STUDY PROJECT

PARADIGM SHIFT: U.S. STRATEGIC INTELLIGENCE IN THE 1990'S

BY

MS. KARREN E. SCOTT
United States Defense Intelligence Agency

USAWC CLASS OF 1993

U.S. ARMY WAR COLLEGE, CARLISLE BARRACKS, PA 17013-5050

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT DISTRIBUTION STATEMENT A: Approved for public release. Distribution is unlimited.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION U.S. ARMY WAR COLLEGE 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State, and ZIP Code) ROOT HALL, BUILDING 122 CARLISLE, PA 17013-5050	7b. ADDRESS (City, State, and ZIP Code)
8a. NAME OF FUNDING/SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
PARADIGM SHIFT: U.S. STRATEGIC INTELLIGENCE IN THE 1990'S (UNCLASSIFIED)

12. PERSONAL AUTHOR(S)
KARREN E. SCOTT

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
STUDY PROJECT	FROM _____ TO _____	93 04 06	56

16. SUPPLEMENTARY NOTATION

17 COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

See reverse for abstract

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED
22a. NAME OF RESPONSIBLE INDIVIDUAL DOUGLAS H. DEARTH	22b. TELEPHONE (Include Area Code) 717 245-3191 / 22c. OFFICE SYMBOL AWCD

DD Form 1473, JUN 86 — Previous editions are obsolete. — SECURITY CLASSIFICATION OF THIS PAGE
UNCLASSIFIED

ABSTRACT

AUTHOR: Karren E. Scott

TITLE: Paradigm Shift: U.S. Strategic Intelligence in the 1990's

FORMAT: Individual Study Project

DATE: 6 April 1993 PAGES: 50 CLASSIFICATION: Unclassified

Intelligence in the 1990's and beyond will be more complicated, not easier, as a result of the end of the Cold War. At the same time, expectations of intelligence will be even higher. In the past, the intelligence community's primary job was to "know" the Soviet Union. With the loss of the Soviet paradigm, other security issues have moved up in relative priority, and the built-in excuse for not concentrating on them is gone. Customers will be asking the intelligence community for information on a broader spectrum of issues than ever before. Their requirements will reflect a considerably different emphasis than during the Cold War -- away from a focus on military "bean counting" and toward more sophisticated, forward looking, integrated analysis taking into account political, economic, military, technological, cultural, and even environmental developments and trends worldwide. Intelligence will be asked to explore non-traditional areas such as global environmental issues and support to maintaining U.S. economic competitiveness. At the same time, the community will still be required to provide detailed, encyclopedic-type data in support of such activities as U.S. military operations or arms control monitoring. Such diverse requirements will stretch intelligence resources, as well as demand more flexibility in planning. In cooperation with decisionmakers, the intelligence community needs to redefine its core missions. Otherwise, it runs the risk of doing nothing well, and the potential for serious failure will become higher.

USAWC MILITARY STUDIES PROGRAM PAPER

PARADIGM SHIFT: U.S. STRATEGIC INTELLIGENCE IN THE 1990'S

AN INDIVIDUAL STUDY PROJECT

by

Ms. Karren E. Scott

Mr. Douglas H. Dearth
Project Adviser

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013

ABSTRACT

AUTHOR: Karren E. Scott

TITLE: Paradigm Shift: U.S. Strategic Intelligence in the 1990's

FORMAT: Individual Study Project

DATE: 6 April 1993 PAGES: 50 CLASSIFICATION: Unclassified

Intelligence in the 1990's and beyond will be more complicated, not easier, as a result of the end of the Cold War. At the same time, expectations of intelligence will be even higher. In the past, the intelligence community's primary job was to "know" the Soviet Union. With the loss of the Soviet paradigm, other security issues have moved up in relative priority, and the built-in excuse for not concentrating on them is gone. Customers will be asking the intelligence community for information on a broader spectrum of issues than ever before. Their requirements will reflect a considerably different emphasis than during the Cold War -- away from a focus on military "bean counting" and toward more sophisticated, forward looking, integrated analysis taking into account political, economic, military, technological, cultural, and even environmental developments and trends worldwide. Intelligence will be asked to explore non-traditional areas such as global environmental issues and support to maintaining U.S. economic competitiveness. At the same time, the community will still be required to provide detailed, encyclopedic-type data in support of such activities as U.S. military operations or arms control monitoring. Such diverse requirements will stretch intelligence resources, as well as demand more flexibility in planning. In cooperation with decisionmakers, the intelligence community needs to redefine its core missions. Otherwise, it runs the risk of doing nothing well, and the potential for serious failure will become higher.

INTRODUCTION

The tumultuous international events of the past three years have been a watershed in terms of their historical significance: the end of the Cold War with the sudden, peaceful collapse of the Soviet empire and the discrediting of communism as a viable political, economic, and social system; the emergence of a multipolar world based on centers of economic rather than military power; the unification of Germany; the rekindling of ancient territorial, ethnic, and religious conflicts in Europe and elsewhere; and the revitalization of the role of the United Nations, to include the use of large-scale UN-sponsored military force against regional aggressors.

What are the issues important to U.S. national security in the 1990's, now that the monolithic Soviet threat is gone? How have U.S. interests changed as a result of the end of the Cold War? What role should U.S. intelligence play in providing information to decisionmakers to protect and promote U.S. interests? With the worldwide information explosion and the opening up of heretofore closed societies, are there few real secrets in the world, and thus should the activities of the U.S. intelligence community be much more narrowly focused? Conversely, has a changed world order spawned a radically new and even broader set of requirements for intelligence?

This paper will explore strategic intelligence requirements of the 1990's in the context of the recent global changes and the

attendant challenges for the intelligence community. While the old paradigm centered on the Soviet threat is no longer valid, there are still abundant opportunities for U.S. intelligence to make a significant contribution to U.S. national security in the 1990's. Among the many requirements upon which intelligence will be asked to concentrate are significant issues that should have merited considerable attention in the past, but which were so thoroughly overshadowed by the U.S. fixation on the Soviet Union that they appear "new" as they finally emerge into the sunlight. U.S. intelligence will also be called upon to explore relatively new areas such as global environmental issues and support to maintaining U.S. economic competitiveness, as our concept of national security undergoes broader redefinition. What is clear is that there will be no lack of requirements for the intelligence community in the 1990's. In light of significantly declining intelligence budgets, however, the challenge will be to prioritize these requirements so that limited intelligence resources can be used most effectively against issues for which intelligence provides unique insights.

HISTORICAL TURNING POINT

Historically, the significance of the events of the past three years can be compared to other watersheds of modern history, where so-called "new world orders" were established. For example, the Treaty of Westphalia in 1648 ended the Thirty Years War in Europe and solidified the modern concept of the nation-state system. The

Congress of Vienna in 1815 brought to a close the Napoleonic era and set up a balance of power among the great western empires of the period, thus ensuring relative stability in Europe for nearly a hundred years. The Treaty of Versailles in 1919 formally ended World War I, the first global conflict of its kind and the most devastating up to that time. It resulted in the demise of the German, Austro-Hungarian, Russian, and Ottoman empires and the birth of the first communist state, the Soviet Union. Unfortunately, the punitive terms of the Versailles Treaty made World War II almost inevitable twenty years later. Along with wreaking unprecedented destruction, that war resulted in the decline of Britain and France as world powers, and the emergence of two ideologically opposed new global "superpowers" -- the United States and the Soviet Union. The end of World War II also ushered in the nuclear era, and with it the concept of indirect confrontation or "cold war," since the overwhelming destructiveness of the nuclear weapons held by both the United States and the Soviet Union precluded direct military confrontation.[1]

Throughout the Cold War, full-scale political and military competition with the Soviet Union became the centerpiece for all U.S. foreign and defense policy, and even some aspects of domestic policy:

> We established NATO, a panoply of other alliances, and a worldwide network of military bases and access rights primarily to deter Soviet or Soviet-supported military expansion. We devoted half of a tremendous military budget and developed a host of high-tech battlefield weapons primarily to prevent a Soviet invasion of Western Europe. We fought in Korea and Vietnam, first isolated and wooed China, imposed sanctions on Cuba, subverted

> governments in Guatemala and Chile, subsidized rebellions in Angola and Nicaragua, supplaced our flag on the moon and on Kuwaiti tankers, and engaged in countless other activities -- including even financing domestic education and highway construction -- all in the name of outbidding, outmaneuvering, or outlasting Soviet-sponsored communism.[2]

Concomitantly, for the past fifty years competition with the Soviet Union was the defining mission for U.S. intelligence:

> ...Intelligence systems and activities had as their principal objective a broad intelligence attack on the USSR. Intelligence efforts were judged and prioritized according to their ability to contribute to that objective... That is not to say intelligence efforts were devoted exclusively to the Soviet target... But the Soviet target commanded the lion's share of intelligence resources... Initiatives to improve other target coverage were typically judged by the extent to which they might interfere with or diminish Soviet-related activities.[3]

PARADIGM LOST

The abrupt collapse of the Soviet empire in 1989-91 has left the United States with a conceptual vacuum. "Like the astonished winner of a lottery or an upset election, the U.S. government, the morning after communism's sudden collapse, hardly knows what to do."[4] Rather than breathing a sigh of relief that the United States can finally turn to the multitude of serious non-Soviet security issues that have been ignored or given short shrift in the past, most U.S. security analysts, to include intelligence planners, are suffering the confusion and disorientation of acute withdrawal. Many are baffled by the loss of the Soviet threat as a comfortable reference point for judging U.S. national security interests, and are anxious about the consequences of what they fear is a lack of clear vision on the part of U.S. strategists currently

grappling with the so-called "new world order."

Perhaps too much is being made of this period of uncertainty as a unique phenomenon, however. In a historical context, American reaction to winning the Cold War is very similar to that immediately following victory in both world wars, but with different outcomes. Following World War I, Americans fiercely debated the future U.S. role in the world, with the Wilsonian internationalists arguing that the United States should become an active participant in the global community in order to influence events. The isolationists prevailed, however. Perceiving no major external threats after World War I, the United States turned abruptly inward again, rejecting a role as a global leader to the extreme of even shunning membership in the American-inspired League of Nations.

Today's period of uncertainty is also similar to the confusing era immediately following World War II before Soviet expansionism became clear, when the United States was uncomfortable with its new superpower status. Initially the country's instincts were to retrench and turn inward. The U.S. armed forces were rapidly demobilized, since, after all, it appeared that military threats to the country had been vanquished. Indeed, the rest of the industrialized world was in ruins.

Unlike the period after World War II, however, there is currently no clearly emerging monolithic external threat to American principles or to U.S. policy interests as epitomized by the Soviet Union and communism. Instead, U.S. national security

interests are undergoing a fundamental redefinition in the context of a world in which the concept of power has become more diffuse and the threats more difficult to clearly articulate. True, the United States remains the only multidimensional superpower, incorporating both military and economic might. It is clear, too, that the rest of the world, including the new nations of the former Soviet Union, will look to the United States for leadership -- witness the global clamor for the United States to take the lead in "doing something" about the starvation in Somalia and the civil war in Yugoslavia.

What is significantly different, however, is that economic rather than military power has in large measure become the yardstick by which world influence and national viability are measured.[5] Japan and Germany both have emerged as centers of economic clout. In Asia, the "Four Tigers" -- South Korea, Taiwan, Singapore, and Hong Kong -- are taking their rightful places as world-class trading partners, while there are those who predict that China could emerge as an economic giant early in the next century.[6] Moreover, formal regional and informal transregional blocs of economic power are emerging. The move toward the ultimate economic integration of Europe under the auspices of the European Community (EC) will make it a new type of regional economic competitor in the global market, with Germany as the leading partner. Similarly, the North American Free Trade Agreement (NAFTA) between the United States, Canada, and Mexico will potentially establish a powerful regional trading bloc.

Significantly, new kinds of "non-state" centers of economic power also have emerged in the form of multinational corporations that cross both national and regional boundaries.[7]

Paradoxically, at the same time that we see forces of regional integration at work in the form of economic alliances, the end of the global struggle between capitalism and communism has brought to the forefront strong forces of fragmentation in the form of traditional struggles for regional hegemony among ancient enemies. Serious ethnic, religious, and national conflicts that have been simmering for years, but were temporarily cooled by the glacier of the Cold War, have once more boiled over. Far from being a more orderly world, it is in many ways more "disorderly" than ever.

PARADIGM SHIFT: REQUIREMENTS OF THE 1990'S

In the increasingly complex world of the 1990's, the needs of senior U.S. decisionmakers for information will fall into three broad, but enduring categories:[8]

- **Warning** of events or developing trends that might be harmful to U.S. interests. This is the most fundamental function of intelligence. It covers a broad spectrum and includes both short-term warning of a rapidly developing situation abroad or longer term warning of events that are slower to evolve, but are no less dangerous.

- **Baseline knowledge of foreign capabilities, plans, and intentions.** This knowledge base focuses on what other nations or groups are currently doing, and the means by which they are

proceeding or could proceed in the future. Maintaining such a knowledge base requires a steady flow of information that permits informed diplomatic, economic, and defense policy development and other planning by U.S. leaders.

- **Knowledge to support government action** includes information to support U.S. actions abroad, ranging from diplomatic demarches to disaster or famine relief efforts to full-scale military operations such as the 1991 Gulf War.

These broad categories of information requirements are no different than in the past. In the 1990's, however, the specific types of information needed by policymakers within these categories will reflect a considerably different emphasis than during the Cold War -- a shift away from a focus on military "bean counting" and toward more sophisticated, forward looking, and integrated analysis taking into account political, economic, military, technological, cultural, and even environmental developments and trends worldwide. Decisionmakers will want warning not only of short-term developments, but also of longer term trends that might be harmful -- or helpful -- to the United States much further in the future than we are used to thinking about.[9]

Both kinds of consumer demands for warning will pose new challenges for the intelligence community. During the Cold War intelligence focused its warning efforts primarily on a potential strategic nuclear attack on the United States by the Soviet Union or a conventional attack on Western Europe or South Korea. As the recent Gulf War demonstrated, however, regional conflicts with

severe consequences for U.S. interests can erupt with little notice, leaving U.S. policymakers in a reactive mode. Even very sizable military forces can be marshalled and moved so that unambiguous warning of an attack by one country on his neighbor is reduced to days or even hours. "In contrast, a Soviet grab for oil and warm water port in the Gulf region in the old days would likely have offered a couple months of clear warning."[10] Old Middle East hands will smile ruefully at this comparison, since short warning of war has always been the norm in their region of the world, witness both the 1967 and 1973 Arab-Israeli wars.

It is clear that intelligence will be challenged more than ever to stay on top of potential crises abroad in order to warn policymakers so that strategies can be developed to forestall events if possible or to intervene if necessary. Regional indications and warning networks, heretofore concentrated primarily on the Soviet Union, will become increasingly important.[11]

The concept of long-range warning is more problematical, however. The intelligence community will be challenged to create a new way of looking at long-term warning within a broader concept of national security:

> ...Warning seems an inappropriate term for the caution flag raised if a state starts arming in ways which may become dangerous in five or ten years...Different sorts of problems are posed if the requirement is to advise policymakers that we are losing strategic depth, that our comparative position versus a major potential adversary is being eroded. Hitler's Germany in 1933 offers an example of a period of apparent transitioning into the precursor of war.[12]

What kinds of short and longer term foreign policy concerns

will confront U.S. decisionmakers through the rest of the decade and what will the implications be for strategic intelligence?

Regional Stability

Regional stability in an increasingly unstable world will be a major concern for the United States, particularly stability in those areas where we have well-defined national interests -- ensuring access to oil and the security of friends and allies in the Middle East, and maintaining the stability and security of our major trading partners in Europe and Asia, for example. In the 1990's this will take on new dimensions. In the past the United States tended to measure "stability" by the extent of Soviet encroachment in a region and the extent to which the United States was able to contain that encroachment; in other words, the balance of power was determined by the competition between the two superpowers.[13] In the absence of interference by both superpowers -- which often acted as a brake on escalation of regional conflict -- regional stability may become more fragile. Most important, the potential will be higher for localized disputes to escalate into serious conflicts that spill over into other areas.

Long-standing disputes will continue to threaten regional stability -- the Arab-Israeli conflict, the divided Korean peninsula, animosity between India and Pakistan, internal conflict in Lebanon, Angola, Mozambique, Western Sahara, Liberia, Cambodia, Afghanistan, El Salvador, and Somalia, to name just a few. However, the 1990's will see the rise of new regional tensions, as

individual states seek to attain hegemony to fill the regional power vacuums left by the end of the East-West competition -- for example, India in the Indian Ocean area, perhaps China in Asia, and both Iran and Iraq in the Middle East. Iran will be of special concern; in addition to attempting to develop nuclear weapons, it has pursued an aggressive conventional rearmament program with the intent of becoming the dominant power in the region. It is also seeking new ties with the Islamic Central Asian states of the former Soviet Union.

Another destabilizing factor is the rise of ethnic nationalism, regarded as one of the most powerful factors in current world politics. "The idea is spreading throughout the world that ethnicity is a legitimate basis for political organization and protest, and that ethnic groups no longer have to accept domination by others."[14] An alarming example of how destabilizing this can be is the deep-rooted national, ethnic, and religious resentments unleashed across the former Soviet Union, Central Europe, and the Balkans after the collapse of communism.

Former Soviet Union and Eastern Europe

In this regard, the new states of the former Soviet Union will rightfully remain a major focus of U.S. foreign policy and thus U.S. intelligence. Although the probability of a strategic nuclear attack on the United States is lower now than at any time in the nuclear era, four of the republics -- Russia, Ukraine, Kazakhstan, and Belarus -- possess strategic nuclear arsenals

capable of targeting the United States. Moreover, Russia and Ukraine in particular are large nations with abundant natural resources and thus the potential eventually to reemerge as significant players on the international political, military, and economic scene.

In many ways the breakup of the Soviet Union has complicated U.S. security concerns. For example, in the past the intelligence community could concentrate its efforts on a single, largely predictable, dangerous monolith. Today the increasingly divergent foreign policy goals and ambiguous intentions of the nuclear missile-equipped former Soviet republics put new demands on intelligence. Although all four republics have generally agreed to a reduction of strategic nuclear weapons under the terms of the START I Treaty -- which had to be negotiated with each separately -- it remains to be seen whether Ukraine, Belarus, and Kazakhstan will comply. Ukraine in particular has been reluctant to relinquish its strategic nuclear arsenal to Russia to be destroyed. If these countries do not implement the treaty, it is unlikely that Russia will do so because of fears regarding the intentions of its neighbors. Meanwhile, in addition to concerns about control of the weapons, lack of proper maintenance poses potentially worrisome environmental problems over the longer term.[15]

U.S. interest in the disposition of conventional military forces in the former Soviet republics will also continue. U.S. decisionmakers will need to understand the militaries in each new country, no small task considering the uncertainty among the

republics themselves over the ultimate organization of their armed forces and their relationship with the government and the rest of society. Verifying implementation of conventional arms reductions mandated by the Conventional Forces in Europe (CFE) Treaty will be challenging, despite increasingly intrusive on-site treaty monitoring mechanisms agreed to by both sides.

Although military issues remain important, internal political and economic viability will be the ultimate determinants of the futures of each of the republics and will drive their relations with the rest of the world. Downward spiraling economies, ethnic conflicts, and the subsequent rise of virulent forms of hard-line nationalism bode ill for the fledgling democracies. U.S. policymakers will need far more complete and sophisticated analysis of internal events in the new republics in order to potentially influence the outcomes positively. This will demand U.S. intelligence analysts conversant in the economies, cultures, languages, and demographics of each of the 15 new republics and their ethnic sub-groups, as well as the personalities and political dynamics of the new and potential leadership in each.

Intelligence analysts responsible for monitoring developments and trends in Third World nations have always been required to possess such integrated analytical skills. However, analysts monitoring the Soviet Union in the past tended to have "stovepipe" functional specialties -- for example, individuals were either a "political" or "economic" or "military" specialist. These specialties were further broken down internally into smaller and

increasingly narrower components. This occurred both because of the excruciatingly detailed level of analysis expected in each functional area, and because the Soviet Union was viewed as politically, economically, militarily, and to a large extent ethnically homogeneous.

This is also true of the East European nations, which during the Cold War tended to be viewed by the intelligence community as a homogeneous bloc. However, like the new republics of the former Soviet Union, each nation in Eastern Europe has its unique set of internal economic, political, and ethnic problems, as well as residual disputes with its neighbors. As important, each has its own foreign policy agenda. All of this makes for potential considerable turmoil over the next few years, which means that intelligence analysts will need to dramatically reorient the way they traditionally have thought about Eurasia.

Because the analytical focus in the past was on the Moscow "center" as representative of the entire Soviet Union, most intelligence analysts have a decided orientation toward Russia. Few analysts fully appreciate the language and cultures of the other republics. It would be foolish for the intelligence community to assume it can "make do" by simply shifting Russia-oriented individuals to cover the complex issues associated with the other republics without the requisite knowledge base. Not only will training programs in the intelligence community need to be enhanced, but fully addressing the new republics will require hiring new analysts from the outside who are knowledgeable of the

dynamics of the societies within the new states.

Proliferation of Weapons of Mass Destruction

The emergence of new, independent-minded, nuclear-armed republics from the wreck of the Soviet Union, along with the recent Gulf War with Iraq, has highlighted what may be the most worrisome single security issue for the United States -- global proliferation of weapons of mass destruction. This is a problem which has been growing for many years, but was overshadowed by concerns about the Soviet strategic arsenal. More than 20 countries already have or are known to be developing nuclear, biological, or chemical weapons, and the list is growing.[16] Of particular concern are Iran, North Korea, Libya, India, and Pakistan, in addition to Iraq.

While perhaps not directly threatening the territorial United States, such weapons will make the stakes of regional conflict much higher and could directly threaten U.S. allies or military forces abroad. The prospect of a rogue state unleashing a regional nuclear holocaust is the stuff of nightmares, but could occur.[17] More likely is the potential for a state to intimidate its neighbors with the threat of use of a nuclear, biological, or chemical weapon. Many countries have all three types of weapons in varying stages of development. Moreover, these states are acquiring potential delivery systems, such as longer-range aircraft and surface-to-surface missiles.

As frightening, however, is the possibility of nuclear, biological, or chemical terrorism -- a threat that could directly

affect the continental United States. It would not take sophisticated, long-range delivery systems for a terrorist group to attempt to coerce the United States or its allies with the threat of an attack with a small, lethal device planted in a crowded U.S. city.

U.S intelligence will continue to play an important role in detecting and monitoring proliferation, as those countries or groups developing a nuclear, biological, or chemical weapon capability will do their utmost to deny information about their programs to outsiders. This was recently demonstrated by the incomplete knowledge the United States possessed about the true state of Iraq's nuclear weapons program prior to the Gulf War, primarily due to Saddam Hussein's successful concealment efforts. In addition to monitoring weapons development programs already underway, the United States will want to keep close tabs on the intentions of potential aspirants to the nuclear weapons club -- to include those acquiring nuclear technology for so-called peaceful uses.

Potential suppliers of technological know-how and materials will be of concern. In that regard, the numbers of unemployed former Soviet scientists and engineers potentially willing to sell their knowledge of weapons of mass destruction to Third World countries are particularly troublesome. There are of course many other sources for such technology, including China, Europe, and the United States.

Early detection by intelligence of suppliers planning to sell

prohibited precursor materials or technology to foreign buyers may allow U.S. policymakers to take steps to thwart such activity. Staying on top of the proliferation issue will require of intelligence not only the traditional expertise of engineers, chemists, and physicists, but also individuals with skills in tracking business transactions, network analysis, and making "connections" between seemingly isolated events or pieces of information. Often such individuals will come from the liberal arts or business arena rather than the hard sciences.

Conventional Arms Transfers

The transfer of destabilizing conventional arms is another area that will be of concern to U.S. policymakers. Ironically, the United States is the world's leading arms merchant; indeed, some are advocating increased U.S. arms sales abroad as a way to keep manufacturing lines open here at home.[18] Nonetheless, transfers by other countries of destabilizing conventional weapons to Third World states and other groups will be worrisome.

Unlike the days of the Cold War, however, the issue is no longer whether the Soviet Union or the United States is making the most inroads politically with the sales of weapon systems to allies or potential allies. With the sale of those weapons usually came some modicum of control over how the recipient intended to use them. Now that the Cold War is over, however, destabilizing arms transfers could increase the likelihood of regional armed conflict, because it will give recipients the wherewithal to pursue their

ambitions vis-a-vis their neighbors more freely and aggressively.[19]

This is particularly troublesome in the context of the rising tide of sub-nationalism and ethnic conflict, which has increased the opportunity for arms sales to insurgent groups, terrorists, or other "non-state" entities. These groups do not require high-tech systems, but instead are ideal markets for the low-tech, rugged weapons produced by countries such as Brazil, North Korea, South Korea, Taiwan, Indonesia, Chile, and China, which have aggressively pursued arms sales in recent years.[20]

U.S. intelligence will clearly have a role in monitoring conventional arms transfers. Early detection of a pending arms deal before the weapons are delivered may enable the United States or its allies to take preventive steps to head it off. A recent example of this was the Czech intent to supply a large number of tanks to Iran, which was thwarted when the deal became publicized. Assessing potential arms transfers will demand from intelligence more than a "bean count" of weapon system types and capabilities. Decisionmakers will need integrated assessments of the implications for regional stability, the impact on both the supplier and recipient country's domestic political and economic situation, and the implications if the recipient is a "non-state" group.

Avoiding Technological Surprise

Related to U.S. government concerns about proliferation of weapons of mass destruction and destabilizing conventional arms transfers will be potential foreign "technological breakouts" that

could have a substantial military, economic, or political impact on the security of the United States or our allies. One potential military breakout is in the area of directed-energy technology, which the Soviets aggressively pursued and which the Russians reportedly are continuing. Development of directed-energy technology could result in laser weapons that are feasible for use on the battlefield and thus "could have a military impact as revolutionary as the advent of the machine gun or nuclear weapons."[21]

Other potential technological breakouts include so-called "non-lethal weapons" which the United States reportedly is developing, but which could just as easily be developed by another nation. These non-lethal weapons include electromagnetic pulses, soundwaves, chemicals or bacteria that can be used for large-scale sabotage of an enemy's infrastructure, such as disrupting telephones, radars, or communications equipment, sabotaging his electrical system, crystallizing the rubber on the tires of his vehicles, corroding weapons, or impeding vehicles' ability to move -- many without lasting harm to humans. On the one hand, U.S. development of such weapons will heighten demands on intelligence for targeting support. A bigger worry, however, is that non-lethal weapons will one day be aimed at U.S. forces, which may be increasingly vulnerable because of their high-tech nature.[22]

Concern about foreign technology breakout goes beyond the military sphere, however. Computer security and vulnerability of computer networks to penetration or manipulation by outsiders is a

very real worry, especially in this day of globally interlocking systems. In other non-military arenas technological innovations are pouring out of laboratories in all the industrialized nations. Many have space programs of their own, a relatively uncharted area ripe for technological breakout. Even less developed nations have the potential for significant unconventional technological breakthroughs. It is a rapidly maturing world technologically, and a U.S. belief that only currently highly industrialized nations will have a monopoly on the knowledge necessary for technological breakthroughs is naive.

Monitoring and anticipating foreign technological developments that could significantly affect U.S. security is clearly a role for U.S. intelligence. This will require not only intelligence analysts with traditional engineering and scientific expertise, but also systems analysts and computer experts -- skills that heretofore the community has had trouble retaining because of much higher paying jobs in the private sector. It will also demand analysts who can think creatively -- who can perhaps "think the unthinkable" in order to anticipate and recognize unconventional developments that more traditionally minded individuals would not.

Arms Control

The demands for monitoring arms control agreements will likely become even more complex as the concept of "arms control" continues to broaden from a past focus on the weapons arsenals of the superpowers, toward regional arms control regimes that include both

weapons of mass destruction and conventional arms. The U.S will continue to expend considerable intelligence resources monitoring traditional agreements such as START I and the CFE treaties brokered with the former Soviet Union -- as noted earlier, a task significantly complicated by the breakup of the superpower. In the future, however, the U.S. may be involved in brokering arms control regimes among regional players such as the states of the Middle East, South Asia, or Northeast Asia, for example. Monitoring Iraq's compliance with the UN resolutions mandating destruction of its nuclear, biological, and chemical weapons arsenals as well as its SCUD missiles is a good example of what has become a new type of arms control problem for the intelligence community. Iraq's lack of compliance with the on-site inspection provisions of the agreement ending the Persian Gulf War demonstrates that clandestine means of information-gathering and verification will continue to be necessary.

Not only will arms control tax additional intelligence collection resources, it will also consume large analytical resources. This is so not only because of the proliferation of a variety of different types of systems that would be monitored in an arms control regime, but also because of the characteristics of the arms control verification process itself, "whose hyperlegalism sometimes demands immense attention to seemingly minor issues."[23]

Counter-Drug Support

Stemming the entry of illegal drugs into the United States will probably continue to be a government concern, although it is unclear to what extent the new administration will emphasize it. Strategies to interdict drugs at their foreign source or enroute to the United States have met with only limited success. As pressure has been applied against drug growers, processors, and traffickers in one region such as South America, drug cartels have developed alternate sources and transshipment routes. Even the new Central Asian republics of the former Soviet Union have become active as sources of illegal narcotics and as a transit area for Southwest Asian narcotics.[24]

In addition to emphasizing education of Americans about the dangers of drug abuse, the latest government drug control strategy targets drug trafficking organizations as a center of gravity for the drug trade -- a shift away from the focus on crop substitution or eradication efforts. This involves:

> Identifying drug trafficking networks, determining their most vulnerable points, including leadership, operations centers, communications systems, shipping capability, transportation modes, processing facilities, chemical suppliers, and financial assets and dismantling them by attacking these points simultaneously.[25]

Such a strategy will demand more highly sophisticated collection and analysis from U.S. intelligence organizations working in conjunction with and in support of U.S law enforcement agencies. For intelligence agencies this may require more analysts knowledgeable of business and finance, as well as skill in

conducting sophisticated transnational "network analysis."

Counterterrorism

The intensity of international terrorism directed at the United States and its citizens appears to have diminished over the past few years. This positive trend may not hold, however, witness the recent bombing of the World Trade Center in New York. The decrease appears to have been brought about in part by the political changes in Eastern Europe and the former Soviet Union which have deprived international terrorists of support, sponsors, and safe havens. Successful U.S. military action in the Persian Gulf also apparently has deterred, perhaps only temporarily, Iraqi-sponsored terrorist activity directed at the United States.[26]

As the world becomes even more fragmented, with new ethnic and religious conflicts boiling over and old conflicts remaining unresolved, it is likely that we will again see a rise in terrorist activities. Intelligence will continue to find it difficult to penetrate terrorist organizations. Nonetheless, intelligence can provide valuable information about the more established terrorist networks -- leadership, motives, organization, logistics networks, safe havens, sympathizers, financing, and support -- as well as the occasional specific warning of an impending attack and likely targets. Analysis of financial transactions is especially important, as it will provide data linking terrorists to their sponsors. For the intelligence community, this will require personnel skilled in business and finance and network analysis,

similar to the counter-drug effort.

Economic Competitiveness

American policymakers today face a growing range of economic issues with national security implications -- technology transfer, problems of trade balance, control of debt, sophisticated and newly integrated financial markets, and multinational ownership of business, commerce, and industry.[27] Groups and governments are now capable of using international financial markets for their own ends -- ends that may destabilize the global economy and threaten national security interests.[28]

U.S. intelligence has traditionally collected economic information about foreign countries or foreign economic enterprises that has been kept largely within government circles and used for decisionmaking concerning U.S. government policy. It has focused on broad trends and dangers in the world economy, such as possible shortages of raw materials or the availability or scarcity of strategic resources, as well as generally monitoring the economic health of developing countries. Much of the intelligence effort in the past was directed at ferreting out economic information about "closed societies" such as the Soviet Union, which viewed mundane economic information and even health statistics as state secrets. Intelligence also has played a role in monitoring the effects of economic sanctions on countries such as South Africa or more recently Iraq.

Unlike some countries such as Japan and France, however, the

U.S. government does not provide intelligence data to individual companies to aid them in private business transactions. Although there have been repeated calls by some elements of Congress and the private sector for the intelligence community to begin providing such data, serious legal and ethical questions have forestalled such an effort. To which U.S. companies would data be provided? How would a decision be made between competing companies, such as IBM or Apple, for example? How many completely "American" companies are there, in view of the fact that many U.S. companies are partially foreign owned and many use overseas sub-contractors? And what overarching beneficial impact on national security would providing such specific information to U.S. companies have? After all, as a senior intelligence official has noted, "Did lack of knowledge about Japanese automakers cause the United States to lose its competitiveness in the auto industry?"[29] The Japanese were hardly keeping it a secret that they were making better cars and were being more responsive to the American consumer than were American companies! These questions have not been solved to anyone's satisfaction thus far.

This issue will persist, however, as U.S. economic competitiveness in the global marketplace will probably be one of the more important and problematic issues of the next decade within the broader definition of the term "national security." Even if U.S. intelligence continues to eschew the more radical uses of economic intelligence to aid the private sector, the intelligence community will be required to increase its analytical capabilities

in the economic sphere in order to monitor more effectively emerging foreign macroeconomic trends that have national security implications. "The place of economics at the intelligence table must be moved well above the salt."[30] This will demand more analysts who have business degrees and, perhaps even better, personal work experience in the international financial or business arena, as opposed to the traditional advanced degree in economic theory.

Demographic, Health, and Environmental Issues

Global demographic, health, and environmental issues will also be of increasing national security concern:

> The 1990's will demand a redefinition of what constitutes national security. In the 1970's the concept was expanded to include international economics as it became clear that the U.S. economy was no longer the independent force it had once been, but was powerfully affected by economic policies in dozens of other countries. Global developments now suggest the need for another analogous, broadening definition of national security to include resource, environmental, and demographic issues.[31]

Famine, natural disasters, environmental devastation, urbanization, and epidemics ultimately affect all of the planet because of the increasing interdependence of the world economy and the reliance on natural resources to sustain it. For example, refugees from environmental catastrophes, civil war, or disease flood the labor market of wherever they settle, add to the local demand for food, and put new burdens on the land and the infrastructure, thus spreading the environmental and economic stress that may have originally forced them from their homes.

Concomitantly, mass migration can create or add to political turmoil, fomenting instability in countries struggling to cope with an influx of refugees. In Indonesia, Central America, and Sub-Saharan Africa millions have been forced to leave their homes in part because environmental ills and exploding populations have made it impossible to grow enough food. Many of the Haitian "boat people" attempting to migrate to the United States were fleeing the poverty caused by the environmental devastation of their island in addition to the brutality of the political regime.[32]

Migration also hastens the spread of deadly diseases such as AIDS. The global implications of the AIDS epidemic are sobering. AIDS may have a significant impact on the world economy, in addition to ravaging whole societies. In Sub-Saharan Africa, AIDS could take a terrible toll on the militaries and government infrastructures, thus affecting the viability of the states themselves.

Competition for scarce resources affected by changes in the environment or demographics will be the cause of conflict in the future. For example, in the Middle East competition among states for scarce water supplies is a significantly destabilizing factor that is projected to become more serious.[33] Urbanization will also create tensions in both industrialized and developing nations as cities are unable to adequately accommodate the expected large influx of people abandoning rural life and looking for jobs, housing, and health care.

Numerous organizations -- both U.S. and international --

actively monitor global demographic, environmental, and health trends with resources that the U.S. intelligence community could not -- and should not -- even begin to match. What is important for U.S. intelligence is the growing need to take into account the impact of environmental, demographic, and health trends on regional economic and political stability, not only as they affect one country or region, but also as they spill over into another.

In addition, the intelligence community will be asked to assist other government agencies in monitoring global environmental problems using some of its national technical collection systems. That the community has the capability to do so was recently demonstrated during the Gulf War when intelligence assets were used to monitor the progress of the oil slick in the Persian Gulf after Iraq intentionally damaged Kuwait's oil pipeline. The community also possesses valuable historical environmental data that could be useful to other government and private organizations in assessing environmental trends. All this will call for a new kind of information-sharing relationship between intelligence and non-intelligence organizations in the future.[34]

Crises of Conscience

Further expanding U.S. intelligence requirements will be demands for U.S. support to what are being termed "crises of conscience:"

> As people have lately been discovering, things can happen outside the borders of the democracies that pose no direct threat ... and yet are so horrifying that it seems almost impossible to ignore them. As the television

> screens keep on flickering out their messages of shock, it is increasingly unlikely that all these horror stories will be ignored; and the business of stopping the horror will sometimes include military action. These are wars of conscience. [35]

Recent U.S. intervention in Somalia, a country of little real concern to national interests, is a good example of this. The civil war in the Balkans is another. Of course, such tragedies have been occurring all over the world for years, but three things have changed. First, because the Soviet threat is gone, other issues have simply moved up in relative priority. Second, the end of the Cold War means that the United States can become involved more readily and in different ways in such situations; we simply have more freedom of action since we are no longer inhibited by concerns over a potential Soviet counter-response. Finally, extensive media coverage of international situations relentlessly focuses both the government and the public on situations that otherwise might be treated as just another sad fact of life. With the media influencing the agenda, it is likely that U.S. government intervention in these kinds of affairs will become more frequent. Along with this will come demands for intelligence support. As distasteful as it may seem to allow television to drive U.S. foreign policy, it will behoove the intelligence community to begin gearing up its ability to support potential government intervention whenever the media turns serious attention toward an international "crisis of conscience."

This will present the community with a more complex challenge than in the past. The spectrum of U.S. activity that intelligence

might have to support in these "crises of conscience" will grow, ranging from economic embargos, to disaster or famine relief, to peacekeeping or peacemaking, to full-scale military intervention. Because such "crises" can develop anywhere in the world, regardless of the relative importance of a region or country to the United States, the community will need to be able to provide fairly detailed information on short notice.

Another complication for U.S. intelligence will be the trend toward a multilateral approach to intervention involving many countries, usually under UN auspices. Coalition military intervention will require new procedures for intelligence sharing among temporary allies united only by the particular crisis of the moment and the legitimacy of the UN. The U.S. intelligence community has considerable experience with intelligence sharing in the NATO environment, and gained useful experience in an *ad hoc* environment during Operation Desert Storm. However, in both cases the United States was "in charge" of operations. In the future, the United States may not always be in charge, but may be only a participant. This will present some challenging intelligence-sharing problems.

Unique Intelligence Requirements for Military Operations

Finally, in an increasingly unstable world, the U.S. intelligence community will have to be able to support U.S. military operations, unilateral or otherwise, anywhere in the world. This is a major change from the past focus on support to

military operations in defense of Europe against the Warsaw Pact or the defense of South Korea against a North Korean attack.

Non-combatant evacuation operations (NEOs) involving Americans may become more frequent. NEOs will require encyclopedic data on foreign infrastructures (ports, transportation networks, urban layouts, potential ingress and egress routes), as well as the disposition and capabilities of foreign military and police forces.

As we have already seen in Operation Desert Storm, larger scale U.S. military operations will demand massive quantities of detailed encyclopedic information about such things as the enemy's command, control, and communication system; transportation network; military forces' size, weapons, disposition, capabilities, and infrastructure; warfighting tactics and doctrine; terrain and climate; vulnerabilities and centers of gravity.

Intelligence will be asked to nominate potential targets to support U.S. war aims and to assess post-strike damage to those targets and the extent to which U.S. objectives have been achieved. Increasingly sophisticated precision weapons will demand increasingly detailed targeting support from intelligence. "Non-lethal" weapons will only further complicate targeting requirements. With over 180 countries in the world, intelligence resources will be strained to cover all potential contingencies.

Complicating intelligence planning will be the continued blurring of the distinctions between "strategic," "operational," and "tactical" intelligence in the military arena as a result of advances in satellite, communications, and ordnance delivery

technologies. This blurring became apparent during Operation Desert Storm, when it was demonstrated that military commanders in the field could receive useful battlefield data from some national-level intelligence collection systems that heretofore would have been used solely for "strategic" data collection. In addition, improvements in communications allow for the transmission of intelligence data over long distances in quantities and at speeds never before thought possible. For example, Operation Desert Storm demonstrated that "strategic" intelligence analysts in Washington can now provide certain types of time-sensitive "tactical" intelligence analysis to commanders in the field thousands of miles away. The legacy of Desert Storm has raised expectations on the part of military commanders that will put significant additional demands on strategic intelligence collection and analytical resources to support ongoing military operations. Similarly, the possession by tactical commanders of longer-range ordnance delivery systems will complicate their intelligence requirements for targeting.

NATURE OF INTELLIGENCE

It should be clear from the foregoing discussion that there will be more than enough issues for the intelligence community to address in the 1990's. What should intelligence priorities be? What should be the role of intelligence in light of the fact that in the past few years there has been a literal global information explosion with both the advent of new communication technologies

and the opening up of heretofore "closed" societies behind the Iron Curtain? As one intelligence observer has noted:

> ...there is a need to think through what is meant by "intelligence." Clarity in this regard is key to how we think about and plan the core functions of intelligence, the budgets, people, procedures, and the organizations designed to carry out those specific tasks.[36]

Role of Intelligence

There are two general schools of thought about the nature and role of intelligence. One school conceives of intelligence as any information that affects national security or the interests of the country, whether short-term or long term, directly or indirectly. Under this very broad definition, the intelligence community acts as a gigantic "think tank," a kind of government library, and general information clearinghouse. Diverse concerns encompassing global commercial and economic affairs, diplomacy, and even health and environmental information are all within the purview of intelligence. "This concept is so large, so sweeping, that as a practical matter it will require considerable resources."[37] Those who subscribe to this school of thought would argue that intelligence resources should be increased with the ending of the Cold War, because the global challenges to U.S. national security are so much more diverse than before, and each challenge will demand equally intense attention.

The other school of thought is much narrower. It maintains that intelligence should not be concerned with all information, but rather the information that adversaries and competitors want to

keep hidden. Thus, intelligence should focus on uncovering secrets. The number of closed societies around the world has dropped dramatically in recent years; many of the "hard" targets of the past are now sources of almost unlimited openly available data. The narrower school of thought believes that the secrets that foreign adversaries would want to keep hidden would most likely be the kinds of things that would be most harmful to U.S. national security. Thus, intelligence should focus on secret foreign, diplomatic, military, and intelligence activities. Advocates of this point of view might argue for reduced intelligence budgets, since there are fewer real secrets left in the world.

In terms of actual intelligence funding for the foreseeable future, it appears that Congress has chosen ground between the two schools but perhaps closer to the narrower view -- not drastically cutting funding, but nonetheless forcing the intelligence community to rethink the very nature of intelligence and to re-prioritize its activities.

Intelligence as "Value Added"

The question of priorities seems to revolve around the fundamental issue of intelligence as "value added." Intelligence analysis has always been just one of a large number of sources of information available to decisionmakers, but this issue has become more problematic with the information explosion. Cable News Network (CNN) and other members of the media are usually cited as the chief competitors to intelligence, but the truth is that

decisionmakers receive analysis on foreign affairs from a variety of other sources -- consultants, academics, think tanks, private organizations, political contacts, and even foreign leaders, in addition to a variety of non-intelligence government organizations.[38]

In light of this, what will customers expect from intelligence as "value added" in the future? It would be easier to define this if the customer base for intelligence products were currently not so broad and diverse. This broadening of the intelligence customer base is a phenomenon of relative recency, and is primarily a result of increased intelligence efforts to reach out and develop new consumers in a more pro-active way. In addition to the traditional consumers at the White House, at the Department of State, and within Defense, new customers for intelligence products have appeared within such diverse organizations as the Commerce Department, the Drug Enforcement Administration, the Federal Aviation Administration, the Environmental Protection Agency, and perhaps most important, the U.S. Congress.

As a result, intelligence organizations have to a large extent become like modern giant supermarkets, expected to stock just about anything a customer might need, as opposed to concentrating on only one or two types of products. At one extreme are the military's needs for encyclopedic, highly detailed information about each potential foe; at the other extreme are policymaker needs for creative analyses that take a very broad view of regional trends and the complexities of a world in which issues that once seemed

well defined have become murky and interconnected.

To have "value added" in the future, strategic intelligence will have to provide decisionmakers something unique, something that they don't already have. Because intelligence consumers are exposed to so many sources of analysis of foreign policy issues, intelligence producers will have to assume a fairly high level of knowledge on the part of the customer. This will demand that intelligence determine what the policymaker needs to know that he doesn't already know in order to make better decisions. This will mean that intelligence will have to maintain a very close relationship with the consumer to ensure that intelligence is providing just that. No longer can intelligence afford to sit back a safe distance from the consumer in order to maintain "objectivity." To do so runs the risk of being irrelevant.

The intelligence community already recognizes this to some extent, and has made substantial efforts to become more involved with and responsive to consumers. However, this could be taken even further if policymakers encourage what has been termed "opportunity-oriented" analysis. Instead of simply describing trends, intelligence analysts would "explicitly demonstrate to the policymaker where and when opportunities to advance policy lie...It would identify those factors subject to external influence and those that were relatively immutable."[39] This kind of analysis will become more valuable to policymakers in the future as the need to recognize opportunities for U.S. influence in the international environment becomes more acute.

To better meet consumer expectations intelligence also will need to take advantage of advances in the technologies of information processing and dissemination. New publishing technologies will allow intelligence to rapidly produce magazine-quality intelligence reports. Electronic dissemination capabilities will allow for almost instant dissemination of intelligence analysis to customers at great distances. Video capabilities will allow for intelligence news programs similar to CNN.[40] All of these technologies will help intelligence stay competitive with other sources of information that the customer is getting. However, intelligence reporting cannot be just a different packaging of what the consumer already receives via the newspaper and television. Again, intelligence will have to provide unique insights in order to stay relevant.

Setting Priorities

In view of the inevitably smaller intelligence budgets of the future, intelligence efforts will have to be prioritized, or the community runs the risk of doing nothing well. The Cold War created a *de facto* hierarchy among requirements, but that comfortable frame of reference is gone. As a result:

> ...The intelligence community will find it harder and harder to maintain encyclopedic coverage of the whole world. It will be forced to set priorities among the various intelligence demands to which it could devote its energies. Because the setting of these priorities is, or at least should be, a policy question, policymakers will have to be more attentive to the management of the intelligence community and more explicit in determining the requirements it is to fulfill.[41]

The concern is that if breadth of knowledge comes to replace depth of knowledge in intelligence estimates, intelligence failure could become more likely as the community's degree of expertise and information about certain nations potentially falls below a critical level.[42]

In 1991, President Bush directed a comprehensive review of intelligence requirements under National Security Review No. 29 (NSR 29)[43] in order to better define intelligence priorities in light of the dramatic changes on the international scene. What was especially significant about NSR 29 was that administration policymakers, rather than intelligence officials, were asked to articulate their view of the key national security issues of this decade and to rank order them in terms of significance. In response, policymakers articulated a broad range of topics reflecting increased concern with non-traditional issues such as economics and the environment -- in addition to traditional concerns about foreign military threats. However, attempts to obtain a meaningful ranking that could be used by intelligence officials for planning were disappointing. Thus,

> Intelligence managers continue to exaggerate security threats to justify the continuation of existing programs, not an unknown bureaucratic phenomenon; and, on the other side, policymakers continue to demand an endless list of information -- a "just give us everything" approach to intelligence.[44]

A Priorities Framework

It is clear that some kind of framework will be needed for the

future to prioritize the overwhelming array of diverse requirements in order to ensure that topics that are both vital to national security and for which intelligence offers a unique contribution receive the appropriate emphasis.

One approach being considered for better defining the intelligence mission is the "penalty for failure" yardstick.[45] This approach entails determining where intelligence failure might be universally considered unacceptable to the American people and using this as the core around which intelligence priorities and capabilities are built. Budgetary and evaluation processes would measure intelligence against these core goals and not secondary or non-critical objectives. Once the defining mission is crafted, resources could be applied flexibly against a broad range of both primary and secondary issues.

The core missions are currently being debated, but in this author's view should include:

-- Close monitoring of a strategic threat to U.S. territory.

-- Supporting U.S. and allied military operations.

-- Monitoring technological developments to avoid surprise, including both the military and high-tech industrial spheres.

-- Providing strategic and tactical warning in time to affect policy options and force posture.

-- Providing warning of political instability overseas that affects U.S. interests or the lives of U.S. citizens, including information to prevent terrorist attacks.

-- Identifying the proliferation of advanced weapons and

technologies worldwide, with special emphasis on weapons of mass destruction.

-- Monitoring foreign compliance with international treaties and sanctions.

-- Providing information and warning about foreign macroeconomic trends that will affect U.S. national security interests.

-- Assuring protection of vital U.S. national security information from foreign espionage and intelligence efforts.

This approach has merit particularly for use in decisionmaking about funding of future technical collection systems, which generally comprise the bulk of the intelligence community's budget. The key word is "core." Identifying core missions such as those listed above does not mean that what are now recognized as other significant components of national security such as resource, demographic, health, or environmental trends would be given short shrift. Clearly intelligence should and will have an expanding role in these areas, but it is unreasonable to expect the community to expend limited funds on expensive technical collection systems focused on these issues to any great extent when much of the raw information is openly available.

Open-Source Data: New Challenge for Intelligence

Analysts addressing all intelligence problems will need to learn how to take better advantage of the huge quantities of open-source information that will be available in the 1990's. This may

well be the most significant, and perhaps most difficult, change in the way intelligence analysts conduct their business. It will require a significant alteration in the mindset of most intelligence analysts, many of whom in the past have looked upon open-source data with disdain, and have viewed information from a clandestine human source or derived from a satellite as far more believable. However,

> The world-wide information explosion means that much of the information needed to drive political and economic decisions will be available from open sources in the 1990's. Information gathering and intelligence collection analysis by non-governmental activities will increase, particularly in scientific, economic, environmental and cultural areas. News services... financial research organizations such as those that are parts of international banks, trade groups such as the U.S. Automobile Manufacturers Association, and environmental organizations such as Greenpeace will...overtly gain and analyze information. This information can become a greater basis for both government and non-government decisionmaking, and, in concert with government intelligence, contribute to U.S. security and prosperity.[46]

Last year Robert Gates, then Director of Central Intelligence, took steps to improve community exploitation of open-source data. He appointed an Open Source Coordinator to establish a catalog of the open-source holdings of the entire community. He also directed the establishment of a comprehensive requirements system to guide acquisition of open-source materials for the community, and the eventual establishment of a mechanism for sharing this information broadly within the community. The Open Source Coordinator will also interact with the managers of the other collection disciplines to ensure that they are not wasting resources collecting against

requirements that can be satisfied through open-source materials.[47]

An even bolder idea is to establish a National Information Agency independent of the intelligence community and able to provide direct support to both the government and to the private sector. Such a capability could be built around the Defense Technical Information Center, and could be expanded to integrate the Foreign Broadcast Information Service of CIA, the National Technical Information Center of the Department of Commerce, and the Federal Research Division of the Library of Congress.[48] This would facilitate the intelligence community's ability to exploit open-source data, but would leave the job of sorting, cataloging, and storing it to an agency designed just for that purpose. It would allow intelligence analysts more time to concentrate on marrying open-source data with classified material to produce analysis with true intelligence "value added."

CONCLUSIONS AND RECOMMENDATIONS

Intelligence in the 1990's and beyond will be more complicated, not easier, as a result of the end of the Cold War. At the same time, expectations of intelligence will be even higher. In the past the community's primary job was to "know" the Soviet Union. With the loss of the Soviet paradigm, everything else has moved up to "top priority," and the built-in excuse for not concentrating on these other issues is gone. Consequently, customers will be asking the community for information on a broader spectrum of issues than ever before. Intelligence will be asked

not only to provide better analysis of issues heretofore given less attention, but also to explore new areas as part of a perceived "peace dividend" from the reduction of the Soviet military threat. In cooperation with decisionmakers, the U.S. intelligence community needs to redefine its core missions. Otherwise, it runs the risk of doing nothing well, and the potential for serious failure will become higher.

Future decisionmaker requirements for information will call for more integration of analytical disciplines, away from the past tendency to "stovepipe" functions. Senior policymakers will demand sophisticated analysis integrating all aspects of foreign policy issues, to include economic, military, political, technological, demographic, and environmental factors. At the same time, the community will still be required to provide detailed, encyclopedic-type data in support of such activities as military operations or arms control monitoring. Such diverse requirements will stretch resources, as well as demand more flexibility in planning.

Emphasis on regional stability issues and the rise of ethnic conflict will demand analysts and collectors with more "on the ground" experience than in the past -- fully knowledgeable of the languages and cultures of other countries and ethnic groups. The community will want to recruit a different mix of individuals with that experience, perhaps seeking out emigres.[49] Faculties at colleges and universities also offer a rich array of individuals with extensive experience with the languages, cultures, and political and economic environments of other countries.

Intelligence will need to forge an even closer relationship with members of academia to take advantage of the special insights they offer. This can be done without compromising the integrity or independence of the academics.

Intelligence will also want to recruit individuals with experience in business and finance, as well as scientists, physicists, computer experts, and engineers. Individuals with military experience will still be critical, as military and military-related issues will remain important; however, military analysts and collectors will need to have a broad appreciation of how military factors affect and are affected by other variables.

The requirements of the future will demand adjustments in the collection "mix" in terms of technical means of collection versus human-source reporting. Clearly, many of the intelligence problems of the future will be better answered by human sources as opposed to technical means. As highlighted earlier, the significantly increased availability of open sources will have a dramatic impact on collection and analysis. It would be imprudent, however, to oversell the value of increased clandestine human source reporting as the answer to every problem, particularly in trying to discern an adversary's intentions -- the area where intelligence has traditionally fallen short. Technical collection means such as electronic intercepts can be just as useful. After all, agent reporting is usually second-hand, and agents have their own biases.[50]

What will be important for intelligence is ensuring that the

right kind of collection tool is applied to each problem. This will mean that the community will need to do a better job of integrating requirements so that collection managers can decide which tool -- technical means, human source, or open source -- is most appropriate. Collection managers will also want to maintain and strengthen ties to the analytical elements of the community so that collection activities are not planned in a vacuum, divorced from the realities of analytical needs.

For their part, analysts will want to continue to strengthen ties to consumers to enhance responsiveness to their requirements. Selected intelligence analysts should be placed in the offices of policymakers -- a kind of "forward deployed" concept -- in order to ensure that intelligence is relevant. A cautionary note is perhaps needed here, however. As the intelligence community attempts to improve responsiveness, it will want to be careful not to become absorbed by the consumer "fad" of the moment, at the expense of other, longer term issues that will ultimately have a graver impact on U.S. national security. The need to look ahead should not continually be sacrificed to the seemingly more urgent need to be responsive to immediate requirements.

Maintaining such a balanced perspective in terms of the application of resources will not be easy, as political pressures to concentrate on the crisis of the moment will be strong. It is incumbent on intelligence officials to take the long view, and to attempt to persuade policymakers of the wisdom of this. In the "new world order" where developing threats will be more subtle but

no less dangerous, the ability of intelligence to identify longer term trends that are harmful to U.S. interests, and opportunities for the United States to influence those trends positively, may be the most important contribution intelligence can make.

ENDNOTES

1. Samuel P. Huntington, "America's Changing Strategic Interests," Survival 33, no. 1 (January/February 1991): 3-17.

2. Theodore C. Sorensen, "Rethinking National Security," Foreign Affairs 69, no. 3 (Summer 1990): 4.

3. Mr. Keith R. Hall, Deputy Assistant Secretary of Defense for Intelligence, interview with author, 12 February 1993, Pentagon, Arlington, Virginia.

4. Sorensen, 5.

5. Huntington.

6. Ibid.

7. Fred C. Bergsten, "The Primacy of Economics," Foreign Policy 87 (Summer 1992): 3-24.

8. There are many different approaches for defining the kinds of information that decisionmakers need. The author developed this broad composite from several sources, to include discussions with Department of Defense intelligence officials.

9. A fundamental contradiction is that decisionmakers tend to focus on immediate and near-term issues. They defer to intelligence to scan the distant horizon. The challenge is to capture their attention to focus on distant issues in the early stages.

10. Larry Seaquist, "Defense Intelligence in a Disorderly World," Defense Intelligence Journal 1 (Spring 1992): 42.

11. George A. Carver, Jr., "Intelligence in the Age of Glasnost," Foreign Affairs 69, no. 3 (Summer 1990): 152.

12. Seaquist, 44.

13. Regional instability arose mostly from problems already inherent in the area, but turmoil tended to be exacerbated by Soviet interference.

14. Herbert S. Lewis, "Ethnic Loyalties Are on the Rise Globally," Christian Science Monitor, December 28, 1992, p. 10.

15. Virginia I. Foran, "Ukrainian Holdout: The Real Problem With the Treaty," The Washington Post, 3 January 1993, p. C3.

16. Lawrence K. Gershwin, "U.S. Interests Threatened for Next 20 Years from Mass Destruction Weapons," ROA National Security Report (January 1993): 21.

17. Ibid., 23.

18. Center for Defense Information, "President Clinton and the Military," The Defense Monitor 22, no. 2 (1993): 6.

19. Amit Gupta, "Third World Militaries: New Suppliers, Deadlier Weapons," Orbis 37, no. 1 (Winter 1993): 57-68.

20. Ibid.

21. Carver, 154.

22. Thomas E. Ricks, "Nonlethal Arms," The Wall Street Journal, 4 January 1993, p. A1.

23. Anne Armstrong, "Bridging the Gap: Intelligence and Policy," The Washington Quarterly 12, no. 1 (Winter 1989): 26.

24. Graham H. Turbiville, Jr., "Narcotics Trafficking in Central Asia: A New Colombia," Military Review 72, no. 12 (December 1992): 55.

25. William W. Mendel, "Illusive Victory: From Blast Furnace to Green Sweep," Military Review 72, no. 12 (December 1992): 75.

26. U.S. Army Intelligence and Threat Analysis Center, Terrorism: The Worldwide Threat and Protective Measures for the U.S. Military (A Briefing), (Washington, D.C.: U.S. Army Intelligence and Threat Analysis Center, June 1992), 6-7. Measurement of trends in the number of terrorist attacks or "incidents" can be misleading, since the definitions of what constitutes a terrorist attack vary. For example, in a country already torn by civil war would an attack on government soldiers in a crowded restaurant by an insurgent bomb be a "terrorist" attack or is it really just an extension of conventional warfare?

27. Jeffrey W. Wright, "Intelligence and Economic Security," International Journal of Intelligence and Counterintelligence 5, no. 2 (Summer 1991): 206.

28. Ibid., 208.

29. Keith R. Hall, interview, op. cit.

30. Carver, 153.

31. Jessica Tuchman Mathews, "Redefining Security," Foreign Affairs 68, no. 2 (Spring 1989): 162.

32. Ibid., 168.

33. David D. Dabelko and Geoffrey D. Dabelko, "The International Environment and The U.S. Intelligence Community," International Journal of Intelligence and Counterintelligence 6, no. 1 (Spring 1993): 24.

34. Ibid., 29.

35. "Defence in the 21st Century," The Economist, 5 September 1992, 4.

36. Roy Godson, "Intelligence Reorganization," American Intelligence Journal (Winter/Spring 1992): 26.

37. Ibid.

38. Robert M. Gates, "An Opportunity Unfulfilled: The Use and Perceptions of Intelligence at the White House," The Washington Quarterly 12, no. 1 (Winter 1989): 37.

39. Roy Godson, "Intelligence Requirements for the 1990's," The Washington Quarterly 12, no. 1 (Winter 1989): 49.

40. The Defense Intelligence Agency has been operating a Defense Intelligence Network that broadcasts classified news updates as well as more in-depth classified feature items on broader issues of foreign policy concern.

41. Armstrong, 27.

42. James J. Wirtz, "Miscalculation, Surprise and American Intelligence After the Cold War," International Journal of Intelligence and Counterintelligence 5, no. 1 (Spring 1991): 8.

43. Loch K. Johnson, "Smart Intelligence," Foreign Policy 89 (Winter 1992-93): 60.

44. Ibid., 61.

45. Keith R. Hall, interview, op. cit.

46. Wright, 213.

47. Robert M. Gates, "Statement on Change in the Intelligence Community," American Intelligence Journal (Winter/Spring 1992): 10

48. Robert D. Steele, "The National Security Act of 1992," American Intelligence Journal (Winter/Spring 1992): 35.

49. This would have implications for security clearances which would have to be addressed, but such recruitment was done during and after World War II.

50. Stansfield Turner, "Intelligence for a New World Order," Foreign Affairs 70 (Fall 1991): 150-166.

BIBLIOGRAPHY

Andrews, Duane. "Restructuring Defense Intelligence," American Intelligence Journal (Autumn 1991): 5-10.

Armstrong, Anne. "Bridging the Gap: Intelligence and Policy," The Washington Quarterly 12, no. 1 (Winter 1989): 23-33.

Bandow, Doug. "Avoiding War," Foreign Policy 89 (Winter 1992-93): 156-174.

Bergsten, C. Fred. "The Primacy of Economics," Foreign Policy 87 (Summer 1992): 3-24.

Berkowitz, Bruce D., and Allen E. Goodman. "Why Spy--and How--in the 1990's?" Orbis 36 (Spring 1992): 269-280.

Berkowitz, Bruce D., and Allen E. Goodman. Strategic Intelligence for American National Security. Princeton, New Jersey: Princeton University Press, 1989.

Boren, David L. "The Intelligence Community: How Crucial?" Foreign Affairs 71, no. 3 (Summer 1992): 52-68.

Carver, George A., Jr. "Intelligence in the Age of Glasnost," Foreign Affairs 69, no. 3 (Summer 1990): 147-166.

Center for Defense Information. "President Clinton and the Military," The Defense Monitor 22, no. 2 (1993): 1-7.

Codevilla, Angelo. Informing Statecraft: Intelligence for a New Century. New York: The Free Press, 1992.

Colby, William. "Retooling the Intelligence Industry," Foreign Service Journal 69, no. 1 (January 1992): 21-25.

Dabelko, David D. and Geoffrey D. Dabelko. "The International Environment and The U.S. Intelligence Community," International Journal of Intelligence and Counterintelligence 6, no. 1 (Spring 1993): 21-39.

"Defence in the 21st Century," The Economist, September 5, 1992, 4-22.

Dornan, Diane. "Isolationism, Internationalism and the Future of U.S. Intelligence," American Intelligence Journal (Summer 1992): 39-46.

Elkins, Dan. Financial Management of Intelligence Resources: A Primer, 3rd Edition. Washington D.C.: Defense Intelligence College, 1992

Gates, Robert M. "An Opportunity Unfulfilled: The Use and Perceptions of Intelligence at the White House," The Washington Quarterly 12, no. 1 (Winter 1989): 35-44.

Gates, Robert M. "Statement on Change in the Intelligence Community," American Intelligence Journal (Winter/Spring 1992): 8-12.

Gershwin, Lawrence K., "U.S. Interests Threatened for Next 20 Years from Mass Destruction Weapons," ROA National Security Report (January 1993): 21-27.

Godson, Roy.(ed.) Intelligence Requirements for the 1990's: Collection, Analysis, Counterintelligence, and Covert Action. Lexington, MA: Lexington Books, 1989.

Godson, Roy. "Intelligence Requirements for the 1990's," The Washington Quarterly 12, no. 1 (Winter 1989): 47-65.

Godson, Roy. "Intelligence Reorganization," American Intelligence Journal (Winter/Spring 1992): 25-29.

Gray, Colin S. "Strategic Sense, Strategic Nonsense," The National Interest, no. 29 (Fall 1992): 11-19.

Gupta, Amit. "Third World Militaries: New Suppliers, Deadlier Weapons," Orbis 37, no. 1 (Winter 1993): 57-68.

Hall, Keith R., Deputy Assistant Secretary of Defense for Intelligence. Interview with author, 12 February 1993, Pentagon, Arlington, Virginia.

Hopple, Gerald W., and Bruce W. Watson (eds). The Military Intelligence Community. Boulder, CO.: Westview Press, 1986.

Huntington, Samuel P. "America's Changing Strategic Interests," Survival 33, no. 1 (January/February 1991): 3-17.

Johnson, Loch K. "Smart Intelligence," Foreign Policy 89 (Winter 1992-93): 53-69.

Laqueur, Walter. "The Future of Intelligence," Society 23, no. 1 (November/December 1985): 3-11.

Leventhal, Paul L. "Why Bother Plugging Export Leaks?" Orbis 36, no. 2 (Spring 1992): 167-180.

Mathews, Jessica Tuchman, "Redefining Security," Foreign Affairs 68, no. 2 (Spring 1989): 162-177.

May, Ernest R. "Intelligence: Backing into the Future," Foreign Affairs 71, no. 3 (Summer 1992): 63-72.

McNeil, Frank. "Post Cold War Intelligence: Meeting the Need for Reform," Foreign Service Journal 69, no.2 (February 1992): 20-23.

Mendel, William W. "Illusive Victory: From Blast Furnace to Green Sweep," Military Review 72, no. 12 (December 1992): 74-87.

Motley, James B. "Coping with the Terrorist Threat: the U.S. Intelligence Dilemma," Intelligence and Intelligence Policy in a Democratic Society, edited by Stephen J. Cimbala. Dobbs Ferry, New York: Transnational Publishers, Inc., 1987.

Peters, Ralph. "Intelligence Failures and the Limits of Logic," Parameters 27, no. 1 (Spring 1987): 43-50.

Scalingi, Paula L. "U.S.Intelligence in an Age of Uncertainty: Refocusing to Meet the Challenge," The Washington Quarterly 15, no. 1 (Winter 1992): 147-156.

Seaquist, Larry. "Defense Intelligence in a Disorderly World," Defense Intelligence Journal 1 (Spring 1992): 31-53.

Sloan, John J., Director, Policy Staff, Defense Intelligence Agency. Interview with author, 12 February 1993, Pentagon, Arlington, Virginia.

Sorensen, Theodore C. "Rethinking National Security," Foreign Affairs 69, no. 3 (Summer 1990): 1-18.

Steele, Robert D. "The National Security Act of 1992," American Intelligence Journal (Winter/Spring 1992): 31-37.

Steele, Robert D. "Applying the New Paradigm: How to Avoid Strategic Intelligence Failures in the Future," American Intelligence Journal (Autumn 1991): 43-46.

The White House. National Drug Control Strategy: A Nation Responds to Drug Use. Washington, D.C.: Government Printing Office, January 1992.

Turbiville, Graham H., Jr. "Narcotics Trafficking in Central Asia: A New Colombia," Military Review 72, no. 12 (December 1992): 55-63.

Turner, Michael A. "Issues in Evaluating U.S. Intelligence," International Journal of Intelligence and Counterintelligence 5, no. 3 (Fall 1991): 275-285.

Turner, Stansfield. "Intelligence for a New World Order," Foreign Affairs 70 (Fall 1991): 150-166.

U.S. Army Intelligence and Threat Analysis Center. Terrorism: The Worldwide Threat and Protective Measures for the U.S. Military (A Briefing). Washington, D.C.: U.S. Army Intelligence and Threat Analysis Center, June 1992.

Wirtz, James J. "Miscalculation, Surprise and American Intelligence After the Cold War," International Journal of Intelligence and Counterintelligence 5, no. 1 (Spring 1991): 6-8.

Wright, Jeffrey W. "Intelligence and Economic Security," International Journal of Intelligence and Counterintelligence 5, no. 2 (Summer 1991): 203-221.

Wriston, Walter B. The Twilight of Sovereignty: How the Information Revolution is Transforming Our World. New York: Maxwell Macmillan International, 1992.