monitoring capabilities and grossly underestimated the quality and redundancy of information politically necessary either to support a case for violation within the bureaucracy or to sustain such a judgment publicly. After 15 years of experience with subtle to blatant Soviet behavior, there is no excuse for repeating this mistake.

While keeping in mind existing attitudes, responsible political leadership nonetheless must also strive to alter the mistaken standards of evidence which thus far have prevailed. If the US wishes to promote meaningful arms control and protect itself from the effects of violations, the current expectation of virtual one hundred percent certitude regarding Soviet noncompliance will have to change. Using information that establishes a high or lesser probability of violation, the US will have to make final or tentative compliance judgments, plus implement policy responses. It will have to regard treaty responsibilities primarily as substantive and power political issues rather than legal and partisan debating points. Especially in view of increasing monitoring difficulties, the alternative is retreat to wishful thinking and paralysis. Given their compliance record, the burden of proof rightfully should now be on the Soviets anyway.

The performance of US Intelligence in the strategic arms threat assessment and monitoring business has been less than sterling. Many of our capabilities are extremely sophisticated. But monitoring deficiences, some of them at least partially avoidable, have developed in numerous critical areas. In

general, a more orderly assessment and exploration of potential monitoring needs and improvements is desirable. To counter Soviet denial and deception, we must become more flexible in evaluating the returns on established programs and exploring novel techniques. The Soviet "maskirovka" effort not only runs afoul of treaty obligations. It is also hitting the taxpayer wallet. Politicians and public must realize, however, that there is no way we could afford to develop collection capabilities providing one hundred percent certainty that the Soviets are or are not violating major arms limitations. And even with unlimited funding, such capabilities often would not be achievable.

Although attitudes and practices have improved since the 1970s, US Intelligence remains unwilling to take the initiative in fully researching and assessing Soviet activities which might be illegal, and has blocked investigation or public disclosure of certain compliance issues, sometimes because it does not wish to call attention to sensitive intelligence sources and methods. There is no US intelligence issue in memory which has been more politicized than the treatment of Soviet strategic arms policies and treaty-related activities. For instance, strategic threat assessments underlying the 1972 and 1979 ABM and SALT Treaties fell very wide of the mark because available evidence was not objectively weighed.

The quality of analysis has improved during the past decade. At present, US Intelligence honestly admits its inability to project the extent of future Soviet strategic deployments. This lack of capability, however, is of major significance to policymakers. Intelligence agencies prefer to attribute their problems to imponderables regarding future arms control arrangements, political relationships and the unknown fate of the US Strategic Defense Initiative. But we cannot confidently project Soviet deployments in any given scenario, because the estimative problem traces primarily to two other factors: inadequate information on the full military strategy and intentions of Soviet leadership; and US Intelligence's conclusion that the Soviets deliberately have developed a capability to expand rapidly both offensive and defensive deployments -- i.e. their achievement of "breakout" capabilities in both areas.

Intelligence estimates have changed dramatically when compared to those of the 1970s, as best exemplified in 1985 public testimony before Congress. Intelligence officials said Soviet objectives were to provide strategic capabilities comparable to, or in excess of, the capabilities of all their enemies combined. Within SALT II, the Soviets sought to achieve strategic advantage over the US, partly by limiting US force modernization. At best, arms control has channeled or redirected the Soviet effort rather than reducing it. Soviet weapons expansion options were described as deliberately planned and Soviet programs under SALT II were termed quite satisfactory from their point of view. Some of those programs directly violated SALT II and other treaties. Despite this new-found pessimism, however, today, four years after the initial treaty compliance analyses, there remains widespread unwillingness within US Intelligence explicitly to address the "why" behind Soviet treaty violations.

Whatever the past or present state of Soviet intentions, leadership views can change for better or for worse. So long as unchallenged Soviet offensive and defensive breakout options remain readily available, there will remain a temptation openly or covertly to activate weapons expanion capabilities, and the West will be vulnerable even to a Soviet threat to do so. Future arms control treaties will be of little use unless they effectively dismantle these Soviet capabilities. If inadequate or unverifiable treaties are accepted nonetheless, these should be conditioned on vigorous countermeasures to reduce substantially the risks arising from the USSR's offensive and defensive breakout options and from potential undiscovered violations.

MONITORING CAPABILITY

Due to technological changes and escalating Soviet denial and deception practices, relatively few militarily significant aspects of proposed arms control treaties now can be monitored with high confidence, especially using less intrusive National Technical Means (NTM) alone. We could not be confident of detecting and accurately assessing violations that would be militarily significant either singly or, in particular, cumulatively within and across treaties. This situation includes but is not limited to proposed treaties or clauses on: short- and intermediate-range theater weapons, strategic weapons, conventional and exotic missile defenses, anti-satellite weapons, chemical weapons, biological and toxin weapons and conventional force levels.

For these and other reasons, we are now unable to assure compliance with key restrictions of the 1972 ABM Treaty and the 1979 SALT II Treaty. Although US Intelligence for some years has judged that the Soviets are preparing an option rapidly to expand ABM deployments beyond those permitted by treaty, five related compliance issues have been declared ambiguous and there is disagreement on the significance of the Krasnoyarsk radar violation. ABM Treaty problems are particularly severe because the document was poorly negotiated, hence subject to legal ambiguities, and because intelligence on Soviet ABM activities was given low priority after treaty ratification.

Under SALT II, we cannot verify adherence to important warhead limits on MIRVed missiles. And following Soviet deployment of mobile missiles, we are unable to assure compliance with SALT II ballistic missile launcher limitations. Moreover, in addition to the possible and proven violations of SALT II now publicly identified, US Intelligence anticipates numerous other compliance-related issues should the treaty remain formally or informally in force. For instance, even the follow-on to the behemoth SS-18 ICBM probably has increased throw-weight, and problems are anticipated with every one of the many Soviet ICBMs now being developed. There is a very real possibility that the entire Soviet ICBM force in the 1990s will be inconsistent with SALT II terms. Planning and development of this projected force took place when the Soviets were supposed to be observing SALT II and as they argued for its indefinite continuation. Likewise, with regard to compliance judgments already publicized, the USSR apparently was planning to violate central provisions of SALT and ABM treaties even as the documents were signed.

The seriousness of growing verification difficulties is exemplified by US inability to monitor warhead totals. This could mean that within a future strategic arms treaty mandating large reductions, under some scenarios the Soviets might get by with few or no net cuts in their warhead totals while the US slashed its own forces. Although MIRV limits have been considered a primary remaining benefit of SALT II, partly because of Soviet denial and deception practices the US now is unable to ascertain Soviet adherence to aspects of this provision. Limits on warheads or alternative direct throw-weight limits are essential to meaningful strategic nuclear arms control, but this glaring problem has received scant public attention.

Despite the Biological and Toxin Weapons Convention, we can expect that the USSR will within the near future possess novel weapons theoretically much more flexible and usable than nuclear warheads. The effect of such weapons could be revolutionary. Like critical provisions in many other present or anticipated treaties, the Convention could not be verified with high confidence even if altered to encompass the most intrusive on-site inspections.

Since so many key weapons and capabilities will be difficult to monitor, treaties truly focusing only on clauses monitorable with high confidence often will be virtually irrelevant and almost certainly will not reduce the overall threat, because a military buildup easily could be diverted to non-treaty categories. Proposals for selective restrictions on anti-satellite activities exemplify this dilemma: even if we imposed a verifiable ban on tests of conventional ASATs, the Soviets could overtly or covertly retain components of their deployed co-orbital ASAT and they might also develop and even test an unconventional ASAT, e.g. one based on lasers, without our knowledge. The US thus could become far more vulnerable than it was before such a treaty. Another example is the suggestion within the majority report that survivable and reloadable mobile missile launchers be regulated, but not the missile reloads themselves. Whether or not one assumes that loaded mobile launchers are monitorable with high confidence, as falsely claimed in that report, the military threat from multiple refire missiles for mobile launchers deployed in large numbers easily could outweigh the risk from illegal Soviet launcher deployments. This would be especially if the US itself did not deploy mobile launchers or their spares in large numbers.

As with other treaties, presently contemplated provisions for the Intermediate Nuclear Forces treaty present serious verification issues. Because of missile counting and dismantlement problems discussed below, at minimum we require effective rights to challenge inspections at suspicious sites. Shorter-range systems recently included under the "double zero" option present much greater difficulties than the SS-20. Missile range also could become an issue if existing shorter-range systems, such as the far more prolific SCUD-B, also able to carry non-nuclear payloads, is upgraded to border on the range limit. To a certain extent missile range limitations are an artificial construct, and in this respect the INF treaty illustrates that verification or military problems can transcend formal treaty boundaries. Intercontinental-range missiles easily can be assigned to nearby theater targets. Lack of effective limits on longer-range missiles or Soviet

violation of a START treaty therefore could defeat the intended benefits of an INF treaty while not violating its letter. Moreover, a threat or circumvention of limits also is conceivable from the opposite end of the INF limits. On a multiple-warhead missile, range can be extended by simply loading it with fewer warheads.

Some, pointing to US ability to reach public judgments that the Soviets are guilty of nine violations spanning seven treaties, say that development of adequate and politically supportable response policies is our real problem, not monitoring and verification. In this view, once we successfully proved nine violations, we found that ignorance was considered bliss: many apparently would have preferred that we had never discovered the violations in the first place, so there would be no need for discomfiting responses. Whether the bureaucracy or many opinion leaders really want an aggressive and tough verification program certainly is open to question. And it seems unarguable that failure to enact compensatory and punitive responses to known treaty violations encourages additional violations, partly by undercutting the potential deterrent effect of a good monitoring capability. Other assumptions of this argument, however, are more problematic.

First, we should hardly be confident that we have discovered all significant compliance issues; rather, the breadth, escalating number and increasing seriousness of the problems we have encountered, plus the cluster of violations negating protections for "national technical means" of treaty verification, should lead us to suspect that other questionable practices may have escaped detection and that future violations may be planned. For this and other reasons, some testimony stressed that violations impeding verification must be considered the most important of those we have experienced, because of their meaning with respect to future of real arms control.

It must also be observed that, while executive branch compliance judgments initially were widely undisputed, eventually their factual and legal basis was questioned when response policies were proposed. Furthermore, some of the suspect Soviet activities were known but were largely ignored within the bureaucracy for many years. And finally eight of the declared compliance issues -- nearly 50% -- are considered ambiguous, so with regard to them the Administration either has withheld judgment or has tentatively assessed the the likelihood of violation.

Until recently, compliance issues were depicted in "black or white" terms. The Soviets were deemed innocent if not definitively proven guilty. However, like other intelligence and legal issues, compliance problems often come in shades of gray. As with all intelligence issues, on compliance problems we can seldom expect uncomplicated or unarguable certitude. One cannot escape the necessity for judgment. From one point of view, it is gratifying, given the degree of Soviet denial and deception, that overwhelming evidence could be compiled in at least nine of the seventeen declared problem areas. Assuming that we have found most questionable activities, it is unlikely that this record will be equalled under future treaties. As the

Soviet denial and deception (maskirovka) program gains further momentum and our historical base of knowledge and comparison thereupon becomes weaker and dated, greater verification difficulties can be anticipated. Thus verification would become more difficult even if advancing weapons technology were not greatly compounding the problem.

The executive branch's willingness candidly to acknowledge ambiguities and nonetheless to offer its tentative best compliance assessment -- i.e. to see issues in shades of gray rather than in pure black or white -- is a positive development. The bleakness of future monitoring prospects probably will mandate either increasingly frequent resort to this technique or retreat to wishful thinking and paralysis.

Public discussion, however, has largely ignored ambiguous compliance issues. Nor have these issues figured in the Administration's public consideration of response policy. Almost all attention has focused on prominent findings of violation. But problems are not necessarily unimportant simply because they are unresolved. The agreed possibility that the Soviets "may be" preparing the base for a conventional territorial defense against ballistic missiles, for instance, is a blockbuster which cuts to the heart of the 1972 ABM Treaty. Deputy Director of Central Intelligence Robert Gates revealed in November 1986 what has been the intelligence community's considered judgment for some years -- that the Soviets are preparing an option for such a rapid deployment. If the Soviets actually effect a unilateral deployment or credibly threaten to do so as a means of political coercion, this will have major military and political ramifications, especially in Europe.

Arms treaties should protect the military and political interests of the nation, or at least not endanger them. Our response to a possible or proven violation should be geared in large part to its potential effect on the national interest rather than solely to legal and factual certitude. Sometimes, especially when political or military stakes are substantial and there is a prior pattern of dubious or illegal Soviet behavior, it may be wise and necessary to assume the worst and to strategize accordingly. This can be true even when intelligence evidence is not conclusive or when some argue that the intent and legal enforcability of the clause was undercut by treaty drafting errors and compromises. Instead, there is a demonstrated tendency to see compliance issues in legalistic rather than power political terms. Lack of timely response therefore may be due to inadequate political leadership rather than failure of the intelligence community.

In the past we have often misjudged our monitoring and verification requirements, partly because of inexperience with political implications and reactions and errors in judgment regarding Soviet motivation. As late as 1983, when the Reagan Administration was formulating verification policies for its initial arms control negotiations with the Soviets, most agencies postulated that a "risk of detection," no matter how small, likely would deter the Soviets from violation. The verifiability of proposed treaties was judged accordingly. An avalanche of evidence to the contrary has since discredited

the "risk of detection" theory. Soviet noncompliance has become more blatant, as best exemplified in the Krasnoyarsk radar issue, plus more frequent and serious. Even strong likelihood of discovery has not deterred violations, and the Soviets sometimes ignore treaty restrictions although resulting benefits appear minimal.

Moreover, the "risk of detection" theory implicitly assumed that once discovered in a violation, the Soviets would pay a high price in political or other terms. This, however, has not occurred. Support for adherence even to violated treaties has remained sufficiently high to discourage substantive retaliatory action. Western defense budgets are being cut rather than increased. Legal obfuscations plus Soviet propaganda countercharges have confused and diffused public response to official US charges of violation. In Germany, recent polls depicted the US as the greatest threat to peace, and the USSR has been credited for arms control proposals which the US initiated and championed for many years. It is now undeniable that the verification theory upon which many signed and proposed treaties have been based is no longer valid, and that our intelligence requirements are much higher than previously postulated.

In judging treaty monitorability, it is also important to distinguish between "detection" of suspicious indicators and complete evidence of a violation. The two often tend to become confused in projections US intelligence capabilities. On numerous existing compliance problems, our intelligence has been sufficient to provide indicators of a possible problem, sometimes belatedly, but often our information has been inadequate to finalize a verification judgment even after considerable lapse of time.

It can be still more difficult to ensure that we know the full breadth and extent of suspect activities. For instance, under a mobile missile ban, discovery of one illegal missile proves a violation; but that determination elevates more important but also more intractable questions of just how many such prohibited missiles may exist and what their military and political implications may be. Another good example is the Krasnoyarsk radar. Once the Soviets were so bold as to illegally site this huge facility deep in the interior, more credence was given to previous worries that the nine radars of this type may be for ABM use. Four years later, a definitive factual resolution of their intended mission remains elusive. Instead, attention has diverted to ethereal theological disputes over the practicability and desirability of <u>any</u> conventional ABM. Analysis of available evidence to determine the probability that these may or may not be ABM radars and concerted efforts to ascertain more of the key facts have received short shrift.

Deceptively optimistic judgements about treaty monitorability sometimes are made, particularly in oral testimony regarding mobile missiles and nuclear testing restrictions, when witnesses fail to account for plausible and relatively simple Soviet deceptive measures unless specifically asked to do so. One cannot assume that indirect methods of verification either have been or will be adequate if these leave us susceptible to deception. Nor can we

assume that the USSR will simply continue with business as usual, plodding on like an unthinking automaton and freely giving us signals to cause suspicion, if it decides to violate treaty obligations.

Historically, the US has overestimated its monitoring capabilities and grossly underestimated the amount and redundancy of information politically necessary either to support a case for violation within the bureaucracy or to sustain such a judgment publicly. After fifteen years of experience with subtle to blatant Soviet behavior, there is no excuse for repeating this mistake.

MAJORITY REPORT JUDGMENTS ON MONITORABILITY: MOBILE MISSILE LAUNCHERS

The majority report unconscionably misrepresents and overestimates some US monitoring abilities. An example is the claim that we can with high confidence monitor numerical limits on mobile missile launchers. In fact, our estimations of mobile missile deployments have depended on methods that leave us highly susceptible to Soviet manipulation and deception geared either to inflate Soviet launcher totals (during negotiations or attempts at political coercion, for instance) or to understate the full extent or character of those deployments. The report's perplexing assertion flies in the face of much testimony before the committee and contradicts the relevant national intelligence estimate. The only apparent explanation for such a representation is that the majority caveats this judgment with an unobtrusive, unjustifiable and critical assumption -- that we can monitor Soviet mobiles "as currently deployed."

However, one of the most daunting of serious problems in the strategic area concerns the rail-mobile SS-X-24, which as of this writing has not been placed in the "deployed" category. The SS-X-24 will be far more difficult to monitor than even the off-road-mobile SS-20s and SS-25s. The phrase "as currently deployed" presumably also assumes we are not now being deceived about the number of mobile missiles currently deployed and that the Soviets would not embark upon unusual or covert deployment modes for the SS-20s and SS-25s in the future. It reduces, in short, to a supposition that the USSR would not try to hide any cheating. Obviously, such logic would render the report's conclusion on the verifiability of mobile missiles utterly meaningless and quite misleading.

Such nonchalance is especially difficult to comprehend since the US already has painful experience with the difficulty of monitoring mobile missile launchers. The executive branch has reported that the Soviets "probably" violated a SALT II ban on SS-16 mobile ICBM deployment, but has stated that evidence is insufficient for a more definitive judgment. Four points arising from the case history of the SS-16 problem are instructive with regard to our future ability to monitor mobiles.

First, despite its claims that mobiles can be monitored with high confidence, the majority has not declared that there is sufficient evidence to pronounce the SS-16 issue a violation. Indeed, it has disclaimed far more

obvious illegalities and has officially acknowledged only one of nine public findings of Soviet noncompliance, by reluctantly conceding that the Krasnoyarsk radar is a technical violation -- a violation so obvious that even several Soviet officials have now virtually conceded its illegality.

Second, activities arousing suspicion of an SS-16 violation occurred over many years at Plesetsk, one of the main Soviet missile test centers. Obviously, this is a site which US intelligence would monitor carefully even if it did not have reason to suspect mobile missile deployments there. it would be far easier for the Soviets to hide mobiles within apparently non-military buildings or in forests throughout the vast reaches of their territory, nearly thrice the expanse of the United States, than to plausibly deny their maintenance at such a well-monitored location. Our belated discovery of the enormous and undisguisable Krasnoyarsk radar should give a flavor of the difficulty of tracking far smaller, concealable mobile missiles.

Third, the SS-16 issue was unresolved even though the Soviets were banned from developing, testing or deploying it. To prove a violation required finding only a single operational launcher or retention of equipment used solely for the SS-16. Future arms treaties may impose a numerical ceiling on mobile launchers such as the SS-25 and SS-X-24, rather than a ban. This would legitimize maintenance of a support infrastructure. It might also force us virtually simultaneously to count all relevant launchers, in order to prove that the suspect ones are not being double-counted. Moreover, the SS-16 had been produced and tested, but prior to the 1979 ban it was not considered deployed. In contrast, large numbers of SS-20 and SS-25 missiles and launchers already have been built and deployed. We estimate that there are 441 deployed SS-20 launchers and that there are spare missiles for refire. SRBMs banned under a possible "double zero" INF treaty also have been produced and deployed. SS-X-24s soon will be in a similar category. Under a complete ban, this situation makes it relatively easy to retain some equipment covertly. Under a numerical limit maintenance of excess numbers likewise is facilitated, and negotiation of special verification measures affecting future deployments will be of little help. If there is a ban on SS-20s, we will be forced to determine whether all systems produced and operational have been destroyed, a task which dwarfs the SS-16 problem. In addition, however, with the SS-20 we also have a situation very closely parallelling that which we confronted with the SS-16. In 1984 the Soviets began test flights on a more capable follow-on to the SS-20, which by now should be completely tested and in which the Soviets have invested a lot of money. US monitoring officials will experience deja vu, since the numbers, whereabouts and status of that equipment must also be at issue. The Soviets have engaged in considerable camouflage and concealment with all these mobile systems, which renders these tasks even more difficult.

In truth, even with a complete ban on SS-20s and SS-25s, the destruction of all existing launchers and missiles could not be verified without confirmed knowledge of how many were produced. A limit allowing a certain number would be even more problematic. And verifying restrictions on deployment of the rail-mobile SS-24 could be the toughest of all. Since the SS-24 has ten

warheads, versus one to three on the SS-20 and SS-25, the most difficult strategic monitoring problem also could present the most severe intrinsic military threat. Recent inclusion of smaller mobile short-range SS-12 and SS-23 missiles in a projected INF agreement will intensify verification problems associated with that treaty and further tax US intelligence resources. Relatively little attention has been accorded these systems, which can be colocated with non-nuclear forces and need not operate from a central base. All the above missiles are survivable and reloadable, which multiplies accordingly the US risks and the Soviet advantages associated with cheating.

MONITORING AND VERIFICATION: STANDARDS AND DOUBLE STANDARDS

When it began reviewing Soviet treaty compliance in 1983, the administration decided that the criteria for a violation would be "the preponderance of evidence, assuming a sufficient evidentiary base." This is a realistic and reasonable standard which embodies US Intelligence's normal method of reaching judgments and conclusions. In practice, however, it became politically impossible to declare an arms control violation unless there was virtual certitude. Even so, judgments of violation subsequently were attacked. This situation is dismaying, not only because the operating standard is unreasonable but also because we could not afford to deploy intelligence collection systems meeting verification standards of one hundred percent certitude on all major clauses of various arms control treaties, even should such systems be theoretically conceivable.

In any case, however, the fundamental problem often has been not lack of convincing evidence, but rather unwillingness to accept that evidence because of resulting political implications. There is no intelligence issue which has been more politicized than the treatment of compliance issues throughout the 1970s and even to a lesser extent in the 1980s. Compliance problems initially were ignored, subsequently were defined or negotiated away after only the most superficial and dismissive analysis, and finally became the subject of bitter interagency warfare after Congress mandated a report on them. When the facts are not even superficially manipulable, the established recourse is to conjure up a legal loophole, although this often does violence to the object and purpose of the limitation in question and in effect renders the provision meaningless.

As well exemplified within this Committee, those who make the most sweeping claims of treaty verifiability and exert greatest pressure for negotiating compromises and ratification normally are the very same persons who later claim we cannot prove whether the Soviets are violating these same treaties. When compliance problems arise, they argue either that we have not or cannot gather sufficient factual evidence to "prove" the charge, or that poor treaty drafting and negotiating compromises created legal loopholes, not violations -- i.e., that the treaty which they championed is unverifiable.

Illustrative of this prevalent syndrome, the majority report attempts to argue simultaneously that the Threshold Test Ban Treaty (TTBT) may be both verifiable and unverifiable. The majority indicates that additional

verification measures, which the Soviets until recently vigorously resisted, may not be needed because the uncertainty range of US estimates may not be as great as now assumed. However, in attacking the President's assessment that, although the situation is ambiguous, his best current judgment is that the Soviets "likely" have violated the TTBT, the majority protests that there is no way to prove such a violation and the judgment should be reconsidered. In fact, as even the majority admits, "witnesses were virtually unanimous in their view that the evidence is inconclusive on whether the Soviets have in fact violated the TTBT." This applies to witnesses who believe the US has effectively narrowed the range of uncertainty in our estimates. Testimony revealed that after 13 years of informally adhering to the treaty, seismic evidence cannot establish whether the Soviets have been abiding by its limits -- i.e., that according to scientific standards the treaty is unverifiable.

The majority attempts to escape this contradiction by claiming that the real problem is that we need an official determination of what level of violation is militarily significant. "Small" violations, such as exceeding treaty limits by 30-60%, presumably would be okay. However, the more fundamental argument is not over the uncertainty range of our estimates but over the estimates themselves -- i.e. over the formula used to interpret seismic waves and arrive at a "central value" or most likely yield estimate. An uncertainty range then is calculated around that central value, with statistical probability decreasing as one moves away from the central value. Some who dispute the current formula believe the Soviets likely have tested weapons whose central value may be considerably greater than allowed under the treaty.

This illustrates that even when a consensus on past compliance cannot be reached and lack of verifiability has been proven, not simply postulated, among those maintaining an ideological or political commitment to supposed "arms control," there is an apparently irresistable temptation to promote unverifiable treaties. In an attempt to "save arms control," these same people later can be expected to: deny evidence of violations; escalate standards of legal and evidential proof to unrealistic or inherently unattainable levels; and implicitly contend that the USSR must be considered innocent and the treaty retained if such standards are not achieved and regardless of the preponderance of the evidence. If these attitudes are accepted, "verification" becomes a meaningless, manipulated concept, a hopeless assignment and a perpetrated fraud.

The pheonomenon whereby evidential standards are escalated to unattainable levels is illustrated by debate over whether the Soviets illegally are preparing a base for territorial defense. Prominent segments of the intelligence community and the public argue essentially that a widespread, expensive Soviet ABM deployment would be implausible because the radars would be too vulnerable to attack -- i.e. that deployment of a conventional ABM is fundamentally illogical, so the Soviets would not do this. Stubborn adherence to this premise is not shaken by the high value placed on defense within Soviet strategic theory, the Soviet decision to field and now to conduct an expensive upgrade of an ABM system around Moscow, and their continued research

and development on new conventional systems. Ignored also is the reality that the US itself came very close to deploying a conventional ABM just before signing the 1972 treaty, at the very time when the Soviets themselves were planning construction of Krasnoyarsk-type radars. There is no attempt, for instance, to assess the coverage of these newer radars often is completely redundant to that of other radar types easily able to carry out a legitimate early warning mission.

It is unlikely that factual evidence of Soviet activities apparently related to fielding of a widespread ABM, short of direct evidence such as unassailable documents or actual observation of illegal deployments, will be persuasive to such persons. The most fundamental motivation of these advocates, however, is not a scorn for conventional ABMs, but a fear that to find the Soviets in violation of the territorial defense clause would undermine support for the ABM Treaty by destroying its very reason for existence. The logical inconsistencies of the above positions do not seem to bother such persons. If deployment of a conventional ABM is indeed obviously irrational, as argued within their compliance analysis, there would be no need for an ABM Treaty. Nations would independently forego ABMs; and even if they foolishly wasted their resources in this way, the results would be militarily insignificant. Accordingly, the ABM Treaty itself would be superfluous, certainly not meriting its passionate promotion as a fundamental pillar of arms control.

For its part as well, however, the Reagan Administration also has had difficulty in facing the reality of growing verification difficulties and their political and security implications. The new administration announced that it sought "effective" verification, as opposed to the "adequate" verification standard previously articulated. But it soon found itself forced into difficult and unsatisfactory choices, the character and implications of which it has not yet fully acknowledged.

In the early 1980s, the bureaucracy produced studies demonstrating the hard reality that that many key arms control provisions cannot be verified with high confidence and a significant number fall in the low to very low category. Subsequent actual experience with attempts to resolve existing compliance issues should have reinforced these bleak assessments.

The administration, therefore, had three basic options or permutations thereof. None were attractive. To abandon attempts to control arms through treaties was not considered politically feasible and apparently ran counter to the inclinations of President Reagan and some of his top officials. To negotiate only the highly verifiable would have produced meaningless treaties and the illusion rather than the reality of arms control, an outcome the President had consistently repudiated. Moreover, such selective restrictions could turn out to be more detrimental to the US than to the USSR. With a few exceptions, therefore, the administration chose to negotiate limits on many militarily significant systems largely regardless of verifiability and to insist during negotiations on the best available verification techniques, although even with these we still might not have moderate to high confidence that we would catch violations.

In practice, "effective" verification appears to have little meaning in traditional terms of established requirements for confidence thresholds or certain military risks that the US has determined it is willing or unwilling to take. Rather, it seems to be a relative thing which changes with the limitation being addressed, a commitment to a type of negotiating stance rather than to a tangible or universal standard. The bottom line seems to be that on those limitations which the administration believes for a variety of reasons are negotiable, required or beneficial to the West, we will persistently strive during negotiations to achieve the best verification rights realistically possible, including intrusive means, whatever the attendant confidence levels.

It is unlikely, however, that the administration can withstand pressure from allies and the American public to accept a treaty nearing finalization if it is popularly supported or if there have been significant USSR concessions on some issues, but the Soviets remain obdurate on key verification clauses. The USSR already has set the stage for this by adhering to its historically successful insistence that finalization of treaty verification clauses be last on the agenda. Indeed, under just such a scenario, the Administration already modified its verification demands to achieve a Conference on Disarmament in Europe treaty regulating military exercises, which would have been very difficult to verify even if the Administration had held out for more. Congress may yet legislate such a capitulation on the Threshold Test Ban Treaty, which presently is unverifiable but could be vastly improved with measures far less intrusive than those being considered in other negotiations. In addition to Soviet negotiating methods and attitudes toward verification, the dynamics of summitry and Western expectations of compromise render it unlikely that the verification provisions of future treaties will approximate the best available.

If the time comes for treaty ratification, the Reagan administration could face major problems in explaining some of these verification policies. In more innocent times, during these formative stages of administration verification policy, most officials assumed that even a small risk of detection would deter Soviet violations. It was also postulated that a "web" of verification measures, when taken as a whole, would somehow arithmetically or geometrically increase that Soviet risk, although each of those techniques might individually provide only low or very low confidence of detecting a violation. It is uncertain whether the administration continues to believe this and whether, if so, the Congress and public will find such reasoning persuasive. Even if ratification of treaties containing clauses of problematic verifiability is successfully achieved, this may encourage others to champion additional treaties which cannot easily be verified and which the administration opposes. On some occasions the administration has cited verifiability as a primary or sole reason to reject some proposed arms limitations. This logic increasingly may be questioned if additional reasons for distinguishing the desirability of various alternative limitations are not persuasively articulated and if verification policy is not more effectively delineated.

Whatever the outcome of these political deliberations, past failure to study comprehensively the overall verification risks of contemplated individual treaties and of our arms control agenda as a whole leaves the Administration vulnerable to mistakes. The President directed in January 1984 that an independent "Red Team" be established to study cheating scenarios and to assess Soviet incentives and opportunities to exploit proposed treaties. This was long delayed and was never done on any significant scale because of bureaucratic turf fighting, the intelligence community's unwillingness to have outsiders second-guess its judgments or point out its weaknesses unless it had a significant presence on the team and the National Security Council staff's failure to follow through. One problem with organizing a Red Team effort is the need to assess exact treaty language and the ongoing compromise and changing of terms which occurs during negotiations. A prelimiary Red Team assessment at the outset of arms negotiations would help identify pitfalls which negotiators must avoid and allow the administration a more realistic assessment of whether and how it should negotiate. But a true assessment of foreseeable risks can occur only after final terms are available. Therefore, the team should be working intensely as the treaty nears finalization and should be given some time to complete its analysis either before the treaty is initialed or before signing and ratification. Certainly no treaty should be ratified without such a comprehensive assessment. A Red Team, as well as US Intelligence, should also address potential Soviet strategy and aggregate risks across the entire spectrum of agreed and potential treaties.

The optimal response to the verification Catch-22 is arguable. But virtually no one, either inside or outside the administration, has focused on this most fundamental issue, the fact that there no longer are any easy choices. Our Committee never seriously addressed it and is not qualified to offer suggestions. The dilemma is, however, an issue that should be debated vigorously by the nation at large. Presently, neither the Congress nor the public has an inkling as to the severity and universality of the verification problem and the risks it presents. The Senate, for instance, clearly is unprepared to assess verification tradeoffs of treaties submitted for ratification and to debate the strategic alternatives to arms treaties with significant verification risks. Among the general public there appears to be naivete and overoptimism regarding US intelligence capabilities. Moreover, polls have illustrated the electorate's conviction that the Soviets cheat on arms pacts, and its simultaneous support, nonetheless, for negotiation of additional accords.

Verifiability is one of many yardsticks according to which the desirability of a proposed treaty must be evaluated. As the potential effect of possible cheating within and across treaties increases, verification assumes ever greater criticality. Soviet practices under past treaties have also have greatly increased its importance.

However, there are other factors to be weighed in determining the wisdom of a proposed treaty and especially when weighing the relative merits of alternative arms control proposals. Additional evaluative standards include, for example: military significance and benefits of substantive limits;

presence or absence of US desire and political ability to deploy these and alternative weapons; political effects; relevant compliance history; and the possibility of alternative, possibly unmonitorable, methods for the Soviets to achieve the same capability. These and other factors may affect the degree of verifiability acceptable to US policymakers and the body politic. They can also justify rejection of highly verifiable treaties or clauses.

Therefore, the majority report's contention that the administration proceeded with several limits considered difficult to monitor, but did not proceed with several others which could be well monitored, would be inconsequential in itself, even were it true that mobile missiles can be monitored with high confidence as they contend. Treaties must be evaluated on a case-by-case basis and bearing in mind the cumulative risk across a number of treaties. The overall risks associated with the proposals, including the likelihood and potential success of cheating or evasion, must be weighed against probable benefits.

For this reason alone, the equation obviously is far more complex than intimated in the majority report. In addition, however, the majority does a disservice by injecting false assertions into an already complicated and confusing issue.

The majority states that high [90 % or greater] monitoring confidence should be the standard for all provisions of any strategic nuclear weapons treaty, because of the vast destructive power of such weapons. Any exceptions should be made only after thorough review and if other factors are deemed more critical than verification. In its apparently favorable attitude toward the Threshold Test Ban Treaty and the Conference on Disarmament in Europe pact, and in holding out the possible desirability of future treaties banning chemical and biological weapons, however, the majority indicates that other limitations in other areas might be acceptable even if verification capabilities were low or virtually nonexistent. The verifiability and desirability of INF proposals are not comprehensively discussed, although the majority appears to believe that SS-20s, like other mobile missiles, can be monitored with high confidence.

This or other dichotomies in our monitoring standards are potential approaches to verification problems which could legitimately be considered. In the case of the majority stance, some very troublesome issues obviously would deserve considerable debate. Directed energy weapons and genetically engineered biological agents could in the relatively near future vie with nuclear weapons as effective weapons of mass destruction or strategic coercion. According to this criterion, therefore, treaties governing these capabilities arguably also should be verifiable with high confidence. Even if a distinction is to be made between these and other weapons, couldn't the laxity of standards regarding more conventional armament result in cumulative military risks and undetected cheating which might fundamentally affect the balance of power, especially if there were a standoff regarding weapons of mass destruction?

The basic problem with the majority's proposal, however, is that it falsifies our actual capability to monitor nuclear weapons. In truth, nuclear weapons are no more exempt from growing monitoring difficulties than are most other arms. The majority claims that we have confidence in our ability to monitor most arms control provisions being discussed at the Nuclear and Space Arms Talks in Geneva. But as we have pointed out, in the space area we cannot effectively monitor critical items such as directed energy weapons and in the nuclear area we cannot with high confidence monitor mobile missiles, cruise missiles, and warheads on MIRVed missiles. Even the majority's more narrow claim that we have strong confidence in our ability to monitor strategic nuclear delivery vehicles [launchers] falls victim to the mobile launcher problem. And in any case, of what benefit would be a treaty that limited such launchers but permitted unrestricted proliferation of ballistic missile warheads, refire missiles and cruise missiles?

IMPROVEMENTS IN MONITORING CAPABILITY

With strenuous efforts, US intelligence can improve collection and analytical capabilities in certain areas, but overall we will be fortunate simply to arrest the long-term decline on the monitoring scorecard.

Theoretically, the USSR's campaign to deny information on arms control and other critical areas might be countered partially by developing new or improved collection and analytical techniques which the Soviets have not anticipated. Unfortunately, many novel or creative sources and methods have remained secret only for a relatively short time, usually because of compromise in the media or successful Soviet espionage. Espionage, for instance, betrayed the capabilities of one satellite before it was ever deployed and of another not long after the first launch. We must nonetheless persistently seek "unexpected collection" opportunities. Moreover, the difficulty in achieving such opportunities strongly indicates that, wherever realistic, US intelligence should also give the highest priority to techniques against which countermeasures are unknown or extremely difficult.

"Nonsensitive" sources and methods also are needed to accommodate the demonstrated refusal of US Intelligence to reveal some violations and suspicious Soviet activities publicly, or on occasion even to investigate formally certain potential illegalities. Two confirmed violations remain secret. It is said that revelation of US awareness ultimately will compromise particularly sensitive intelligence sources and methods, thereby facilitating strenuous Soviet efforts to counter US intelligence collection programs. Implicitly it is assumed that the risks of revealing our knowledge of such problems outweigh any possible benefits from discussions with the Soviets or revelations to the public. Theoretically such an argument may be correct. It must be noted, however, that the wisdom of these decisions have been questioned by others and that similar US silence failed to halt the increasing use and effectiveness of Soviet telemetry encryption, whereas protests might have helped. Although other considerations may be involved, at some point the US must ask itself what benefit these sources and methods may provide if they prevent us from acting on the information obtained, either to gain public

support for a response policy or to discourage additional, similar Soviet violations. The practice of retaining Soviet violations in a classified status and especially of not investigating other activities also lends itself to politically-motivated abuses undermining the integrity of the intelligence community.

Duplicative and confirmatory intelligence sources often are needed, both to circumvent such sources and methods issues and to counter unwillingness to accept a judgment of violation on the basis of one source, even though it be of high confidence.

Despite demonstrated sensitivity over sources and methods issues and acknowledged escalation of monitoring difficulties, neither US Intelligence nor the Reagan Administration have seriously considered or promoted the possibility of improving treaty clauses designed to protect national technical means (NTM) of verification or to flesh out prohibitions on camouflage and concealment with respect to anything except missile flight tests. Nor have they attempted to interpret in any detail the protections provided by current treaty language. It would appear, for instance, that the well-publicized recent temporary blinding of a co-pilot in an aircraft monitoring Soviet missile tests may have violated such protections and that at minimum this presents an occasion to press the Soviets on the coverage of existing and future verification clauses.

Failure to address possible supplementary or more specific language may trace to an exaggerated fear that to acknowledge US collection systems well known to the Soviets may somehow be detrimental to their effective operation or raise questions about their permissiability. If we are serious about halting the erosion in treaty verifiability, it would appear essential to adopt a tough stance against such Soviet actions and to rewrite verification clauses under future treaties in as explicit and comprehensive a manner as possible.

Negotiating obduracy and evasiveness historically have been employed to weaken clauses facilitating treaty verification. There is also a clear pattern of violations regarding even these watered-down monitoring guarantees. Although it is often argued that we should continue to observe even violated treaties if only because verification clauses improve US monitoring capabilities, in fact these clauses are observed in the breach and our only protests, much belated and totally ineffectual at that, have concerned telemetry encryption. Current treaties do not even specify what is meant by "national technical means," thus allowing the USSR to claim at some point that collection activities we assumed to be protected never were covered.

US negotiators must continue to insist upon a complete ban on future telemetry encryption. Future language and existing compliance requirements concerning other forms of treaty-prohibited telemetry denial, bans on interference with other NTM and data on systems other than ballistic missiles should be addressed urgently. What access, for instance, should we expect and

demand regarding information on bomber aircraft, cruise missile flight tests and submarine construction? Acknowledged severe monitoring problems in all these areas result from deliberate Soviet efforts to deny information. Yet the Administration has not even contemplated verification clauses to rectify these worsening problems.

Another neglected area is that of missile throw-weight. By now it should be obvious to all experts, and especially to US Intelligence, that throw-weight has long since become the most important measure of threat. Achievement of a reasonable balance of throw-weight capabilities is the most critical factor in real control of offensive nuclear arms. The intelligence community, however, continues to slight the importance of throw-weight and historically has resisted financing research and development on promising methods which might improve our ability to monitor it.

Throw-weight is the amount of weight that a missile can "throw" into a ballistic trajectory. As observed above, warhead numbers cannot be verified; this is true if only because MIRVed missiles need not be tested with their full complement of warheads to ensure confidence in their effective operation. Establishment of missile throw-weight, however, helps determine the payload capacity of the missile and hence the number and size of the warheads it potentially could carry. Not only does the size of the warheads affect the number which can be carried by a missile, but other missile performance parameters also can be interchangeable, thus making it possible to circumvent treaty limitations. As noted earlier, for instance, missile range is affected by the number of warheads loaded on it. Such tradeoffs, however are largely encompassed within a measure of throw-weight. Throw-weight limitations also can replace modernization restrictions, yet help allow needed flexibility for differences in the forces of the two sides. As missile accuracies have improved, throw-weight advantage has become relatively more critical to first-strike and war-fighting capability, hence to the central goal of stability and to assessment of military threat. The Soviets long have shown their recognition of the importance of throw-weight. They have consistently sought to increase their throw-weight advantage despite treaty efforts since 1972 to stop them, and prominent SALT II violations have involved throw-weight restrictions. We can therefore expect continuation of this threat and of related compliance problems.

The Reagan Administration's decision to back off from direct throw-weight limits in favor of indirect limits via controls on launchers and warheads therefore was a mistake, particularly given verification problems associated with the latter provisions. Apparently this negotiating change was effected because of a fear that, despite the relative ease of their targetting problems, the Soviets would never agree to equal throw-weight advantages. But it probably would have been preferable to allow the Soviets some throw-weight advantage, however difficult it might have been to justify this, and to improve our throw-weight monitoring capability rather than revert to warhead limitations so problematic and risky from verification and military standpoints. Regardless whether throw-weight is directly addressed within future treaties, however, it will remain a preeminent tool for threat

assessment and accurate calculation of throw-weight provides a needed check against additional methods used to monitor warhead and other limitations.

In balancing the importance of treaty monitoring as opposed to other intelligence priorities such as enduring wartime collection capability, it is not necessarily the case that treaty monitoring should be given higher priority, especially if the output has little effect on policy. Treaty monitoring, however, continues to coincide with threat assessment collection which would rate high peacetime priority even if there were no treaty limits on the systems or characteristics in question. We have seen no persuasive argument that militarily insignificant treaties or clauses have been proposed.

We agree with the assertion in the majority report that there is no central direction and prioritization of research and development to improve arms control monitoring capabilities (and related threat assessments). However, contrary to the intimations of that report, nuclear testing is the one area where generous funding consistently has been provided and where an established bureaucratic constituency protects such initiatives, even though they may be fragmented and not optimally efficient. Moreover, nuclear testing R&D often has been oriented largely toward issues of relatively low priority to policymakers. For example, there has significant R&D on improved ability to detect very low-yield tests and to detect and discriminate "decoupled" nuclear tests. But this capability would be mostly relevant to a lower threshold treaty or a test ban not considered by many to be in the US' military interest. More immediate and higher-interest areas needs such as improving our ability to ascertain the yields of larger tests have received comparatively little attention. The minority also takes issue with the majority's contention that seismic research should be accorded highest priority over alternative methodologies. Although seismic methods obviously dominate the detection and discrimination problems most important for a low-yield threshhold or test ban, it is clear that other collection techniques and information will be needed to resolve major uncertainties and disagreements over how seismic waves from Soviet tests should be interpreted.

In areas other than nuclear testing, the many deficiencies in our treaty monitoring and threat assessment capabilities noted at the beginning of these dissenting views have developed partly because of inherent difficulties exacerbated by Soviet denial programs. With respect to broad-area search problems publicly exemplified by our belated discovery of the huge Krasnoyarsk radar, conventional ABM, throw-weight and directed energy weapons, however, deficiencies trace at least partially to neglect and misplaced priorities within by US Intelligence. Although it should have been obvious that gaps in our knowledge or capability in these areas could lead to unpleasant surprises or even to serious military vulnerability, they have received low priority and attention and money has been diverted instead to follow-ons for programs enjoying an established constituency.

Studies have shown, for instance, that coverage of Soviet ABM activities received short shrift after the 1972 treaty, due to lack of analyst or policymaker interest; and despite demonstrable problems arising from that

neglect, the situation is little improved. Many other shortfalls trace largely to inherent difficulties. Monitoring of weapons production, which takes place inside factory buildings and therefore is not easily susceptible to visual monitoring, is such an example. As weapons become more mobile and concealable, however, knowledge of the number of weapons produced has become increasingly important to effective verification.

To assign primary responsibility for treaty monitoring R&D to the Director of Central Intelligence, as advocated within the majority report, probably is merely to perpetuate neglect. In effect, the DCI has had such authority in most areas, but some monitoring gaps were not addressed even when the intelligence community was relatively well funded. Both Arms Control and Disarmament Agency and Defense Department components interested in monitoring technology have complained that the DCI or officials under his purview have resisted requests that efforts be channeled in new directions in order to meet policymaker needs. Current DCI priorities have remained largely unaltered, a stance doubtless influenced by present budgetary stringency. Established program areas are protected, deployment of costly new systems is seen as a threat to those programs and traditional mission areas are assigned higher priority. A way must be found to rationalize R&D priorities in the strategic arms area and to develop a better method of advocacy, in order to overcome and preclude monitoring deficiencies such as those we have experienced. Strategic arms priorities nonetheless must continue to be balanced against competing needs, such as other functional and regional requirements and the requirement for enduring wartime collection.

As with other intelligence problems, finding improved ways to screen and use the vast amounts of arms control-related data can be as important as collection itself. Because of increased Soviet denial and deception and due to the many other competing demands placed upon our collection assets, the likelihood that compliance problems will be identified quickly and easily is declining. A premium will be placed on the alertness of analysts, who can direct us to focus our collection efforts on identified potential problems and use those assets more efficiently. For instance, improved human intelligence efforts might identify possible arms developments meriting a concentrated technical collection effort.

Dedicated efforts to focus on and penetrate probable Soviet deception techniques are fully justified and should be well and continuously funded. US Intelligence, however, continues to believe that it cannot be deceived and apparently does not wish to be proven wrong. Proposals in this vein therefore have received little support, despite the obvious threat arising from a known, long-term Soviet commitment to effective "maskirovka."

Relatively speaking, human intelligence collection, including overt collection, is an extremely low-cost collection technique which has not been used as effectively as possible to gather information on Soviet arms. Moreover, it often is one of the first items affected by budget cuts. HUMINT probably could contribute more to enduring problems if it was intelligently used and better focused in a long-term, orchestrated attack on the most

critical gaps. If the case of Soviet-sponsored "yellow rain" chemical warfare is any indication, however, some persons will not accept even highly duplicative and persuasive HUMINT as sufficiently "scientific" or "hard" proof of a treaty violation.

As verification by national technical means has become more difficult, much greater attention has been paid to supplementary measures. The utility of "cooperative measures" and on-site inspection, however, often has been exaggerated. In a few cases, use of equipment or personnel within the USSR may greatly improve monitoring confidence. Given massive Soviet concealment and deception programs and our grim experiences with Soviet noncompliance, moreover, the US has every right to insist on these techniques if it sees fit. For some problems, it may be sufficient to impose an obligation that questionable activities be exposed to national technical means of verification. For other issues such as activities inside buildings, however, national technical means would remain inadequate.

Intrusive measures normally are not considered unless the verification problem is severe. Most often they will not effect a large reduction in risk. But properly negotiated access, to include guaranteed "challenge" inspection, can be much better than nothing if we choose to accept provisions of low monitorability. This assumes we resist Soviet attempts to extract significant concessions on substantive clauses in return for granting these procedural rights. The public should not then be deluded into believing our problems are solved rather than marginally alleviated, however.

Badly conceived on-site inspection provisions may be worse than nothing because they encourage a false sense of security. There is a danger that we will spend large sums of money on systems to monitor weapons destruction, production or deployment at declared sites, simply shifting the incentive for cheating to other unmonitorable locations and using money that could have been spent better on other forms of collection. In such cases, the right to challenge and promptly receive access to other suspicious sites is an absolutely essential complement. As observed above, monitoring only destruction of acknowledged assets also can be dangerously misleading if we do not know how many were produced in the first place and if we cannot guarantee that production has ceased. This applies as much, e.g., to chemcial weapons as to mobile missiles and launchers.

Even challenge inspection often can be foiled if there is a short lag time before investigators are allowed at the site. Virtually no one seriously believes the USSR in practice would allow an inspection that might confirm a Soviet violation, although the USSR might allow observation if there was an opportunity to remove such evidence first, thereby encouraging Western self-doubt or complacency. In theory, Soviet refusal of inspection rights nonetheless would help Western governments, by constituting a violation of verification clauses and establishing a presumption of guilt, thus placing the burden of proof on the Soviets and building popular support for a policy response. In view of reaction to past judgments of Soviet noncompliance, including continuous USSR impeding of less intrusive verification guarantees

through measures such as telemetry encryption, however, reality may not comport with logic or theory. Nor is the experience between World War I and World War II, when democracies deliberately overlooked German treaty violations despite on-site inspection rights, an encouraging history.

The risk to US intelligence and military secrets posed by on-site inspection probably has been overstated. The USSR is unlikely to issue flagrantly irresponsible or frequent challenges because the US would retaliate along similar lines, and the closed Soviet society with its well-kept secrets has far more to lose than do we. It is conceivable that such a tactic might be used in rare cases if the advantages were very great, however. It is also virtually certain that even superficially legitimate inspections would utilize Soviet personnel trained, briefed and possibly equipped to collect ancillary intelligence information.

It is quite optimistic to anticipate that the Soviets will agree to some of the extremely intrusive inspection regimes now being proposed when they long resisted and have not yet finalized use of CORRTEX for explosions at remote nuclear test sites. CORRTEX would increase monitoring confidence much more than some proposals in other areas. If the Soviets do agree to the more intrusive regimes but not to CORRTEX, this will reinforce suspicions that they have tested over the permitted 150-kiloton threshold.

Certain cooperative measures, such as data exchange, can increase risks of being caught in a deception; the Soviets apparently have a good appreciation of the state of US knowledge, however, and similar risks have not deterred them from making inaccurate statements, e.g. on compliance issues, in the past. Additionally, as with many verification and compliance issues, data exchanges can be used by the Soviets to evoke revelations about US intelligence capabilities or gaps which can be very helpful in future denial and deception efforts.

"Counting rules" may be useful if they are punitive in nature, i.e. if they are inclined to overcount rather than undercount deployments and if they exaggerate the significance and effect of suspicious activities. Some measures previously used such as ODs (observable differences) and FRODs (functionally related observable differences) bore more than phonetic similarity to "frauds." Often these procedures constitute little more than an invitation to engage in deception. There may be a temptation again to accept or rely on such measures, e.g. in order to alleviate superficially the problem of counting mobile missiles and launchers. But techniques which superficially ease the bureaucracy's monitoring burden while offering no independent, substantive or comprehensive means of confirmation usually are worse than nothing, for they perpetuate complacency and substitute for real monitoring.

Judgments of noncompliance would be more convincing if confirmed and endorsed by other nations, particularly in the case of multilateral treaties. This normally has not been possible, however. One reason is that foreign monitoring capabilities generally are far less sophisticated than those of the US. Moreover, European and other allies normally are the first to urge

negotiating concessions which weaken treaty verifiability, and they have shown no inclination to risk public recrimination or damage to relations with the Soviets by openly confirming Soviet violations when they are able to do so. Their reaction to Soviet-sponsored use of "yellow rain" and initially to the Krasnoyarsk radar are illustrative of these attitudes. Thus, while theoretically it would be desirable to increase the involvement of other nations in treaty verification, to predicate action or credibility upon confirmation even by our allies may be tantamount to renouncing rigorous verification as a serious policy goal.

SOVIET NONCOMPLIANCE AND US ALTERNATIVES

Soviet actions have shredded the intended object and purpose of one or more fundamental provisions of virtually every major arms treaty to date. The USSR thereby has denied us important benefits which we anticipated when those treaties were negotiated and entered into force. This is true regardless whether one chooses to label Soviet actions treaty violations or exploitation of alleged legal loopholes, and it applies to the ABM Treaty, the SALT II Treaty, the Geneva Protocol (on use of chemical warfare) and the Biological Weapons Convention. The primary purpose of lesser treaties, including the Limited Test Ban Treaty and the Helsinki Final Act (on notification of military exercises) also has been negated. It is uncertain whether the US has enjoyed the benefits it anticipated from other restrictions in some of these treaties and in the Threshold Test Ban Treaty. In a number of cases the administration considers it likely that we have not.

Objections within the majority report to administration findings of violation on telemetry encryption and the SS-25 ICBM are based on tortured legal interpretation rather than lack of factual evidence. The charter of this Committee, however, covers intelligence -- collection and analysis of the facts. Interpretation of the law would not be within our expertise and purview even if the Committee had formally studied the issues cited, which we did not. Rather, staff selectively sought out isolated dissidents within the Administration whose views accommodated their own inclinations and political agenda. In any case, information relating to such dissident interpretations was freely presented in detailed classified versions of the compliance reports which were submitted to this Committee when the Administration reached its compliance judgments.

Whether these dissident interpretations, which were considered and rejected by the most executive branch analysts, conform to the object and purpose of the limitation or even to normal use of the English language was of no concern to the majority. They would have us believe that to "impede" verification by telemetry encryption means to "prevent" such verification rather than simply to make it more difficult. In the SS-25 case, they concede that the "object and purpose of [the] provision was clear" and therefore that Soviet behavior "does not leave much hope for effective [future] qualitative limitations," yet they prefer to believe that the Soviets are "exploit[ing] ambiguities in language" rather than violating the clause.

Accordingly, the majority chooses to postulate that future compliance problems can be averted simply by manipulation of treaty scope and language. The prescription offered for arms control maladies is to negotiate only treaties which are "simple and precise and written to minimize as far as possible susceptibility to dual interpretation." The simple, however, is not necessarily the precise. And historically, neither tactic has served to restrain Soviet arms buildups or activities we thought were banned. In SALT I we tried simple launcher limitations and a short, uncomplicated treaty. The Soviets responded by deploying the SS-19, the very type of system we had most sought to avoid, and massively expanded their arsenal because the treaty covered only a few militarily significant parameters. The Ford and Carter administrations thereupon spent years negotiating the lengthy and much more detailed SALT II Treaty, in order to rectify the inequities, "loopholes" and mistakes of SALT I. SALT II ambiguities resulted because the Soviets adamantly rejected more precise clauses or understandings. Nonetheless, four declared violations and three other problems associated with SALT II have been publicly announced, and the Soviet strategic buildup continues.

Aware of the demonstrated willingness of US officials and politicians to focus on purported legal technicalities rather than a commonsense interpretation of treaty obligations, the Soviet Union often resists specific language. Another ploy is to infer but not directly state that it agrees with the stated US interpretation of a limitation's intent or coverage. These techniques are indicative of future compliance problems and should encourage the US to toughen rather than relax its stance.

Detailed, complex language will be essential if future treaties are to be effective. However, highly specific prohibitions sometimes bear risks as great as general language, for it too can be "circumvented" by clever manipulations or new tehcnology. The best method may be to combine both an overall prohibition and specific language. Illustrative examples may also be considered. Above all, the overall object and purpose of the clause should be made clear and written into the treaty itself, with an expressed obligation for treaty partners to abide by that intent as well as by specific prohibitions.

Whether or not this is accomplished, if we want real arms control we have no recourse but to interpret treaty provisions according to their object and purpose and as if they were meant to establish real limits rather than provide subterfuge for unacceptable behavior. Whether that behavior is considered technically legal or not, above all the US must protect its national security interests. Through its response, the US must discourage rather than encourage future such pillagery.

THE STANDING CONSULTATIVE COMMISSION

Before charging a violation, the US has always discussed compliance problems with the USSR at the Standing Consultative Commission when the latter was an appropriate forum for the treaty in question, and/or elsewhere. We have sought clarifications, explanations and, where appropriate, changes in

Soviet behavior.

Soviet responses almost always have failed to offer any more information about the specific nature of questioned activities. Normally they have simply denied engaging in the alleged activities. On several issues they eventually offered legal justifications rejected by the United States. Their statements regarding the Krasnoyarsk radar are demonstrable falsehoods.

Subsequent to US protests, the Soviets eventually rectified several minor problems during the 1970s, possibly reduced use of chemical/toxin warfare and deactivated probable SS-16 sites when the SS-25 ICBM became available. By this time, however, experimentation with toxin weapons on humans had provided useful data and the SS-16s likely already had served their intended purpose. Otherwise there has been no evidence of a decrease in Soviet noncompliance. Rather, other known, suspected and anticipated problems steadily rose in number and severity.

In several instances, the US negotiated additional language intended to resolve observed problems. These instances often are considered the Standing Consultative Commission's primary achievements and indicative of its potential for greater usefulness. In reality, however, they represented either acquiescence in Soviet behavior or negotiating failures. In one case, the US essentially legitimized prior Soviet ABM testing at an undeclared location by officially recognizing a second permitted test site. In another, concurrent testing of ABM and surface-to-air missile components, the US twice negotiated additional, compromise language. Each time, however, questionable Soviet practices resumed and the new language was deemed inadequate to establish a violation. Despite these renegotiations, the Soviets developed the SA-12, an anti-aircraft system also potentially capable of intercepting US strategic missiles -- one of the very developments the treaty and renegotiations had sought to prevent.

The SCC has been useful for other things, but has failed in its primary mission of resolving compliance questions. This is not because of any inherent defect in the SCC or in its use by the United States. Rather, it is because the Soviet Union has refused to cease objectionable behavior when such acts were deliberate and planned to be long-term in nature. A few minor occurrences in which the Soviets apparently did not actually intend a violation or a continuing violation, and/or where the activity in question was relatively trivial, were resolved after discussion in the SCC. Even in these cases, some suspect that a major purpose was to probe the adequacy and methods of US Intelligence.

There are dangers associated with the SCC. It can become a fishing expedition to uncover US intelligence sources and methods or military secrets. Therefore, the US itself seldom has responded with specifics when the Soviets asked us for details about our concerns or when they complained about alleged US compliance irregularities. The pledge to maintain the confidentiality of SCC proceedings also can be abused if it is used to justify witholding information on continuing questionable Soviet activities from the

US public. Some witnesses believed confidentiality remains essential while others suggested the desirability of publishing the results of SCC deliberations.

Intelligence research has concluded that the Soviets, for their part, have demonstrated virtually no concern over verification rights to ensure that the US is complying, apparently because they believe that in the open US society any such actions inevitably would be revealed. It has been concluded that Moscow in fact probably believes limits potentially halting or circumscribing US weapons programs are worthwhile even if the Soviets cannot monitor them well. These views were endorsed by others, who observed that there is no indication that the USSR anticipates or fears US noncompliance.

Nonetheless, the USSR's response to US discovery of Soviet irregularities often has been to engage in countercharges, sometimes preemptively before the US observes or focuses on problematic Soviet behavior, in order to confuse the public and place the US on the defensive. Some such countercharges have been ludicrous, as with replies to administration findings that the Soviets have sponsored battlefield use of chemical weapons and are developing instruments for biological warfare. In response, the Soviets told the UN that the appearance of "yellow rain" in Southeast Asia traced to growth of "elephant grass" which was stimulated by Agent Orange usage in Viet-Nam, and whose toxic emissions were blown westward, although prevailing winds are from west to east. The USSR also long alleged that the disease AIDs was caused by US biological warfare.

VERIFICATION OF NUCLEAR TEST LIMITS

Limits on the size of nuclear weapons tests presently are unverifiable, largely because of uncertainties in interpretation and analysis of seismic evidence rather than problems in its collection. Based on assumed geological and geophysical differences at respective national test sites, interpretation of seismic waves from Soviet test sites has been changed several times so that Soviet explosions now are calculated to be roughly half the size of French and US weapons causing similar seismic waves.

Adjacent geological formations may transmit seismic waves in entirely different ways, so even a single "calibration" test using a weapon of known power can be insufficient for an established test area. The problem obviously is magnified when there is more than one test site or when one must monitor possible events throughout the entire country. It will become quite significant if the present 150-kliloton threshold is reduced to a much lower yield and the Soviets are allowed to continue using nuclear explosions widely scattered throughout the vast USSR for "peaceful" rather than weapons purposes.

Explosions legitimately for "peaceful" purposes, such as canal digging or expansion of gas storage caverns, also can gather data useful for military purposes. The US has no way to verify that explosions are truly or solely for peaceful uses, although sometimes there are indications that such a goal is at least one of the purposes. We simply define such Soviet explosions as

"peaceful" if they do not occur at a declared weapons test site. As part of or preparation for a complete test ban, therefore, scientists concur that peaceful explosions would have to be outlawed.

A relatively low threshold limit or a comprehensive ban prohibiting any nuclear tests would be more difficult to verify than suggested in the majority report. Assessments differ regarding the size of explosion which we could detect and distinguish from earthquakes or chemical explosions. Moreover, these estimates become markedly more pessimistic when scientists are asked to include the possibility of deceptive practices.

A number of rather exotic or risky cheating scenarios can be devised. But the easiest evasion scenario, which was acknowledged even by the most optimistic witnesses to be a serious problem, is the elimination or muffling of seismic signals by exploding the device inside caverns. Salt caverns are abundantly scattered throughout the USSR, and the Soviets have considerable experience conducting "peaceful" explosions in such areas, whereas US information on this subject is quite limited. Experts indicated that seismic waves from nuclear explosions much larger than 10-15 KT might be completely "decoupled" by exploding the weapon within such cavities. Even were we to improve our ability to detect such explosions and to characterize them as nuclear, given the limited base of US knowledge and the presumably far more sophisticated Soviet understanding of how to manipulate the phenomenon, it is unlikely that agencies would agree on an estimate of yield or, even if they did so, that we would have any confidence that the Soviet test was not in fact much larger.

Under a test ban or a low-yield limit, based on past experience it is easy to project a situation in which the incentive for cheating would be great, perhaps overwhelming. Moreover, the prior Soviet track record in the nuclear testing area does not warrant sanguine assumptions. The US has already known times when a large portion of its strategic or theater nuclear forces were considered unreliable or inoperative because of deterioration or design problems belatedly discovered. At one point, for instance, this included most of our submarine-based assets, considered our most invulnerable forces and therefore the most persuasive deterrent to attack. Often nuclear tests were needed to ascertain that the problem was not widespread or to ensure that it was corrected. Since under a ban both sides' forces will not necessarily deteriorate at the same rate, a tremendous feeling of vulnerability could result from knowledge that a large portion of one's own forces were inoperable, while the enemy's had to be assumed fully operable. Existing Soviet violations have been motivated by far lesser and sometimes relatively inconsequential benefits. Because of their superior human intelligence collection system and the openness of US society, Soviet discovery (and exploitation) of weaknesses in the US arsenal would be far more likely than US discovery of Soviet problems potentially offsetting our own.

Cheating on a limit or a ban even by testing at low yields also could have major military repercussions. First, many tactical or theater weapons have low yields, and this is particularly characteristic of newer deployments in

which accuracy substitutes for warhead size. In the past, the US experienced reliability problems with a large percentage of its theater forces, which required testing to ensure that a solution had been found. If they could be tested covertly, and especially if there are major reductions in longer-range arms, new or retested tactical weapons in which confidence had been ensured could become more important to the military balance than now is the case. Second, weapons reliability problems often have involved the weapon primary, the small explosive device which detonates the much larger secondary. Third, weapons effect tests used to enhance survivability planning and tests to develop directed energy weapons might not involve high yields.

It should also be observed that the USSR does not have a good compliance record in the nuclear testing area. After careful preparations, it rapidly "broke out" of the 1962 test ban, thereby catching up to the US in the nuclear weapons area much faster than it would have otherwise. Periodically the Soviets violate the Limited Test Ban Treaty by venting radioactive material beyond their borders, apparently out of unconcern or the desire to save money, since technology to prevent this is now well understood. Their record on the Threshold Test Ban Treaty is uncertain, but they could easily resolve our concerns by agreeing to verification measures far less intrusive than those being discussed in other arms control fora.

In nuclear testing and other areas, significant portions of the concerned scientific community, particularly those most active in arms production or arms control, have acquired strong political commitments which can interfere with scientific objectivity.

PERFORMANCE OF US INTELLIGENCE

Technical intelligence collection has improved greatly in certain respects and provides a wealth of information in some intelligence areas. As discussed above, however, some significant deficiencies were allowed to develop, and human intelligence collection, including overt collection, is weak.

Severe space launch problems which commenced nearly two years ago have constrained US monitoring capability and will continue to do so for some time, during which monitoring capabilities will be highly vulnerable to bad luck or additional technical problems. If INF, START, chemical weapon or other treaties soon are signed, these vulnerabilities will exist during critical periods in which reductions are to be effected and even as the Soviets deploy an entire new generation of ballistic and cruise missiles.

Moreover, continuation of the increasingly pronounced tendency to divert numerous scarce collection resources to crisis areas will have a debilitating effect on acquisition of the necessary base for assessments of strategic arms developments, a collection area already suffering from massive and escalating Soviet concealment programs.

Arms control and compliance are highly emotional and political areas, and this has adversely affected related intelligence analyses and projections.

Estimates of Soviet arms control goals, military preparations and military strategy were grossly miscalculated and underestimated during previous decades. Optimistic projections and "mirror imaging" helped mislead US policymakers and contributed to negotiating mistakes. Retrospective interviews of key personnel involved, published in open literature,* indicate that these analytical errors largely were due to philosophical and policy predispositions which influenced analysts and dominant intelligence agencies to ignore contrary evidence.

Analytical product appears more realistic today. Differences of opinion often are healthy. But it is rather troublesome that the pattern of arrayed individual intelligence agency positions on Soviet strategic issues has remained much the same as previously, although assessments as a whole have become far more pessimistic. Some agencies, notably the State Department's Bureau of Intelligence and Research, remain predictably to the left of others, regularly adopting more optimistic assumptions and advocating more benign interpretations of Soviet behavior. The Defense Intelligence Agency and military services, which in retrospect offered more accurate strategic arms assessments during the 1970s, usually continue to take a more pessimistic view of Soviet intentions and actions than do other agencies.

There should be ongoing evaluations of individual agency performance and of the accuracy of prior assumptions and projections as more facts become available. These evaluations should be used to effect changes enhancing objectivity. They could also establish a track record of comparative authoritativeness in various areas of expertise, which could be useful to superiors and policymakers confronted with interagency differences.

Intelligence agencies historically have been and today remain reluctant to take the initiative in gathering data on potential compliance problems or analyzing them in depth, although after 1983 they did at least begin to flag the existence of many such issues. In effect, they participated in the laissez-faire neglect of compliance problems during the 1970s, when these issues never were seriously studied, and even in covering up such problems. In November, 1982, the Reagan Administration finally directed that compliance issues be addressed specifically and comprehensively. But due to foot-dragging by some US intelligence agencies and by other policy agencies, these efforts never achieved any real momentum until the Krasnoyarsk radar was discovered and until Congress passed serveral laws demanding compliance reports. Were it not for the insistence of Congress and the deadlines it imposed, it is doubtful that many issues would have been addressed or thoroughly reviewed, and it is certain that the studies would have been delayed much longer. This momentum seems to have expired. Although not all concerns were addressed and a number of new ones have since arisen, little serious work has been done since the December 1985 report to Congress. There is evidence that US Intelligence bears partial responsibility for this reversion.

An important factor, however, is that after the administration announced that it no longer considered itself bound by SALT II, it discontinued

assessments of Soviet compliance with that accord even though the US has continued to observe almost all treaty provisions and Congress may well mandate adherence to some of its major limitations. Given these circumstances, the compatibility of various Soviet actions with SALT II limits still should be analyzed and transmitted to Congress, even if those actions are not reported as "violations" or as being potentially inconsistent with legal obligations.

Intelligence agency alertness and objectivity regarding compliance problems is important because political officials have had little incentive to acknowledge such concerns. Those who negotiate a treaty and trumpet their accomplishments will be embarrassed and perhaps damaged politically by subsequent problems. Many administrations will fear adverse reprecussions on US-Soviet relations and on the prospects for additional arms control. Conservative officials' attention to compliance problems is cited as proof that they dislike arms control and can be inconvenient during periods of improving US-Soviet relations or progressing arms control talks.

Estimates of planned Soviet strategic deployments probably are the most fundamental of requirements in formulating US military programs, arms control policies and appropriate responses to Soviet violations. Historical failures in this regard and the current inability even to come up with a "best estimate" in the strategic forces area obviously handicap US officials and make it difficult to assess the benefits of present and proposed treaties.

Some policymakers have complained that intelligence agency projections of Soviet bargaining positions at negotiating sessions over the past several years have been of little use. A study of this track record should also be conducted, and intelligence agency methodology and sources should be changed if problems are found.

We agree with the majority that it is important to study the military significance of compliance problems, but note that the Joint Chiefs of Staff are no more culpable in their failure to do this than are the intelligence and other agencies. Indeed, this is a broad-guage intelligence problem, because the real need is to consider these problems as a whole rather than in isolation, and to ascertain apparent patterns and motives, then fold these into our projections of future Soviet behavior. Only then can we appreciate the overall significance of Soviet compliance and arms control policies and how they fit into Soviet military and political strategy. Thereafter, we will be better equipped to forestall similar problems and associated threats, formulate an appropriate response policy and develop our own military and political strategy.

Especially since this will be a politically charged and divisive issue, the community should engage in true competitive analysis. Each major school of thought should explicitly list its primary assumptions and fully reveal the evidence supporting its position. Moreover, each should use identified motives and trends to predict future Soviet arms developments, arms control positions and compliance problems; this not only will be most useful to

policymakers, but also will facilitate judgements on the validity of competing theories as events unfold.

We persistently focus on the details and allow the big picture to remain an indistinguishable blur. In assessing verifiability or compliance difficulties, we usually look at individual provisions, rarely at the treaty as a whole, and never at the totality of arms control agreements. This failure could become particularly critical as we face a current range of violations spanning seven treaties and as new agreements are now being proposed or negotiated in virtually every substantive area. Past experience indicates that in these and similar foreign policy fields, the Soviet approach is more like a grand strategy than is customary with the democratic, untidy, episodic policymaking found in the West. If we fail to assess and appreciate how various parts of this puzzle fit together, if we continue resolutely to avoid probing the motives, patterns and logic of Soviet maskirovka and compliance policy and their possible relation to new Soviet arms control proposals, we can expect to get taken to the cleaners.

Such research primarily is the duty of US Intelligence, although other agencioe are free to provide alternative interpretations of the data gathered. Based on this work, policymakers, in turn, are responsible for assing potential risks and selecting a prudent course of action. But the cumulative effect of Soviet arms control and compliance policies and of the risks we knowingly or unknowingly accept never have been addressed, and in the present environment they never will be.

CONCLUSION

Despite the often unpleasant assessments herein, we find optimism and strength in the fact that US Intelligence, US leadership and the public overall are more realistic about arms control than when we embarked upon this course fifteen years ago. Presumably they are, therefore, more amenable to further education which could raise awareness about the implications and merits of alternative policy choices. It is unfortunate that this budding wisdom had to be acquired through long and sad experience. It is also unfortunate that we have become so deeply immersed in arms talks and committed to various positions without building a base either for reasoned public debate and influence on the serious choices and risks involved or for intelligent public discussion of the results of those negotiations.

The educational process and may be expedited through various techniques, some of which were recommended above:

- A "Red Team" should be established to examine prospective arms control agreements and concessions and to assess from a Soviet viewpoint how legal ambiguities and US monitoring weaknesses might be exploited. No proposal should be offered, no treaty should be signed, and certainly no treaty should be ratified, without such a systematic study.

- Both US intelligence and policy agencies and the Red Team should analyze past compliance difficulties to discern Soviet motives and patterns and the consequent military significance of such policies. Such studies should attempt to acquire a greater appreciation of Soviet arms control policies, to project future future Soviet compliance and arms control moves, and thereby to assess the dangers and opportunities facing us as we formulate a strategy to protect and advance our national interest.

- In these and other strategic threat analyses, much greater use should be made of the type of true, full-blown competitive analysis which the Intelligence Community long has resisted. This does not mean a dissenting footnote here and there. It means candid acknowledgment of critical assumptions and the basis for them, taking those assumptions and supporting evidence to their logical conclusions and projecting from this what we should be looking for and what the Soviets will do.

- A retrospective track record should be kept on the accuracy of analyses and projections by competing agencies and schools of thought so we can judge who is more likely to be right and where individual areas of expertise may reside. This will also help overcome stubborn adherence to assumptions which should have been discredited long ago, or at least prevent them from attaining equal standing with more soundly based analyses. It should help establish the legitimacy of some sources.

- An assessment of the accuracy of previously projected Soviet negotiating positions should be undertaken forthwith.

- We must resolutely marshall our resources to ameliorate as quickly as possible the monitoring deficiencies listed herein. Special attention should be paid to areas which are fundamental or could become critical to our security regardless of the need for arms control monitoring. These include directed energy weapons, conventional and exotic ABM developments, unconventional ASATs, biological and toxin warfare capabilities and improved methods for assessing throw-weight potential.

- Policy officials should have a greater say in determination of intelligence R&D priorities. We should maintain basic capabilities in all areas whether or not they are currently of intense interest to policymakers. But we must avoid the danger of building our future capabilities and existing collection priorities inductively on the basis of past programs, out-of-date priorities and established analytical constituencies.

- The administration, with support from the intelligence community, must urgently address the adequacy of clauses establishing overall verification rights and prohibitions on concealment and denial which

were contained in past treaties. Wherever it is determined to be potentially useful and practicable, we must insist upon more comprehensive legal protections for the US monitoring effort. No INF or other treaty should be accepted without such improvements. The US also should far more vigorously insist that those protections which do exist are upheld and ensure that precedents are established for adequately interpreting those provisions.

- Particularly in view of recent revelations of long-term Soviet espionage successes, the Intelligence Community can no longer justify a presumption that Soviet deception measures have been few and unsuccessful. Recognition should be accorded to the need for dedicated efforts to discover and penetrate deception programs and consistent funding should be provided for them.

- Higher priority should be given to human intelligence collection, including overt collection, against the Soviet strategic threat. These efforts should be more sharply focused against our most critical intelligence gaps, more thorough and, in the case of clandestine collection, geared to long-term advantage rather than short-term recruitment success or simple targets of opportunity.

- The effect on fundamental intelligence requirements of diverting intelligence resources to monitor crisis situations should be studied and reported to the Committee. Guidelines on the extent of such diversions or compensatory actions should be considered if justified.

- Potential compliance issues thus far unreported, including those that would fall under SALT II, should be addressed expeditiously, and detailed analyses should be submitted to Congress.

The bottom line is that verification problems have been grossly understated and largely unappreciated. No longer are there any easy choices or solutions, and it is time that the executive branch, the Congress and the public face up to this.