# Intelligence and Arms Control: Process and Priorities

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*Although the SALT II Treaty has been placed in limbo, the issues of intelligence monitoring and verification raised during the debate over the treaty are still of transcendant importance to the foreign policy of the new administration and their future strategic arms talks with the Soviets. In this article, Captain Allard examines those issues and discusses their implications for the general relationship of intelligence to policy-making.*

The Reagan Administration takes office at a time in which the future of arms control agreements appears to be uncertain at best. While the SALT II Treaty appears moribund, it does not follow that the verification issues raised during debate over the treaty have thereby become unimportant. However, public concern about the verification aspects of SALT II has, like the treaty itself, been overshadowed by rising East-West tensions, manifested by the Soviet invasion of Afghanistan and — at this writing — the specter of its armed intervention into Poland. In postponing further consideration of the treaty for an indefinite period, President Carter effectively ended a controversy which had occupied public attention throughout much of 1979. The debate had been kicked off by the President himself in January when, as the negotiations on the treaty neared completion, he declared that its provisions would be "adequately verifiable."[1] The same phrase was used some months later by Secretary of State Vance in forwarding the text of the treaty and its protocols to the President:

> The treaty limits can be adequately verified by our own national technical means. These highly sophisticated systems, such as reconnaissance satellites, enable us to determine for ourselves what strategic systems the Soviets have, what new systems they test and

 1. President Jimmy Carter, "Speech By The President At Georgia Institute of Technology," *New York Times*, 21 January 1979, p. 4.

deploy, and what existing systems they dismantle or destroy in
order to bring and maintain their forces within Treaty cealings.[2]

The idea that verification was "adequate" implied that it was not absolute, a
fact with which the Senate had dealt during its deliberations on the SALT I
agreements in 1972. In the aftermath of Vietnam, Watergate and the CIA
revelations, however, there was an entirely new dimension of legislative ac-
tivism to contend with, and the Senators were not at all shy in questioning Ad-
ministration assurances on verification. Senator Henry M. Jackson seized on the
deepening crisis in Iran to question whether the loss of U.S. tracking stations in
that country would degrade U.S. ability to monitor Soviet missile tests.[3]
Senators John Glenn and Barry Goldwater echoed these concerns, while also ex-
pressing concern over possible Soviet cheating in SALT I.[4] Administration
spokesmen such as CIA Director Stansfield Turner and Secretary of Defense
Harold Brown were questioned extensively on these and a wide range of other
verification issues during open and closed hearings held throughout the sum-
mer. Finally, the Senate Select Committee on Intelligence issued its report on
treaty monitoring capabilities which concluded, "Overall, the Committee
finds that the SALT II Treaty enhances the ability of the United States to
monitor those components of Soviet stragetic weapons forces which are subject
to the limitations of the Treaty."[5]

The report also noted, however, that Soviet concealment and deception prac-
tices to the limit permitted by treaty provisions would "probably" be a feature
of the SALT II environment and it recommended specific attention to the
analytical capabilities of the intelligence community. Despite the fact that, less
than sixty days after publication of the report, the issues it addressed so urgent-
ly were eclipsed by events in Tehran and Kabul, there were clearly some impor-
tant points that had emerged with more permanent impact. The most obvious
one was that the shortcomings that existed in verification capabilities reflected
larger problems in the general intelligence community, and thus required
"fixes" regardless of whether the treaty was ratified or not. Equally important
was the extent to which the intelligence community had presented both
capabilities and shortcomings of the verification process in order to allow the
assessment of "adequacy" to be made as a policy decision by the Senate in its
deliberations on the merits of the treaty as a whole. As a consequence, more at-

2. Secretary of State Cyrus R. Vance, "Letter of Submittal to the President," printed in U.S.,
   Congress, Senate, *Message From The President of The United States Transmitting the SALT II
   Treaty and Other Related Documents,* June 25, 1979, p. v.
3. *New York Times,* 2 March 1979, p. 1.
4. *New York Times,* 28 April 1979, p. 28.
5. U.S., Congress, Senate, Select Committee on Intelligence, *Principal Findings on the Capabil-
   ities of the United States to Monitor The SALT II Treaty,* 96th Congress, 1st Sess., October,
   1979, (hereafter cited as Senate Select Intelligence Committee Report).

tention than ever before was directed toward the intelligence "infrastructure:" the *process* by which information is collected from a wide variety of different sources, processed into a coherent intelligence "product" and applied to arms control issues.

The question of the relationship between intelligence and arms control is far more complex than is suggested by much of the public debate surrounding it, which is usually cast solely in terms of the relative merits of various intelligence collection methods and seldom touches on the more substantive question of process. While the application of modern intelligence methods to arms control is a relatively new phenomenon, the deeper question of intelligence as a process has attracted the attention of scholars on several occasions. Probably the most familiar example of such works is Roberta Wohlstetter's classic account, *Pearl Harbor: Warning and Decision.*[6] Wohlstetter explored the failure of the nascent American intelligence structure to discriminate between background "noise" and the intelligence "signals" which, if properly analyzed, might have enabled a more timely warning of the impending Japanese attack on Pearl Harbor. In a more recent but no less celebrated study, *Essence of Decision,* Graham Allison has explored the impact of organizational processes and bureaucratic politics in the formation of the intelligence analysis and policy choices by which the United States responded to the Cuban missile crisis.[7]

This study examines the relationship of the intelligence process to the problem of arms control and specifically to the problems of monitoring and verification. For the sake of clarity, it is appropriate here to define several of these terms. *Intelligence,* as noted above, is a process implying the collection of data from many sources, its orderly comparison and analysis, and the production of estimates of given situations. While intelligence can be derived from many sources and can pertain to an infinite variety of subject areas, the term *monitoring* is normally used in the context of arms control to connote the more specific function of collecting data pertaining to the development of strategic weapons. *Verification* is an even more specific term referring to the application of data to the detailed provisions of arms control agreements, in order to assess compliance with those provisions. Intelligence officers[8] stress that they are involved only in intelligence collection and monitoring, and that judgments concerning the adequacy of verification are made by political decisionmakers. In short, intelligence, monitoring and verification may be thought of as three concentric

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6. Roberta Wohlstetter, *Pearl Harbor: Warning & Decision,* Stanford, CA: Stanford University Press, 1962.

7. Graham T. Allison, *Essence of Decision,* Boston: Little, Brown & Co., 1972.

8. I am indebted to Major General Jasper Welch, U.S. Air Force, for his discussion of these points in his paper, "Verification," presented at the Fletcher School of Law & Diplomacy Conference, *Intelligence: Deception and Surprise,* (Boston, April, 1979) (hereafter cited as Fletcher Conference).

circles, with intelligence as the outer ring, monitoring as the middle ring, and verification as the inner ring.[9]

Having made these distinctions, it is possible to formulate more precisely the three questions which this study will address:

1) How is the U.S. intelligence community organized to monitor the general development of strategic weapons within the Soviet Union and to support assessments of compliance with arms limitations agreements?

2) How does the intelligence process affect arms control issues and policy choices at the national level — and how is it affected by them in return?

3) What strengths and weaknesses are conveyed to the monitoring and verification processes by the present organizational structure and processes which provide intellience analysis and policy formation?

In treating these questions, it is necessary to examine the process of intelligence collection, tracing the flow of data from its acquisition to its analysis by constituent elements of the intelligence community. This analysis is basic to a discussion of the roles played by different organizational "actors" in the larger "verification community"; here we will be concerned with delineating those roles and distinguishing between those agencies responsible for verification and those having more general briefs in the arms control process. Finally, the study will examine both strengths and weaknesses of the monitoring and verification processes and analyze their implications for arms control.

### The Intelligence Process: Systems, Principles and Organizations

On October 10, 1978, President Carter, during a speech at the Kennedy Space Center, said: "Photo reconnaissance satellites have become an important stabilizing factor in world affairs in the monitoring of arms control agreements . . . We shall continue to develop them."[10] The existence of these satellites had of course been something of an open secret for a number of years. In 1972, for example, the final text of the SALT I agreement specifically included provisions in Article XII which referred to National Technical Means of Verification (NTM) but without specifying precisely what was meant by the term. Most observers, however, had a fairly good idea of what was being alluded to. Public discussion of NTM had surfaced the year before in a book by Philip J. Klass, en-

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9. A purist might well object that these activities are interrelated and not discrete as my analogy suggests. Nonetheless, the pedagogical qualities of the analogy are compelling.

10. President Jimmy Carter, "President's Speech at the Kennedy Space Center," *New York Times*, 11 October 1978, p. 4.

titled *Secret Sentries in Space,* which, in addition to its obvious alliterative qualities, purported to contain a number of operational details concerning the photo reconnaissance satellites thought to be in use at the time.[11] Ted Greenwood, then a Ph.D. candidate at M.I.T., made further contributions to the academic and public discussions of SALT I with a 1972 Adelphi Paper and a 1973 article in *Scientific American.*[12]

In the latter article, Greenwood went to some lengths to describe the workings of photo reconnaissance satellites, identifying two types: a low resolution scanning satellite with a camera to cover wide areas for general monitoring and a higher resolution system using advanced cameras to focus on specific targets of interest. In describing "Big Bird," a fourth generation observation satellite first flown in the early 1970's, Greenwood stated that both camera systems were combined in a single platform. The data from the scanning camera would then be telemetrically transmitted to ground stations, while film canisters from the high resolution system would be de-orbited on command and recovered in mid-air by Air Force transport planes.[13] In describing these features, Greenwood noted that they represented a quantum jump in operational flexibility:

> In the past, several months would go by before a close-look satellite could be launched to re-photograph an area of interest identified by a low resolution photograph and its film pack recovered. Now, however, Big Bird can be directed to turn on its high resolution camera . . . during a subsequent pass. Film from this camera, said to have a resolution of less than one foot from an altitude of 100 miles, is returned in one of several recovery capsules. The delay time should now be cut to several weeks.[14]

Other authors have cited this kind of flexible, reliable photographic coverage as the single most important element in moving U.S. knowledge of Soviet strategic weapons development out of the realm of conjecture which had produced consistent over-estimates throughout the 1950s, and had entered the 1960s with misconceptions of a nonexistent missile gap.[15]

Many of Greenwood's themes were amplified in a more recent *Scientific American* article written by Representative Les Aspin, who argued that the cap-

11. Phillip J. Klass, *Secret Sentries in Space,* New York: Random House, 1971.
12. Respectively, "Reconnaissance, Surveillance and Arms Control," *Adelphi Paper No. 86,* London: I.I.S.S., 1972; and "Reconnaissance and Arms Control," *Scientific American,* Vol. 228, February 1973, pp. 2-13.
13. Ted Greenwood, "Reconnaissance and Arms Control," *Scientific American,* op. cit., pp. 2-8.
14. *Ibid.,* p. 8.
15. *See* Lawrence Freedman, *U.S. Intelligence and the Soviet Strategic Threat,* Boulder, CO.: Westview Press, 1979, especially Chapter 4.

abilities of U.S. photo reconnaissance satellites allowed a high degree of con-
fidence that the SALT II agreement could be adequately verified:

> U.S. surveillance satellites currently provide complete photographic
> coverage of the U.S.S.R. at frequent intervals. If suspicions are
> aroused by the regular large-area survey photographs, "close look"
> cameras can be ordered to re-photograph the area in question, pro-
> viding more detailed information. The present generation of high
> resolution cameras on U.S. surveillance satellites are theoretically
> capable of making a clear photograph of an object one foot across
> from an altitude of 100 miles . . . U.S. satellites . . . are now
> equipped with the multispectral sensors that can penetrate
> camouflage and also observe nighttime activity. Infrared sensors are
> particularly good at detecting underground missile silos and silos
> that have been camouflaged.[16]

Other refinements in the technology of satellite photo-reconnaissance will,
according to a recent Congressional report, improve both photographic resolu-
tion through the use of "mosaic sensors" and overcome atmospheric limita-
tions through the use of "adaptive optics."[17] These kinds of steady improve-
ments in the overhead systems, as well as their present capabilities, have indeed
been the intelligence collection assets most frequently cited by the proponents
of SALT II.[18]

Another important feature of NTM is the gathering of electronic intelli-
gence, primarily concerning Soviet missile telemetry; this issue was highlighted
in SALT II by the twin controversies of Soviet encryption of such data and the
effects of losing the electronic monitoring stations in Iran.[19] In describing this
"other half" of the technical collection means, Defense Secretary Harold
Brown testified that,

> These systems enable us to monitor, for example, Soviet telemetry-
> technical data transmitted by radio signals from the Soviet missiles
> during tests — from outside Soviet territory. Other examples of na-

16. Les Aspin, "The Verification of the SALT II Agreement," *Scientific American*, Vol. 240,
   February, 1979, p. 8.
17. Mark M. Lowenthal, "SALT Verification," *Congressional Research Science Report* #78-142F,
   U.S. Library of Congress, July 10, 1978, updated April 24, 1979, p. 10.
18. *E.g.*, some unidentified White House officials were reportedly urging the publication of actual
   satellite photographs to show just how good these systems really were in an apparent effort to
   convince the American public of the fact that SALT II could be verified. *See* Richard Burt,
   "Arms Control: How to Verify Moscow's Compliance," *New York Times*, 21 March 1979, p.
   8.
19. Negotiations with the Soviets over the telemetry encryption issue are described by Strobe
   Talbott in *Endgame*, New York: Harper & Row, 1979; Richard Burt covered the controversy
   surrounding the loss of the Iranian sites in a special report to the *New York Times*, "Verifica-
   tion Arguments Aren't Only Technical," 22 April 1979, Section IV, p. 1.

tional technical means include the ships, aircraft, and land-based radars used to monitor Soviet missile testing.[20]

These radars are of two types: over-the-horizon (OTH) and line-of-sight (LOS). According to a Congressional report on the subject,

> LOS radar is limited by the curvature of the earth and these sights are therefore located as close as possible to Soviet test ranges, near either launch areas or the re-entry areas . . . OTH radar bounces the signal off the ionosphere and onto the target, increasing the distance over which it can be used.[21]

The idea in using these systems is that they provide a multiple sensor array in which each system both collects data as a primary source *and* backs up the other systems in use. As Harold Brown summarized it:

> We monitor missile test firings with a wide variety of sensors; cameras taking pictures of launch and impact areas; infrared detectors measuring heat from the engine; radars tracking ICBMs in flight; and radios receiving Soviet telemetry signals. . . . The use of multiple sources complicates any effort to disguise or conceal a violation. In the course of 20 to 30 tests of a new ICBM, we collect thousands of reels of magnetic tape and spend tens of thousands of hours processing, analyzing and correlating this vast array of data. . . .[22]

The "national technical means" of verification discussed here are the primary sources of information gathering used to support arms control objectives. Strictly speaking, they do not include information gathered by human sources, known as HUMINT in the jargon. Les Aspin's article emphasized this point:

> . . . The national technical means of surveillance available to this country for observing Russian missile tests are multiple, redundant and complementary. . . . They are, in fact, far more reliable than most human intelligence gathering . . . which may yield second-hand data information or even false, planted information.[23]

Actually this is misleading. While the "hard" data supplied by the NTM constitute the core of the monitoring process, that process does not, of course,

20. Testimony by Secretary of Defense Harold Brown before the U.S. Senate Committee on Foreign Relations, July 16, 1979. Printed in *U.S. Senate Hearings Before the Committee on Foreign Relations*, 96th Congress, July 16-19, 1979, p. 240.
21. Lowenthal, op. cit., p. 10.
22. Brown, op. cit., p. 242.
23. Aspin, op. cit., p. 2.

exclude intelligence gathered from any source, and particularly not from HUMINT. While HUMINT sources vary greatly in their reliability, objectivity and ability to report meaningful information, they can in some cases supply data concerning plans and intentions that are both valuable and unattainable from any well-placed technical source. Defectors are particularly helpful in this regard, the classic example being Colonel Oleg Penkovsky, who provided Western analysts with critical inside information on the early phases of Soviet ballistic missile development.[24] The principal difficulty with using HUMINT sources in the arms control process is that their inputs cannot be planned and programmed in the same way as those provided by the NTM, largely because the best HUMINT sources are often the most unexpected.

Aspin's comments are on stronger ground, however, when he stresses that the NTM are "multiple, redundant and complementary." These qualities are not only built into the intelligence system to aid verification efforts, but they are also reflective of a more general organizational principle which should be made more explicit: it is that the systematic reinforcement and coordination of all available collection means is an operational norm which characterizes the intelligence system as a whole. The underlying principle is that intelligence should be drawn from as many different sources as possible in order to allow the greatest possible accuracy. It then follows that the analysis must draw from all of these sources in an organized way in order to form a final intelligence product. This is known as "integrated, all-source intelligence" and it is indeed the *sine qua non* of modern intelligence analysis, particularly when it pertains to monitoring and verification. It should be noted here as well, however, that such has not always been the case, and that constraints on the dissemination of data have traditionally been imposed by security considerations ("compartmentation"), as well as by more narrow bureaucratic preferences. More recent practices have discouraged such parochialism, and one of the major distinctions of the U.S. intelligence community, in comparison with some others, is the extent to which data are shared by its constituent elements.

The quest for all-source analysis also highlights another major operating principle of the intelligence community which has a direct application to arms control. Because of the need to maximize the number of sources which can be used to report on strategic weapons development, there is also a need to focus on — or "track" — each stage in that developmental process; this procedure is followed since only one sensor system may be able to focus effectively on a

24. *See* Oleg Penkovsky, *The Penkovsky Papers,* Garden City, NY: Doubleday & Co., 1965. A contrary view is offered by former CIA Official Herbert Scoville, Jr., in "Is Espionage Necessary for Our Security?," *Foreign Affairs* 54 (April, 1976), pp. 482-495. Scoville argues that Penkovsky merely provided data which confirmed existing analyses — this in support of his major thesis, which is that the technical means of information gathering are the best sources for reliable intelligence on the U.S.S.R. — particularly with regard to arms control.

given stage of development. For example, the physical size and shape of a new Soviet missile may be gathered from satellite reconnaissance, while its capacity to carry multiple warheads (MIRVs) is most likely to come from signal intelligence gathered during monitoring of its operational testing. This point is well illustrated in the chart at Figure 1, which is reproduced here from a recent Congressional report on SALT verification. Tracking of this sort allows intelligence analysts to follow the course of the weapons development cycle from its earliest stages, to formulate tentative hypotheses around certain knowns and to extrapolate their findings to areas of uncertainty. Thus, the importance of time cannot be overstated in the general relationship of intelligence to arms control. Unlike some other areas of strategic concern, such as those which concentrate on detecting signs which indicate the imminence of hostilities, time is considered an ally in monitoring and verification. A RAND study went so far as to state this principle as an underlying assumption of arms control: "No expansion of Soviet strategic capabilities could be concealed long enough, or well enough to support the development of a serious Soviet threat to the established strategic balance."[25]

## FIGURE I

### Application of Technology to Verification *

| Weapon | Attribute | Applicable Technology |
|--------|-----------|----------------------|
| ICBM | Location | Overhead reconnaissance by satellite |
| | Number | Overhead reconnaissance by satellite |
| | Size | Overhead reconnaissance by satellite and signal intelligence from launch plus analysis |
| | Throwweight | Signal intelligence from launch and reentry plus analysis, and intelligence on size |
| | Range | Signal intelligence from launch and reentry plus analysis, and intelligence on size |

25. Robert Perry, "The Faces of Verification," Santa Monica, CA: RAND Corporation. *Cited by* Welch, op. cit., p. 4.

* From "SALT Verification" by Mark M. Lowenthal, *Congressional Research Service Report*, 78-142F, July 10, 1978, updated April 24, 1979. This chart is illustrative of the application of technology to verification and is not intended to be an authoritative reference. It should be noted that overhead reconnaissance and other sources of evaluating types and amounts of material required to produce, maintain and operate systems are also a measure indicative of the system characteristics, number, place of manufacture, location when deployed and force posture. It must also be stressed that no single monitoring technique or piece of information is independent, and that all are dependent on analysis and must be interrelated in order to form intelligence which is often greater than the sum of the individual parts.

| Weapon | Attribute | Applicable Technology |
|--------|-----------|----------------------|
| | MIRVed | Signal intelligence from launch and reentry plus analysis |
| SLBM | Location & Type of Platform | Overhead reconnaissance by satellite of shipyards and bases |
| | Number | Overhead reconnaissance by satellite and at-sea detection by aircraft and ships, both visual and communications, electronic and signal intelligence |
| | Size | Overhead reconnaissance by satellite and signal intelligence from launch plus analysis |
| | Throwweight | Signal intelligence from launch and reentry plus analysis, and intelligence on size |
| | Range | Signal intelligence from launch and reentry plus analysis, and intelligence on size |
| | MIRVed | Signal intelligence from launch and reentry plus analysis |
| MIRV | Number of Warheads | Signal intelligence from launch to reentry plus analysis |
| | Yield | Surveillance of nuclear testing and reentry vehicle size analysis (mensuration) by radar or photographic analsysis after reentry vehicle separation from launcher |
| Mobile ICBM | Location | Overhead reconnaissance by satellite for general location within a suspected area of development |
| | Number | Overhead reconnaissance by satellite at time of transport to development area |
| | Size | Overhead reconnaissance by satellite and signal intelligence from launch plus analysis |
| | Throwweight | Signal intelligence from launch and reentry plus analysis, and intelligence on size |
| | Range | Signal intelligence from launch and reentry plus analysis, and intelligence on size |
| | MIRVed | Signal intelligence from launch and reentry plus analysis |

| *Weapon* | *Attribute* | *Applicable Technology* |
|---|---|---|
| Cruise Missiles | Location | ALCM: of launch platforms only, by overhead reconnaissance by satellite |
| | | SLCM: of launch platforms only, by overhead reconnaissance by satellite and by at-sea detection by aircraft and ships, both visual and communications electronic and signal intelligence |
| | | GLCM: not verifiable with confidence |
| | Number | ALCM: unverifiable unless launch platforms are counted |
| | | GLCM: not verifiable with confidence |
| | Payload | All types: unverifiable because of various possible trade-offs between payload and fuel capacity; however, limits may be calculated from dimensions observed by overhead reconnaissance by satellite during tests and by assumed levels of technology |
| | Range | All types: same as payload |
| Heavy Bomber | Location | Overhead reconnaissance by satellite of bases, and communications intelligence |
| | Number | Overhead reconnaissance by satellite of production facilities and operational military bases, both yielding number and rate of production |
| | Performance | Analysis based on a variety of sources: overhead reconnaissance by satellite and other photographic reconnaissance provide size and type of power plant. Rate of climb, ceiling, speed range, payload estimate and fuel trade-off, and other information are determined by analysis of other data gathered from publications and communications intelligence |
| | Armament | Analysis based on communications, electronic and signal intelligence, production facilities, aircraft characteristics, and detected weapon tests |
| SSBN | Location | Overhead reconnaissance by satellite and at-sea detection by aircraft and ships, both visual and communications, electronic signal intelligence |

| *Weapon* | *Attribute* | *Applicable Technology* |
|---|---|---|
| | Number | Overhead reconnaissance by satellite of production facilities and naval bases, both yielding number and rate of production |
| | Performance | Analysis based on various sources of at-sea detection visual, and communications, electronic and signal intelligence |
| | Armament | Intelligence on size and performance and intelligence obtained from tests of SLBMs (see above) |

The collection means discussed thus far provide input to a number of intelligence organizations which are collectively responsible for carrying out the general functions of monitoring. All of them are under the nominal command of the Director of Central Intelligence (DCI), who is also the head of the CIA. Functional responsibility for the NTM, however, is split between the DCI and the Secretary of Defense, since Department of Defense (DOD) assets play an important role in the day-to-day production of intelligence–related information. The ships, planes and land-based radars referred to earlier in Secretary Brown's testimony are largely run by the uniformed services, while the photo-reconnaissance satellite program is reputed to be largely administered by the Air Force through the National Reconnaissance Office (NRO).[26] DOD acts as a kind of executive agent for a number of organizations which, like the NRO, require military manpower and facilities to carry out specified intelligence functions. Other such examples include the National Security Agency (NSA), currently headed by a Vice Admiral, which is responsible through the service cryptologic agencies for the collection and processing of signal intelligence, and the National Photographic Interpretation Center which, as the name implies, is the principal resource for analyzing the imagery component of the NTM.[27] The Defense Intelligence Agency (DIA) is not the same kind of joint operation, but rather is the chief proponent of military intelligence within DOD and answers directly to the Joint Chiefs of Staff (JCS).

All of these agencies report the results of their intelligence collection activities to the CIA which, in its analytical sections, has the mission of providing estimates representing the most balanced possible view of a wide range of subject areas. Much of the analysis is concentrated in the National Foreign Assessment Center, which incorporates sections dealing with scientific intelligence, imagery, weapons and economic-political affairs. Also placed within this directorate are the National Intelligence Officers, individuals who are appointed to

26. Freedman, op. cit., p. 21.
27. *Ibid.*, p. 23.

FIGURE 2

United States "Verification Community"
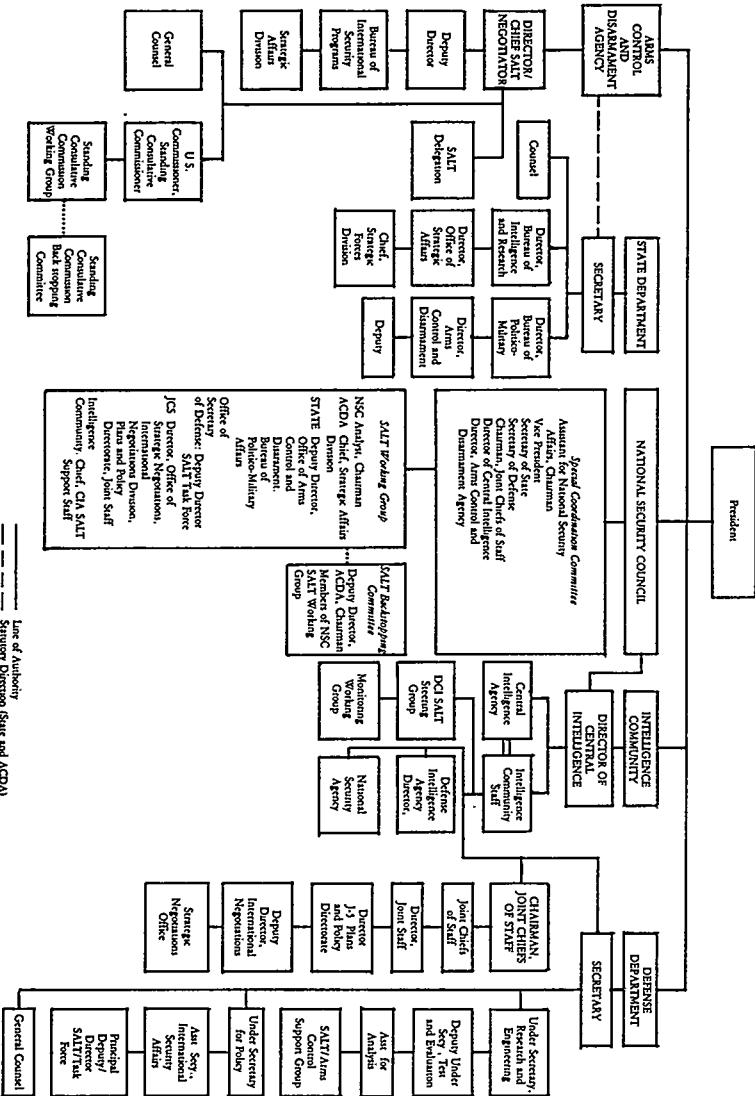
Source: Lowenthal, SALT Verification.

head the analytical efforts pertaining to specific countries, regions or subject areas.[28] Much of the work of these analysts directly supports arms control efforts, as does a separate CIA directorate for Science and Technology. A more recently formed directorate is in charge of "collection tasking," i.e., the management of all intelligence collection resources in order to insure proper coordination of tasks and objectives throughout the intelligence community; obviously a major portion of this tasking directly relates to the monitoring process.

The DCI sits as the head of the CIA and thus represents the highest level of the intelligence community with direct access to policy-making within the Executive Office of the President. Indeed, it might well be argued that the DCI is an important maker of policy in his own right for he is certainly one of the major "players" in the arms control process as a whole. It should be noted here, however, that a specific group has been set up out of the DCI's office to focus on the intelligence component of arms control. Known as the DCI SALT Steering Group, it is composed of the Director of DIA, the Director of the State Department's Bureau of Intelligence and Research (INR), and the Director and Deputy Director of the CIA's National Foreign Assessment Center. A support element for the principals involved in the Steering Group is its subordinate Monitoring Working Group which carries on much of the day-to-day functions of insuring that all aspects of SALT-related monitoring are "on track" and functioning properly.[29]

### Intelligence & Arms Control Policy: Organizations and Functions

The discussion thus far has centered on the dedicated intelligence assets, both systems and organizations, which support arms control objectives. These assets produce data flow which supports the general intelligence process, and in turn produces estimates and other analyses relating to both monitoring and verification. However, the study from this point on concentrates on a more complex set of relationships in which intelligence influences policy decisions and is in turn affected by them. The analogy suggested here is to the nervous system of the human body, in which the nerves are not fused, but rather are linked by a series of synaptical connections between the sensing apparatus at the nerve endings and the cerebral complexes of the brain. Not only does the brain receive these messages and comprehend them, but it also directs appropriate actions which are carried out through these same synaptical links.

Intelligence and arms control policy are linked in many of the same ways. There are a number of important organizational "actors" with direct links to the intelligence community and with what are perceived to be vested interests

28. Nicholas Daniloff, "The SALT Verification Community," *Washington Post Magazine*, 9 December 1979, p. 27.
29. Lowenthal, op. cit., p. 27.

in various areas of arms control. Because of the importance of verification —
both as a political issue and as an important national security interest — there is
a constant interplay between policy choice and intelligence analysis. Most
observers see this as a very healthy practice, some going so far as to compare it
with the link between thought and action. Others caution that it works well
only so long as the policy-intelligence link is not "run in reverse," i.e., "to
control analysis from the political level."[30] Much the same theme is echoed by
those who opine that the vertical links maintained by some intelligence
organizations with their parent agencies (e.g.: INR to State and DIA to the
JCS) can lead to an unnecessary distortion of intelligence opinions:
"Sometimes these agencies are handed their conclusions and are then told to
go out and get the intelligence to support them."[31] A counterargument to that
view, however, is that the number of intelligence agencies actively engaged in
the monitoring process insures a healthy competition of views, "which
minimizes distortion by maximizing the range of views presented."[32]

The proliferation of diverse links between policy-makers and intelligence
analysts has been an accompanying feature of the growth of the American in-
telligence establishment ever since World War II. However, the relationship of
intelligence to arms control policy has not always been characterized by the
comparative tolerance for dissenting opinion which is seemingly a feature of the
contemporary landscape. During the Nixon and Ford Administrations, Henry
Kissinger came to dominate the intelligence community as the President's Na-
tional Security Advisor and later extended his power to the foreign policy estab-
lishment by concurrently serving as Secretary of State. Coming at a time in
which the SALT I accords were being negotiated and ratified, it was argued by
many critics that such dual functioning by a single individual created an am-
biguous relationship between policy and analysis. Nevertheless, much of the
present structure of the "verification community" descends directly from that
system, including a special "Verification Panel" which was the forerunner of
the present Special Coordination Committee of the National Security Council
(NSC). The Verification Panel was set up as an interagency working group
which brought together representatives of the State and Defense Departments,
the Arms Control & Disarmament Agency (ACDA), the JCS, the CIA and
other members of the intelligence community. One author wrote of its work:

> The single field in which an "agreed factual basis" for policy form-
> ation has been more or less achieved has been SALT. Kissinger

30. *Ibid.*, p. 35.
31. This quotation emerged in a personal interview with a prominent member of the verification
    community who, not surprisingly, requested anonymity.
32. To paraphrase a quotation from Richard K. Betts, "American Strategic Intelligence: Politics,
    Priorities and Direction, in a paper presented to the Fletcher Conference, p. 3.

claims, "the Verification Panel has made 98 percent of intelligence disagreements disappear." The reason: policy-makers and intelligence analysts sit on the same panel and directly argue out their differences over facts and policies.[33]

Also, an organization similar to the present DCI SALT Steering Group was set up within the CIA.

The Carter Administration was no more successful in avoiding the urge to reorganize than any other previous administration had been, and thus the Verification Panel was replaced by the Special Coordination Committee of the NSC. It functions as the "highest executive policy organization for verification below the President, responsible for both the coordination of views for presentation to the President and for issuing policy instructions in either the negotiating or implementing state."[34] Chaired by the President's National Security Advisor, its membership is much the same as in the Kissinger era. Of more interest is its subordinate committee, known as the SALT Working Group, which carries on much of the work of the principals; its members are not particularly well-known outside of government, but they are among Washington's most influential officials, and they interact on a frequent basis.

This policy level brings together some of the major players of the arms control process within the Executive Branch. In addition to those already noted, there are a number of agencies which have a sufficient voice in the verification process. For clarity, they are presented here under the heading of their parent agencies.[35]

*Defense:* A SALT Task Force is organized under the aegis of the Office of the Secretary of Defense (OSD) and is composed of representatives of OSD and the JCS. The JCS is separately represented at NSC-level meetings, usually by the Director of its own Strategic Negotiations Office. Another major DOD player is the Assistant Secretary of Defense for International Security Affairs. As noted above, DOD also has executive responsibility for several elements of the intelligence community, most notably the National Security Agency.

*State:* Primary involvement in the verification process is by two organizations: the Bureau of Politico-Military (PM) Affairs and the Bureau of Intelligence & Research (INR). INR is considered a member of the intelligence community and it undertakes major monitoring activities on Soviet strategic weapons development. PM is essentially the policy voice of the State Department for most matters relating to verification issues.

33. John P. Leacocos, "Kissinger's Apparat," *Foreign Policy* 5 (Winter 1971-1972), p. 19. *Cited by* Freedman, op. cit., p. 50.
34. Lowenthal, op. cit., pp. 20-21.
35. *Ibid.* For the description of these organizational players which I have drawn heavily on Mark Lowenthal's excellent presentation, pp. 19-28.

*Arms Control & Disarmament Agency (ACDA):* ACDA is, in many discriptions, a kind of State Department in its own right, set up as a single entity to focus government policy on disarmament objectives. As such, it is also responsible for on-going negotiations to secure those objectives, and is the focal point for SALT negotiations in particular. Its principal verification activities are the responsibility of the Strategic Affairs Division, although ACDA also has an organic Intelligence Staff and even its own military advisor.

*Standing Consultative Commission:* Although organizationally linked to ACDA, the SCC (not to be confused with the NSC Special Coordination Committee) was set up in 1972 to provide a liaison link to the Soviet Union for discussion of all matters pertaining to the implementation of the SALT I Agreement. Its membership is drawn from representatives of the major players: ACDA, State, Defense, JCS, but particularly from the intelligence community. The SCC has its own Backstopping Committee, which is largely drawn from the intelligence agencies, simply because the clarification of compliance issues with the Soviet Union implies the existence of areas of analytical ambiguity. Consequently, the link between intelligence and policy is here a rather direct one.

Congressional oversight of the problems of verification, as Mark Lowenthal's report noted, was traditionally rather limited; the President was under no legal obligation to have either his National Security Advisor or most other members of the verification community approved by Congress.[36] Since that report was issued, however, the ramifications of the 1979 Senate debate over ratification of SALT II have rather clearly established Congressional interest in the problems of verification. For one thing, the report of the Senate Select Committee on Intelligence referred to earlier was, for all its brevity, a rather definitive document in terms of conveying specific recommendations for improvements in the analytical capabilities of the community in carrying out its monitoring activities. Unofficial soundings in both intelligence circles and on Capitol Hill leave little doubt that, regardless of the eventual outcome of the treaty, this guidance was meant to be taken seriously, and that the DCI in particular will be held accountable for compliance with it.

Other than the specific terms of reference conveyed by the Senate's power to advise and consent on all treaties, there are a number of Congressional committees which review other aspects of verification and monitoring. Considerations such as overall strategic balance, intelligence operations generally, and relations with the U.S.S.R. all touch in important ways upon aspects of the verification problem. Consequently, both Senate and House committees responsible for these areas have shown an increasing tendency to involve themselves in oversight of many of the intelligence community's monitoring functions.

Those functions should be seen as a continuum, spread across the full spec-

36. *Ibid.*

trum of the arms control "cycle." For convenience, this cycle is broken down into four parts: monitoring, the formation of negotiation strategy, on-going negotiations and implementation/verification. All of the organizations we have discussed thus far are drawn into these phases to a greater or lesser degree, but it is possible to highlight the most important contributions of the intelligence process at each step. It should be remembered, however, that functions such as monitoring are continuous, and may overlap one or more of the other phases.

Monitoring is, as we have seen, the premier function of the intelligence community, organized under the DCI and encompassing the operations of a large part of the intelligence resources which the U.S. can command. This phase of the arms control process is probably the most crucial since it forms a basic analytical framework from which all else should logically stem. At issue here is an assessment of the threat posed to U.S. strategic forces by Soviet weapons developments. This assessment is normally seen as a "risk analysis" which compares potential threat with and without an arms limitation agreement, together with considerations of concealment and deception, the likelihood of cheating, and opportunities for strategic "breakout." Even more important is the assessment of these considerations in the light of what is known about the emerging strategic balance between the two superpowers. Nominally, this phase is dominated by the DCI, particularly in the form of the SALT Steering Group and in the analytical sections of the CIA (this, after all, is their forte). Actually there are considerable opportunities for interplay between CIA analysts and those within DOD.

Those discussions between the various intelligence agencies have on occasion become acrimonious, such as when Lieutenant General Daniel Graham, then head of the Defense Intelligence Agency (DIA), took the extraordinary step of writing an article which deplored the loss of military "clout" in defining strategic threats for nation level decision makers and, by implication, criticized the civilian analysts at CIA.[37] It is not surprising that such debates should take place, since the military has an understandable primacy of interest in these matters, and a wealth of operational experience which can sometimes reinforce their estimates. Here again, however, the intelligence system's habit of sharing most categories of raw data acts as a "check-and-balance," since competitive analysis can reduce the tendency toward unreasonable estimates based solely on parochial preferences. By most accounts, however, every effort is made to resolve any such discrepancies "in-house," that is, within the intelligence community as a whole. However, if the disagreements are profound, there are procedures for highlighting the issue at the policy level. This can be accomplished

37. General Daniel O. Graham, "Estimating the Threat: A Soldier's Job," *Army Magazine* 23 (April 1973), pp. 14-18.

in several ways: either in the form of written dissents to various estimates or in the various working groups discussed above. The most profound issues, of course, are those which must be considered by the NSC's Special Coordination Committee, or by the President.

It would be incorrect, however, to over state the possibilities for conflict between the intelligence agencies engaged in monitoring. Actually, the process runs rather smoothly most of the time. The DCI SALT Steering Group has major responsibilities for insuring that all collection assets are appropriately tasked, and the interagency representation on this group helps to insure both coordination and cooperation by all parties concerned. This tasking is constantly reevaluated in terms of reports received, with "tip-offs" suggested by one collection source resulting in the retasking of other assets for corroborating data. Each of the major intelligence agencies are also assigned monitoring responsibilities pertaining to specific treaty provisions, based primarily on their collection capabilities. When "ambiguities" arise pertaining to possible compliance issues, the emphasis by all of the agencies is on identifying the areas of uncertainty and illuminating for the policy makers the technical reasons behind any differences of opinion. While *ad hoc* compliance reports may be generated by such occurrences, normal monitoring reports are required from the DCI and ACDA every six months to the Senate Committees on Intelligence and Foreign Relations, respectively. Consequently, the monitoring process is usually run in a rather mechanical fashion and, because of its constancy, it represents something of a "cycle within a cycle."

The on-going monitoring effort also provides a major impact upon the second phase of the cycle, which concerns negotiating strategy. In the case of the final phases of SALT II, compliance activities from SALT I were also important as "confidence-building measures," the Department of State published a special report which provided the most detailed look yet seen on the work of the Standing Consultative Commission.[38] This phase is largely supervised by the NSC Special Coordination Committee, with major intelligence inputs again being provided by the DCI SALT Steering Group. Their contributions at this point — in addition to the monitoring results — are likely to be in response to the tentative outlines of future negotiating positions. The questions most likely to be asked concern likely Soviet objectives and stands, viability assessments of collection resources which could be used to implement given agreement "scenarios," and requests for clarification of emerging areas of uncertainty.

All of these activities greatly intensify during the third phase of active negoti-

38. U.S. Department of State, *Compliance with SALT I Agreements*, Special Report No. 55, Washington, D.C.: Government Printing Office, 1979. This report was prepared in response to public charges of Soviet cheating.

ations. Here again, monitoring is on-going, but the major intelligence input takes place through a special intelligence advisory team attached to the SALT delegation. This team is responsible for providing a day-to-day link between the negotiators and the DCI, and for providing technical advice across the broad range of possible issues. The intelligence inputs considered to be most crucial here concern the positive intelligence benefits of tentative agreements, their susceptibility to verification by present and future acquisition systems, and any hidden insights into Soviet negotiating tactics and motivations. The broad intelligence objectives at this point are to insure that the final shape of the agreement is something which "can be lived with" by all concerned, particularly in the realm of monitoring and verification. Consequently, the intelligence advisors on this team tend to be drawn from various elements of the intelligence community.

Once the arms control agreement has been hammered out, the various intelligence chiefs have been paraded thorugh the requisite Senatorial committees and the treaty has entered into force, what then? This final phase of the cycle consists almost exclusively of true verification activities: are the Soviets complying with the obligations of the treaty and is the monitoring process identifying possible areas of ambiguity to the decision-makers for action? The main intelligence link in this process is through the U.S. component of the Standing Consultative Commission which, like the SALT delegation, has an attached intelligence advisory team. A second facet of this phase, however, is somewhat more difficult to describe since its function is to propose "What if . . ." analyses, based on the results of the arms control process to date. In a sense, this analytical effort — carried out principally by analysts within the CIA itself — represents an attempt to "second-guess" the system. Recognizing the enormous capabilities of the intelligence, monitoring and verification processes, it takes the approach, "Now if they really wanted to cheat, what would they do and how would they do it?" This allows for the development of "cheating scenarios" and so provides an additional set of analytical tools which can lend greater precision to the monitoring of actual Soviet practices.

In summarizing this section, it can be argued that the cyclical process of arms control creates varying demands upon the intelligence community, depending upon the needs of policy-makers at any given point. The monitoring function is, as noted, a continuous one; its contribution may be decisive in the formation of threat estimates upon which arms control objectives may be based. However, the intelligence community is potentially susceptible at this phase to internal tensions and debates over these same issues. In providing inputs for arms control negotiations, both in strategy planning and in actual conduct, the intelligence product is more likely to be highly specific and issue oriented, and usually in support of the dominant players: State, Defense, ACDA and, most importantly, the NSC staff. Finally, the process of implementation again

renews demands for current intelligence in support of policy assessments concerning verification and compliance. Obviously these distinctions are far from absolute and many of the functions tend to overlap. However, the process illustrates some of the major strengths and weaknesses of the system.

### Intelligence & Arms Control: Strengths, Weaknesses and Implications

A. Strengths

1) *Cogency of tasking and objectives:* In what has traditionally been a rather amorphous area, arms control parameters have led to a far more precise tasking of the intelligence system than in the past. With a more coherent set of demands from the policy-maker, the intelligence system is better able to manage its collection and analytical resources around the specific questions needed to resolve arms control issues. This in turn can lead to improved responsiveness and control by all elements of the intelligence community.

2) *Levels of interest and access:* The specific criteria demanded for the intelligence system is complemented by a high degree of interest in the results of its work. The assurance that the final intelligence product is certain to be read, analyzed and even critized by top-level officials tends to produce a "healthy degree of catharsis" throughout the system; it also helps to insure that subordinate tasks are properly understood, supervised and accomplished. Because of these demands, the "best people" tend to be assigned to SALT related projects, since there is little doubt that the resulting work will be a direct reflection on the overall professionalism of the group. Generally, the final product is much improved by this kind of effort.

3) *Collegialism:* There is a certain degree to which almost any field of human endeavor is improved by repetition: arms control is no exception, particularly with relation to intelligence. The principal "players" in the upper echelons of the NSC, State Department and the CIA have sustained personal and professional relationships in dealing with arms control problems which now reflect the results of ten years experience. These unofficial but vital relationships complement the more formal organizational channels in a variety of important ways, most of which defy documentation. The lessons learned by these players have reportedly made it easier to maintain the clear distinction between intelligence analysis and policy choice.

4)*Congressional oversight:* Congressional involvement in the intelligence aspects of arms control has been far more positive than their efforts with respect to some other categories of intelligence operations. There has generally been a lack of "showboating" in this field and the respective committees have been circumspect in observing security constraints and in making responsible criticism. Most productive has been the creation of a consciousness within both the intelligence and policy branches of the Executive that legislative scrutiny of

verification issues heightens the need to insure that "all the bases are covered" regarding the planning and analysis of monitoring activities. This consciousness can help to enliven a healthy sense of skepticism which should be a hallmark of a profesionally run intelligence service, but which sometimes can become submerged when policy and intelligence working relationships become *too* cozy. While there is no hard evidence that such is the case now, the Congressional oversight function helps to insure that it will not become so in the future.

   *5) Divergent intelligence viewpoints:* The ability of the intelligence system to provide a well integrated, balanced intelligence viewpoint must be constantly weighed against the need to ensure that dissenting opinions and "devil's advocates" are not arbitrarily overridden — and indeed to insure that their views are presented at the policy level. The present system certainly encourages the presentation of divergent viewpoints, probably to a more pronounced degree than at any other time in recent memory. While this certainly represents an important strength for the system, it has some drawbacks as well.


B. Weaknesses

   *1) Fractionation of the intelligence effort:* As a counterpoint to the previous idea that divergent viewpoints should be encouraged at the expense of consensus there is an observation made by Lawrence Freedman concerning "reforms" in the preparation of strategic intelligence estimates in the last several years:

> The new system does moderate interagency differences because dissenting positions appear as integral parts of the text rather than as brief footnotes. Consumers do not get so much a finished intelligence product but the raw material with which to make their own judgments. . . . [This leads to] a profusion of competing judgments that might please the policy-makers who trusts only his own judgments but confuses those who wish for guidance. . . .[39]

   The difference between this point and the previous one is obviously a question of degree, and it is not at all clear that the tendency pointed out by Freedman has become a significant problem in the relationship of arms control to intelligence. The danger is that when there is a divergent "spread" of views presented in this fashion to a policy-maker, the search for a consensus still goes on, but now it takes place in the mind of that policy-maker, either in the search for a "least common denominator" or in looking for an opinion which most closely approximates his own. Clearly the intelligence system needs to ensure that the critical areas of monitoring do not succumb to an exaggerated concern

39. Freedman, op. cit., p. 56.

for sending all possible shades of difference to a decision-maker unable or un-willing to take the time to form his own expert opinion.

*2) Technical systems versus HUMINT:* As noted above, there is something of a passing acquaintance between HUMINT and arms control. Yet there is much to suggest that the abilities of the NTM to focus effectively on all aspects of strategic arms development have begun to reach a plateau. Indeed, the most critical elements of future strategic systems are increasingly seen in terms of "command and control" systems and miniaturization of key components, developments which would most probably elude the technical surveillance systems now in use. Soviet intelligence, which makes extensive use of HUMINT, could undoubtedly draw from many sources in America's open society to keep abreast of such developments; US intelligence has no similar capability with respect to the Soviet Union. Richard K. Betts, of the Brookings Institution, has also noted an even more insidious aspect of this devotion to technology, one which has implications beyond the problem of arms control:

> One of the reasons behind the intelligence failure to predict the Iranian revolution was that political guidance inhibited human in-telligence operations that could have made contact with opposition movements. The discouragement of such contacts was due to the Shah's suspicions and demands. Keeping the Shah happy, however, was not just a foreign policy interest but an intelligence interest as well. It seemed necessary in order to secure the technical collection bases in Iran, which some worried he would shut down if he suspected American collusion with his domestic enemies. Moni-toring of Soviet missile tests appeared clearly at that time to be more important than finding out what "weak" opposition move-ments in Iran were doing.[40]

*3) Collection versus analysis:* There is an interesting continuum from Kis-singer's distrust of the depth and rigor of CIA analyses through Admiral Turner's reported drawdown in hiring analytical talent to the Senate Select Committee on Intelligence which, in its October 1979 Verification Report, flat-ly recommended increased attention to the analysis, rather than the collection, of intelligence information. This old tension has not altogether vanished from the Agency. In part there is the ever-present question of resources, since analytical systems (computers, specialists and data bases) must compete for the same scarce funds normally lavished on multi-billion dollar collection systems. Although CIA assertions that they are implementing the recommendations of the Senate Select Committee must be accepted at face value in the absence of specific evidence to the contrary, one can also wonder if "deception scenarios"

40. Betts, op. cit., p. 15.

are funded and carried out with the same vigor as other elements of the
monitoring process. This question is particularly important since this kind of
"reverse analysis" must, by definition, include comprehensive participation by
other elements of the intelligence community. Despite statements from the
DCI's office that such interagency work groups are functioning, the most in-
formed opinions are that CIA analysts continue to perform 90 percent of this
work and the other agencies are simply called in to "ratify the results." Conse-
quently, there are good reasons for some misgivings on this aspect of the CIA's
"box score."

4) *Mind Set:* One occasionally hears voiced the criticism that there is an
"arms control mind set," particuarly among the major players in the arms con-
trol process — including the CIA — and that pre-conceptions along these lines
block what should be more precise appreciations of Soviet grand strategy.
Roberta Wohlstetter, in a recent speech, noted the failure of US intelligence to
predict the pace and extent of the Soviet strategic and conventional arms build-
up, comparing it with official British indifference to systematic efforts by Nazi
Germany to subvert the limitations of the Anglo-German Naval Treaty:

> Other beliefs that have been popular since the early sixties have it
> that just as our unilateral acts of arming forced the arms race, so a
> unilateral act of self-restraint will induce reciprocation. Among
> other things, this view is likely to make us rather relaxed about the
> bargains we strike. . . . and the belief in reciprocity is likely to
> make us relaxed about the precise interpretation of the bargain,
> and about intelligence that seems to suggest that our adversary may
> be violating the agreement or at any rate interpreting it very dif-
> ferently from what we had said it meant.[41]

A full discussion of that agreement would be a fit subject for a doctoral dis-
sertation, but for the present it can merely be noted that, if Professor Wohlstet-
ter's observation is at all accurate, it goes far beyond the present focus on struc-
ture. However, it is germane to note that the intelligence community is
routinely asked to assess Soviet strategic weapons development, but never to
define what U.S. strategic objectives are or should be, either in the light of
those developments or as a counter to them. It is not therefore surprising that
arms control is sometimes seen as a substitute for such a strategy, at least among
its critics. That deficiency, to the extent that it exists, is not a fault of in-
telligence analysis or even structure, but one of political leadership.

41. Roberta Wohlstetter, "Slow Pearl Harbors and the Pleasures of Self Deception," in a paper
    presented to the Fletcher Conference, p. 16.

## C. Implications

This study has shown how, from a structural and procedural standpoint, intelligence and policy are intimately linked in dealing with the problems of arms control. There is little question that the intelligence system has adapted well to those requirements and that it has taken some pains to insure that its objectivity is maintained in the day-to-day problems of monitoring and verification. Consequently there is little reason to doubt that U.S. intelligence can adequately verify the provisions of SALT I and II — a finding also made by the Senate's Select Committee on Intelligence. Regardless of whether arms control agreements such as these will continue to be a feature of U.S. policy in the future, there are a number of implications which this experience suggests for the way in which our intelligence structure functions.

There are clear indications that the analytical elements of the CIA need to be strengthened, and even that they need to exploit in a more organized way the same types of capabilities represented already in other elements of the intelligence community at large. It may well be that, just as earlier efforts focused on breaking down the barriers of unnecessary security compartmentation in order to allow truly "all source" analysis, the future will see a drawing together of the community to enable "interagency" analysis. While there is something of an emerging consensus of the need to seek new initiatives in this area, there is appreciably less enthusiasm for the idea that HUMINT needs to be resuscitated, and even less of an idea as to how this should be accomplished and with what restrictions. The linkage of HUMINT to arms control is still more tentative, despite the pace of technology and the narrowing of NTM verification capabilities. Eventually, the "accident of technology" represented by the unobtrusiveness and efficiency of the NTM may give way to a far more restricted capability to monitor the critical phases of strategic weapons development. At that point we will face a choice: do we abandon arms control entirely or do we only control those few systems which we may be able to verify with some confidence?

Another implication which needs to be addressed here pertains to the question of resources — increasingly a matter of concern as budgetary constraints loom ever larger. In analyzing the effort devoted by the intelligence community to the problems of verification, one is struck by the enormity of the effort, both in terms of dollar expenditures and man-years. While a certain percentage of this activity — maybe even most of it — would be carried on in the absence of formal arms control measures, there is little doubt that the high priority of interest afforded arms control measures monopolizes the attention of some of the best minds in the intelligence community. In designing arms control objectives, therefore, a thought which ought to be asked is: if these minds were not

occupied with verification problems, what else could they be doing? In short, there are some undeniable trade-offs that come with the assumption of additional duties by which the intelligence community undertakes to assist in the verification of arms control agreements. One may be forgiven for the thought that if such priorities were also present elsewhere in the intelligence effort, there might be fewer unpleasant surprises for the political and military leadership to deal with.

Regardless of what one may think of the priorities accorded the arms control process, the experience of monitoring and verifying the SALT treaties suggests a valuable lesson for the management of intelligence generally. Simply stated, it is that the supervision and direction of the intelligence community are materially improved by its active but independent involvement in the policy process; that is, when decision-makers demand a high-quality intelligence product to serve as an independent basis for decisions which shape the policy process, both intelligence and policy are improved. By directing the intelligence community with specific requirements and insuring that the resulting analyses are used to guide policy (rather than manipulating them to rationalize predetermined decisions), top officials show an all-important responsiveness as intelligence 'consumers'. More importantly, by setting finite, measurable information objectives for the intelligence community, decision-makers shoulder their share of the responsibility for the management of a system which is only as effective as they care to make it. Therefore, in setting its intelligence priorities — either in support of arms control or other foreign policy goals — the new Administration might well recall an axiom from military history: commanders generally get the kind of intelligence they deserve.