

Improving Our CWMD Capabilities

Who Will Lead?

By Al Mauroni

In December 2016, the media announced that U.S. Special Operations Command (USSOCOM) would take the lead role within the Department of Defense (DOD) for countering weapons of mass destruction (WMD).¹ Talks to synchronize the transfer of the mission from U.S. Strategic Command (USSTRATCOM) to USSOCOM had started in 2015 with formal changes enacted in the 2016 Unified Command Plan. More than a year later, it remains unclear as to how USSOCOM will rebalance its priorities to adjust to this new authority.² While the number of potential adversaries armed with nuclear, biological, and chemical (NBC) weapons has fallen during the past two decades, the number of U.S. Government (USG) programs addressing the prevention, protection against, and response to WMD threats has risen significantly. USSTRATCOM claimed that it did not have the time or resources for the mission; will USSOCOM be any better prepared for the job? Or will USSOCOM leaders limit their efforts to the coordination and synchronization of counter-WMD (CWMD) concept plans across the combatant commands, as USSTRATCOM leaders once did?

Before attempting to answer these questions, it is worth examining why DOD leaders felt it necessary to identify a combatant command as the lead for this activity. Typically one of the armed services is identified as executive agent for a specific role that requires intra-service coordination. Why is the CWMD mission different? Significantly, it is not merely the sum of many counterproliferation activities. CWMD encompasses a broad global perspective that includes nonproliferation and arms control; WMD interdiction and elimination; security cooperation and partner activities; humanitarian affairs/disaster relief; nuclear deterrence; theater and national missile defense; installation protection and incident response; and more recently even public health emergencies and nuclear accident response.³

Also distinctive is the lack of focus as to how CWMD roles and responsibilities are addressed within DOD. In the 1990s, defense planners and policymakers understood counterproliferation to include activities focused on protecting U.S. military forces from non-nuclear adversaries armed with chemical and biological weapons. Released in 2002, the *National Strategy to Combat WMD* broadened nonproliferation and counterproliferation missions, traditionally areas for the Department of State (DOS) and DOD respectively, into a larger interagency context that overlapped with homeland security and combating terrorism

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missions. Responsibilities within DOD were divided among three assistant secretaries of defense.⁴ U.S. Northern Command (USNORTHCOM) addressed WMD threats within the United States, while USSTRATCOM and USSOCOM took on various aspects of “combating WMD” fielded by adversarial states and sub-state actors as part of overseas contingency operations. To further complicate matters, after a string of pandemics, the Obama Administration identified emerging infectious diseases as a WMD concern and created a new term “countering WMD” to replace “combating WMD.”⁵

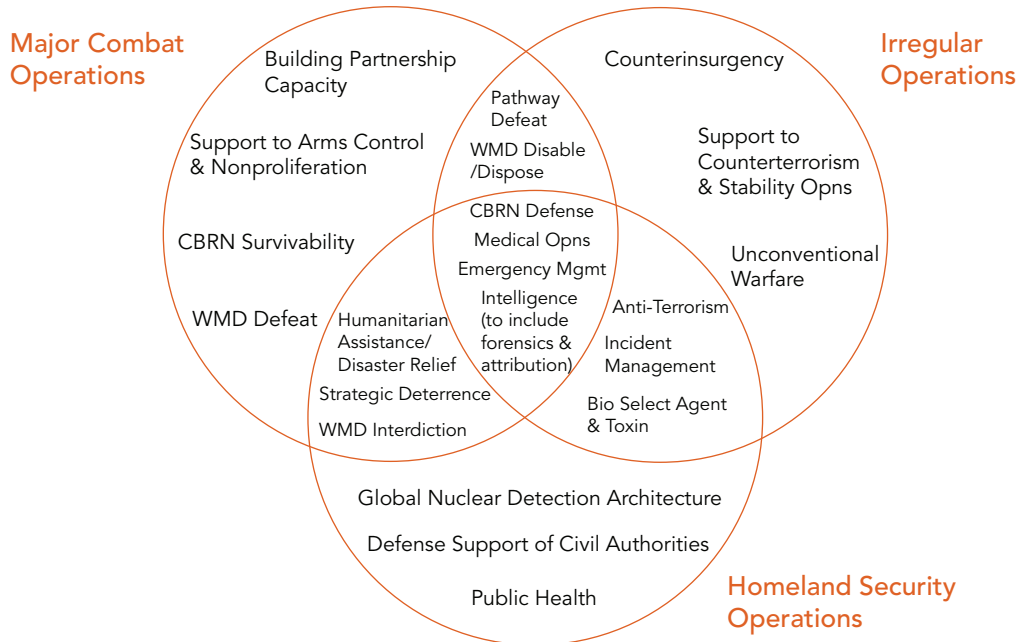
Within DOD, military forces were directed to address WMD challenges in its joint operating concepts, notably major combat operations, irregular warfare operations, and homeland security operations.⁶ This is to say, military planners should expect our adversaries to use WMD across the range of military operations, and plan accordingly within the context of those specific operations. Some of these activities support multiple operational constructs, as Figure 1 illustrates. Owing to the technical nature

of WMD, much of the contemporary discussion has focused on the operational challenge of removing WMD through the intervention of technical specialists. Far less attention has been paid to the military ways and means required to meet national policy objectives, ensuring that the United States and its allies can operate unimpeded by the threat or use of nuclear, biological, or chemical weapons by specific adversaries. More than 15 years after the release in 2002 of the *National Strategy to Combat WMD*, no one can credibly assert the degree to which U.S. forces are able to counter-WMD.

Challenges of Policymaking

Global WMD threats have been consistently identified as a top national security challenge during the past 25 years. CWMD is an interagency mission, involving activities primarily within DOD, DOS, and Department of Homeland Security (DHS), as well as the Departments of Health and Human Services (HHS), Energy (DOE), and Justice (DOJ). As a result, DOD must coordinate with USG

Figure 1: CWMD Activities Across Joint Operating Concepts.



policymakers from across the executive branch regarding the strategies and plans required to meet national security policy objectives. Despite this complexity and the consistent prioritization of the WMD threat, DOD leaders have not always viewed the development of CWMD capabilities as a top priority. Military planners often assume U.S. threats of retaliation will deter an adversary from their use of WMD. They do not view CWMD as their concern because other technical agencies make it their mission to address the challenge. This inevitably lowers the priority of WMD issues within the services (short of an immediate crisis), while technical agencies assigned this mission fail to garner the resources needed to address the policy objectives found in national security documents. The disparity between the rhetoric and the reality is striking.

For the past decade, the Intelligence Community (IC) and policymakers have noted that globalization and information and communications technology have made it significantly easier for sub-state groups as well as states to acquire the necessary materials and technology to develop their own WMD capability.⁷ Yet the number of known governments that have or are seeking to develop nuclear, biological, or chemical (NBC) weapon programs has decreased dramatically. In 2001 then Secretary of Defense William Cohen identified a minimum of 25 countries that had or sought a WMD capability.⁸ By 2008, the Congressional Research Service estimated that 12 countries were suspected of or likely to have NBC weapons. Notably at least half of those identified countries in the CRS report were either allied with or not hostile to the United States.⁹ Moreover, no sub-state group has yet obtained NBC weapons from a state sponsor. Despite these facts, concern remains that someone, at some time in the future, may use these weapons against the United States.

The *National Strategy to Combat WMD* from 2002 did not specify adversaries, rather it called for

a more aggressive campaign that eschewed arms control agreements and called for rolling back rogue states.¹⁰ The Strategy promoted an interagency approach that expanded the military concept of counterproliferation into a national plan to include protection of the homeland. Starting around 1998, DOD developed plans to support the federal response to any domestic WMD incident, as well as plans to stop terrorist groups from obtaining and using chemical, biological, or radiological (CBR) hazards against U.S. security interests. In 2006, DOD released its *National Military Strategy to Combat WMD* that codified a CWMD framework that added WMD interdiction and elimination as new mission areas.

This approach to developing policy objectives and strategy failed to identify the operational context against which the armed services could understand and develop appropriate capabilities. With the generic term WMD as the object of strategy, rather than specific adversaries under specific operational contexts, one might assume that North Korea's nuclear weapons pose the same threat as Russia's, or that terrorist groups might develop or obtain chemical and biological weapons similar to those once maintained by the United States.

In its first term, the Obama Administration attempted but failed to update the *National Strategy to Combat WMD* from 2002; it is unclear whether the effort was poorly managed or just not a top priority. DOD forged ahead and in 2014 published the *DOD Strategy for Countering WMD* that articulated USG policy objectives to prevent WMD acquisition, to contain and reduce WMD threats, and to respond to WMD crises. The Strategy identified policy objectives more appropriate to the interagency—not just DOD—and, perhaps surprisingly, omitted references to counterproliferation and counterterrorism. By omitting these terms, DOD leaders thought that the counterproliferation and counterterrorism communities would interpret their mission requirements accordingly without having to change their existing

operational plans. Ironically, these operational plans were based on the *National Strategy to Combat WMD* from 2002 and the *National Military Strategy to Combat WMD* from 2006.

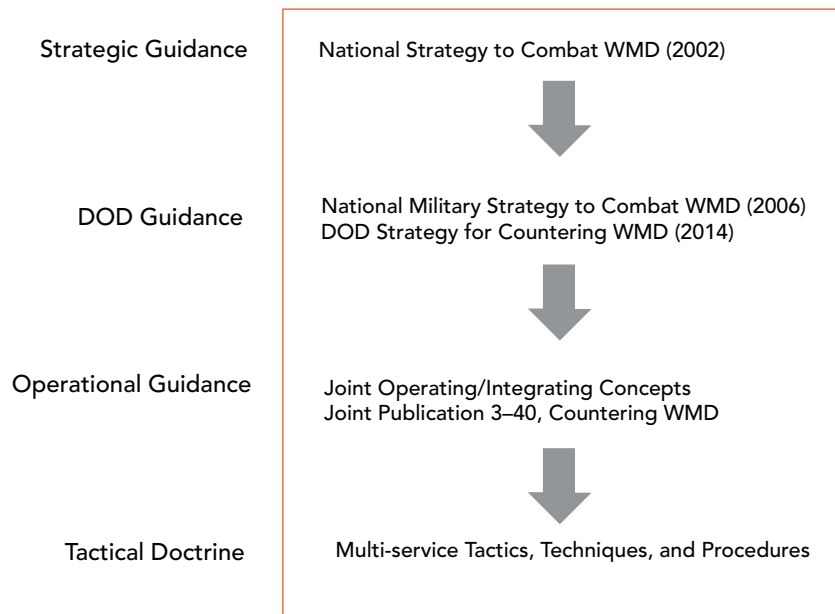
The *DOD Strategy for Countering WMD* from 2014 retained the generic focus on WMD but also emphasized the development of specialized capabilities to prevent the use of WMD. This new emphasis might have been more appropriate had the strategy been cast as a national strategy. As released, the strategy transforms certain national foreign policy missions into a DOD crisis management responsibility that is unrealistic, cannot be executed, and handicaps military leaders with its substantial ambiguity.¹¹ As many as three assistant secretaries of defense and three combatant commands must address the WMD challenge, which also involves multiple (and diverse) agencies across the executive branch. The Joint Staff updated Joint Publication 3–40 *Countering Weapons of Mass Destruction* later that same year to clarify the strategy’s intent to the operational forces.

Advocating for Major Combat Operations

Adversaries armed with NBC weapons have not attacked U.S. forces since World War I, potentially as a result of our demonstrated deterrence capability and effective defensive countermeasures, or the restraints imposed by diplomatic nonproliferation agreements. This nonuse has contributed to a degree of complacency within the armed services to the extent that the United States is not prepared for NBC weapon attacks against its armed forces. The 1991 Persian Gulf War highlighted many critical deficiencies, such as the lack of modern protective suits and masks, biological agent detectors, modern decontaminants, and collective protection systems.¹² Many improvements and reforms were later made but critical deficiencies persisted into 2002, as U.S. ground forces prepared to return to Iraq, and arguably still exist owing to our recent, extended focus on non-conventional military operations.

Chemical, biological, radiological, and nuclear (CBRN) defense measures and CWMD operations

Figure 2: Strategic and Operational Guidance on CWMD.



differ on a matter of scale. The traditional DOD view of CWMD includes support to nonproliferation activities (proliferation prevention), counterproliferation (this includes offensive and defensive capabilities), and consequence management (now called incident response). DOS leads nonproliferation and arms control activities, with support from the Office of the Secretary of Defense (OSD), the Joint Staff, and the Defense Threat Reduction Agency (DTRA). For the most part, nonproliferation and arms control efforts have reduced the number and scope of adversarial WMD programs. DOD must continue to support these efforts, but should not take the lead in efforts to prevent WMD acquisition.

Counterproliferation—a term that is no longer in vogue within DOD—requires constant attention and long-term management. Earlier counterproliferation activities included offensive actions against WMD production and storage sites, defensive countermeasures for military forces, and theater air/missile defense systems. This most recent strategy indirectly refers to these capabilities, but not as an aspect of military combat operations. USSOCOM has significant responsibilities for the first area, and the Missile Defense Agency has responsibility to develop the last. Each of the armed services is responsible for training, organizing, and equipping its own forces with defensive countermeasures such as CBR detectors, individual protective suits and medical treatments, decontamination systems, and collective protection shelters. The U.S. Army is the DOD executive agent for managing these systems under the joint DOD Chemical and Biological Defense Program.

Despite these efforts, shortfalls exist. DOD continues to struggle to integrate collective protection into defense platforms, and military units eschew training with resource-intensive decontamination systems. Protective suits and masks are effective, but at a detriment to operational performance. DOD lacks the capability to destroy chemical or biological weapons in storage sites without causing collateral

damage to nearby civilian population centers. DOD needs to better understand how short-range ballistic missiles that are destroyed *en route* to their targets might disperse their chemical or biological payloads on friendly forces or civilian population centers. Interdiction exercises focus on nuclear missile and ballistic missile parts and are almost exclusive to maritime operations. WMD elimination does not exist beyond a limited capability within the U.S. Army (the Syria elimination effort was an ad hoc operation, not a planned activity).¹³ And although CBRN incident response is well-defined, execution is constrained by the low-density/high-demand nature of specialty units, as well as the tyranny of timeliness for both homeland and overseas terrorist incidents.

The armed services continue to struggle to measure their readiness for WMD threats, and historically have allowed a readiness gap right up to the point of active military conflicts. Service leaders have not been strong advocates for CWMD capabilities, even as they apply to force protection. There are always other perceived higher priorities that need resourcing, and the need to counter-WMD is often seen as someone else's mission and not a fundamental service responsibility. The DOD budget process can identify capability gaps; however, absent a champion with four stars, overcoming these gaps will not be a priority prior to the onset of military crises.

Clarifying the Issue of Irregular Warfare

Irregular warfare is generally defined as including counterterrorism, counterinsurgency, unconventional warfare, stability operations, and foreign internal defense. Each of these may entail an adversary using NBC weapons or CBR hazards against U.S. national security interests. The Joint Operating Concept for Irregular Warfare, published in 2010, fails to mention WMD threats, other than to note that WMD is an aspect of the future operating environment.¹⁴ This is worrisome, particularly given how many politicians

have confided the threat of nuclear terrorism keeps them up at night. Joint Publication 3–05 *Special Operations* identifies CWMD as a core activity for USSOCOM, noting that “access to WMD significantly increases terrorists’ capacity to install fear,” and the need to watch for any “nexus of WMD and transnational violent extremist organizations.”¹⁵

Publicly available information gives little insight as to what this means, or how prepared USSOCOM is to execute this mission. While the consequences of a terrorist nuclear incident would be significant, chemical- or biological-related terrorism incidents are far more likely.¹⁶ Yet there is little on the possibility of using special operations forces to target state-led WMD programs through unconventional warfare methods.¹⁷ Literature on responding to CBR incidents is far more abundant than that on interdicting those sub-state actors intending to release CBR hazards. DOD guidance on special operations and irregular warfare have yet to be revised to better explain how USSOCOM intends to address policy objectives for addressing WMD issues within irregular warfare operations.

Among the greatest of challenges in discussing CWMD within the context of irregular warfare is the identification of threat sources and capabilities. Frequently the threat is generalized as “some terrorist group” that intends to develop CBR hazards or nuclear devices as weapons, without specifying an organization or its capabilities. A sub-state group could obtain CBR hazards sufficient to conduct a small-scale incident that does not inflict mass casualties. However, the likelihood that a sub-state group could obtain military-style chemical or biological weapons to inflict

mass casualties is low, given the technical sophistication necessary. It is very unlikely a sub-state group could obtain a nuclear device or the necessary fissile material for an improvised nuclear device. A robust USG effort, aimed at preventing sub-state groups from obtaining fissile material or transporting a nuclear device, might be part of the reason.¹⁸

There are a few examples of sub-state groups developing and using military-grade chemical agents. Aum Shinrikyo used sarin nerve agent in 1994–95 in two separate attacks in Japan, and in 2016 the Islamic State of Iraq and the Levant (ISIL) used crude mustard agent against Kurdish and Iraqi forces. While chemical weapons are a WMD, it would be inaccurate to credit either Aum Shinrikyo or ISIL as having a WMD program. A true WMD program reflects an effort to develop militarily-useful, unconventional weapon systems that can predictably kill or disable thousands in selected areas of the battlefield. The IC and DOS have quietly begun to use the term “CBRN terrorism” rather than use the misleading term “WMD

terrorism,” reflecting how sub-state groups have not yet demonstrated the capability to develop WMD on such a scale.¹⁹ However USSOCOM (and most of DOD) retain “WMD terrorism,” despite the inaccuracy of the term and its focus on the tool rather than the operational context. The U.S. military cracked down on ISIL after its use of mustard agent-filled munitions in 2016 because policymakers feared the precedent, not because ISIL had developed a WMD program (it had not).²⁰ Rather, the concern was the possibility that other sub-state groups would see chemical weapons as a viable option, leading to

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more significant chemical weapons attacks against other U.S. national security interests.

This concern among U.S. policymakers is understandable—certainly unprotected civilians would be at risk from chemical (or biological) weapons if such an incident took place, and the panic caused by such an attack would have widespread repercussions. Just ask anyone who worked in a federal building in Washington D.C. about mail-handling processes after anthrax-laced letters killed five individuals and infected 17 others in November 2001. This was not a mass casualty attack, but the over-reaction to the threat was significant in terms of funding and resources.

A re-examination of CWMD issues in the context of irregular warfare is overdue for several reasons. Is the threat exaggerated? If so, is it because government officials are intentionally engaging in threat inflation? Or are they unwittingly confusing the rhetorical boasting of sub-state group leaders calling for WMD attacks with the actual capability of those groups? Our understanding of the challenge is limited by over-classification. Few outside of USSOCOM are familiar with its concept plan or its execution. The diminished threat of sub-state groups using CBR hazards may be as much the result of U.S. military counterterrorism efforts, as of USSOCOM's concerted efforts to deprive sub-state groups of WMD material and associated technologies. Alternatively, sub-state groups might be uninterested in experimenting with highly toxic weapons-grade material, given the availability of demonstrably lethal automatic rifles and conventional explosives. Finally, despite widespread fear, there is no evidence of rogue states giving violent sub-state groups unconventional weapons. This should be a continued focus area for the IC, however, the effectiveness of plans based on the concept of "WMD terrorism" should also be re-assessed in the context of actual terrorist capabilities and not worst-case scenarios.



In 2017 members of the Colorado National Guard and the Jordan Armed Forces participate in a CBRN defense exercise in Jordan. (U.S. Air National Guard/Michelle Y. Alvarez)

Right-Sizing Homeland Defense and Civil Support

Concern over terrorist use of chemical and biological agents in the United States did not begin on September 11, 2001—rather it was shortly after the Aum Shinrikyo Tokyo subway attack in 1995. In 1996, Congress approved the *Nunn-Lugar-Dominici Act* that directed DOD to help train and equip state and local government agencies to respond to acts of terrorism involving NBC weapons. In 1998, the National Guard Bureau proposed to then Secretary of Defense William Cohen that DOD establish what was later called WMD Civil Support Teams. Initially there were 10 teams formed to cover the nation, but in 2002, Congress directed in the Fiscal Year 2003 National Defense Authorization Act that at least one team reside in every state and territory of the United States—regardless of whether a domestic threat actually existed or how robust the state and local emergency response capabilities were.

In 2005, DOD released its *Strategy for Homeland Defense and Civil Support* that identified defense support of civil authorities as a key mission, and in particular, the capability to manage the consequences of CBRN mass casualty attacks.²¹ DOD policymakers took an interesting approach assuming that three

nearly-simultaneous nuclear terrorist incidents should be the operational scenario for developing civil support capabilities, rather than the more likely scenario of a small scale, single incident involving industrial hazards. As a result of this scenario and Congressional interest, the DOD “CBRN Response Enterprise” has grown from an estimated 3,200 active, reserve, and guard personnel in 2003 to more than 18,000 military personnel today.²²

Similar to the ambiguity concerning the threat of CBRN terrorism in irregular warfare operations, there is no identified threat source within or outside of the United States, other than the general concern that something could happen that might overwhelm the response efforts of state and local officials. Of course, DOD is not the lead agency for responding to a domestic CBRN incident. That responsibility falls to DHS, which will coordinate any federal response to a request by state officials for support in the case of a natural disaster or deliberate incident, to include an attack involving chemical, biological, or radiological hazards. Discussions have taken place concerning the role of the military in countering unconventional nuclear attacks or biological attacks against the homeland, which duplicate efforts by DHS and HHS, both having lead roles in those respective areas. One must then question the assumptions and risk management principles that have led to the retention of 18,000 military personnel on constant alert for a highly unlikely domestic CBRN incident. The CBRN Response Enterprise may be good politics, but it is not good policy.

USNORTHCOM and the Office of the Secretary of Defense focus their attention on defense support of civil authorities, but there are other important homeland security concerns about addressing the possible impact of WMD within the United States. For example, the U.S. military is responsible for the protection of people who live and work on military bases and in military facilities from a possible terrorist incident involving

chemical, biological, or radiological (CBR) hazards. Another challenge is to ensure that critical defense infrastructure can still operate if targeted by a CBR incident.²³ Some believe that DOD should address pandemic disease outbreaks as a WMD response, despite the existence of significant programs within the force health protection community.

This is not to suggest that leaders within OSD or USNORTHCOM are unwilling or incapable of addressing these important policy issues. Rather, DOD does not have an adequate policy process that would allow for successful institutional de-confliction in these areas. There are offices that participate in reviews of the CBRN Response Enterprise but they fail to specify at what level DOD must maintain response forces, given the mature capabilities in other federal government agencies and other well-funded efforts supporting state and local emergency response forces. In particular, DOD needs to prioritize its CWMD capabilities for the warfight while smartly augmenting other government agencies’ homeland security efforts, rather than to spread these limited resources over a large mission space.

Assigning a Lead Advocate for DOD

The assignment of USSOCOM as DOD lead for CWMD issues was not without controversy. In 2005, then Defense Secretary Donald Rumsfeld chose USSTRATCOM to integrate and synchronize combating WMD activities across the Department, reflecting on the command’s global missions of nuclear deterrence and missile defense and the belief that USSOCOM was too narrowly focused on WMD terrorism. Rumsfeld thought the assignment necessary given the fumbled “WMD exploitation” mission in Iraq. General James Cartwright, then commander of USSTRATCOM, promptly relegated the day-to-day planning and operations to DTRA, which created the USSTRATCOM Center for Combating WMD (SCC-WMD) to conduct these activities.²⁴

By most accounts, USSTRATCOM headquarters was not interested in managing a mission for which there were no assigned forces, and therefore no immediate operational priority. The command did sponsor (through DTRA) a bi-annual “global synchronization conference” that convened action officers from across DOD and including participants from the IC, Federal Bureau of Investigation, DOE, and other government agencies to discuss challenging issues requiring resolution at the general officer level. USSTRATCOM did also support the development and staffing of Concept Plan 8099, a general framework for the combatant commands’ CWMD plans, beginning in 2006.²⁵ USSTRATCOM was not, however, a reliable advocate to address significant capability gaps, ironically the major one being how DOD should address WMD elimination missions—the *raison d’être* for the DOD advocacy role and a still undeveloped defense activity.

USSOCOM’s acceptance of its lead role has been cautious. Initially USSOCOM was concerned that the transition would negatively impact its focus on counter-terrorism activities and did not want to accept USSTRATCOM’s original charter in its entirety. USSOCOM does have an identified counterproliferation mission that dates to at least 1996 (a responsibility that changed to “countering WMD” in/around 2012) in addition to its engagement against terrorist organizations seeking WMD capability. However, this operational focus was strictly in support of discrete military operations, and counterproliferation has not been a top priority for USSOCOM for the past 13 years. USSOCOM does have an interest in assessing counterproliferation activities against current policy,²⁶ but it remains unclear as to whether it will engage DOD policymakers on the development of future strategy and policy objectives.

USSOCOM has since agreed to support the updating and synchronization of CWMD concept plans for the combatant commands, but not necessarily to advocate for the entire CWMD

mission set. However, USSOCOM has agreed to continue the global synchronization conferences and develop a CWMD Fusion Center at DTRA, replacing the SCC–WMD that once served USSTRATCOM.²⁷ This is not an entirely new concept—the effort to develop situational awareness on WMD-related issues across the globe has ebbed and flowed for decades. The challenge is, and remains, one of data management. Even as nation-states and sub-state groups have drawn away from WMD programs, there remain hundreds if not thousands of possible research, production, and storage sites that might contribute to the development of NBC weapons. In addition, the growing industrial development of nation-states results in many state facilities that could be using “dual-use” material and technologies. And, if DOD and the interagency persist in including natural infectious diseases and nuclear reactors within the meaning of “WMD,” there will be a tremendous amount of information to be gathered and sorted.

Conclusion

The current DOD CWMD strategy positions the Department to meet national policy objectives for which it is not resourced, reflecting a failure at the national level to scope the challenge as something other than a technical issue and to oversee the execution of WMD-related tasks throughout the whole-of-government. In part, this is because the term “WMD,” which once had specificity in the arms control community, has been reduced to a political buzzword. When national security professionals refer to the Ebola outbreaks in West Africa and the Fukushima nuclear reactor disaster as “WMD incidents,” there is a serious problem.

This further reflects the need to define what DOD sees as important CWMD activities. Is the Department’s intent to focus on preparing to face nation-states armed with NBC weapons? If so, DOD has a good idea of who those adversaries are

and how to do that. However, when expanded to global terrorism concerns, the challenges become much more diffuse. To what degree should DOD duplicate or augment the efforts of other federal, state, and local agencies? Most importantly, how do the armed services measure their own readiness to meet this threat? The challenge is exacerbated by how CWMD policy is spread across three very different operating concepts—major combat, irregular warfare, and homeland defense—and implemented by multiple communities.

USSTRATCOM largely ignored this challenge for a decade, but to be fair, the problems ran deeper than the failures of a four star advocacy role. CWMD policy requires the leadership and attention of the National Security Council (NSC), which must help clarify expectations beyond “stop WMD from being used.” More specific context is required, and measures of effectiveness must be enumerated, given the unique mission areas envisioned by each community of interest and the varied roles played by other interagency partners. The Special Assistant to the U.S. President for WMD and Counterproliferation on the NSC would be an ideal agent to examine those interagency roles (and leads) and to improve our national response; however, the position is currently vacant.²⁸ At minimum, a presidential executive order could clarify the context for government agencies to address the WMD challenge, and from that, DOD might define a more realistic, precise, and deliberate CWMD strategy.

Because civilian and military leaders are so focused on immediate crises and conventional threats, a highly-placed advocate with a broad vision and interagency contacts is needed to monitor and improve U.S. military CWMD capabilities. Without an advocate, the individual services will not, on their own, address these policy failures and capability gaps. USSOCOM as that advocate could succeed by working with each of the armed services on improving their counterproliferation capabilities for

major combat operations, clarifying and highlighting counterterrorism and counterinsurgency plans directed toward countering CBR terrorism, and supporting the development of adequate (and not overly robust) capabilities for homeland defense. **PRISM**

Notes

¹ Dan Lamothe, “Special Operations Command Takes a Lead Role in Countering Weapons of Mass Destruction,” *Washington Post*, December 23, 2016, available at <https://www.washingtonpost.com/news/checkpoint/wp/2016/12/23/special-operations-command-takes-a-new-lead-role-countering-weapons-of-mass-destruction/?utm_term=.bcb1ea477685>.

² USSTRATCOM Public Affairs, “USSOCOM Deputy Commander Visits USSTRATCOM,” January 23, 2017, available at <<http://www.stratcom.mil/Media/News/News-Article-View/Article/1056873/ussocom-deputy-commander-visits-usstratcom/>>.

³ Daniel Gerstein, “SOCOM Will Soon Lead the Pentagon’s Anti-WMD Efforts. Here’s What It Still Needs,” *Defense One*, February 10, 2017, available at <<http://www.defenseone.com/ideas/2017/02/socom-will-soon-lead-pentagons-anti-wmd-efforts-heres-what-it-still-needs/135331/>>.

⁴ These positions include the ASD for Nuclear and Chemical and Biological Defense, the ASD for Global Security Affairs (GSA), and ASD for Special Operations/Low Intensity Conflict. The WMD policy responsibilities within ASD (GSA) have since been transferred to the ASD for Homeland Defense and Security Affairs.

⁵ While it is true that both the Clinton and George W. Bush Administrations had concerns about biological threats, the Obama Administration was the first to formally include natural disease outbreaks as a new category of WMD. This was first initiated in Presidential Policy Directive-2: *National Strategy for Countering Biological Threats* from December 2009 and then through subsequent actions within the Office of the Secretary of Defense.

⁶ The Joint Concepts can be found in the Joint Electronic Library, available at <<http://www.jcs.mil/Doctrine/Joint-Concepts/Joint-Concepts/>>.

⁷ *Hearing on Worldwide Threats Before the U.S. Senate Committee on Armed Services*, February 9, 2016, 114th Congress (2016) (statement of Director of National Intelligence, James R. Clapper), available at <https://www.dni.gov/files/documents/SASC_Unclassified_2016_ATA_SFR_FINAL.pdf>.

⁸ DOD, *Proliferation: Threat and Response*, (Washington DC: GPO, 2001), available at <<https://fas.org/irp/threat/prolif00.pdf>>.

⁹ Paul Kerr, “Nuclear, Biological, and Chemical Weapons and Missiles: Status and Trends,” (Washington DC: CRS, February 2008), available at <<https://fas.org/programs/bio/resource/documents/CRSreportNBCweapons2-08.pdf>>. The report has not been updated since 2008, to the author of this manuscript’s knowledge.

¹⁰ Paul Bernstein, John Caves, and Seth Carus, *Countering Weapons of Mass Destruction: Looking Back, Looking Ahead*, CSWMD Occasional Paper 7 (Fort McNair, DC: NDU Press, October, 2009).

¹¹ Al Mauroni, “This Is Not the WMD Strategy You’re Looking For,” *War On the Rocks*, July 8, 2014, available at <<https://warontherocks.com/2014/07/this-is-not-the-wmd-strategy-youre-looking-for/>>.

¹² GAO, “Chemical Warfare: Soldiers Not Adequately Trained or Equipment to Conduct Operations on a Chemical Battlefield,” T-NSIAD-91-18, April 16, 1991, available at <<http://www.gao.gov/products/T-NSIAD-91-18>>.

¹³ Al Mauroni, *Eliminating Syria’s Chemical Weapons* (Maxwell AFB, AL: USAF CUWS, 2017), available at <<http://cuws.au.af.mil/pub/pdfs/monographs/58MauroniElimSyriaCW.pdf>>.

¹⁴ DOD, Joint Operating Concept for *Irregular Warfare: Countering Irregular Threat*, (Washington DC: Joint Staff, 2010), available at <http://www.jcs.mil/Portals/36/Documents/Doctrine/concepts/joc_iw_y2.pdf?ver=2017-12-28-162021-510>.

¹⁵ DOD, Joint Publication 3-05 *Special Operations* (Washington DC: Joint Staff, 2014), II-7.

¹⁶ Ibid. Todd Masse, “Nuclear Terrorism Redux: Conventionalists, Skeptics, and the Margin of Safety,” *Orbis* 54, no. 2 (2010), 302–19.

¹⁷ LTC Walter Herd, “Current Unconventional Warfare Capability versus Future War Requirements,” U.S. Army War College, 2002.

¹⁸ See The National Security Archive’s “Nuclear Terrorism: How Big a Threat?” for descriptions of select U.S. nuclear counterterrorism efforts, available at <<https://nsarchive2.gwu.edu/nukevault/ebb388/>>.

¹⁹ Bureau of Counterterrorism, U.S. State Department “Country Reports on Terrorism 2016, Chapter 4: The Global Challenge of Chemical, Biological, Radiological, or Nuclear (CBRN) Terrorism,” July 2017, available at <<https://www.state.gov/j/ct/rls/crt/2016/272236.htm>>. See also the annual worldwide threat testimonies by the Director of National Intelligence before the U.S. Congress, available at <<https://www.dni.gov/index.php/newsroom/congressional-testimonies/item/1845-statement-for-the-record-worldwide-threat-assessment-of-the-us-intelligence-community>>.

²⁰ Barbara Starr, “U.S.: ISIS detainee providing information on chemical weapons,” CNN, March 9, 2016, available at <<http://www.cnn.com/2016/03/09/politics/u-s-isis-detainee-providing-crucial-information-on-chemical-weapons/index.html>>.

²¹ DOD, *Strategy for Homeland Defense and Civil Support* (June 2005), available at <<https://fas.org/irp/agency/DOD/homeland.pdf>>.

²² Johnny Lairsey, “The CBRN Response Enterprise in the Homeland,” *Small Wars Journal*, August 1, 2012, available at <<http://smallwarsjournal.com/blog/the-cbrn-response-enterprise-in-the-homeland>>.

²³ See David Bailey et al, “Protection of Department of Defense Facilities from Airborne CBR Threats,” U.S. Army Engineer Research and Development Center, 2002.

²⁴ See comments by Deputy Secretary of Defense Paul Wolfowitz in National Defense University’s Center for Counterproliferation Research-led report “*At the Crossroads: Counterproliferation and National Security Strategy*” (Washington DC: NDU, April 01, 2004). “STRATCOM to lead DOD WMD efforts,” by Jeffrey Lewis, in *ArmsControlWonk* (blog). February 5, 2005, available at <<http://lewis.armscontrolwonk.com/archive/425/stratcom-to-lead-DOD-wmd-efforts/>>.

²⁵ NTI, “Rumsfeld Considers ‘CONPLAN’ to Combat WMD,” June 9, 2006, available at <<http://www.nti.org/gsn/article/rumsfeld-considers-conplan-to-combat-wmd/>>.

²⁶ See for instance “SOCOM J5 Key Strategic Issues as of 4 Sep 14” at <http://www.soc.mil/swcs/SWEG/_pdf/GRAD/USSOCOM%20J5%20Key%20Strategic%20Issues%20List.pdf>.

²⁷ Joseph Trevithick, “This Obscure DC-Area Office Helps US Special Operators Hunt Down and Secure Loose WMDs,” *The Drive*, September 21, 2017, available at <<http://www.thedrive.com/the-war-zone/14535/this-obscure-dc-area-office-helps-us-special-operators-hunt-down-and-secure-loose-wmds>>.

²⁸ Dr. Christopher Ford occupied this position—a.k.a. the “WMD Czar”—from January–December 2017. In 2014, the incumbent was referred to as the “Senior Director for Defense Policy, Countering WMD, and Arms Control.”