Optimizing the
CWMD Enterprise
Across the Interagency

by Michael J. Kwon

In recent decades, interagency cooperation has enabled the U.S. government in countering weapons of mass destruction (CWMD) organizations. This interagency cooperation, collectively referred to as the U.S. CWMD enterprise is an ongoing effort to protect the nation from the threat of WMD. Progress, such as it is, has not been easy; regulatory, budgetary, bureaucratic, and cultural obstacles abound. Nevertheless, so do opportunities for process improvement. As this extraordinarily complex enterprise continues to grapple with its equally complex problem set, particularly pertaining to issues of process standardization and conformance with the goal of optimizing interagency effectiveness, the enterprise would do well to avail itself of some valuable lessons from an unlikely, but highly effective interagency of another kind—the ecosystem of honeybees.

Five Lessons from Honeybees

Honeybees are responsible for cross-pollinating 80 percent of the world's fruits and vegetables and nearly half of all other food crops. In the U.S. alone, bees contribute $20 billion dollars to the economy. Bees are considered to be the highest form of insect life, showing sophisticated colonies and complex behaviors. The study of their enormous efficiency and effectiveness reveals some fundamental lessons, five of which are directly applicable to the U.S CWMD enterprise's quest for process improvement:

1) Unity of purpose.[1]

Honeybees have one overarching purpose—the survival of the hive. They make far more honey than they really need for survival, but the honey guarantees the survival of their colonies during the harshest winters, as well as several generations of bees. Similarly, if the CWMD enterprise

U.S. Air Force Major Michael J. Kwon serves as the Bioenvironmental Engineering Flight Commander at Osan Air Base in the Republic of Korea, where he provides medical counter Chemical, Biological, Radiological, and Nuclear defense expertise to the Air Force commanders and warfighers. He holds M.S. Degree in WMD Studies and is a Countering WMD Graduate Fellow at National Defense University.

acts with a single-minded purpose, its focus on national survival will enable it to overcome environmental obstacles. Accomplishing this means that the enterprise's individual organizational or leadership preferences must be subordinated to an overarching aim to which all interagency CWMD activities are directed.

2) Independent but complementary roles with clear lines of effort.[2]

During a honeybee's short lifespan, the worker bees learn and perform all the interlocking functions necessary for life in the hive. These functions are seamlessly connected. Every individual bee knows what it needs to do to maintain the health of the entire system. If the CWMD enterprise understands the importance of performing and completing individually-assigned processes and how each agency's efforts are related to and interdependent with other processes, the enterprise elements will continually streamline and realign their individual processes to facilitate aims outside the agency but complementary to the whole.

3) A flexible, dynamic system based on teamwork.[3]

Worker bees change from one task to another within seconds. They are highly skilled at teamwork. They communicate easily with one another. They have no personal agendas. They live to serve and support the hive. Indeed, the hexagonal structure of honeycomb demonstrates the connectedness of the entire work system. Each wall of the hexagon serves as a support wall for neighboring cells. The same principle is at work within the life of the colony. This system is not created not by one bee but by thousands upon thousands of bees. Yet, the honeycomb is perfect in design, function, and strength. It evidences standardization, teamwork, and communication throughout. The CWMD enterprise must be similarly integrated, achieving uniformity and connectivity wherever possible.

4) Highly effective communication and a strong sense of community and support.[4]

As honey bees forage for nectar, they can communicate with precision about the distance, direction, species, and quality of nectar. They communicate these details through a complex language that has been the object of long scientific study. As information is passed from bee to bee, the accuracy of this information is never doubted because meanings are clear and standard. If the CWMD enterprise fosters simple, clear, and direct communication with interagency partners in a way that lifts discourse above agency biases, both effective communication and mutual trust will become the general rule rather than the exception.

5) Identification and resolution of problems in real-time.[5]

When honey bees sense a problem, they pause work and immediately communicate to activate the hive's defense system. Bees focus on assessing and analyzing a situation with an eye toward a unified solution. In this recovery effort, every bee in the hive knows exactly what it needs to do for the survival of the hive. Bees precisely coordinate their response actions to defend and protect the hive, sacrificing as necessary to eliminate a threat. Bees leave nothing to chance for the survival of the hive. If the CWMD enterprise effectively communicates problems and works toward solutions with a sense of a shared responsibility through the interagency process, it will achieve solutions to complex problems more quickly than by any other method.

While it would be easy to dismiss these principles as nothing more than platitudes, they are, in fact, the very things the CWMD enterprise must move toward if it is to achieve its aims. As it seeks to do so, two issues demand priority attention: First, the U.S. government has no single, overarching interagency policy document, guidance, or instruction. In general,

planning and executing CWMD activities take place under each departmental policy and planning documents.[6] One can only imagine what would happen to any hive that took this approach. Second, the bewildering array of the following national-level documents ostensibly aimed at providing guidance for CWMD issues leaves little doubt as to why unified effort is difficult: [7]

- 2015 National Security Strategy.

- 2012 Sustaining U.S. Global Leadership: Priorities for 21st Century Defense.

- 2012 National Strategy for Biosurveillance.

- 2012 National Strategy for Global Supply Chain Security.

- 2011 National Strategy for Counterterrorism.

- 2011 National Strategy for CBRNE Standards.

- 2010 Nuclear Posture Review Report.

- 2009 National Strategy for Countering Biological Threats.

- 2007 National Strategy for Homeland Security.

- 2006 National Strategy for Strategic Interdiction.

- 2002 National Strategy for Combat Weapons of Mass Destruction.

- Add to these the agencies, each with its many relevant components:[8]

- National Security Council.

- Department of Defense.

- Office of the Director of National Intelligence.

- Department of State.

- Department of Homeland Security.

- Department of Justice.

- United States Agency for International Development.

- Department of Treasury.

- Department of Commerce.

- Department of Health and Human Services.

- Department of Transportation.

- Department of Energy.

As a result, interagency coordination is often limited to temporary, *ad hoc* arrangements without mechanisms in place to enable agile response to increasingly rapid developments in the world of WMD threats. This modular approach can be effective to handle urgent and short-term tasks, but it will never be suitable for complex, long-term tasks.

Taking the Honeybees Seriously

While humans may never be as effective at formalizing processes as honey bees, some of the greatest scientific minds have produced systems that could at least serve as basic templates for improving CWMD enterprise processes in the interagency. The International Organization for Standardization (ISO) 9001, arguably by far the world's best established process standard and used by over 1.5 million organizations in 191 countries,[9] is a case in point. It suggests that, even if the CWMD enterprise cannot be bureaucratically organized

under one organization, agencies with CWMD responsibilities still can benefit greatly by having a shared subject-matter management system and lexicon. The ISO 9001 model contemplates integrative and interactive knowledge management that can capture, develop, share, and measure organizational knowledge and institutional memory for the best use of knowledge.[10] The fruits of the good-faith application of such a system are predictable: Policy and operational outputs that are standardized, easier to execute, less expensive and quicker to produce, are more reliable, and hence, more trusted by all involved.

ISO 9001 in Practice

Imagine the interagency governance structure based on ISO 9001 principles for the CWMD enterprise as shown in Figure 1 (pg. 48). Enterprise governance consists not of a new agency but of (1) an interagency CWMD council, (2) an interagency CWMD office, and (3) organizational CWMD councils. The interagency CWMD council establishes and improves the interagency CWMD strategy for the enterprise, "owns" interagency CWMD policies and decision-support processes (as opposed to the policies themselves), and approves interagency standards for the organization's work practices that are embodied in the interagency CWMD decision-support processes.

The interagency CWMD office analyzes and reports to the interagency CWMD council the status of the interagency CWMD decision-support process across the enterprise and also identifies needs and requirements for process improvements. In order for this office's work to be efficacious, its analyses must be clear, succinct, and amenable to easy implementation. The National Security Council (NSC), as the interagency "center for excellence," provides the interagency CWMD council with staffs and consultative support, oversees the interagency and organization decision-support processes

for CWMD, and provides interagency CWMD decision support to the President and all other CWMD council and office members through interagency CWMD knowledge management.

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Interagency CWMD Knowledge Management Process

The interagency CWMD knowledge management process transfers CWMD knowledge as a part of the day-to-day interagency CWMD decision-support process across the CWMD enterprise within interagency CWMD governance. It is based, again appropriating the ISO 9001 model, on four elements: plan, do, check, and act (PDCA).

Plan. In the interagency CWMD decision-support process, planning starts with reviewing CWMD strategies, policy, interagency and resource requirements, product lines, operation relevance, and tasks. This information created within organizations is acquired from CWMD councils and offices or the intelligence community. Planning includes gap analyses and enables knowledge production by assessing references data from the planning element, as well as the other elements of the PDCA cycle. Learning gained through this analysis effort itself becomes knowledge and get incorporated along with other knowledge produced at this stage.

Do. While doing or executing, the interagency CWMD decision-support process generates experience and knowledge that is fed back to the planning element on a continual basis. This, of course, requires the deliberate sharing of all lessons learned and experience across the enterprise.
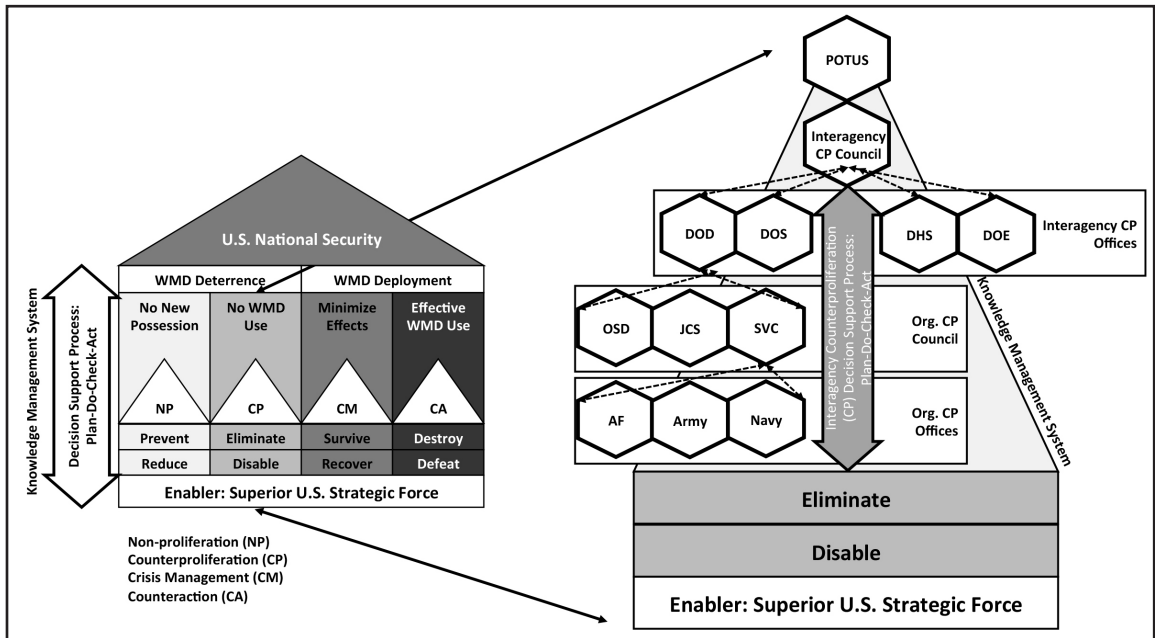
Figure 1. Proposed Interagency CWMD Governance Framework

Check. This element collects data sets through monitoring, measurement, assessment, investigations, and audits. Its focus is to identify non-conformance in interagency CWMD management system and processes. Findings are captured in management system review and communicated to relevant parties.

Act. This element ensures continuous improvement of processes and performance through top management involvement. Knowledge acquired in the preceding elements contains critical evaluations of the performance of the interagency CWMD management system and indicates actions for improvements. Because this element takes knowledge to the NSC and the President, this knowledge then gets incorporated into national security strategies for CWMD; the enterprise policies, objectives, resources; and other CWMD elements.

As shown in Figure 2 (pg. 49), the interagency CWMD knowledge management process continuously optimizes effectiveness of knowledge and its practices, improving interagency and organizational performance.

Benefits of the CWMD Knowledge Management

Interagency CWMD knowledge management based on the ISO 9001 model focuses on innovative and effective knowledge practices through systematic steps within interagency CWMD governance and the CWMD enterprise. It also emphasizes the free flow of knowledge across the enterprise.

Because of its ability to increase the effectiveness and the relationship of all resources and innovation in discernible ways, as CWMD knowledge cycles and evolves, interagency CWMD knowledge management increases the credibility and value of the interagency CWMD management system and the CWMD enterprise.[11] It establishes baselines for CWMD product lines, tasks, and interagency management system reviews. CWMD organizations and practitioners are freed to focus more on assessing WMD risks based on available knowledge and thus help the enterprise to develop better and timely CWMD strategies.
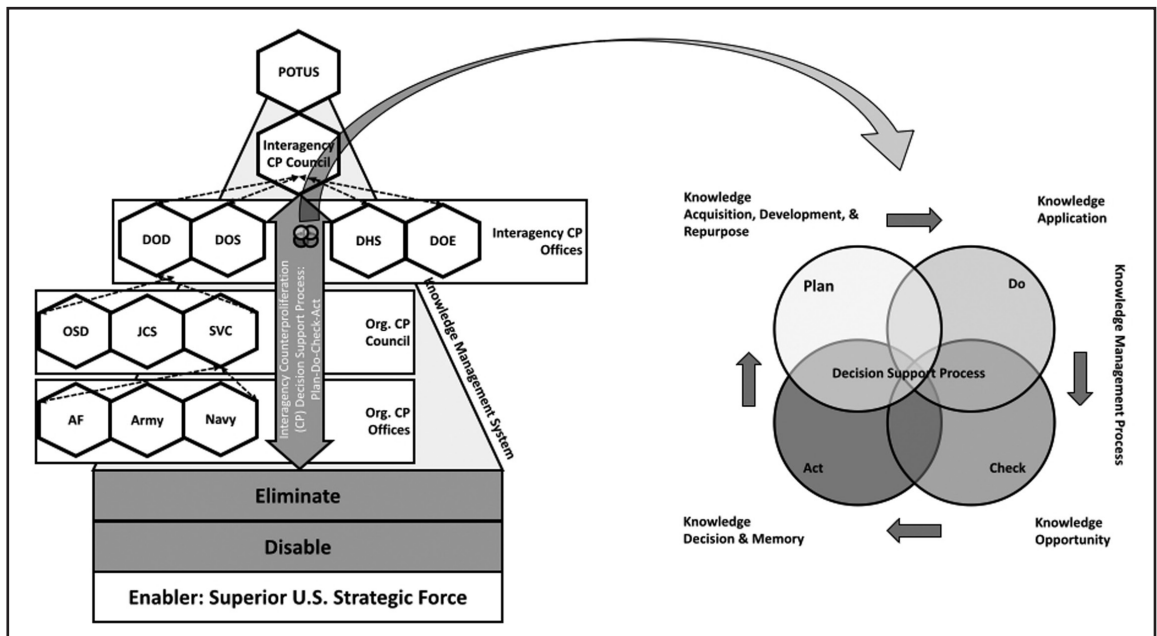
Figure 2. Interagency CWMD Knowledge Management Process

Potential Criticisms of the Proposed Interagency Management System

Nothing associated with the effort to standardize interagency activities is easy, and this reality serves as the basis for the most obvious likely criticism of the present proposal: However laudable the proposal may be, it is simply too hard to implement. Indeed, many scholars, government officials, and lawmakers have published and tried to make the interagency better, but most have failed.

Many Government Accountability Office (GAO) and government investigation reports have addressed and identified what needs to be done for interagency issues but fail to recommend who needs to do what to improve the interagency. At best, they may recommend with undefined, ill-defined, or non-existing processes for interagency improvement.

However, the ISO 9001 model is hardly an untried model. It has been used with success in such a wide variety of organizational settings that to dismiss it out of hand would be premature indeed. Even if many models from the commercial world do not translate well into the governmental sphere, the fact that the success of the ISO 9001 model does not appear to hinge on a profit motive commends it as a model worth trying.

One might also object that this proposal cannot succeed without steady and concerted leadership involvement. This is certainly true. It is true of any attempt to improve the management processes—particularly knowledge management—of any organization. The issue is precisely why an interagency CWMD management system is needed. At the very least, the system would provide a vehicle for meaningful leadership involvement in process and knowledge management. The "check" and "act" elements specifically enjoin leaders to provide appropriate oversight and to review policy, resources, strategy, and performance data in systematic ways, so that the eventual inclusion of knowledge in national-level policy documents occurs in non-idiosyncratic ways.

One might even object that processes for obtaining results of the kind sought by the ISO 9001 model are already in place in the CWMD

enterprise. If this is so, however, GAO and other evaluations of the performance of the CWMD enterprise do not lead easily to this conclusion.

While certain interagency management protocols exist with respect to CWMD, the decision support that these protocols lend to the effective management of WMD risks is, at very least, not well understood. Moreover, the perpetual formation and re-formation of *ad hoc* organizations can never produce the kind of continuity that enables genuine process problem resolution. Indeed, accomplishment of concrete mission objectives is more likely than not with the establishment of processes calculated to produce continuity across political administrations and ideological divides—two of the forces most likely to inhibit the effective function of the interagency.

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In point of fact, ISO standards have already been adopted and incorporated in various U.S. government programs. Although government differs from industry in significant ways, effective leaders in both government and industry value clear vision, communication, empowerment of people, teamwork and team performance, flexibility, innovation, and most importantly, trust. The ISO is about standardizing these values through management system. ISO standards, it may be argued, would lead the proposed interagency CWMD management system to be effective and trusted, enabling those underlying values.

The proposed interagency CWMD management system is conceptual, and some might see this as too broad or difficult to understand. However, to be conceptual is not really a basis for criticism. The imperative which underwrites the success of any system is the education and training of its practitioners.

Professional practice is the means by which professionals acquire conceptual understanding over time, and indeed, understanding concepts that are not readily reducible to simple words or phrases is the fundamental trait of true professional expertise. Moreover, a serious focus on training and education relating to process and knowledge management may well be one of the best way to produce genuine organizational cultural and perspectival change where warranted. This, however, does not argue for a system that is unduly rigid or inflexible.

Even though the present proposal seeks long-term solutions rather than a parade of one-time fixes, the interagency CWMD decision-support process outlined here would still be able to provide time-sensitive solutions using process prioritization metrics under the "Do" element of the process. Moreover, because interagency CWMD knowledge management provides large data sets and new knowledge, CWMD practitioners could focus more on building solutions and options with other CWMD councils and offices and less on the perpetual *ad hoc* data collection efforts that are the hallmark of broken bureaucracies and ineffective leaders.

Conclusion

The U.S. CWMD enterprise is comprised of multiple executive departments, many subsidiary agencies, and thousands of people. If anything, it is becoming more complex—not less—as the nature of CWMD problems themselves increase in complexity. Even so, the five key lessons from honeybees remain foundational to the function of any organization, no matter how complex its tasks. As argued above, a CWMD enterprise process and knowledge management system modeled on ISO 9001 principles could go a long way toward operationalizing the lessons from the honeybees. Institutionalizing the interagency CWMD management system as described

could be expected to eliminate, or at least significantly reduce, CWMD enterprise gaps in national strategies, collaboration, and budgeting and funding. Perhaps the most important benefit of this proposal is that the interagency CWMD management system requires top management's periodic participation, decision, and action. Through the interagency CWMD governance framework, CWMD councils and offices would be established, calibrating process differences to CWMD process standards and reducing variations. This governance would shift competing processes to collaborating at the CWMD councils and offices levels. Through the PDCA cycle, the interagency CWMD decision-support process would continuously improve interagency effectiveness with respect to CWMD. Moreover, the system would integrate knowledge management into the PDCA cycle. Most importantly, interagency CWMD management system review would capture and record the CWMD leadership's evaluations and direction for the interagency CWMD way forward in national security strategy documents as courses of action, as well as institutional memory.

Of course, this proposed management system alone cannot altogether eliminate the fog of the interagency. Moreover, implementation and execution of complex systems, such as the one proposed in this article, has routinely proven disastrous in the absence of rigorous leadership commitment and participation, coupled with a reasonable tolerance for trial-and-error field testing. Nonetheless, interagency leadership requires optimism that surmounting this high bar is, in fact, possible. ***IAJ***

NOTES

1   Matthew Harrington and Deborah Mackin, *Survival of the Hive: 7 Leadership Lessons from a Beehive*, AuthorHouse, Bloomington, IN, 2013, p. 2.

2   Ibid., p. 24.

3   Ibid., p. 29.

4   Ibid., p. 51.

5   Ibid., p. 69.

6   H, Allen Irish, "A 'Peace Corps with Guns': Can the Military be a Tool of Development?" in Joseph R. Cerami and Jay W. Boggs (eds.), *The Interagency and Counterinsurgency Warfare: Aligning and Integrating Military and Civilian Roles in Stability, Security, Transition, and Reconstruction Operations*, U.S. Army War College Strategic Studies Institute, Carlisle Barracks, PA, pp. 53–95.

7   Counterproliferation Program Review Committee, "Report on Activities and for Countering Proliferation and NBC Terrorism," Vol. I, Executive Summary, Addendum to 2011 Report, 2013, p. 2.

8   Joint Publication 3-40, *Countering Weapons of Mass Destruction*, 2014, Ch. III, pp. 6–16.

9   Data from the ISO, <http://www.iso.org/iso/news.htm?refid=Ref1825>; ISO 9001:2015, *Quality Management Systems-Requirements*, <https://www.iso.org/obp/ui /#iso:std:iso:9001:ed-5:v1:en>, 2015, accessed on April 12. 2017.

10   Thomas H. Davenport, "Saving IT's Soul: Human Centered Information Management," *Harvard Business Review*, Vol. 72, No. 2, 1994, pp. 119–131.

11   Rene Tissen et al., *The Knowledge Dividend: Creating High-Performance Companies Through Value-Based Knowledge Management*, *Financial Times*, Prentice Hall, 2000, p. 47.