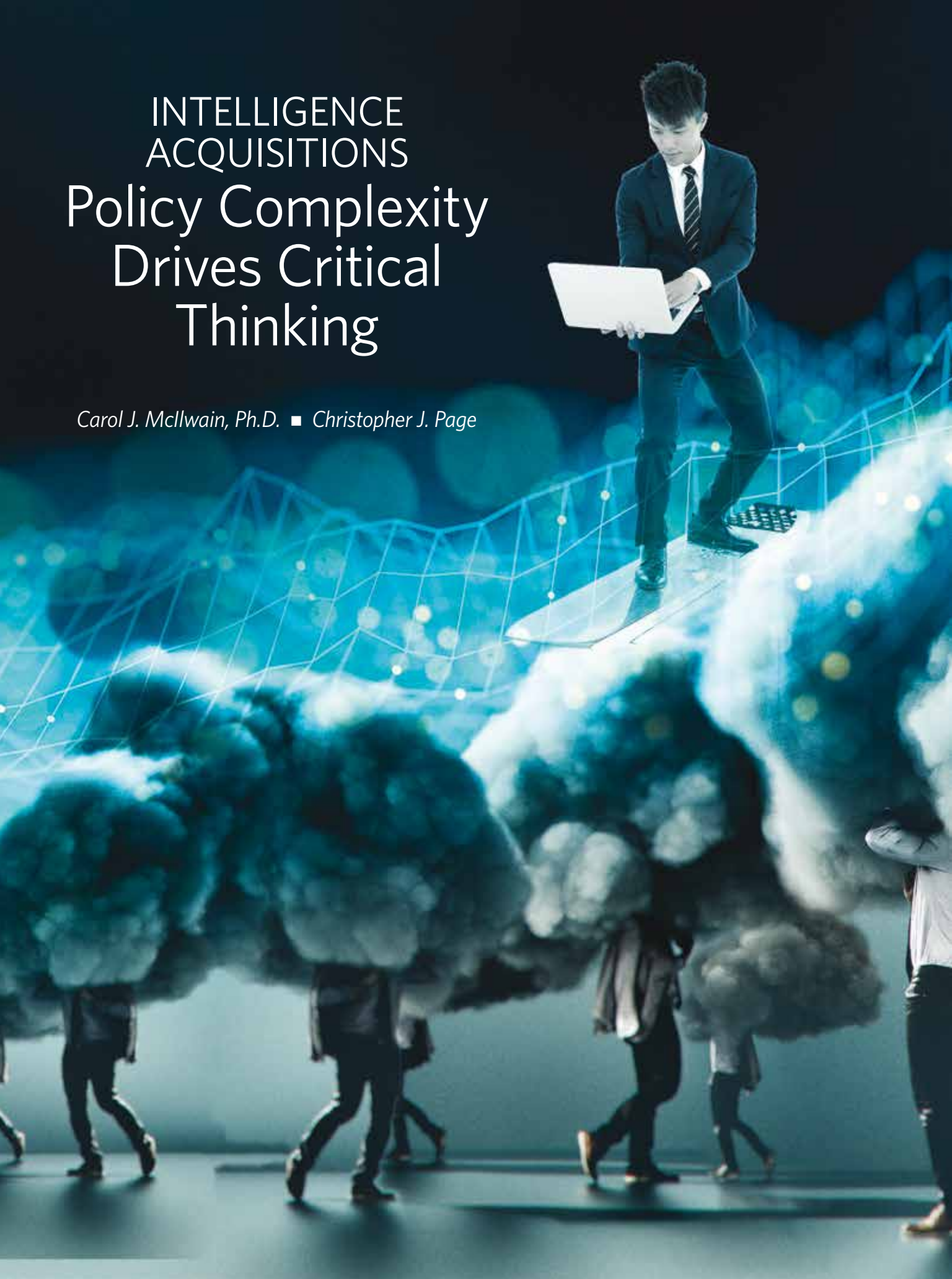


INTELLIGENCE
ACQUISITIONS
Policy Complexity
Drives Critical
Thinking

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IN THEIR *STRATEGY+BUSINESS* MAGAZINE (SPRING 2018) ARTICLE “How to Cultivate Leadership That Is Honed to Solve Problems,” Massachusetts Institute of Technology (MIT) Professors Deborah Ancona and Hal Gregersen described the secret to generating boundary-spanning innovation through establishing an environment for solving really hard, edgy, cool problems. “Challenges are cherished at MIT because they offer opportunities to test and prove one’s skill and push the boundaries of what is possible. Presented with some barely achievable objective, people dive in to work the problem, and the more wicked the problem the better.” MIT calls this challenge-driven leadership, a focus on problem solving to push the state-of-the-art for technology.

In the December 2018 *United States Naval Institute’s Proceedings* magazine article, “Naval Intelligence’s Lost Decade,” the author describes former Chief of Naval Operations ADM Gary Roughead’s November 2009 memorandum referencing the actions of Spanish explorer Hernan Cortes in motivating his men to conquer the new world by leaving no means of escape. The boats were burned and Cortes’ men had the choice of conquer the land or die trying. This action is a metaphor for bold, decisive actions required to spearhead organizations through fundamental change to achieve exceptional performance. The article explains that industry has moved forward in mass digitalization, artificial intelligence, robotics and rapid technological change; however, this fundamental change has yet to occur within Naval Intelligence. Leveraging these industry achievements requires acquisition and the ability to acquire industry efforts through a contractual agreement. The complexity of intelligence acquisition policy challenges the Department of Defense (DoD) to leverage industry’s technological achievements, particularly in a rapid response environment.

Background

The Office of the Director of National Intelligence (ODNI) started operations on April 22, 2005, resulting from the Sept. 11, 2001, attacks and a post-9/11 investigation proposing sweeping change in the Intelligence Community (IC), including the creation of a Director of National Intelligence (DNI). The Intelligence Reform and Terrorism Prevention Act (IRTPA) of 2004 was signed into law on Dec. 17, 2004. The DNI serves as the head of the IC, overseeing and directing the implementation of the National Intelligence Program (NIP) budget and acting as the principal advisor to the president, National Security Council, and the Homeland Security Council for intelligence matters related to national security.

As depicted on ODNI website:

The core mission of the ODNI is to lead the IC in intelligence integration, forging a community that delivers the most insightful intelligence possible. That means effectively operating as one team: synchronizing collection, analysis and counterintelligence so that they are fused. This integration

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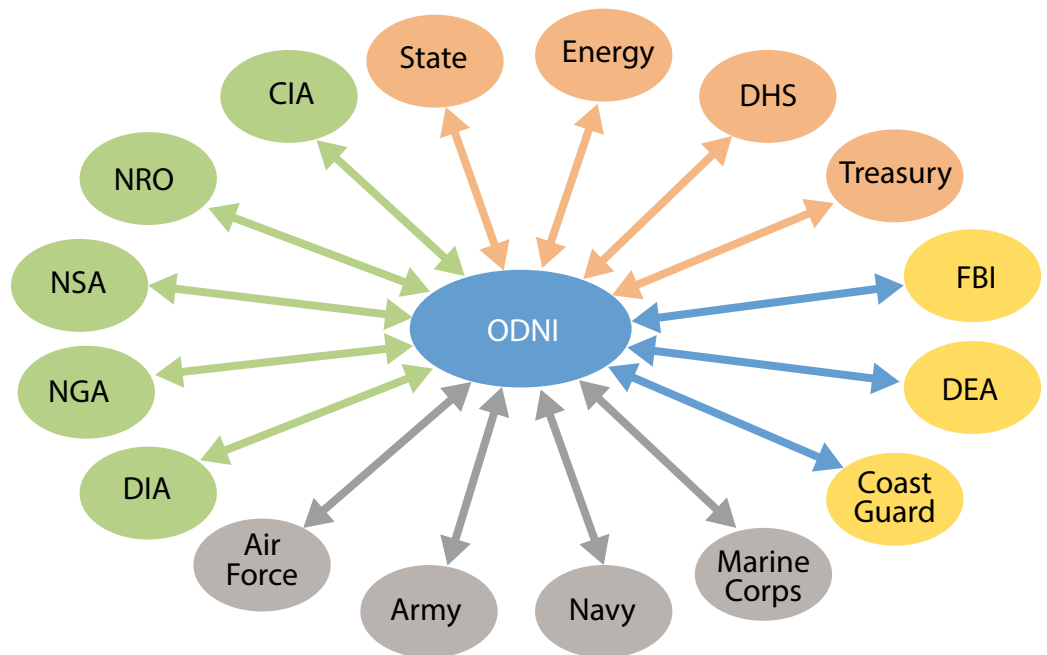
is the key to ensuring national policymakers receive timely and accurate analysis from the IC to make educated decisions. The mission of ODNI is to lead and support IC integration; delivering insights, driving capabilities, and investing in the future. The vision of ODNI is a decisive national security advantage through agile leadership of the IC.

As outlined in IRTPA of 2004, the DNI is responsible to:

- Ensure timely and objective national intelligence is provided to the President, the heads of departments and agencies of the executive branch, the Chairman of the Joint Chiefs of Staff, senior military commanders, and Congress.
- Establish objectives and priorities for collection, analysis, production, and dissemination of national intelligence.
- Ensure maximum availability of and access to intelligence information within IC.
- Develop and ensure the execution of an annual budget for the NIP based on budget proposals provided by IC component organizations.
- Oversee coordination of relationships with the intelligence and security services of foreign governments and international organizations.
- Ensure the most accurate analysis of intelligence is derived from all sources to support national security needs.
- Develop personnel policies and program to enhance the capacity for joint operations and to facilitate staffing of community management functions.
- Oversee the development and implementation of a program management plan for acquisition of major systems, doing so jointly with the Secretary of Defense (SECDEF) for DoD programs, that includes cost, schedule and performance goals and program milestone criteria.

Sixteen organizations compose the IC: Air Force Intelligence, Surveillance and Reconnaissance Agency; Army Intelligence; the CIA; Coast Guard Intelligence; Defense Intelligence Agency (DIA); Energy Department; Department of Homeland Security (DHS); Department of State;

Figure 1. Intelligence Community Network with ODNI as Nucleus



Source of figures: Carol J. McIlwain.

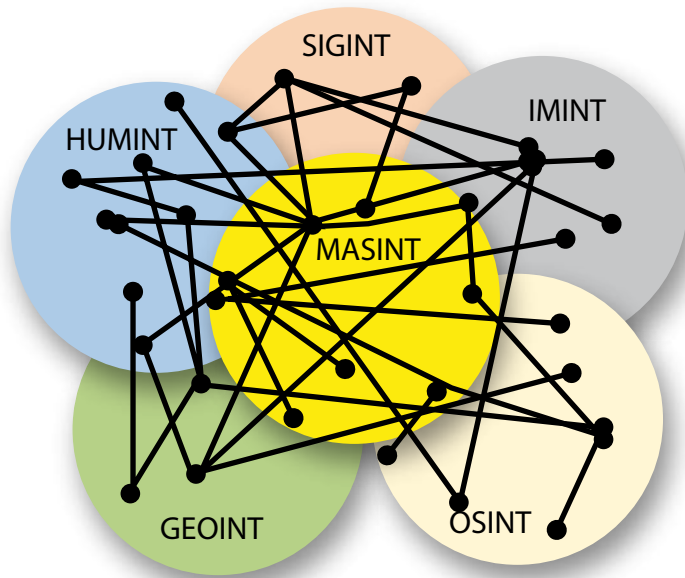
Treasury Department; Drug Enforcement Administration (DEA); the FBI; Marine Corps Intelligence; National Geospatial-Intelligence Agency (NGA); National Reconnaissance Office (NRO); National Security Agency (NSA); and Office of Navy Intelligence—as illustrated in Figure 1.

There are six basic intelligence sources or collection disciplines: signals (SIGINT), imagery (IMINT), measurement and signature (MASINT), human-source (HUMINT), open-source (OSINT), and geospatial (GEOINT). SIGINT is derived from signal intercepts comprised of communications (COMINT), electronic (ELINT), and foreign instrumentation signals (FISINT).

The integration of intelligence information within specific sources or disciplines, as well as across sources and disciplines, creates the ability to link actions and events that might otherwise be considered independent. Figure 2 illustrates intelligence discipline integration. This also creates complexity across the 17 intelligence organizations that have pieces of the intelligence discipline within a greater organizational structure, such as the military Services that are part of DoD and the Coast Guard that is part of DHS but maintains a role with DoD.

The U.S. Intelligence budget has two components: NIP and Military Intelligence Program (MIP). NIP includes all programs, projects and activities of the IC to include other

Figure 2. Intelligence Discipline Integration



IC programs designated jointly by the DNI and the head of department or agency, or the DNI and the President. MIP is devoted to intelligence activity within the military departments and agencies in the DoD that support tactical U.S. military operations.

ODNI's role for integration creates a common picture for intelligence collection and analysis, information, and policy. ODNI influences the 16 other intelligence organizations by influencing the budget for each organization. DoD organizations receive a combination of NIP and MIP; NIP used for the national common efforts and MIP used for specific Service mission. Figure 3 depicts the integration of the IC into a common database for information. Delineating and leveraging the budgeting

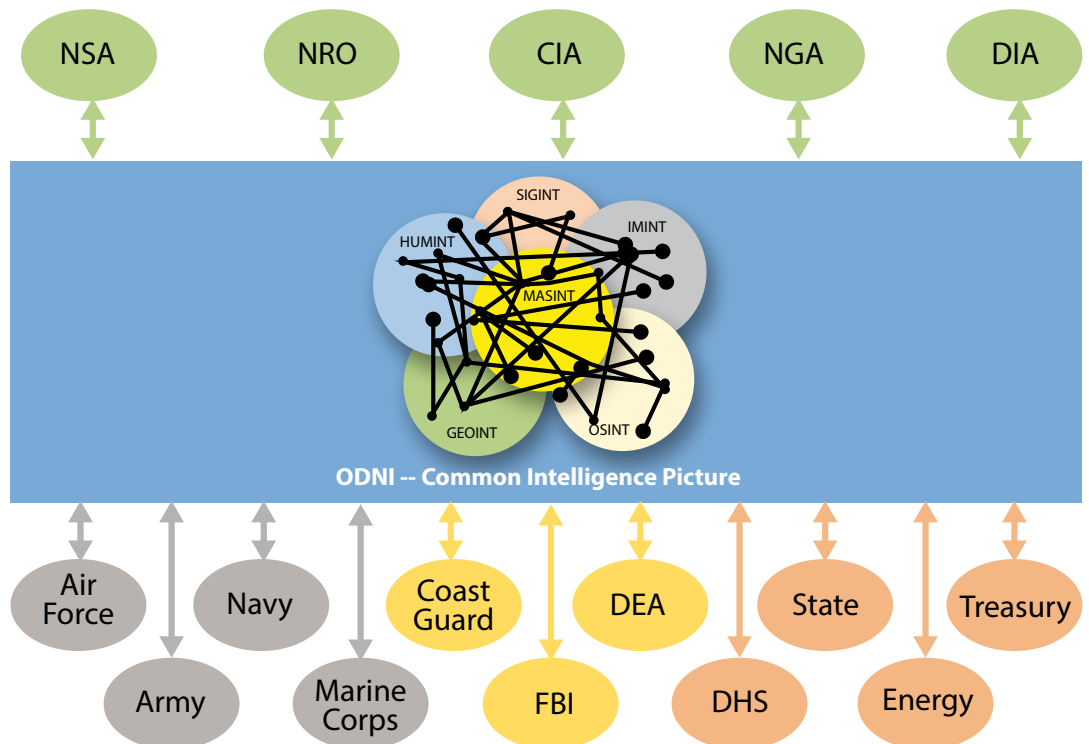
and execution of NIP and MIP funds affords optimal intelligence performance.

Policy Paradox

DoD acquisition policy regarding developing defense systems is found in DoD Directive (DoDD) 5000.01 *The Defense Acquisition System* and DoD Instruction (DoDI) 5000.02, *Operation of Defense Acquisition System*. The Defense Acquisition System is a process-dependent, decision-making system to mature technology from basic research to system disposal. The process has decision points or milestones to evaluate progress and consciously decide to invest further funding for system development. Developed systems transition from development phase into procurement phase and then operation and maintenance phase. Operational commands operate and maintain the systems that are developed and procured by the acquisition commands.

For acquiring services, the applicable policy is DoDI 5000.74, *Defense Acquisition of Services*. The policy assigns responsibilities and provides procedures for defining, assessing, reviewing, and validating requirements for the acquisition of services. The policy authorizes decision authority consistent with statutory and regulatory requirements for the acquisition of services allowing tailoring

Figure 3. Common Intelligence Picture



of procedures to best achieve cost, schedule and performance objectives.

Conversely, IC acquisition policy is found in *Intelligence Community Directive (ICD) 800, Acquisition, Intelligence Community Policy Guidance; Intelligence Community Policy Guidance (ICPG) 801.1, Acquisition; and Intelligence Community Standard (ICS) 801-4 IC, Services Acquisition*. Each armed Service/organization also has its own acquisition policy providing more specific details for execution. The relationships between these two policy foundations are not always consistent, and the overarching document addressing the overlap of DoD and IC acquisition is the Memorandum of Agreement (MOA) between Director of National Intelligence (DNI) and the SECDEF concerning the Management of Acquisition Programs executed at the DoD Intelligence Community Elements dated March 2008.

The MOA provides that ODNI and DoD will jointly conduct oversight for wholly or majority NIP-funded acquisition programs. Quarterly, the parties are to jointly review and assess program execution against Milestone Decision Authority (MDA)-approved baselines for cost, schedule and performance. As the SECDEF sets policy for DoD, the MOA flows down to military Services, requiring joint management, unless an alternative agreement has been documented. Although specific policy is not established in practice for non-Major System Acquisitions (MSA), the expectation is that MSA policy provides the guidance for best practices in implementation. Figure 4 depicts a simplified

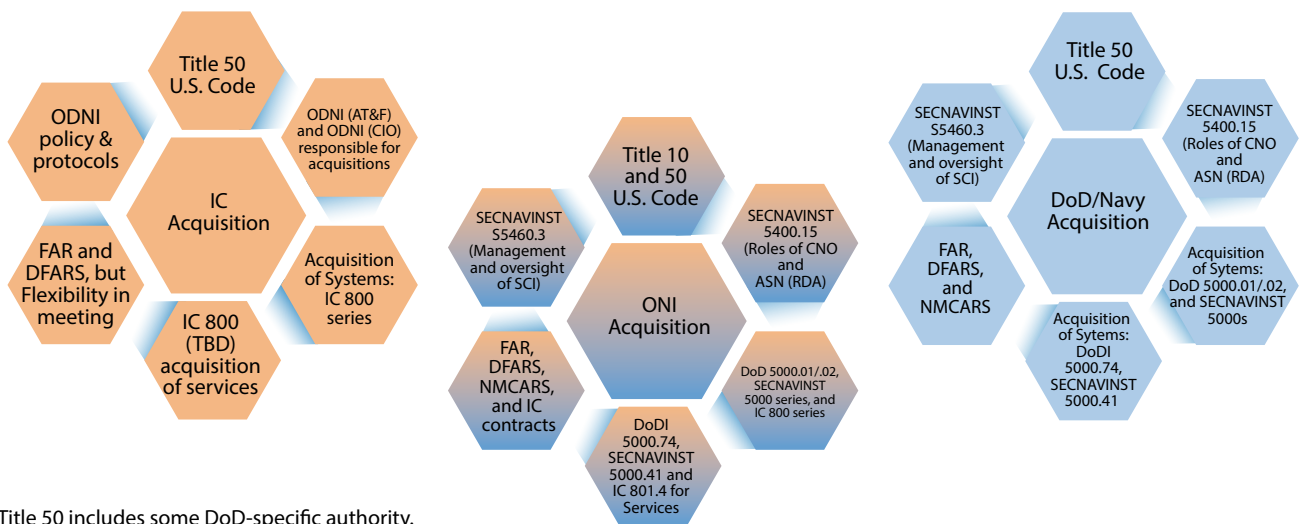
overlap of DoD and IC policy for acquisition; however, Title 50 includes DoD authority for specific purposes.

IC MSA are equivalent to DoD Acquisition Category (ACAT) I and II programs: (MSA Research, Development, Test and Evaluation [RDT&E]) greater than \$200 million (Fiscal Year [FY] 2017 base year), ACAT I RDT&E greater than \$480 million (FY 2014 base year), and ACAT II RDT&E greater than \$185 million (FY 2014 base year). ACAT III programs are all others not considered an ACAT I or II. DoD ACAT III programs require oversight, per the DoDI 5000.02. For the Navy, below ACAT III is further broken into ACAT IVM, ACAT IVT, and Abbreviated Acquisition Program (AAP).

DoDI 5000.74 established oversight of service acquisitions through a Senior Service Manager (SSM) citing a program management chain-of-command from program manager to SSM. This service policy tailors the acquisition to five service categories, dollar-based.

The MOA between DNI and SECDEF states that “wholly or majority NIP-funded acquisition programs shall be executed according to IC acquisition policy. This will be implemented through direct reference of the DNI policy in DoD 5000.” The SECDEF and DNI may delegate MDA to a DoD IC element agency head for wholly or majority NIP-funded acquisition program. The delegation would be captured in a formal memorandum, with review conducted by Deputy Director National Intelligence/Acquisition (DDNI/

Figure 4. DoD and IC Policy Overlap



Key: ASN(RDA) = Assistant Secretary of the Navy for Research, Development and Acquisition; DFARS = Defense Federal Acquisition Regulation Supplement; DoDI 5000 = Department of Defense Instruction 5000 on acquisitions; FAR = Federal Acquisition Regulation; IC = Intelligence Community; IC 800 = IC 800 series acquisition directives; NMCARS = Navy Marine Corps Acquisition Regulation Supplement; ODNI(AT&F) = Office of the Director of National Intelligence (Acquisition, Technology and Facilities); ODNI(CIO) = ODNI, Chief Information Officer; SCI = sensitive compartmented information; SECNAVINST = Secretary of the Navy Instruction; U.S.C. = United States Code.

AQ) and Under Secretary of Defense for Acquisition and Sustainment for assurance that a mature, repeatable and fundamentally sound acquisition program is in place prior to the recommendation of the delegation of MDA. A joint assessment will be accomplished at least annually to assess need for changes of MDA delegation.

Organizational System Performance

The intelligence mission is unique and drives the establishment of intelligence commands that must perform both operations and acquisition functions. The same command organization develops, procures, operates, maintains and disposes of the systems. This is a paradox for military services that traditionally separate the roles into operational commands and acquisition commands. Even Combatant Commands have recognized acquisition missions. Special Operations Command (SOCOM) established an acquisition center within the command. Transportation Command and Cyber Command have an Acquisition Executive and Program Executive Offices (PEOs).

The intelligence mission is data-oriented, requiring an information technology (IT) platform that may interface with other military Service platforms of aircraft, ships, submarines and space-enabling systems. This drives an IT-oriented workforce regardless of the primary acquisition discipline. The March-April 2018 *Defense ATL* magazine article, "Including Cybersecurity in the Contract Mix," emphasized that cybersecurity crosses all acquisition disciplines: program management, IT, engineering, test and evaluation, finance, logistics and contracting, and should be included in the earliest phases of contract planning from acquisition planning to contract maintenance and closeout. It is imperative that the contracting officer understand the program's cybersecurity requirements and construct a contracting strategy to determine whether offerors are capable of delivering those requirements. Figure 5 reflects the intelligence acquisition puzzle of balancing requirements across all policies and initiatives.

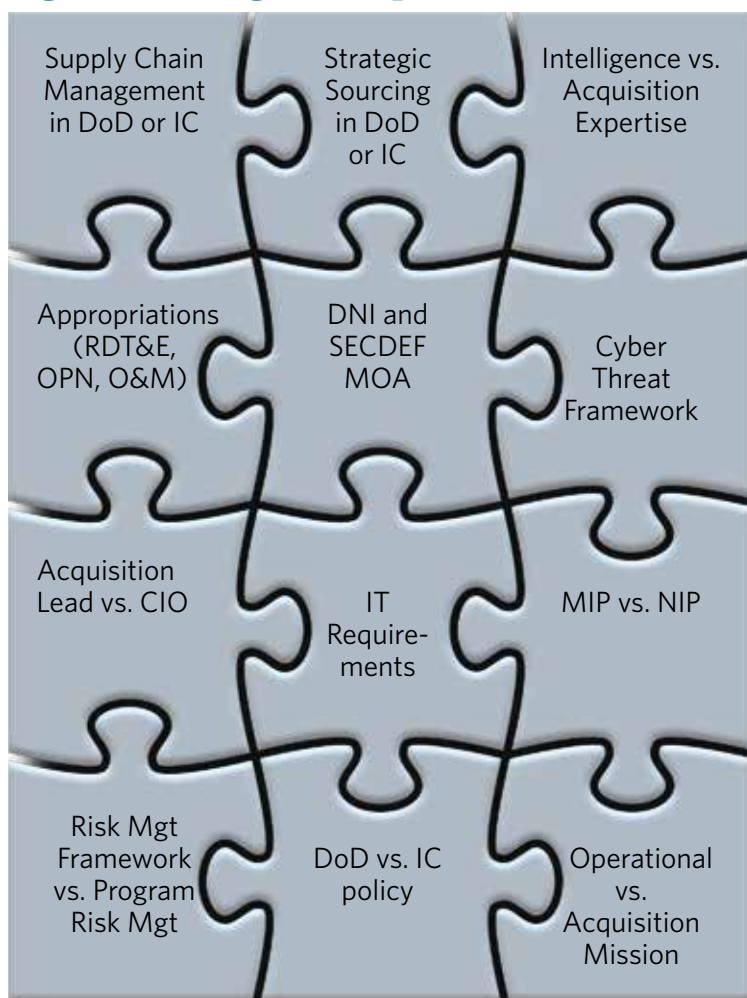
IT and Chief of Command Information Officer (CIO) Role

All IC elements, to include those of the DoD Armed Services, depend heavily on Information Technology, Information Management, and Cybersecurity (IT/IM/CS) capabilities to enable the prompt and sustained conduct of their assigned missions. It is imperative that those elements gain and maintain the freedom of action needed to acquire such capabilities in a manner that maximizes Intelligence mission value by meeting

or beating cost, schedule and performance requirements linked to threats and/or opportunities. To an increasing degree, that necessary freedom has less to do with the traditional work of "making things" and more to do with buying services securely from the most innovative segments of the commercial marketplace. This shifts policy implementation from DoDI 5000.02 and developing systems to DoDI 5000.74 and acquiring services.

In order to become an effective buyer of commercial IT services, the IC elements of the DoD Armed Services must master the performance of IT/IM/CS Service Management (SM) functions based on commercial best practices. Mastery will arise from each element's IT, Acquisition and Mission Business Owner (MBO) teams working together with commercial subject-matter experts to learn how best to balance in a hybrid fashion the operation and maintenance of specialized capabilities that must, because of mission imperatives, remain on-premises and the consumption of commoditized services provisioned by external entities,

Figure 5. Intelligence Acquisition Puzzle



particularly commercial entities involved in the provisioning of properly secured cloud services.

The DoD CIO is the principal staff assistant and senior advisor to the SECDEF and Deputy SECDEF for IT (including national security systems and defense business systems), information resources management (IRM) and integration efficiencies; therefore, the DoD CIO is responsible for all matters relating to the DoD information enterprise, such as cybersecurity, communications, information systems and more. This role and responsibility flows down to the military Services and organizations of the Fourth Estate (i.e., predominantly civilian, non-Service sectors of DoD). The DoD CIO role complements the role of the MDA for IT systems and Defense Business Systems.

In comparison, the IC CIO is the MDA for IT systems for national intelligence mission as established by National Security Act of 1947, Section 103G:

The IC CIO shall manage activities relating to IT infrastructure and enterprise architecture requirements, have procurement approval authority over all IT items related to the enterprise architectures of the IC components, direct and manage all IT-related procurement for the IC, and ensure that all expenditures for IT and research and development activities are consistent with IC enterprise architecture and the strategy of the Director for such architecture.

Critical Thinking

For programs that intersect DoD and IC, specific “rules of the road” for that acquisition need to be established and managed differently. Developing an acquisition strategy accommodating the intelligence acquisition puzzle requires a network or decision-tree diagram approach with intersections leading to multiple forks. Choosing the right fork is a risk-based decision. The shift from an organization doing IT to procuring IT through service models of Infrastructure-as-a-Service (IAAS), Platform-as-a-Service (PAAS), and Software-as-a-Service (SAAS) changes the skills required for the organization. Defense Acquisition Workforce Improvement Act (DAWIA) certifications are required for personnel managing acquisitions through establishing requirements and purchasing these IT services. Leveraging commercial industry may advance technology but also increase risk to cybersecurity.

The overlap of knowledge from multiple career fields sheds insight between the fields. In the March-April 2018 *Defense AT&L* magazine, the article “Interdisciplinary Competence” described the benefits of interdisciplinary knowledge:

Integrated and interdisciplinary teams achieve better problem-solving skills by leveraging common knowledge. Results from academic institutions and a 3M Company study sup-

port the development of depth and breadth in disciplines to achieve exceptional performance... Complex problems cross disciplinary fields and require the use of multiple disciplines to develop a solution... An interdisciplinary perspective requires bridging knowledge between disciplines to address complex problems. Successful teams integrate multiple disciplines to frame a problem, agree on a methodological approach, and collaboratively analyze data. Exceptional teams do a better job of integrating knowledge... Greater integration of disciplinary knowledge enables the development of more effective critical thinking and innovative ideas than are possible in traditional multidisciplinary teams.

Critical thinking encompasses the process of actively conceptualizing, applying, analyzing, synthesizing and evaluating information to resolve a problem or draw a conclusion. Acquisitions for the intelligence mission benefit from critical thinking and the ability to reconcile the applicable policy between DoD and the IC. Critical thinking will springboard the Naval Intelligence mission, as well as DoD Intelligence mission, to yield the results envisioned by Roughead.

Conclusion

Complexity influences the ability to balance planning with the chance to anticipate and respond to changing conditions and feedback. The integration of operational and acquisition within the same command adds complexity; however, this complexity affords the opportunity to more closely align the user and developer expertise, a challenge for command structures that are separated. Agile acquisition principles emphasize the users’ involvement throughout the acquisition with feedback shaping each iteration.

In addition, the overlap of policy further adds integration complexity affording the workforce the opportunity to apply critical thinking. In simplistic situations, separation and reduction of the whole into smaller manageable pieces achieves optimal performance. However, under complexity where the whole is not a summation of the pieces but something different, leveraging the integration of operational and acquisition can achieve nonlinear performance. The expression, “the whole is greater than the sum of the parts” reflects a nonlinear relationship versus a linear relationship. SOCOM has experienced favorable performance with an acquisition center embedded within an operational command.

The Intelligence acquisition mission is different from other defense acquisition missions, requiring understanding of related problems and developing different solutions. The expertise of the workforce is different, requiring an integration of knowledge across disciplines for teams, as well as individuals. Critical thinking enables identifying the critical aspects of policy integration across all policy owners to

ensure appropriate policy implementation without compromising the intelligence mission.

Intelligence acquisitions afford individuals the opportunity to work complex, as well as really hard, edgy, cool problems, and to generate boundary-spanning innovation while developing critical thinking acumen. The leaders of organizations such as MIT, Google, Microsoft, and Apple understand developing a forward-thinking workforce

means challenging them at every level. In order to accomplish this effort, continuous training within their expertise and across other fields is needed. Intelligence acquisition requires elements of the fast-paced commitment of agile project management to leverage technology advances and maintain a cutting-edge mission.

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MDAP/MAIS Program Manager Changes

With the assistance of the Office of the Secretary of Defense, *Defense Acquisition* magazine publishes the names of incoming and outgoing program managers for major defense acquisition programs (MDAPs) and major automated information system (MAIS) programs. This announcement lists recent such changes of leadership for both civilian and military program.

Army

Elanor "Jeannie" Winchester relieved **Col. Donald Burton** as product director for General Fund Enterprise Business Systems (GFEBs) on May 13.

Preston Pysh relieved **Lt. Col. Rodney Turner** as product manager for Common Infrared Countermeasures (CIRCM) on May 23.

Col. Jack Taylor relieved **Col. Gregory Coile** as the project manager for Tactical Network on July 1.

Lt. Col. Sherida Whindleton relieved **Lt. Col. Timothy Sugars** as the product manager for Waveforms on July 1.

Lt. Col. Sung In relieved **LTC Kelvin Graves** as the product manager for Tactical Cyber and Network Operations on July 1.

Col. Senodja Sundiatwalker relieved **Col. Donald Hurst** for the project manager of DoD Biometrics on July 2.

Lt. Col. Johnathan Nelson relieved **Lt. Col. Rob Barnhill** as product manager for Vehicle Systems Integration (JLTV-VSI) on June 4.

Michael Sprang relieved **Col. Shane Fullmer** as project manager for the Joint Program Office, Joint Light Tactical Vehicles (JPO JLTV) on June 6.

Lt. Col. Raymond Yu relieved **Lt. Col. Michael Baker** as product manager for the Joint Tactical Radio System Embedded/Handheld/Manpack (JTRS-E/H/M HMS) on June 13.

Col. Calvin Lane relieved **Col. William Jackson** as the project manager for Utility Helicopter on July 14.

Col. Guy Yelverton relieved **Col. James Mills** as the project manager for Precision Fires Rocket and Missile System on July 15.

Col. Gregory Fortier assumed role as the project manager for Future Vertical, July 12.

Lt. Col. Shawn Chuquinn relieved **Lt. Col. Shermoan Daiyaan** as product manager for the Tactical Mission Command (TMC) on June 20.

Lt. Col. Tyler Tafelski relieved **Lt. Col. Jared Novak** as product manager for Self-Propelled Howitzer Systems (SPHS) on June 30.

Lt. Col. Matthew Peterson relieved **Lt. Col. Joseph Herman** as the product manager for Apache Development and Modernization on Aug. 7.

Lt. Col. William Reker relieved **Lt. Col. Preston Hayward** as the product manager for Global Combat Support Systems (GCSS) - Army on Aug. 9.

Navy/Marine Corps

CAPT Shaun A. Swartz relieved **CAPT Robert D. Croxson** as program manager for Multifunctional Information Distribution System (MIDS) (PMA/PMW 101) on July 2.

CAPT Jason M. Denney relieved **CAPT David D. Kindley** as program manager for F/A-18 & EA-18 Aircraft (PMA 265) on July 11.

CAPT Kevin J. Watkins relieved **CAPT Joseph B. Hornbuckle** as program manager for Naval Air Traffic Management (PMA 213) on July 29.

Edward E. Quick relieved **Shannon E. Seay** as program manager for Navy Enterprise Business Solutions (PMW 220) on Aug. 1.