# THE CWMD "OPERATIONAL VOID" A case for building DoD CWMD operational capability "from the middle out"

## PAUL A. SIGLER & MAJ.(P) JAMES C. BOWEN

"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so." — Mark Twain

INTRODUCTION

An ancient Buddhist parable<sup>1</sup> speaks of six blind men who are asked to describe an elephant based only on that part they have personally touched. The man who feels the side of the elephant declares that it is like a wall; the man with the tail, a rope; the man with the trunk, a snake, and so on. Each of the men are correct based upon the information they have at hand, and each has a concrete experiential reason to doubt what he hears the others saying. Yet not a single one of them actually understands what an elephant really *is*.

Imagine that there are leaders responsible for managing the threat of wild elephants and all they have available to inform decisions on preparation and planning is the descriptions from the blind men. Would they prepare to scale a wall, cut a rope, or kill a snake?

Countering Weapons of Mass Destruction (CWMD) professionals spend a great deal of their waking hours dealing – wittingly or not—in a world bound by vague and often conflicting definitions.

The first, and most fundamental, is the definition of a Weapon of Mass Destruction (WMD). Department of Defense (DoD) Directive 2060.02 and Joint Pub (JP) 3-40 both agree that WMD are "chemical, biological, radiological, or nuclear weapons capable of a high order of destruction or causing mass casualties, excluding the means of transporting or propelling the weapon where such means is a separable and divisible part from the weapon."<sup>2</sup> Outside the DoD, the debate over whether pipe-bombs, cyber attacks, or fentanyls<sup>3</sup> belong in the realm of WMD is very much a live debate. Although DoD

participates in these interorganizational debates, DoD strategy, policy, and joint doctrine largely insulate Joint Force Commanders from these arguments.<sup>4</sup> Where this conversation becomes contentious is the definition–and the practical application–of countering WMD activities within an operational campaign against a peer adversary.

The fact that CWMD practitioners often misuse their own terminology does little to help demystify the subject. Countering WMD is often juxtaposed against ostensibly competing terms such as strategic deterrence, biological defense, and chemical, biological, radiological, and nuclear (CBRN) defense. There is a long tradition within DoD literature of conflating, superimposing, or otherwise misusing these terms.<sup>5</sup> It is relatively common to see "CBRN defense" and "CWMD" combined within a single phrase as if they are distinct mission areas, despite the fact that CBRN defense is a tactical subset of the larger joint CWMD mission area. Likewise, distinguishing between tactical biological warfare agent defense and related but distinct operational/strategic public health campaigns has also proven nettlesome. Finally, the generalized actions which the DoD takes to deter WMD use by a nuclear-armed adversary (a CWMD activity) necessarily overlap with operational and policy actions meant to set the nation's strategic deterrence posture. Which of these activities live in the realm of CWMD vs. strategic deterrence? More importantly, assuming we could come to agreement on this question, what would we gain from the effort?

Yet perhaps the most common and harmful misuse of the term "CWMD" comes when DOD staff officers use it as a catch-all term to describe an activity that is really focused on a single threat actor or modility. Labeling a plan to counter Democratic People's Republic of Korea (DPRK) chemical weapons as a "CWMD" plan buries the lede and masks the true purpose of the proposal. Senior leaders could be forgiven for finding these competing definitions bewildering, discouraging, and intimidating, and they might over time come to see the proponents of these ideas as a consortium of mad scientists and/or cranks. Such a characterization—unfair, but very real—becomes an obstacle to achieving a clear understanding of strategic and operational risk.

Decisions being made by those same senior leaders today will buy down operational risk within the forces being fielded in 2030, and will shape the operating concepts, capabilities, and overall WMD resilience of the Joint Force of 2040. Those decisions will be made on small resource margins and must be informed by a clear understanding of how those forces will "converge effects from all capabilities throughout the operating environment to achieve strategic objectives"<sup>6</sup> against peer adversaries with fully integrated WMD capabilities.

With the recent publication of the 2023 DoD CWMD Strategy, there is no better time than now to clarify what comprises operational CWMD activity. The best time to plant a shade tree is thirty years ago. The second-best time is always today.

This article is part of a series of introductory lectures within USANCA's CWMD Advisor Course that are meant to define CWMD activities at the operational level while also contextualizing those activities within complementary tactical and strategic efforts. Within the class—and within this article—the approach is to: 1). Trace CWMD activities and tasks from national policy down through applications at the tactical level; 2). Translate WMD threat into the language of operational risk; 3). Apply these principles in contemporary WMD problem sets to develop options and advice for the Joint Force Commander (JFC).

#### THE CWMD "OPERATIONAL VOID"

Within the 2018 "Insights and Best Practices Focus Paper on Interorganizational Cooperation," the Joint Staff J7 Deployable Training Division describes a number of challenges to coordination with interorganizational partners. Among these is a lack of planning and coordinating capacity at the operational level caused by "differences in coordination permissions, capacities, capabilities, and budget authorities between DoD and other interorganizational partners."<sup>7</sup> Thus, while an individual country team may be adequately staffed to support a tactical unit or Service component operating within a nation, and while Department of State (DoS) and DoD have the capability to coordinate policy actions for that country, the ability to coordinate these actions across a combatant commander's area of responsibility is complicated by lack of intermediate level DoS staffing, and differences in how the two Departments organize regionally.



Figure 1. The interorganizational "operational void."8

Although this gap is long-standing, it didn't come to the fore until regional stability operations and counter-insurgency operations created an urgent demand among operational commanders for a means of augmenting military capabilities with all of the other aspects of national power. It is now accepted as an article of faith and a precept of joint doctrine—that *unified action* is the best means of optimizing the Joint Force to achieve national objectives.<sup>9</sup> The modern JFC approach to unified action contrasts sharply with the DoD-led push to Baghdad in 2003 which purposefully froze out many other elements of the U.S. government.<sup>10</sup>

The current challenges faced by joint CWMD practitioners has a lot in common with the challenge faced by unified action advocates in early 2000s. With respect to nation-building and counterinsurgency, the most recent American experience dated back to the Vietnam War. Across a thirty years interregnum, hard-won lessons had faded from doctrine, practice, and the collective psyche of joint leadership. An entire generation of leaders had no professional education or first-hand experience with counterinsurgency operations or the interorganizational integration required to conduct nation-building.<sup>11</sup> More importantly, prior to 2003, DoD leaders didn't see nation-building as a valid mission, obviating the need for the structure and expertise on joint staffs to conduct theater-wide whole-of-government integration.

In a similar vein, the last time that the U.S. Joint Force faced a nuclear-armed peer adversary was in 1991.

During the intervening three decades, operational necessity drove the Joint Force to optimize itself toward countering limited tactical CBRN threats posed by extremist organizations such as al Qaeda or ISIS while curating the capability to exploit and eliminate WMD-related sites. The institutional knowledge required to deter and coerce a nuclear-armed peer while simultaneously assuring partners and allies gradually faded away.

In both cases *some* reservoir of experience did remain. The generation that fought in Vietnam still had a foothold within DoD senior leadership in 2003, just as there are a small number of Cold Warriors left in our ranks today that remember preparing to counter Soviet chemical and nuclear use in the Fulda Gap during the 1980s. The question in both cases is how many of these precepts had the staying power to remain true within a modern strategic and operational context. The U.S. could not, for instance, attack Taliban support networks using the same techniques it had used against the Vietcong in the early 1970s—while the principle of denving sanctuary remained valid, the geopolitical situations differed greatly.12 Likewise, Cold War CWMD experience isn't perfectly analogous to a tri-polar world of revanchist powers and multi-domain competition. The strategic context, and the Joint Force itself, have all changed markedly in the interim. Blindly assuming that what once worked will work again is an approach that is fraught with risk.13

This brings us to the most important parallel: what Joint Force Commanders are now being required to do with respect to countering WMD is *fundamentally new*. As such, there is little resident understanding of how activities and tasks manifest at the operational level.

The natural counterargument to this premise is to point to the many examples of counterproliferation success over the past three decades—to include demilitarization of over 7600 Soviet-era nuclear warheads under the Cooperative Threat Reduction (CTR) program,<sup>14</sup> interdiction and seizure of Libya's aspirational nuclear weapons capability in partnership with other Proliferation Security Initiative (PSI) nations,<sup>15</sup> and the demilitarization of Syrian chemical weapons and precursors aboard the *M.V. Cape Ray*.<sup>16</sup> These are only a small sampling of the many strategic CWMD efforts that DoD has supported since the end of the Cold War. With such a bounty of collective experience, many might be skeptical that today's CWMD problem set is truly novel or unique.

The fact remains, however, that despite a long history of strategic nonproliferation activity and demilitarization of WMD components, current Joint and Service Component staffs struggle to define what operational CWMD activity means with respect to a peer adversary as part of an active campaign.

Today's Joint Force Commanders (JFC) and their staffs are required to simultaneously balance effort across multiple CWMD activities within a global strategic messaging campaign. They must align and synchronize strategic capabilities to enforce arms control treaties and export controls, employ operational capabilities to track and degrade WMD capabilities, and posture tactical capabilities to prevail in spite of WMD employment on the battlefield.

The operational staff must fold these echeloned CWMD-related activities into theater-level planning and targeting on a staff which is consumed by anti-access area denial (A2AD) defeat, despite the fact that the rest of the staff has vanishingly little familiarity with CWMD activities beyond a basic notion of tactical CBRN defense. To be successful, operational CWMD planners will need to develop partners and advocates across all of the boards, cells and centers that comprise a JFC staff. If they can achieve this, the staff will be positioned to produce Operations, Activities, and Investments (OAIs) as well as deterrence and response options that integrate all elements of national power and are risk-balanced against other operational and strategic imperatives.

This holistic campaign plan, once established, will be challenged with a steady barrage of mis- and dis-information running the gamut from public-health threats,<sup>17</sup> real and imagined nuclear power plant threats<sup>18</sup> and online conspiracies about DoD's support to biological weapons programs.<sup>19</sup> Combined, these narratives may threaten to restrict the ability of the JFC to flow forces freely throughout the theater or to recruit new partners to the cause. Some of this milieu of confusion will be adversary-connected; some will not. CWMD planners will face a constant challenge to sort through noise and misinformation shoulder-to-shoulder with the rest of the staff in order to determine if the fundamental WMD-related assumptions of the theater campaign plan remain valid, or if the ground has once again shifted underneath their feet.

It is difficult to argue that DoD prepares operational staff officers, the CWMD professionals who advise them, and the senior leaders who direct them for the range of tasks associated with this kind of campaign against a nucleararmed peer adversary.

The CWMD operational gap is thus defined by the extent to which the Department falls short.

# RESERVOIRS OF DOD CWMD COMPETENCY

A common pitfall across the CWMD enterprise is the tendency to overstate the problem at hand. This flaw is part of the reason that it is hard to get invited to parties as a CWMD professional. In the end, shockingly enough, commanders and senior leaders greatly prefer solvable problems to contemporary versions of the Kobayashi Maru.<sup>20</sup>

Luckily, as touched upon in the previous section, the mere presence of a void at the operational level implies that there is robust capability elsewhere.

In this case, it is important to understand that for much of DoD's history, marquee "CWMD" activities occurred at the strategic level and the tactical level, respectively. As a result, DoD retains a great deal of capacity and experience at the highest and lowest levels of the CWMD spectrum of operations.

At the strategic level, the DoD has a long history of working with the interagency to develop arms control agreements, treaties and enforcement mechanisms. These pre-date the relatively recent development of more formal interagency CWMD strategic documents, and more importantly, this community provided the foundation for emerging U.S. thought on CWMD.<sup>21</sup> Moreover, the U.S. has long experience with employing multinational treaty organizations, arms control surveillance and inspections and strategic interdiction to achieve national non-proliferation policy goals. These extant capabilities provided the means to pursue strategic non-proliferation and counter-proliferation opportunities via sustained interorganizational campaigns or bespoke solutions task-organized at time of need to accomplish a specific policy goal. They have provided the means to limit or challenge WMD programs in nations such as DPRK, Libya, Syria and Iran.22

Conversely, the ability of the Joint Force to employ chemical, biological and nuclear weapons while exploiting their effects for tactical gain pre-dates the arms control and non-proliferation efforts mentioned above. Dating back to the original establishment of the U.S. Army Chemical Warfare Service in 1918,<sup>23</sup> Army chemical capability combined complementary offensive and defensive programs all the way through 1990 when the U.S. began unilateral destruction of its chemical weapons programs<sup>24</sup>—well in advance of U.S. ratification of the Chemical Weapons Convention in 1997. President Nixon had already ended the U.S. offensive biological program in 1969 as the idea of using biological weapons as a deterrent fell out of favor.<sup>25</sup> Finally, all of the Services had non-strategic nuclear capabilities through 1992, when the Army finally divested of its tactical nuclear capability. The Navy Sea-Launched Cruise Missile (SLCM-N) had been ordered placed into storage a year prior.26,27

Following the turn away from tactical nuclear weapons, DoD retained a robust ability to respond to nuclear accidents and incidents, while also building out an increasingly technical CBRN response capability that, over time, adapted to meet the demand for rapid response to the complex, highly variable improvised threats posed by violent extremist organizations. Within a resource-constrained Army, this focus on technical capability unsurprisingly came at cost to the organic CBRN self-defense capability and capacity of maneuver units. Regardless, it resulted in highly-capable (albeit low-capacity) units within United States Special Operations Command (USSOCOM). Theater Special Operations Commands (TSOCs), and the Army's 20th CBRNE Command that continue to serve as an exemplar for allies and a platform for building partner capacity across the globe.

With a little more thought on DoD's tactical and strategic capabilities, four insights arise with respect to our conversation on the operational CWMD void.

**Tactical CBRN defense capability remains foundational to joint CWMD activity.** JP 3-40 states that the specialized activity "CBRN Response" applies to adversary CBRN use, even if it does state this in a relatively backhanded manner.<sup>28</sup> Implicit to tactical CBRN defense is the ability to conduct Service-specific mission-essential tasks despite employment of a range of CBRN capabilities on the battlefield. Leaving aside that many operational WMD defeat activities require conventional forces to accompany or support technical forces, the simple inability of tactical formations to ensure continued operations against all modalities of CBRN threat places the ability of the JFC to deter and coerce adversaries while assuring partners and allies at immediate risk.

A century of experience with CBRN employment has created deep and exquisite expertise within the technical units of each Service. These units have a tradition of fielding, handling and training to employ these weapons, while also retaining the capability to respond to accidents and incidents. Over the past twenty years, these organizations have expanded in technical capability, and within the past decade the Army has developed doctrine to organize and employ many of these organizations as part of a multinational combinedarms team to secure, exploit and transport adversary WMD capabilities.<sup>29</sup> This provides a significant capability to support joint WMD Defeat activities in theaters where these teams can gain access to sites of interest.

Strategic capabilities which DoD has employed successfully against rogue states and regional powers show diminishing returns against a peer adversary. A veto on the U.N Security Council can be a powerful impediment to useful counter-proliferation tools such as UNSCR 1540.<sup>30</sup> Future employment of arms control enforcement, non-proliferation agreements, export controls, and coordination with multinational organizations (such as the International Atomic Energy Agency, the Organization for Prohibition of Chemical Weapons, and the World Health Organization) are likely to have marginal returns and must be closely coordinated with operational campaign activity to achieve the amplification required to impact a peer adversary's behavior.

The idea of a Joint Force Commander (JFC) leading multi-domain activities to counter peer-adversary WMD threats in competition remains nascent. Prior to the non-proliferation era, tactical CBRN offensive and defense capability dominated commanders' experience with this mission area. The idea of demilitarizing WMD capabilities only emerged in the late 1980s and early 1990s, and when it did, it was often seen as a responsibility of multi-national organizations supported by special technical units. The further evolution of that concept to include JFC-led WMD defeat missions within a larger kinetic operation began with the cautionary tale that was Task Force Disablement and Elimination during Operation Iraqi Freedom,<sup>31</sup> and later matured into a true multinational capability within U.S. Forces Korea over

the course of almost 15 years.<sup>32</sup> Applying that evolutionary model to multidomain CWMD against peer adversaries indicates that a decade or more of engagement, advocacy and leader education may be required to build a sustainable JFC CWMD capability.

In summary, the Department has deep and exquisite CWMD capabilities at both the strategic and tactical levels that have often been combined with minimal operational intercession to achieve bespoke CWMD policy aims against VEO networks, rogue states, and regional powers. Flush from these successes, the 2014 DoD CWMD Strategy locked in a model of preventative CWMD operations that favored defeat of WMD pathways over employment of the full range of Joint Force capabilities to deter peer adversary WMD use.<sup>33</sup>

As DoD leaves that model of CWMD campaigning behind, it will require operational staffs capable of lashing together exquisite tactical capabilities, WMD-resilient joint forces, and strategic policy tools which have been optimized for a peer-adversary determined to contest U.S. diplomatic actions.

## THE 2023 DOD CWMD STRATEGY: A SHIFT IN TONE

While the 2014 CWMD Strategy clearly prioritized actions taken by the Department to prevent WMD threats via pathway defeat, the new Strategy aims for a balanced approach that links closely with the 2022 National Defense Strategy concept of "integrated deterrence."<sup>34</sup> We will take a quick look at the strategic priorities, the ways the Strategy will achieve them, and some of the emergent opportunities to narrow the operational CWMD gap.

First, while authors of the 2023 DoD CWMD Strategy<sup>35</sup> do not rank-order the four strategic priorities (Defend, Deter, Enable and Prevent), the 2014 Strategy conveyed a very clear preference for the "prevent" organizing principle. Moreover, because many non-proliferation capabilities and authorities lie outside of DoD, this prevention-focused approach narrowed the number of operational players with the access, placement, and authority to contribute. Concurrently, a prevention-focused strategy demanded that the staff consistently prove a negative. Under the 2014 strategy, it soon became difficult to communicate goals and progress to senior leaders.

Compare this to the "deter" priority of the 2023 CWMD Strategy. JFCs faced with a nuclear-armed peer

DEFEND	DETER	ENABLE	PREVENT
the Homeland from WMD attack	use against the United States, its Allies, and partners	the Joint Force to prevail in a chemical, biological, radiological, and nuclear (CBRN) environment	new WMD threats

Figure 2. 2023 DOD CWMD Strategy strategic priorities.

adversary clearly understand how deterring "WMD use against the U.S., its Allies and partners" relates to the strategic objectives of the 2022 National Defense Strategy. Leaving aside the difficulty in measuring whether an adversary is truly deterred vice bored, uninterested, or distracted, the fact that a key priority of the Strategy is directly nested with an NDS objective provides immediate relevance. Moreover, JFCs clearly understand that they are enmeshed in national efforts to deter peer adversaries. One might argue the same was never really true about the 2014 CWMD Strategy's requirement to prevent new WMD threats—to the extent that a JFC *could* take action to defeat a WMD pathway, it was never clear how exactly that action aligned with superseding strategic priorities.

Finally, the Strategy makes clear that it is a Department priority to enable the Joint Force to prevail against peer-adversary WMD threats. As an added feature, the readiness of the Joint Force to conduct JMETs in a contemporary CBRN environment can—and should—be *measured* by Services and operational commanders.

For this reason, USANCA's CWMD Advisor Course focuses on how these operational staffs will enable the development and measurement of readiness and the translation of that readiness into a larger whole-of-staff approach with the goal of messaging the capability of joint and combined forces to hold key targets at risk in spite of WMD employment. Accomplishing this contributes to integrated deterrence by *denying benefit* while preserving options to *inflict costs* on an adversary.

In summary, even a cursory analysis of the new DoD CWMD Strategy makes clear that operational staffs specifically Combatant Comanders and their component staffs—will be central to execution of this strategy. Yet, as discussed earlier, these staffs lack both the expertise and the recent experience to carry the water on these tasks.

### WHAT CWMD IS DEPENDS ON WHERE YOU SIT

We have established at this point that the DoD approach to CWMD accepts significant risk within operational staffs while routinely overestimating the Department's ability to prevent threats before they could become operationally relevant.

The Department is now adapting to a CWMD reality which emphasizes deterring WMD employment and demonstrating the readiness of tactical maneuver units to overcome their battlefield effects. Within this new paradigm, prevention of new WMD capabilities will be frustrated by political and diplomatic realities, leading to the realization that the Department will be forced to consider ways to "degrade actor capability to develop, acquire or use WMD."<sup>36</sup>

In this reality, proxy conflicts take place under a nuclear shadow; battles for enduring advantage are won and lost during competition; tactical formations and operational staffs each play a continuous role in a strategic integrated deterrence scheme—witting or not. With the strategic framework now set, a brief survey of continuum of operations helps reveal what CWMD might now mean to commanders at each echelon.

#### Strategic Level

At the strategic level, the CWMD mandate is to maintain and strengthen strategic partnerships, deter conflict, prepare to manage escalation, and provide off-ramps if conflict arises. Strategic messaging, via multiple engagement tracks, aims to communicate that WMD use will be rapidly attributed and international response will be overwhelming and aimed at vital adversary interests. Whole-of-government capabilities are employed in coordination with allies, partners and JFCs to degrade adversary capabilities in furtherance of deterrence objectives.



#### 2023 DoD CWMD Strategic "Ways" • Provide credible options to deter WMD use and assure Allies and partners

- Build a Joint Force that can campaign, fight, and win in a CBRN environment
- Enable Allies and partners to counter WMD proliferation and use
- Degrade actor capability to develop, acquire, or use WMD
- Take action, as part of whole-ofgovernment efforts, to prevent proliferation and respond to use of WMD
- Pursue advanced research and development efforts to counter future chemical and biological threats.

Figure 3. Strategic Approach and "Ways," 2023 DoD CWMD Strategy.

#### **Operational Level**

Operational staffs collectively curate and subtly message the resilience of Joint Force units to WMD effects while simultaneously conducting combined planning, capacity-building and rehearsals with host nations and international partners. The JFC's enduring intent is to assure partners and present hard targets to an adversary. Accordingly, CWMD professionals work across the staff to conduct WMD risk communication during active campaigning. Activities to degrade adversary WMD capabilities are balanced against actions to confound targeting, assure freedom of movement, and build redundancy and resiliency across the coalition.

#### **Tactical Level**

The tactical commander has two mandates with respect to CWMD:

1) Organize, train, and deploy forces to execute multi-domain operations on a transparent battlefield where the threat of non-strategic nuclear use is never ruled out and where threat-specific environmental CBR threats may appear with or without an attack signature. 2) Provide specific capabilities (Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR), long-range precision strike, technical CBRN capabilities, etc.) to support JFC flexible deterrence and response options.

For tactical commanders, protection aspects stemming from prompt nuclear and residual CBR effects are always a risk factor that weighs into their scheme of maneuver. Low-density CBRN defense capabilities must be carefully aligned against theater priorities, placing a premium on the ability of tactical units to plan their operations such that they reduce reduce vulnerability and maximize organic defense capabilities against WMD effects. Achieving this level of sustained readiness is the responsibility of Service headquarters and their theater components. Doing so frees operational staffs to focus on setting theater architecture, conducting of active campaigning, and capacity-building with allies and partners. The take-away is that DoD's approach to CWMD is difficult to explain or defend using broad language and objectives. Commanders at each level are focused on a single part of the elephant, and their staffs often struggle to describe how each piece fits with the next. The next version of JP 3-40 should clearly elucidate how these interrelated tasks and activities nest and accrete to achieve the overall vision outlined by the 2023 DoD CWMD Strategy.

## THE TOOLS FOR THE JOB

We've established that emerging DoD CWMD strategic guidance lays down a gauntlet to operational commanders to find a way to link strategic non-proliferation capabilities, resilient multi-domain-capable joint forces and low-density technical CBRN capabilities. They will accomplish this within a campaign framework that deters peer-adversary WMD use, assures allies and partners, and achieves U.S. strategic objectives. Achieving that tall order will require a number of supporting efforts.

By narrowing the focus to the operational CWMD void, it becomes clear that there is room for improvement in how we prepare and develop operational staffs. That begins with providing them with a strong planning and doctrinal basis to organize their activity. The emerging USSOCOM-led rewrite of the Functional Campaign Plan for CWMD will begin to address this gap, as will the coming revision of JP 3-40. The manner in which both of these key documents are implemented will set the tone for the campaign throughout the rest of the decade.

Within the joint professional military education (JPME) community, it would be worthwhile to review how WMD effects and CWMD activities are being presented to mid-grade leaders who constitute the bulk of CCMD and component staffs. The strategic environment has changed rapidly; existing JPME-1 learning objectives and capstone exercise scenarios will likely require continual adaptation and assessment to keep pace. The same argument can be made for JPME-2.

Within the Services, additional scrutiny on how CWMD professionals are prepared for operational assignments is needed. One Army example is within Functional Area 52, Nuclear and CWMD Officers. While these officers have always been provided a strong educational foundation in nuclear policy, stockpile management, and nuclear weapon effects, increasing assignment within broad operational CWMD roles exposed a gap in their functional education. In recognition of this, the Army FA52 Proponent recently directed that Phase II of the CWMD Advisor Course (D1) be incorporated into the FA 52 Qualification Course beginning in FY24. This relatively small change will—over time— ensure that FA52 officers being assigned across DoD bring a strong foundational knowledge in both nuclear operations and CWMD activities.

Across the DoD, senior leaders require direct engagement with CWMD professionals in order to update their assumptions on operational nuclear deterrence and CWMD activities in the context of peer competition. There is no one organization that owns this responsibility; it is incumbent on knowledge incubators across the DoD CWMD enterprise to seek out and demystify the mission area to the leaders responsible for planning, programming and executing the critical capabilities that underpin CWMD activity.

Existing operational staffs engaged in active campaigning cannot wait the years that it would take for commoncore and functional PME reform to gradually raise CWMD fluency of their staffs and supporting agencies. They require immediate training and education solutions that can build the capability of assigned CWMD professionals, develop a network of CWMD "integrators" across the rest of the staff, and increase the capability of the CWMD advisors that augment their staffs from supporting agencies such as Defense Threat Reduction Agency (DTRA), the 20th CBRNE Command, and USSOCOM J10.

Finally, all of these staffs require planning frameworks and organizational processes that link CWMD activities to operational and strategic objectives within the context of peer competition. Within the CWMD Advisor Course, we have focused on the manner in which the staff assesses and portrays WMD risks to the JFC.

A detailed breakdown of this methodology will be the subject of another article, but the problem statement can be summarized as follows: Although compliance-based risk assessment (see Figure 4) is fit for purpose in many tactical applications with rapid decision cycles and limited scope of effects, those same models quickly break when applied at the operational level, especially when WMD is part of the calculation.



Figure 4. An Army compliance-based risk management model.<sup>38</sup>

The Joint Risk Assessment Model provides a more fulsome tool, but it too breaks down in operational application due to the speed at which WMD employment reverberates at the operational and strategic level, with immediate implications to campaign and coalition management, strategic deployment, and escalation control. It is important to note that operational commanders' ability to execute their current missions informs the Department of Defense's capability to generate forces, fulfill its functions, and account for future challenges. Commanders accounting for and responding to the risk of WMD employment across warfighting functions ensures the challenge of a WMD equipped adversary doesn't affect the Department of Defense's ability to function, and instead informs policy makers on how to account for future challenges. Slowing and managing the "risk cascade" endemic to WMD employment while also understanding how risk is communicated in competition and campaigning (see Figure 5) is a major focus of the CWMD Advisor course.39

We make no promises within the course that we've arrived at the answer to this wicked problem—our goal is simply to arm operational staffs with the right questions We're confident that they will guide all of us all to best solution in the fullness of time. The students spill a little more light on the pathway within every class.

#### CONCLUSION

Countering WMD in today's context is a tremendously complex endeavor that involves deterring and degrading adversary WMD capabilities, managing regional WMD threats, and actively combating trans-national networks and violent extremist organization (VEO) threats while defending the Homeland against attack and assuring partners and allies. These activities take place in all domains and across all dimensions. They are continuous through all operational phases and they require harmonized efforts from commanders at all levels from tactical through strategic. Finally, the consequences of failure or miscalculation are severe.

Commanders understand the importance of WMD in the operational space, but are often uncertain how to mitigate risk because of the inability of CWMD professionals to describe their own mission space in operational terms. WMD threats are often lacking in context and are not scoped against competing operational risks, leaving leaders to apply their own judgement, which is often poorly-informed due to thirty years of institutional inattention and conceptual atrophy. Just as nature abhors a vacuum, senior leader information gaps are quickly filled by myths, platitudes, and fatalism.

Combating this tendency requires development of a robust network of CWMD professionals, supported by CWMD "integrators" distributed across key joint staff directorates, and augmented by competent advisors from supporting joint and Service-provided organizations. Finally, it requires consistent and intentional leader engagement. In an era of constant crisis, it is unrealistic to expect senior leaders to take a knee and focus on this mission set. They—and their staffs—are likely to have to continue to learn to conduct CWMD activities against a peer adversary while at a dead run.

Windows for meaningful engagement will be fleeting and few. When the opportunity presents, will we be able to clearly describe CWMD campaigning against a peer adversary in the language of operational risk? Or will it be yet another case of blind men describing an elephant?



# MR. PAUL A. SIGLER

leads the Nuclear and CWMD Integration Division at the U.S. Army Nuclear and CWMD Agency (USANCA), at Ft. Belvoir VA. He has a B.S. in Chemical Engineering from Rose-Hulman Institute of Technology, an M.A. in National Security and Strategic Studies from the Navy War College, and an M.S. in WMD Studies from Missouri State University. He was previously assigned as the CWMD Readiness Division Chief, also at USANCA. His email address is paul.a.sigler.civ@army. mil.

# MAJ.(P) JAMES C. BOWEN

is the CWMD Advisor Course Manager at the United States Army Nuclear and CWMD Agency, HQDA G3/5/7 in Fort Belvoir, Virginia. He has a B.S in Physics from the United States Military Academy and a M.S. in Physics from the Naval Postgraduate School. He was previously assigned as a Deputy Team Chief for a Nuclear Disablement Team at the 20th CBRNE Command. His email address is james.c.bowen22.mil@ army.mil.

#### **ENDNOTES**

- There are many descriptions of this particular story. This link goes to one of my favorites: https://buddhismnow. com/2018/02/16/tittha-sutta-buddhist-parable-of-theblind-men-and-the-elephant/.
- Department of Defense, DoD Directive 2060.02 "DoD Countering Weapons of Mass Destruction (WMD) Policy", 27 January 2017, p. 11.
- Caves, John P. Jr. "Fentanyl as a Chemical Weapon", *CSWMD Proceedings*, December 2019. https:// wmdcenter.ndu.edu/Publications/Publication-View/ Article/2031503/fentanyl-as-a-chemical-weapon/.
- For a much more detailed discussion of the many definitions of "WMD", see Occasional Paper #8: Defining Weapons of Mass Destruction, by W. Seth Carus, https:// wmdcenter.ndu.edu/Portals/97/Documents/Publications/ Occasional%20Papers/08\_Defining%20Weapons%20 of%20Mass%20Destruction.pdf.
- For one example as to how long this particular malapropism has persisted, see: Ms. Elizabeth Felling and Mr. Keith Sloan, "CWMD is not CBRN: All WMD require CBRN, but CBRN does not encompass all CWMD", CWMD Journal, Issue 11, 2014, pp. 2-4. https://www.usanca.army.mil/Portals/114/ CWMD\_Journal/CWMD%20Journal%20Issue%2011. pdf?ver=BW1WWkMkhdNCHm0EIAscWQ%3d%3d.
- Joint Publication 1, Volume 1, Joint Warfighting, 27 August 2023, p. III-1. Available on the Joint Electronic Library (JEL+) at https://jdeis.js.mil/jdeis/index.jsp?.
- Deployable Training Division, Joint Staff J7, "Insights and Best Practices Focus Paper: Interorganizational Cooperation, Fifth Edition", April 2018, p.5.
- 8. Ibid.
- 9. The preface of Joint Publication 1, Volume 1, Joint Warfighting, places among its key goal the description of "the organization and command and control mechanisms of joint command organizations to execute joint all domain operations, achieve unified action, and carry out global military strategic and operational integration."
- See the description of the State Department's "Future of Iraq' project by James Fallows, "Blind into Baghdad", *The Atlantic*, Jan/Feb 2004. https://www.theatlantic.com/ magazine/archive/2004/01/blind-into-baghdad/302860/.

- 11. One brief example is a 9 October 20021 press conference with Secretary of Defense Donald Rumsfeld when asked about the future government of Afghanistan: "Because the United States and others that are deeply concerned about terrorism and the enormous damage that can be done to thousands of human beings by terrorists, because we have that concern and we go in and root out terrorists, I don't think leaves us with a responsibility to try to figure out what kind of government that country ought to have." This approach typified the U.S. military approach to both Iraq and Afghanistan post-conflict planning. https://www.washingtonpost. com/wp-srv/nation/specials/attacked/transcripts/ rumsfeld\_100901.html.
- 12. This story spans twenty years of operations in Afghanistan. You can read a concise summary here: https://www.atlanticcouncil.org/blogs/new-atlanticist/ us-pakistan-dialogue-of-the-deaf/.
- The Kilcullen work mentioned above applies here as well. https://smallwarsjournal.com/documents/kilcullen1. pdf.
- 14. https://armscontrolcenter.org/fact-sheet-the-nunn-lugarcooperative-threat-reduction-program-2/.
- 15. The full story of the establishment of the Proliferation Security Initiative to include the interdiction of the Libya-bound vessel *BBC China* is described in Susan J. Koch's paper "Proliferation Security Initiative: Origins and Evolution", National Defense University Press, June 2012. https://wmdcenter.ndu.edu/Portals/97/Documents/ Publications/Occasional%20Papers/09\_Proliferation%20 Security%20Initiative.pdf.
- 16. For a complete timeline of efforts to eliminate Syria's chemical weapons capability (to include the role of the *M.V. Cape Ray*), see: https://www.armscontrol.org/factsheets/ Timeline-of-Syrian-Chemical-Weapons-Activity.
- 17. See https://www.hhs.gov/sites/default/files/surgeongeneral-misinformation-advisory.pdf.
- See https://abcnews.go.com/US/happenrussia-blows-zaporizhzhia-nuclear-power-plant/ story?id=100846888.
- 19. The State Department highlights this particular example: "One of the Kremlin's most notable false claims is that the United States worked with Ukraine to train an army of migratory birds, mosquitos and even bats to carry biological weapons into Russia." https://www.state. gov/the-kremlins-never-ending-attempt-to-spreaddisinformation-about-biological-weapons/.
- 20. Given the readership of this Journal, footnoting this particular reference might be perceived as an insult. However, you may read more about this particular pop-culture reference here: https://en.wikipedia.org/wiki/ Kobayashi\_Maru.
- 21. DoD established the Center for the Study of Weapons of Mass Destruction (CSWMD) in 1994, and the original founder of that organization, Ambassador Robert Joseph went on to author the first (and only) *National Strategy to Combat Weapons of Mass Destruction* in 2002.

- 22. The most concise summary of all of these CWMD campaigns can be found in the country-specific fact sheets published by the Arms Control Association. See: https://www.armscontrol.org/factsheets.
- 23. See https://www.archives.gov/research/guide-fedrecords/groups/175.html.
- 24. See https://www.defense.gov/News/Releases/Release/ Article/3451920/us-completes-chemical-weaponsstockpile-destruction-operations/.
- 25. See https://2001-2009.state.gov/r/pa/ho/frus/nixon/ e2/83597.htm.
- 26. See https://fas.org/publication/tomahawk/.
- 27. The full series of nuclear reductions in 1991-1992 are described in Susan Koch's Case Study "The Presidential Nuclear Initiatives of 1991-1992", National Defense University Press, 1 September 2012. http://wmdcenter. ndu.edu/Publications/Publication-View/Article/627149/ the-presidential-nuclear-initiatives-of-1991-1992/.
- 28. From JP 3-40, Joint Countering Weapons of Mass Destruction, 27 November 2019, p. IV-11: "For major operations and campaigns, which balance offensive, defensive, and stability operations, [CBRN Response] supports the joint force's defensive and stability actions. Within the construct of such operations, the joint force needs to be prepared for a variety of WMD situations, such as an inadvertent release, release due to joint force action, or an actor of concern's employment of CBRN materials." The emphasis of "balance" across the various joint CWMD activities in the new DoD CWMD Strategy will necessitate revision of JP 3-40 to match the new strategic tone, which clearly connects CBRN resiliency of the Joint Force to integrated deterrence.
- 29. See ATP 3-37.11 Chemical, Biological, Radiological, Nuclear, and Explosives Command and ATP 3-90.40 Multi-Service Tactics, Techniques, and Procedures for Combined Arms Countering Weapons of Mass Destruction.
- 30. See https://www.un.org/en/sc/1540/1540-fact-sheet. shtml.
- 31. For a detailed description of WMD elimination in Iraq, see Rebecca K.C. Hersman "Eliminating Adversary WMD: What's at Stake?", National Defense University Press, 2004. https://wmdcenter.ndu. edu/Publications/Publication-View/Article/621472/ eliminating-adversary-wmd-whats-at-stake/
- 32. For an example of how 20th CBRNE partners with the operational commanders and ROK allies to provide this a capability, see: https://www.dvidshub.net/ news/209352/20th-cbrne-command-certifies-jtf-e.
- 33. The SECDEF's foreword of the 2014 DoD CWMD Strategy plainly states: "...this strategy emphasizes early action through pathway defeat, shaping the environment to dissuade actors from pursuing WMD, and cooperating with partners to achieve countering WMD goals." For more detail, see: https://apps.dtic.mil/sti/citations/ ADA603433.

- 34. "Integrated deterrence entails working seamlessly across warfighting domains, theaters, the spectrum of conflict, all instruments of U.S. power and our network of Alliances and partnerships... Integrated deterrence is enabled by combat-credible forces prepared to fight and win as needed, and backstopped by a safe, secure, and effective nuclear deterrent." Department of Defense, 2022 National Defense Strategy of the United States of America, p. 1. https://media.defense.gov/2022/ Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF.
- 35. Department of Defense, 2023 Department of Defense Strategy for Countering Weapons of Mass Destruction, 28 September 2023. https://media.defense.gov/2023/ Sep/28/2003310413/-1/-1/1/2023\_STRATEGY\_ FOR\_COUNTERING\_WEAPONS\_OF\_MASS\_ DESTRUCTION.PDF.

36. Ibid, p. VIII.

- 37. USSOCOM as the DoD Coordinating Authority for CWMD prepares and assesses performance against this CWMD-specific functional campaign plan per guidance in the Joint Strategic Campaign Plan. See JP 3-40, *Joint Countering Weapons of Mass Destruction*, 27 November 2019, pp III-4 to III-5.
- 38. ATP 5-19, Risk Management, November 2021, p. 1-4.
- 39. We would like to acknowledge the outstanding work of Lt. Col. Diana Cruz and Maj. Taylor Harrington in developing the risk module currently being taught within the CWMD Advisor Course.
- 40. CJCSM 3105.01A, Joint Risk Analysis Methodology, 12 Oct 21, p. A-2.