Combating the spread of weapons of mass destruction is one of the United States’ most important foreign policy objectives. Policy makers are concerned with all aspects of the WMD threat – most importantly, with providing accurate assessments of intentions and capabilities to acquire WMD capability – but they also are concerned that intelligence supports efforts to prevent, defend against, and interdict WMD activities. The importance of WMD to policy makers requires the intelligence community (IC) to prioritize WMD intelligence. However, WMD intelligence presents a complex challenge to the IC and it will continue to do so for the foreseeable future.

WMD present quite different – and in many ways much more difficult – intelligence problems than do estimates of conventional military capabilities possessed by hostile governments. The WMD threat goes beyond the problem of proliferating countries to the acquisition of WMD capability by non-state and sub-national actors and the security of WMD weapons, materials, and technology in Russia. To complicate matters further, much of the technology and material that is essential to making WMD not only has legitimate uses but is also available in normal international commerce.

In these circumstances, intelligence tasks as fundamental as providing assessments of who poses a WMD threat, and the character and magnitude of the WMD capabilities that constitute that threat, are as daunting as – but quite different than – any we faced during the Cold War. WMD as a class will almost certainly require a greater tolerance by policy makers for uncertain and ambiguous intelligence than they have been accustomed to accepting in the case of conventional military threats, despite the fact that the stakes may be substantially higher.
WEAPONS OF MASS DESTRUCTION ARE DIFFERENT

The term “weapons of mass destruction” is common and convenient shorthand. It is usually defined to encompass nuclear, biological, and chemical weapons. It also often includes ballistic missiles, either on the theory that missiles themselves – regardless of payload – constitute weapons of mass destruction, or on the even more debatable theory that WMD attacks by missiles are qualitatively different than WMD delivered by other means (ranging from aircraft to suitcases). They are “unconventional” in the sense that they differ significantly from “conventional” bullets, bombs and other familiar high explosives.

WMD are constrained, to one degree or another, by international agreements. Although they cover a broad range of destructiveness, as a group they tend to be more destructive – at least to living things – per “unit weapon” than conventional high explosive weapons. They do not require relatively large, organized military forces to employ them. They are, in a word, ideal terror weapons, either in the hands of rogue states or terrorists. Finally, and in sharp contrast to conventional military weapons, most of the technologies and materials required to make WMD are “dual use.”

NOT ALL WEAPONS OF MASS DESTRUCTION ARE ALIKE

These common characteristics have led to managing WMD matters together because of apparent functional similarities. For example, the IC organizes much of its WMD intelligence efforts in the community-wide Non-Proliferation Center (NPC). However, this approach has considerable limitations, as not all WMD are alike. Conflating the threats by a functional approach is potentially distorting and misleading. We can understand the WMD intelligence challenge better if we begin by deconstructing the WMD problem into its constituent parts.

Each WMD agent poses different risks and very different technology life-cycles from laboratory development to manufacture and deployment. Each presents different dual-use technology attributes and technology transfer and export control challenges. For example, acquiring a nuclear explosive capability depends on obtaining highly enriched uranium or plutonium – materials that can be produced by technology that is also employed in the nuclear power industry but are not in general commerce. In contrast, many chemical and biological agents can be produced with starting materials and technology that are generally available. It follows that each type of WMD deserves and will receive different attention from policy makers and therefore different intelligence requirements will be imposed on the IC.

WMD INTELLIGENCE REQUIRES BOTH A REGIONAL AND A FUNCTIONAL APPROACH

The IC can choose to approach the proliferation intelligence problem on a functional basis, as indicated above. An alternative is to rely on a regional approach, which has the virtue of placing WMD in the context of the regional geopolitical concerns that ultimately motivate those who wish to acquire such weapons. The Indian sub-continent is a perfect example; nuclear weapons developments in Pakistan are primarily, if not exclusively, influenced by nuclear developments in India, as the successive 1998 nuclear test campaigns illustrate. Similarly, North Korea’s motivation to acquire a nuclear weapons capability stems, in important measure, from its perceived security concerns. Our policies to counter its nuclear ambitions, particularly the combination of carrots and
The Nature of the Challenge: Intelligence Concerns & New Weapons of Choice

sticks we might contemplate offering, must be based on an understanding of the geopolitical realities in the region as much or more as on the technical details of weapons programs.

An obvious conclusion is that the nuclear proliferation problem is not exclusively a functional or a regional problem, but that both perspectives are necessary. Tension between functional and regional approaches is not unique to WMD; it arises in counter-terrorism and economic intelligence as well. The IC response has been to organize both collection and analysis predominantly in terms of geography, with an overlaid functional perspective provided by IC “centers.” Matrix management is the conventional response to how the different perspectives are integrated. However, invoking the term “matrix management” does not automatically ensure that it occurs or that the integration will be successful.

**THE STRUCTURE AND PROCESS OF WMD PROLIFERATION**

There is more to countering WMD proliferation than stopping ships on the high seas laden with critical material and technology. Rather, WMD proliferation should be viewed as a phenomenon with a structure and a process. As a corollary, an intelligence strategy that is targeted on one part on the problem (e.g., preventing the acquisition of nuclear weapons) or one point in the process (e.g., intercepting shipments) is bound to be incomplete and inadequate. Instead, each WMD threat needs to be viewed and engaged – both from an intelligence and a policy perspective – in “end-to-end” terms, starting with the motivation to acquire WMD and carried through all of the stages to the deployment and imminent use of these weapons.

For example, the “demand” for a nuclear weapons capability can stem from several sources. Countries such as North Korea, Pakistan, and Israel, presumably are motivated in large measure by core security concerns. They are making a determined effort to acquire nuclear weapons. For quite different reasons, non-state actors also are making a similarly determined effort. Countries such as China (in the 1950s and 1960s), India (in the 1970s), and perhaps Libya may have been motivated by a desire to achieve great power status as well as by security concerns, but likewise have been driven to acquire nuclear weapons.

Still other countries may decide to create the option of becoming a nuclear weapons state in the future by acquiring all of the capabilities required to build a nuclear weapon, but stopping short of doing so. A charitable definition of Iranian attempts to build a closed fuel cycle might be an example. Finally, there are countries that may acquire a nuclear weapons potential almost inadvertently or as a by-product of other objectives. Brazil’s drive to build a uranium enrichment facility is an illustration.

From an intelligence perspective, we obviously need to focus on countries and non-state terrorists that are seeking to acquire nuclear weapons, although even here, intelligence assessments of the motivations to do so can be instrumental in crafting effective strategies to deter or reverse such efforts. However, as the case of Iran demonstrates, we also care deeply about countries that arguably seem “only” to be interested in acquiring a nuclear weapons option. From an intelligence perspective, this puts a premium on assessments of motivation and intent, and implies looking at a different set of countries and at what otherwise might appear to be “innocent” commercial activities.

We must also be concerned about countries such as Brazil, whose actions are not motivated by any immediate desire to obtain a nuclear weapons option, much less nuclear weapons. In addition to supporting policy efforts aimed at discouraging Brazil from proceeding with its enrichment
plans, the intelligence community needs to carefully monitor internal Brazilian dynamics for any changes in thinking about the desirability of having a nuclear weapons capability.

The “supply” side of the problem is likewise multifaceted. First, and most obvious, are the underground networks – exemplified by A.Q. Khan – that are dedicated to providing the wherewithal to build nuclear weapons. This web of buying, selling, and brokering WMD technology and material properly has been a top intelligence priority, both in terms of assessment and counter-proliferation operations. Second, since a nuclear weapons potential is the inescapable by-product of closed fuel cycles, the intelligence community should systematically monitor and analyze the flow of international nuclear commerce.

Finally, there are the stockpiles of weapons-suitable material that are primarily – but not exclusively – located in the states of the former Soviet Union. It follows that another top intelligence community priority is to be alert for any threat of diversion. Many of these stockpiles are poorly guarded, and government officials in Russia and elsewhere have been slow to take steps to improve security, or even to accept U.S. funds to help them do so. There is a role for intelligence in helping both to fashion and then implement strategies to address this problem.

INTEGRATED COLLECTION AND ANALYSIS IS ESSENTIAL FOR SUCCESSFUL WMD INTELLIGENCE

The challenge of integrated collection and analysis is vital. As intelligence is concerned with all aspects of countering proliferation, this is not a single-point problem:

- Intelligence must be concerned with the entire range of activities: incentives to acquire, progress in acquiring, intentions, technology transfer.
- Intelligence must be truly all-source, including systematic and comprehensive exploitation of open sources.
- Intelligence coverage must continue for years, if not decades.
- Intelligence must support operations – a wide range of diplomatic, military, and covert action measures.

The recent proliferation successes (perhaps late in the day) uncovering the nuclear technology transfer activities of A.Q. Khan and Libya’s renunciation of its WMD programs were assisted by actionable intelligence provided over the years by the IC.

The interaction between analysis and collection is crucial. Analysis is needed to guide targeting of both human and technical collection. For example, the objective of human collection is not to recruit sources willy-nilly, but to recruit sources that have knowledge or access to significant information. Analysis is key to successful significant agent recruitment. However, the central role of analysis is to assemble information from all sources and create an assessment that gains credibility from mutually reinforcing facts. The analysts who perform this demanding work must know the subject, have the gift of integrating open and clandestine sources, and also possess a healthy skepticism. They must be motivated to provide an assessment that is supported by available facts, even when their judgments challenge prevailing policy preferences.

This mutually supportive interaction between collection and analysis is difficult to achieve
because of differences in professional experience in the collection and analysis disciplines. Obligatory rotation tours for intelligence officers in different IC agencies would ameliorate this deficiency. Another barrier is the large number of agencies involved in collection and analysis (certainly over a dozen), as each agency has its own culture and bureaucratic interests.

The problems of organizational fragmentation are worsened by the separation of the intelligence budget into three pieces: the National Foreign Intelligence Program (NFIP), the Joint Military Intelligence Program (JMIP), and the Tactical Intelligence and Related Activities (TIARA) program. All three programs are in the Pentagon’s budget; only NFIP is under the partial control of the Director of Central Intelligence (DCI). One result is that there is little capacity for multi-year planning for collection and analysis on WMD, especially for programs that integrate the efforts of the various IC agencies.

The statement is sometimes made that WMD intelligence requires more “close attack” collection, for example human collection, than the “remote sensing” satellite and airborne imagery and signals collection that characterizes support to military operations. The inference is that collection priorities should shift from expensive technical collection platforms to presumably cheaper and more important human source and other “close-in” collection techniques.

We would rather emphasize the mutually supporting aspects of the suite of collection techniques. There is exceptional synergy between signals and human intelligence. It is easy to imagine occasions where a communications intercept provides valuable confirmation of a human source report and vice versa. It is also easy to appreciate that a human source can make understandable and otherwise undecipherable signals intercept.

HOW TO BETTER ORGANIZE THE INTELLIGENCE COMMUNITY TO COMBAT WMD PROLIFERATION

At each stage in the proliferation process, the intelligence community needs to perform two related but distinct tasks. One is the task of intelligence assessment, i.e., telling policy makers what is going on with respect to WMD proliferation in general, as well as with respect to specific WMD problems and priorities. In form, if not content, this task is a familiar and traditional intelligence community activity. The other task is to provide actionable intelligence in support of counter-proliferation operations. As the term implies, it is intelligence that informs and directs actions. In form, if not content, this also is a familiar IC function as illustrated by intelligence support for military operations, and intelligence support to covert actions that are carried out by the IC.

As discussed above, there are serious barriers to successful WMD intelligence: stove-piped collection, conflicting functional and regional focus, limited all-source analysis that is too often separated from collection and from action. While our WMD intelligence effort has had considerable success and much progress has been made since 1990, the result of the evident shortcomings is that it is hard to find anyone who disputes that both intelligence assessments of WMD and actionable intelligence to counter WMD proliferation should be improved.

However, any proposal to make progress on either task must confront one or more of the organizational dilemmas we have described. Furthermore, efforts to improve both intelligence assessments and actionable intelligence simultaneously only compound the dilemmas that must be faced. We choose the term “dilemma” advisedly because while “problems” typically have solutions, dilemmas present only a choice of horns on which to become impaled.
Intelligence Assessment

The assessment function of the IC requires coordination of three critical activities: collection, analysis, and dissemination. The National Intelligence Council has the responsibility to issue formal national estimates (NIEs) on behalf of the DCI, but a great deal of “finished” intelligence is issued by individual agencies – the Central Intelligence Agency and the Departments of State, Defense, and Energy. There is at present no disciplined process for recording, much less resolving, differences among the assessments produced outside the NIE process, and only a weak process for setting an analytic agenda and assuring availability of all-source information. No issue better illustrates the resulting confusion for policy makers, and for Congress, than the debate about Iraq’s possession of WMD and the status of its post-1991 nuclear program.

To improve assessments of WMD threats (or, for that matter, intelligence assessments in general), we must do a better job of all-source analysis. That means accessing and integrating data provided by the various collection disciplines (e.g., human intelligence, signals intelligence, imagery and, importantly, open source) to create an assessment that gains credibility from mutually reinforcing facts. As noted above, a related question is how organizationally to integrate the political/geographical perspective into what is essentially a functional problem.

The gulf between collectors and analysts must also be narrowed so that collectors understand better what data analysts need (i.e., analysts need to become an organic part of the “tasking” process), and analysts understand better the data collectors provide. This interaction between analysis and collection is as crucial as is the integration required to produce all-source assessments, but proposals to improve the former are often – and almost inescapably – at odds with steps to improve the latter. The fact that intelligence analysis is primarily conducted under the authority of the DCI, while the Secretary of Defense has primary authority over most of our intelligence collection assets, adds further complications.

At the end of the day, the intelligence assessment process will not improve until someone – not some agency or some process but someone – is given authority and held accountable for intelligence assessments of WMD threats.

Actionable Intelligence for Counter-Proliferation Operations

Providing intelligence support to counter-proliferation operations raises a different set of issues and challenges. Intelligence support needs to be closely coupled to a range of counter-proliferation actions ranging across a broad spectrum of activities, from trying to persuade a country not to take the first (or next) step down the path to the acquisition of a nuclear weapons capability (demarches); to preventing or interdicting transfer of material, technology, or equipment intended for WMD use; to covert or paramilitary action designed to destroy or render unusable a WMD development, production, or storage facility.

Actionable intelligence is required not only by the military (as in the case of support to military operations), or by intelligence officers undertaking a covert action, but across the full range of political, economic, military, and intelligence instruments. Moreover, an effective counter-proliferation strategy requires that these policy instruments be closely coordinated. As a corollary, intelligence support cannot be neatly compartmentalized and provided separately and sequentially to various customers as they perform their missions. In addition, there is – or at least ought to be – an intimate and interactive relationship between the variety of operators and
intelligence collectors and analysts so that intelligence not only supports operations but operations also can leverage our intelligence capabilities.

This perspective on intelligence support to counter-proliferation operations has at least two organizational implications. One is that, as with WMD intelligence assessments, someone needs to be responsible for and in charge of counter-proliferation operations. (Whether it is the same someone who is in charge of WMD intelligence assessments is a different question, the answer to which almost surely is "no.") Another is that a genuine ongoing interagency capability, not only a process, is required. This interagency capability would be focused on operations and therefore would be quite different from the familiar interagency process that deliberates policy matters. In brief, the requirement is for a unit with a capability that resembles “joint operations” in the military sphere. At the intersection of these two implications is the intriguing question of who should manage such a new interagency capability.

**ONE ANSWER; ONE QUESTION**

The reform agenda does not begin with a blank sheet of paper. First, the intelligence community already is working hard and making real progress both on strengthening its capabilities for WMD threat assessments (the Iraq case notwithstanding), and in its support to counter-proliferation operations (where it can be justifiably proud of the role it played in the Libyan case).

Second, many of the challenges that the intelligence community faces in dealing with WMD are reflections of broader problems of adapting the intelligence community to deal better with the 21st century agenda of issues and threats. These include such matters as the authorities of the DCI, rethinking the organization and role of the collection disciplines, and the distinction between “foreign” and “domestic” intelligence responsibilities – all of which had become topics of national debate at the time this analysis was being written.

The WMD challenges cannot be addressed in isolation from these larger issues, but our proposals obviously cannot take into account decisions that have yet to be made about fundamental IC restructuring. Reorganizing the intelligence community will not make it better able to deal with WMD threats unless WMD is an explicit and important focus of a reorganization initiative. In addition, as we noted above, any proposal for change presents questions of balance that simply do not have a “solution” but instead require calculating trade-offs and making choices. It is in that context and with those caveats that we offer our choice for one of the dilemmas and two options for the other.

**Strengthening Intelligence Assessment:**
**Increase the Authority and Capability of the National Intelligence Officer for WMD**

The assessment of WMD threats is properly the primary responsibility of the DCI. The DCI performs his community responsibility for intelligence assessments – in contrast to his responsibilities as director of the CIA – through the National Intelligence Council. At present, National Intelligence
Officers (NIOs) have the important, but limited, responsibility to manage the formal community process for issuing National Intelligence Estimates, and to be the principal community spokesperson on integrated intelligence assessment in a particular substantive area, such as WMD.

The NIO for WMD does not now have the authority or capability to assert the matrix management needed to produce all-source analysis of WMD threats on a regular and systematic basis, to assure better integration between collection and analysis, and to set the analytic agenda and the appropriate balance between geographically focused efforts and the NPC. Moreover, the NIO for WMD does not now have the responsibility or the authority to serve as a clearinghouse for finished intelligence produced by various agencies, much less for quality control over intelligence analysis.

We propose that the responsibilities, authorities, and capabilities of the NIO for WMD be substantially broadened to include the community-wide matrix management and related functions noted above. This would include responsibility, authority, and the capabilities to (a) understand the evidence and reasoning on which different intelligence analyses are based and to assure their reasonableness, rather than to assert a single, consensus analysis, and (b) to ensure that WMD analysts throughout the intelligence community are aware of, and take account of, these assessments. This expanded role for the NIO for WMD intelligence assessment should be formally recognized by both the DCI and the President (to assure some clout with all agencies), and this effort should be given the appropriate sources.

The existing NPC should become a center of technical skills, expertise, and knowledge on matters related to WMD, focusing on functional intelligence questions and supporting regional WMD intelligence analysis undertaken elsewhere. The NPC’s role would be to proactively inform both collection and analytical efforts wherever they take place. It would not, however, have the lead responsibility for coordinating or conducting counter-proliferation operations. In military terms, it would be a “supporting command” rather than a “supported command.”

The approach we propose makes trade-offs among competing objectives. The need to make trade-offs is inescapable, and the choices embedded in our approach are debatable, but our proposal does have the virtue of designating one official who is accountable community-wide for WMD intelligence assessment.

**Actionable Intelligence for Counter-Proliferation Operations – A Choice**

We do not believe ad hoc arrangements are enough to achieve successful coupling of intelligence to specific counter-proliferation operations. A new office is needed to establish unusually close and continuing cooperation among several agencies, both inside and outside the intelligence community. But where should such a new office and capability be located?

An obvious answer in such cases – let the National Security Council (NSC) manage it – must confront strong and not unreasonable objections to giving the NSC staff any operational responsibilities. But the alternative, which would be to put this or that agency in charge of the new office, must confront the bureaucratic reality that agencies typically are not very responsive to guidance – much less operational instructions – from other agencies.

This dilemma has been addressed in the analogous areas of counter-narcotics and counter-terrorism largely by trying to evade it, i.e., behaving as though the strategies and operations do not need or benefit from intimate interagency coordination. We are confident this is the wrong way to organize the kind of continuous coordination and integration required to support counter-proliferation operations.

Rather, we see two broad alternative approaches to locating a new interagency WMD intelligence
The Nature of the Challenge: Intelligence Concerns & New Weapons of Choice

operations support office (with capability drawn from State, Defense, Homeland Security, Treasury, etc., as well as from the CIA and other intelligence community elements).

• One is for the head of this interagency office to report to the President, through the NSC adviser. This would make clear that the office is not part of or subordinate to any one department or agency. To help ensure good coordination with policy, this person also could be dual-hatted as a deputy national security adviser (along the lines of the National Director for Combating Terrorism).

• The other alternative is to place the WMD intelligence operations support office in some agency and have the agency head serve as executive agent for this activity. The obvious choices are the CIA, Department of Defense (DOD), and, less likely, State.

The choice among these alternative approaches largely turns on differing trade-offs among competing objectives and objections.

The advantage of giving this new WMD intelligence support office an NSC-like position is the potential for greater authority to direct and coordinate action by several agencies. The position also places the support office close to senior policy makers and the policy process whose direction and guidance is essential. The disadvantages include objection to giving operational responsibility to an office in the Executive Office of the President. Questions will be raised about how such an office – organizationally part of the EOP and very possibly linked to the NSC – would relate to Congress with regard to Senate confirmation, appropriations, Committee oversight, and being subject to the call of Congress to testify.

The advantage of placing the new WMD intelligence support office in an agency is the immediate availability of agency resources such as procurement, legal, and personnel support. Both DOD and CIA have attractive infrastructure features from this point of view. The disadvantages are that these agencies are notoriously reluctant to receive guidance from the outside and that bureaucratic forces are likely to encroach on a sustained effort to use agency resources for a purpose that will likely lie in large part outside (or even conflict with) the agency’s traditional mission.

CONCLUSION

Intelligence reorganization is not a panacea. Indeed, it is no more than one – albeit one crucial – aspect of intelligence reform. By itself, reorganizing the way in which the intelligence community engages the WMD threat will not remedy the shortcomings arising from sparse data, poor tradecraft, or substandard analysis, but neither is the organization of the intelligence community irrelevant to its ability to provide assessments of WMD threats and actionable intelligence to respond to those threats. Good people can make even bad organizational arrangements work, but relying on good people to overcome organizational obstacles and pathologies is bad policy and risky business. Moving boxes around on the organization chart will not solve every problem, but – for better or worse – it does affect what people do and how they behave.
These observations apply to intelligence reform and reorganization broadly, but they have particular relevance for meeting the intelligence challenges posed by WMD. There are no easy answers for how to meet these challenges. In fact, there are not even any good answers in the sense that every alternative entails trade-offs among competing objectives. We propose changes that we believe would improve intelligence assessments of WMD threats by facilitating competitive, all-source analysis and by making someone responsible and accountable for WMD assessments. We also suggest two alternatives – reflecting different trade-offs – for improving the way in which actionable intelligence is brought to bear on counter-proliferation operations. There undoubtedly are other approaches to meeting these challenges, but we are convinced both that we no longer can nor should accept a “business as usual” approach to WMD intelligence, and that improving the organization of the intelligence community to deal with WMD should be an explicit priority of any reform plan.