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LEADING DISTRIBUTED TEAMS:

THEORY AND PRACTICE

by

Christopher L. Workinger, Lt Col, USAF

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

Advisor: Mr. Michael Ivanovsky, LeMay Center Intelligence Directorate, USAF

23 February 2018

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Biography

Lieutenant Colonel Christopher L. Workinger earned his commission in 1999 from the University of Akron's Reserve Officer Training Corps (ROTC). Lt Col Workinger is a career intelligence officer with multiple unit level assignments including operational B-52H and F-16C flying squadrons, both at home station and deployed. He is a graduate of the Intelligence Weapons Instructor Course and he was an Instructor and Director of Operations at the USAF Weapons School from 2006-2010. Lt Col Workinger earned his Master's Degree in Special Operations & Irregular Warfare from the Naval Postgraduate School in 2011. His staff assignments include the Office of the Secretary of Defense's POW/MIA Accounting Agency, where he served as an analyst and military assistant, in addition to Headquarters Air Force Strategic Plans and Programs Directorate (HAF/A-8), where he served as a Global Integrated Intelligence, Surveillance and Reconnaissance (ISR) Force Programmer. Lt Col Workinger commanded the 24th Intelligence Squadron (Distributed Ground Station-Four) at Ramstein Airbase, Germany from June 2015 – June 2017. He is currently a student at the Air War College, Maxwell AFB, Alabama.

Abstract

Distributed teams are a foundational element for 21st century Air Force Intelligence Surveillance, and Reconnaissance (ISR) missions and collection operations in support of the joint and combined force are executed regularly by geographically-separated teams. In the 25th Air Force more than 29,000 total force Airmen serve at 75 locations around the globe executing ISR missions.[1] For the great majority of these ISR operations, multiple squadrons and teams come together from geographically separated locations, well outside of their traditional military chains of command, to execute missions. While there is incredible power in distributed teams, high-performing teams don't happen by chance, and leaders must purposefully set the conditions to maximize mission effectiveness to stay ahead of an ever-changing adversary. Current military leadership models are not optimized for leading in the distributed teams environment where mission success depends on teamwork with a patchwork of organizations more akin to a networked approach at warfare than a standard chain of command. This research draws upon two qualitative sources to identify the foundational principles of leading distributed teams: interviews of commanders within the 480th ISR Wing (Air Force Distributed Common Ground System - AFDCGS) and; a qualitative assessment of leadership books from the business world on leading "virtual" and other geographically separated teams. Ultimately, this research proposes a leadership model for the distributed teams environment and proposes two different techniques to graphically depict distributed teams. Lastly, this paper identifies leadership best practices and offers five recommendations to help leaders thrive in the distributed teams environment. Future ISR mission environments will most certainly move with increased velocity, variety, and volume. The time is now for leaders to learn and apply the theory and practice of more effective distributed teams.

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Introduction

Distributed teams are a foundational element for today's Air Force Intelligence Surveillance, and Reconnaissance (ISR) missions, and global operations in support of combatant commands and coalition commanders are executed regularly by geographically separated teams. In the 25th Air Force more than 29,000 total force Airmen serve at 75 locations around the globe executing ISR missions for the joint force.[2] Lt Gen David Deptula, former Air Force Deputy Chief of Staff for ISR, described this environment as a "rapidly evolving paradigm, called distributed ISR operations, links platforms and sensors, forces forward, and human ISR warfighting experience around the globe in ways that make networked combat operations routine."[3] Leading in a globally distributed teams environment can prove extremely challenging for myriad reasons and this environment – geographically separated and highly interdependent teams – calls for leadership theory and practice that match this paradigm.

While there can be incredible power in distributed teams, commanders and leaders must purposefully set conditions to maximize mission effectiveness. Current military leadership models are not optimized for leading in the distributed teams environment, where mission success is dependent upon collaboration, communication and teamwork with a patchwork of organizations well outside of the traditional chain of command. This paper aims to provide leaders in this environment with the theory and practice of effectively leading distributed teams through a leadership model, a visualization tool to graphically depict teams, and five recommendations for commanders and leaders to survive and thrive.

Research Design

For the purposes of this research, distributed teams are defined as geographically separated mission entities required to collaborate to accomplish missions. What makes this

environment unique is the emphasis on entities outside of the traditional chain of command, most often at or above the squadron level. Stated another way, squadron commanders, must not only lead their squadron effectively (their squadron being one element of the distributed team), but they must also maintain solid relationships with multiple other teams and entities, most of whom are well outside of their traditional chain of command, to enable mission success. This research draws upon two primary qualitative sources to identify the foundational principles of leading distributed teams: interviews of commanders within the 480th ISR Wing (Air Force Distributed Common Ground System – AF DCGS) and; a qualitative assessment of leadership books from the business world on leading "virtual" and other geographically separated teams.

Interviews with commanders in the 480th ISR Wing (wing, group and squadron level) proved to be an information-rich environment for leadership theory and practice and revealed numerous principles, factors and practices which were utilized to craft the models proposed in this writing. Many modern businesses also operate in a distributed teams environment where numerous global corporations operate from geographically separated locations toward a common goal. Often referred to as "virtual teams," there is a plethora of materials on leading virtual teams available for study, and this research draws on multiple works from the civilian sector. There is are few standard operating procedures for military leadership in the distributed teams environment and this writing aims to raise the bar for leadership theory and practice, especially for leaders new to this environment.

Leadership Model

The results of the interviews and qualitative book reviews revealed multiple common themes and principles fundamental to thriving in a distributed teams environment including: communication; trust; mission command (combines the principles of intent, guidance, purpose, empowerment, goals, and flexibility); shared consciousness[4] (combines the concepts of common understanding, cross-organizational understanding, liaisons, and integration); problem-centric (combines the concepts of purpose, objective, integration, and common understanding); and habitual relationships (includes the concepts of liaisons, patience, and relationships). The proposed model incorporates these leadership theory elements into a schema designed to assist leaders with executing effective leadership techniques and practices (See Figure 1. Distributed Teams Leadership Model). Relationships are the cornerstone of leadership in the distributed teams environment where trust is essential. As a result of the critical importance of relationships, the core of the model is *trust and engagement. Continuous, effective, communication and feedback* enables trust and engagement, and this leadership element surrounds the core of *trust and engagement* in the model. Communication is represented as a circle (cycle) in the model due to its nature as an enduring process. Next, the four working elements of the model that surround communication are: *mission command*; *shared consciousness*; *problem-centric*; and

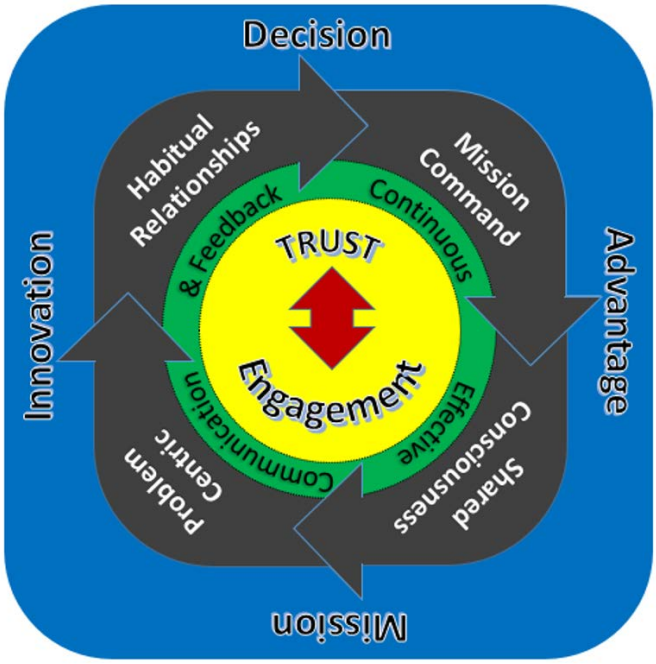

Figure 1. Distributed Teams Leadership Model

habitual relationships. The four working elements are also represented as a cycle and are continuously accomplished and adjusted, based on changing conditions, lessons learned, evolving environments, and assessments. Finally, the model resides on a field depicting decision advantage[5] – the ultimate "best" state of an intelligence, surveillance and reconnaissance enterprise – and mission innovation,[6] a necessary state to ensure continued relevancy and flexibility for effective ISR operations.

Trust and Engagement

The core of the Distributed Teams Leadership Model is *trust and engagement* due to its critical importance in relationships. In *The Speed of Trust*, Stephen M.R. Covey states "simply put, trust means confidence … the opposite of trust is suspicion."[7] If trust is lost in a relationship or otherwise removed, the results can be catastrophic. There are striking differences between high-trust and low-trust relationships and this is most readily demonstrated in an example of leadership communication. Covey's example that "In a high-trust relationship, you can say the wrong thing and people will still get your meaning…In a low trust relationship, you can be very measured, even precise, and they'll still misinterpret you"[8] provides a powerful illustration of the impacts of trust.

The primary means of building trust is engagement – actively communicating, collaborating, and sharing with other teams. Trust can be both created and destroyed,[9] and by actively engaging with mission-critical teams, leaders can build trust, maintain trust, and benefit from the speed of trust.[10] Covey's declarative statement that "nothing is as fast as the speed of trust,"[11] is probably the most obvious when trust is low in a relationship. In *Team of Teams*, General Stanley McChrystal repeatedly discusses the critical nature of trust and its importance in shaping the profound transition in the special operations community during the Iraq war.[12] The

need for trust is not exclusive to the special operations community and trust has a critical role in all effective relationships, especially in the military. Ultimately, trust matters and is essential to any team, but more importantly distributed teams, where mission accomplishment is not possible without all of the team's elements working toward a common mission objective.

Communication

Continuous, effective communication and feedback encircles trust and engagement in the leadership model, and while communication is an obvious element in a leadership model, its importance cannot be overstated. Continuous and effective and communication was a strong foundational theme in both qualitative aspects of this research. Lt Col Laura Terry (Commander, 402 Intelligence Squadron at Distributed Ground Station Four, Germany) described communications in terms of a battle rhythm, or regularly-scheduled meetings with key team members, "if it isn't a recurring event on the calendar, it isn't going to happen."[13] While simple in concept, the positive impacts of the "right" recurring events on a calendar can greatly enhance the mission. Commander's calendars drive inter and intra squadron-level operations, and creating events and placing emphasis where needed – on the mission and contributing teams – is important.

Ultimately, communications must be effective – succinct, purposeful, balanced and timely – and should include both providing and receiving feedback. Hassan Osman, author of *Influencing Virtual Teams: 17 Tactics That Get Things Done With Your Remote Employees* proposes multiple seemingly simple but highly effective communications principles to thrive in the distributed teams environment including: always setting deadlines; assigning responsibility for tasks to a specific person; explaining tasks in person and in writing; writing assertive and purposeful e-mails and; making and executing a plan for every meeting.[14] Again, while these

principles are basic, even the most well intentioned leaders can under-communicate. The positive and far-reaching impacts of effective communications will keep the team(s) operating efficiently and, most importantly, build trust and confidence in the leader's ability to lead.

Mission Command

The elements captured within the concept of mission command were a prevalent and recurring theme in both the leadership interviews and qualitative book reviews for this research and included common understanding, commander's intent, unity of command, and pushing decision authority to the appropriate level. According to Joint Pub 3-0, *Joint Operations:*[15]

> "**Mission command** enables military operations through decentralized execution based on mission type orders. **Mission command** is built on subordinate leaders at all echelons who exercise disciplined initiative and act aggressively and independently to accomplish the mission. Mission-type orders focus on the purpose of the operation rather than the details of how to perform assigned tasks. Commanders delegate decisions to subordinates wherever possible, which minimizes detailed control and empowers subordinates' initiative to make decisions based on the commander's guidance rather than constant communications. Subordinates' understanding of the commander's intent at every level of command is essential to **mission command**"[16].

Fundamentally, mission command is commander-centric leadership and is critical in the distributed teams environment because of the number of teams involved in executing the mission and complex battlespace encountered during today's ISR operations.

The concepts of mission command are also highly prevalent in *Team of Teams*, where General McChrystal lays out how "trust, common purpose, shared consciousness, and empowered execution"[17] enabled multiple successful counterterrorism operations in Iraq. While mission command may be somewhat foreign to the Air Force audience who are most accustomed to "centralized control, decentralized execution," the concept of mission command is now more prevalent based on the joint force and leaders and commanders in the distributed teams environment must embrace and practice this concept whole-heartedly if our nation's future fights

are to succeed. Mission command in practice, which General McCrystal also describes as "empowered execution" requires shared consciousness in order to work effectively. The *Team of Teams* author explained the interdependence of the factors as "empowered execution without shared consciousness is dangerous."[18]

Shared Consciousness

Shared consciousness, or in layperson's terms, common understanding, was a recurring theme from both the interviews and books in this research. The explanation for why this concept was repeatedly mentioned and is so important can best be explained by the way information is created, discovered, and flows in distributed team environments. Important, even critical, mission information and data is also distributed based on the numbers of teams involved in the work. In hierarchical organizations, leaders often serve as "information pumps"[19] as a result of stove-piped, industrial-aged hierarchies – the traditional military "line and block" chain of command structure is the perfect example of this. Controlled information flows, in situations requiring leaders to serve as "information pumps," are not conducive to shared consciousness, but are typical of military hierarchies. With the number of teams involved in distributed missions, the environment can quickly become complex and unwieldy. Ultimately, leaders in this environment need to find more effective ways of sharing information.

General Stanley McChrystal describes shared consciousness as "extremely transparent information sharing"[20] to the point that it makes leaders feel uncomfortable.[21] True shared consciousness is difficult to achieve, as leaders can be extremely hesitant to share information this openly, but it is an essential state where the entirety of the team has appropriate access to necessary information. Shared consciousness requires that team members have access to mission information to facilitate effective analysis and appropriate decision making at all levels.

Bringing information together in an effective manner for decision-makers and mission contributors becomes the primary challenge. The 480th ISR Wing is currently experimenting with multiple tech-based collaboration tools to attack this issue, where the best approach at collaboration solutions empowers leaders and teams where they need it most and sets the conditions for organic, grass-roots, bottom-up innovation to take place.

Problem Centric

The third working element of the distributed teams leadership model is *problem-centric.* This element captures the need for distributed team leaders to focus on solving problems, instead of working through processes. While the concept of *problem centric* is technically duplicative with *mission command's* principles of *purpose* and *intent,*[22] its place in the leadership model is intended to emphasize the importance of problem-solving. Executing processes instead of solving problems is an all too common pitfall in large bureaucracies and the distributed teams environment of Air Force ISR are certainly not immune from this condition. In a 2014 Joint Forces Quarterly article, Colonel Jason M. Brown stated "the goal of an ISR strategy should be to create a problem-centric and not a requirements-centric approach to operations."[23] This concept – focusing on solving problems – should permeate every level in the distributed teams environment. A state of problem-centricity is not sufficient however, and leaders must tailor their approach in order to execute missions successfully, specifically regarding the scoping of problems.

Scoping problems "in time, space, and purpose"[24] will help leaders to first appropriately define problems and issues before developing solutions to these problems. Broad, overarching strategic guidance statements such as "degrade ISIS" (the Islamic State of Iraq and ash-Sham) or "disrupt ISIS" are extremely difficult if not impossible to achieve without scoping.[25] By tackling

an issue temporally, spatially, and focusing on the core problem of the issue (problem-centricity), mission statements such as "disrupt ISIS" can be broken down into a realistic timeframe (e.g. days, weeks or months), in a specific location (e.g. neighborhood or city), and focused on a specific problem (e.g. enemy command and control).

Habitual Relationships

Strong working relationships between teams are critical for the distributed mission environment where leaders must focus and prioritize their time to build enduring, reoccurring relationships with all pertinent mission teams. This fact is not lost on the current leaders within Air Force DCGS and Colonel Kristofer Gifford, Commander, 497th ISR Group (Distributed Ground Station One, Virginia) provided a short, yet highly relevant answer in response to the author's question "what is the most important leadership factor in the distributed teams environment? His two word response "habitual relationships"[26] is indicative of the importance of the relationship between teams. Leaders must develop solid trusting relationships with key leaders and members of their distributed teams in order to maximize mission effectiveness. Being habitual regarding these relationships is an important practice.

One common technique to build and strengthen relationships between teams in the use of liaisons. In *Team of Teams*, General McChrystal defines liaisons as "institutionalized ambassadors who serve to connect organizations"[27] and the exchanging of liaisons was regularly practiced in the special operations transformation led by General McChrystal. Liaisons are utilized to mitigate barriers and are described in *One Mission* as "trusted members of their own organizations who can promote trust, cooperation, and understanding among different groups."[28] The use of liaisons across and within distributed teams is a widely accepted practice and the interviews in this research revealed this common practice within the 480th ISR Wing to great

effect. Liaisons demonstrate an organization's commitment to a mission and the power of an 'advocate in place' can maximize mission effectiveness and provide immeasurable mission efficiency. With personnel availability and readiness levels a constant challenge, leaders can leverage liaisons with time limits in mind. Even short timeframe liaison opportunities can prove beneficial, especially for new or emerging relationships within the distributed teams environment.

Decision Advantage and Mission Innovation

The leadership model resides on a field labeled *decision advantage* and *mission innovation* to represent optimal states for Air Force ISR – decision superiority and agility. Decision advantage is defined as "providing commanders at every level with the knowledge they need to prevent surprise, make decisions, command forces and employ weapons."[29] As a foundational theme in *Air Force ISR 2023*, decision advantage is described as empowering leaders to "protect friendly forces and hold targets at risk across the depth and breadth of the battlespace – on the ground, at sea, in the air, and in cyberspace."[30] By executing the principles in this leadership model, leaders can move their organizations and missions closer to decision superiority by providing *decision advantage* to commanders and decision makers at all levels.

Mission innovation on this model is intended to represent the distributed teams' ability to adapt and transform to a more effective operational state. More than a buzzword, meaningful innovation requires an "innovation ecosystem that cultivates people, ideas and technology for a common purpose."[31] Additionally, in order to establish an innovation ecosystem, leaders must "avoid innovation theater; know why you're innovating; embrace discovery learning, and create venues to bring out ideas."[32] In future fights, mission environments will most certainly move with increased velocity, variety and volume and current hierarchical, industrial ways of doing

business will not be able to keep pace with likely adversaries. Effective innovation is one technique to help set the conditions for creating agile teams and processes.

Graphically Representing Distributed Teams

The distributed teams environment is vast and diverse and it is difficult to find an organizational chart that depicts all of the teams and players on one document. This is especially true because different missions can require a different collection of teams. The importance of graphically representing the distributed teams that converge and work together on a specific mission is fundamental to applying the techniques proposed in this leadership model. In this case, identifying *who* is contributing to missions is important and this research revealed while most of the experienced leaders interviewed had strong mental models of their commonly encountered teams, very few had a technique to graphically display the teams. A key nuance here is experience – mental models of distributed teams are great for veteran leaders – but what about leaders who are new to the mission?

Ultimately, it doesn't matter *how* a leader depicts the distributed teams that contribute to a mission, only that they actually take the time to graphically depict it and ensure all contributing teams are represented. The two techniques proposed here are very simple, but they serve to start the process of identifying distributed teams. The hub and spoke model and the honeycomb technique provide a starting point for capturing distributed teams.

The first technique is a basic hub-and-spoke or roundtable construct with the mission at the center or hub and each contributing team is represented at the end of the spokes (Figure 2. Hub and Spoke Model). Leaders can and should tailor this model as they see fit, including representing missions at multiple levels, populating the team entities with leader's names, locations and points of contact, and color coding, as appropriate.

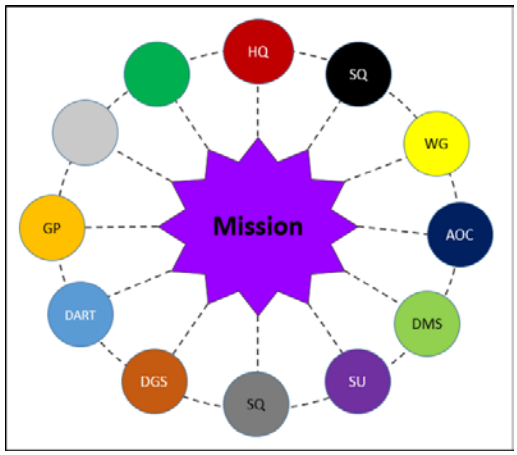

Figure 2. Hub and Spoke Model

The second technique proposed is the honeycomb (See Figure 3. Honeycomb Model). This hexagonal model provides leaders with the ability to depict teams' relative hierarchical (e.g. chain of command) position as compared to their team. In the example shown, an ISR squadron is depicted at the center of the model (in black), with sister squadrons depicted laterally, up-echelon entities (e.g. group staff, group commander, air operations center) depicted on the row above, and sub-squadron elements depicted on the rows below the squadron (e.g. supported units and specialized teams within the squadron). Again, leaders are encouraged to customize the model as they deem necessary. It is important that leaders take the time to display their distributed teams in some form in order to prioritize leadership actions and communications.

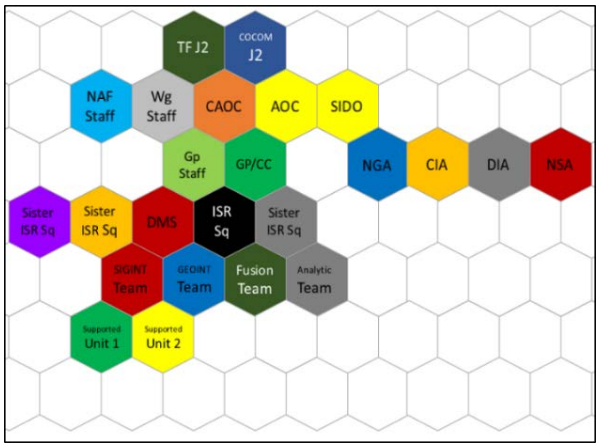

Figure 3. Honeycomb Model

Recommendations

Leaders of distributed teams serve in a challenging environment where all of a commander's time can be consumed handling issues and challenges within their own organization. The ability to build trusting, habitual relationships with partners in the distributed mission teams environment is essential. First, leaders must lead purposefully and plan on how they will engage and conduct business within their own squadron and amongst distributed teams. The leadership model proposed in this writing is a starting point to guide leaders' actions in the distributed teams environment. While the model proposed is certainly not the only solution to this challenge, leaders should have a pre-planned technique to lead teams effectively – building trust, communicating and focused on the mission.

Second, leaders must identify *who* is on the team – and make sure these team members are aware of this fact that you consider them to be "on the team." The two techniques to graphically display teams shared in this research serve as a starting point, but whatever the technique, leaders should take time to capture, on paper or by digital means, exactly which teams are contributing and defining their roles. Leaders should analyze commonalities, shared interests, overlapping mission areas, and mission gaps. And most importantly, leaders should identify who *could* be on the team. Today's robust communications environment is capable of new and innovative mission partnering – all leaders need to do is identify the need and seek out the team. Ultimately, pursuing new team members, including the exchanging of liaisons, is dependent upon leaders identifying and setting priorities.

Third, as leaders decide *who* they must build and/or maintain relationships with, they will have to decide *how* to go about building the relationships. While our best means of communication is in-person, face-to-face, the distributed environment often makes this

prohibitive due to travel costs and other restrictions (e.g. time). But *where* leaders choose to visit in-person sends an important message to the entire team (or teams). Leaders must visit key teams in person and leaders should travel early in a new leadership position. The next best communication is a virtual face-to-face utilizing a Tandberg, video teleconference (VTC), or other technology-enabled capability. Phone calls, e-mails and chat/text/messenger are the next three best options, in descending order of long-term effectiveness, but the key here is leaders must decide and *balance* their engagements. If a team is important, then leaders should travel and visit in-person. In a high-trust scenario, leaders can communicate by VTC, telephone, or e-mail, but if the relationship is truly critical, a balance between these techniques becomes even more important. Establishing an effective battle rhythm is absolutely essential in this environment and leaders should work purposefully to set a balanced schedule and communicate effectively during meetings. Lastly, leaders should identify how the organizations could benefit from the use of liaisons – both short term and long term – to enable communications and mission effectiveness.

Fourth, leaders should pursue the use of collaboration software. While this topic is beyond the scope of this paper and is recommended for additional research, the use of collaborative software is starting to take root within the 480th ISR Wing. Collaboration software stands to potentially revolutionize the distributed teams information environment and speed situational awareness, analysis, production and decision-making, while helping to eliminate stove pipes and the need for "information pumps". Ultimately, the concept of shared consciousness will become a reality when leaders are willing to forego the industrial-aged processes and information flow through a hierarchical chain of command.

Fifth, leaders should schedule time to think, reflect, and read. While busy schedules are generally not conducive for "taking time to think" leaders must *make* the time to reflect on missions, teams, organizations, processes, and environmental shifts. Secretary of Defense James Mattis emphasizes the importance of reflection and said:

> "If I was to sum up the single biggest problem of senior leadership in the Information Age, it's a lack of reflection. Solitude allows you to reflect while others are reacting. We need solitude to refocus on prospective decision-making, rather than just reacting to problems as they arise. You have some external stimulus, then you go back to your experience, your education, and you see what needs to be done."[33]

Scheduling a quarterly leadership off-site is a great forcing mechanism and asking simple questions among the team such as "what are we doing well and what could we do better?" can generate great ideas. Lastly, the importance of reading cannot be overstated. Two great recommendations for leaders in the distributed teams environment are *Team of Teams: New Rules of Engagement for a Complex World* (McChrystal, 2015) and *One Mission: How Leaders Build a Team of Teams* (Fussell, 2017).

Conclusion

Distributed teams are a reality for today's military missions and while this research and writing focused on the Air Force Intelligence Surveillance, and Reconnaissance (ISR) enterprise, the theory, practice and recommendations presented here can be useful for other military entities as well. The distributed teams environment calls for leadership practices that capitalize on the inherent power in these teams and innovative future solutions could certainly expand to even more teams contributing to missions. Commanders and leaders must purposefully set conditions to maximize mission effectiveness and while current military leadership models are not optimized for leading in the distributed teams environment, this research was aimed at providing leaders of distributed teams with a leadership model to guide actions. Building on trust and

engagement, utilizing effective communication and incorporating the elements of mission command, shared consciousness, problem-centricity and habitual relationships, commanders and leaders can maximize mission effectiveness and innovate with the teams identified utilizing the proposed visualization tools. Future military mission environments will most certainly move with increased velocity, variety and volume and the time for leaders to learn and apply the theory and practice of effective distributed teams is now.

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