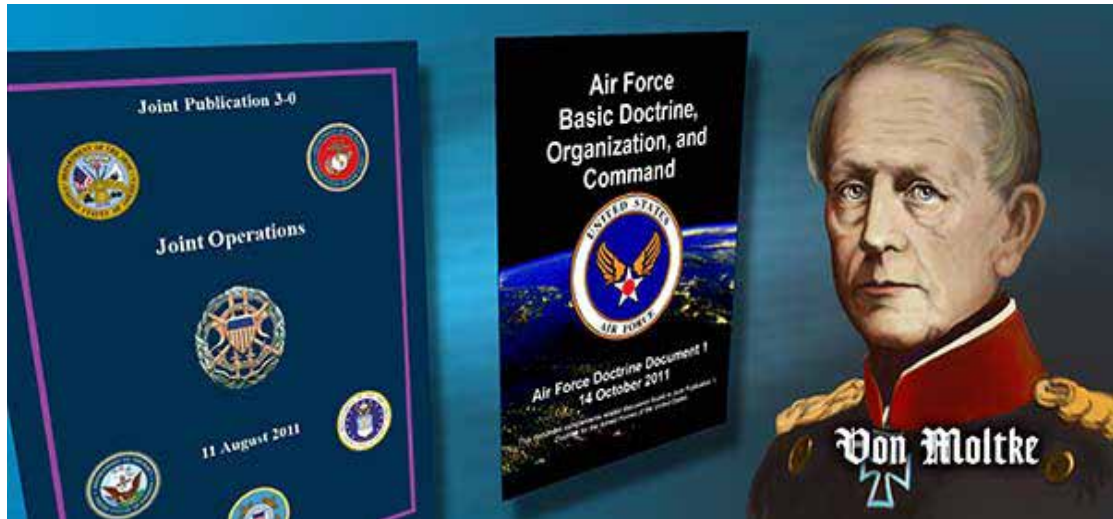


Airmen and Mission Command

Lt Col James W. Harvard, USAF, Retired



Mission command is a hot topic that affects Airmen. In April 2012, Gen Martin E. Dempsey, chairman of the Joint Chiefs of Staff, published a white paper emphasizing the necessity of mission command and the importance of having all of the services and the joint force “ensur[e] that mission command is a common attribute of our Profession of Arms.” The paper also declares that “mission command must be institutionalized and operationalized into all aspects of the joint force—our doctrine, our education, our training, and our manpower and personnel processes. It must pervade the force and drive leader development, organizational design and inform material acquisitions.”¹

The chairman’s guidance presents a challenge for Airmen because Air Force doctrine does not explicitly discuss mission command and because joint doctrine limits it to decentralized execution with mission-type orders. For the Airman, interpreting and applying this guidance

require an examination of the history, literature, and doctrine pertaining to mission command as well as an identification of where it and air doctrine intersect and diverge. More specifically, the Airman must understand the relationship between mission command and the Air Force doctrinal tenet of centralized control and decentralized execution.

The Origins of Mission Command: *Auftragstaktik*

Mission command has Prussian-German roots. In October 1806, Frederick the Great's Prussian Army suffered a defeat at the hands of Napoleon during the twin battles of Jena-Auerstädt, exposing Prussian failings and prompting reform—part of which included *directive command*. Under the latter, the commander of an army explained the general intent to his divisional commanders but left the details of each division's action to its commander. Directive command emerged from the belief that a commander of a large force could not control the action of subordinate units. It became firmly established in the Prussian Army but did not become official doctrine until Helmuth von Moltke's tenure as chief of the Prussian General Staff. At the time, conventional tacticians (*Normaltaktikers*) opposed directive command, wanting to issue explicit orders down to the last detail. These individuals coined *Auftragstaktik* (mission tactics) in the 1890s as a term of abuse for supporters of directive command because they considered it a threat to military discipline.²

Over time, the Prussians found that conducting operational-level maneuver warfare demanded a flexible system which enabled the initiative of lower-ranking commanders. *Auftragstaktik* provided this flexibility. The higher commander devised the general mission (*Auftrag*), leaving the means of accomplishment to the lower commander. Under Moltke, the Prussian Army prided itself on issuing general orders to subordinate commanders and then allowing them to devise the best way to carry out those orders. Throughout command echelons, orders were to be short, snappy, and to the point.³ *Auftragstaktik* flourished under Moltke, partly out of necessity. Slow communications and limitations of

the span of control rendered an operational environment where a decentralized approach to command and control (C2), or *Auftragstaktik*, proved more effective than a highly centralized command.

During War World II, Hitler became known for centralized command and interventions with his commanders. The advent of radio and the resultant speed of information exchange between lower-ranking commanders and the highest command echelons enabled Hitler's centralized style and a shift from decentralized to centralized command. Thus, credit for killing the concept of *Auftragstaktik* went to the radio—not Hitler.⁴ From World War II to current operations, each of our services has addressed centralized versus decentralized execution in its doctrine. An examination of these approaches is important to understanding and applying mission command.

The Marine Corps: Mission Command and Control

Marine Corps Doctrine Publication (MCDP) 6, *Command and Control*, presents two fundamental approaches for C2: (1) *detailed C2*, a centralized approach to execution, and (2), on the other end of the C2 spectrum, *mission C2*—the Corps's way of carrying out decentralized execution with mission-type orders.⁵ According to Marine Corps doctrine, detailed C2 derives from a belief that a powerful and highly efficient C2 system can impose order and certainty on the disorderly and uncertain operational environment.⁶ With this approach, C2 proceeds from the commander's personal direction or detailed directive. Largely centralized and formal, detailed command involves explicit orders or plans requiring strict adherence, effectively minimizing subordinate decision making and initiative. It utilizes a vertical path whereby information flows up the chain of command, and orders flow down. Characteristically, this centralized, detailed vertical approach tends to yield a C2 process that moves more slowly and may not react well to rapidly changing situations.

Conversely, mission C2 is decentralized, informal, and flexible. Rather than attempt to impose order on the disorderly, it reduces the level of the degree of certainty needed with centralized command by pushing decision authorities downward. By understanding the commander's intent, lower-echelon units can execute unencumbered by a structured, vertical decision process. Consistent with the intent of mission-type orders, Marine Corps orders and plans under the mission C2 approach are as brief and simple as possible, allowing subordinates maximum flexibility in decision making and therefore improving the ability to increase tempo and optimize effective responses to "fluid and disorderly situations."⁷

Marine Corps doctrine acknowledges that the employment of mission command or detailed command depends upon the situation and, in reality, may be a combination of the two. The Corps does, however, have a preferred approach founded upon its fundamental beliefs about the nature of war and the process of C2. MCDP 1, *Warfighting*, describes war as complex, driven by many variables. The execution of military action does not result from a single decision by a single entity but involves many independent and interrelated decisions by many individuals within a system. These decisions are shaped by human behavior and the complexities, inconsistencies, and peculiarities inherent in human nature.⁸ In other words, human behavior remains unpredictable; therefore, war is intrinsically unpredictable, making certainty in warfare impossible and yielding disorder. Reacting to disorder as situations change calls for continual improvisation. The effectiveness of devising and implementing improvisation depends upon the efficiency and effectiveness of C2 processes, which, according to the Marines, reside in the observe-orient-decide-act (OODA) model developed by the Air Force's Col John Boyd. Marine doctrine describes the OODA loop as the basic sequence for the C2 process.⁹ OODA is important to generating speed or tempo in that process in order to act inside the adversary's decision cycle. In light of Marine Corps beliefs about the nature of war, the service prefers mission C2, which it considers better suited to generating tempo in an operational environ-

ment characterized by the complexity, uncertainty, and disorder typical of the human dimension.

The Navy's Philosophy of Command and Control

Centralized planning and decentralized execution are the Navy's doctrinal tenet for command at the operational level and its C2 approach for operating at the required tempo. The service prefers decentralized execution for operating in the maritime domain, characterized by great distances and historically poor communications. Its decentralized approach to C2 is consistent with mission command. According to Navy Warfare Publication 3-32, *Maritime Operations at the Operational Level of War*, Navy operational commanders routinely have offered tactical forces direction and guidance through a clear statement of commander's intent and then rely on the initiative of their subordinate commanders to define "how" the action will occur.¹⁰

Even though the historical challenges of poor communications are largely mitigated by today's advanced information systems, the Navy still asserts the importance of decentralized execution. According to Naval Doctrine Publication 1, *Naval Warfare*, "Even in an era of nearly instantaneous communications . . . having the subordinate commander execute operations in accordance with a thorough understanding of the commander's intent is a key tenet of the naval forces' C2 philosophy."¹¹

Mission Command and the Army

The Army defines mission command as "the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations."¹² Clearly, mission command in the Army involves much more than just decentralized execution with mission-type orders. Rather, in Army doctrine,

mission command reflects a philosophy of command and a war-fighting function. This concept includes the art of command and the science of control. Army Doctrine Publication (ADP) 6-0, *Mission Command*, defines the art of command as “the creative and skillful exercise of authority through timely decisionmaking and leadership.”¹³ As an art, command requires using judgment when making decisions—the commander’s responsibility. ADP 3-0, *Unified Land Operations*, observes that mission command, the war-fighting function, “develops and integrates those activities enabling a commander to balance the art of command and the science of control.”¹⁴ As a war-fighting function, mission command incorporates the science of control, which—outside Army doctrine—is C2. The science of control includes detailed systems and procedures to improve the commander’s understanding and to support the execution of missions.¹⁵ The mission command system includes personnel, processes and procedures, networks, facilities and equipment, and information systems—in other words, C2 to the other services and joint force.

The Army’s development of mission command into a construct with multiple meanings has created confusion. In fact the Combined Arms Doctrine Directorate supplied guidance to Army doctrine developers noting that “the Army term mission command replaced the term command and control. However, it is not exactly the same thing and not always a one-for-one replacement. Writers consider meaning and the part of speech (grammar) for correct usage.”¹⁶ Since the meaning of Army mission command can be confusing and vary with context, it is particularly important that Airmen read and seek to understand Army doctrine when working with that service and when considering the relationship of airpower doctrine to mission command.

Mission Command in Joint Operations

Joint doctrine provides a common approach to C2 by addressing fundamental principles applicable across the services. C2 is the first of six joint functions described in Joint Publication (JP) 3-0, *Joint Operations*,

as “related capabilities and activities grouped together to help JFCs [joint force commanders] integrate, synchronize, and direct joint operations.” Joint functions are common to all joint operations.¹⁷ For example, within the C2 joint function are tasks common to all of the services, which include, but are not limited to, organizing, commanding subordinate forces, planning, establishing appropriate command authorities, assigning tasks, allocating resources, coordinating, synchronizing, and—when appropriate—integrating.¹⁸

JP 3-0 describes mission command as “a key component of the C2 function.”¹⁹ Joint doctrine emphasizes the relationship of mission command to the commander’s intent, defining the former as “the conduct of military operations through decentralized execution based upon mission-type orders.”²⁰ When those orders accompany the authority for decentralized execution, subordinate commanders must clearly understand the superior commander’s intent, enabling subordinate leaders at all echelons to act independently with disciplined initiative to carry out the mission. This is the extent of mission command in joint doctrine.

Mission Command and Airpower

For the Airman, determining the path ahead necessitates understanding the relationship between mission command and the airpower tenet of centralized control and decentralized execution. Although airpower doctrine does not mention the term *mission command*, the latter’s philosophy and intent of fostering flexibility at the tactical level are inherent to air-mindedness.²¹ However, airpower’s uniqueness demands a tailored procedure distinct from the C2 of surface operations. Such an approach to the C2 of airpower is codified in the airpower tenet of centralized control and decentralized execution.

Joint doctrine and Air Force doctrine offer a consistent presentation of centralized control and decentralized execution. Both describe the former as giving one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/

category of operations. Furthermore, both describe decentralized execution as the delegation of authority to subordinate commanders.²² The Air Force is consistent with joint and the other services' doctrine in advocating decentralization during execution. According to Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine, Organization, and Command*, "Execution should be decentralized within a command and control architecture that exploits the ability of front-line decision makers . . . to make on-scene decisions during complex, rapidly unfolding operations."²³

Air Force doctrine also recognizes that airpower's unique capabilities are best employed with a balanced approach between centralized control and decentralized execution, a tenet described in early airpower doctrine. In 1943, War Department Field Manual (FM) 100-20, *Command and Employment of Airpower*, codified this precept: "Control of available airpower must be centralized and command must be exercised through the Air Force commander if this inherent flexibility and ability to deliver a decisive blow are to be fully exploited."²⁴

Time has shown that good doctrine endures. From the July 1943 edition of FM 100-20 to the October 2011 edition of AFDD 1, airpower's immutable characteristics are still best employed with a proper balance of centralized control and decentralized execution. Based on these airpower characteristics, AFDD 1 explains the importance of centralized control.²⁵

Airpower has theater- or even global-ranging effects. Rather than having airpower operate only within a geographic area of operations, its inherent capabilities allow aircraft to quickly cross an entire joint operations area, theater, or theaters as required to meet the JFC's priorities. Consequently, an Airman who maintains the necessary broad, strategic perspective should centrally control airpower to ensure the allocation of limited resources to the highest-priority effort throughout planning and execution.

Airpower's theater- or global-ranging capabilities also give it the unique potential to create effects across the levels of war, from tactical

to strategic—again, a trait best suited for centralized control by an Airman, as experience has demonstrated.²⁶ AFDD 1 explains that some situations lend themselves to elevated levels of centralized control (e.g., the JFC or higher authority), particularly if airpower actions may produce strategic effects, such as the prosecution of high-value targets or the execution of a politically sensitive mission.²⁷

Typically, airpower assets remain in great demand and limited in supply. Shortfalls in satisfying requests for airpower, particularly those from the other services or functional components, require asset allocation based on the JFC's prioritization. Maintaining the flexibility to ensure the availability of airpower assets where and when needed depends upon a proper balance between centralized control and decentralized execution—again calling for a broad strategic perspective that permits movement from one objective to another, as demanded during planning and execution.²⁸

AFDD 6-0, *Command and Control*, speaks to a balance between too much and too little centralized control: “Overcontrolling air and space power robs it of flexibility, taking away initiative from operators. Undercontrolling air and space power fails to capitalize on joint force integration and orchestration, thus reducing its effectiveness.”²⁹ Optimizing flexibility is affected by this proportional relationship. In his paper *Centralized Control and Decentralized Execution*, Lt Col Clint Hinote claims that increased centralized control restricts flexibility at the tactical level while too much decentralized execution at the tactical level has the same effect at the operational level. He proposes the following important questions to assist in determining the proper balance.³⁰

What Is the Nature of the Operation?

The diversity of Air Force missions requires different C2 approaches. For example, space operations call for central control, which permits apportionment of high-demand, limited-supply assets to the highest priority at a strategic or operational level. Similarly, central control of nuclear operations gives the president more flexibility at those levels.

Close air support (CAS) missions, though, need a high degree of decentralized execution delegated through the theater air control system to joint terminal attack controllers in direct support of ground commanders. Decentralized execution at the tactical level for CAS or other missions, such as personnel recovery, provides the greatest flexibility and response to changing conditions.

Where Should Flexibility Be Preserved?

Determining where flexibility should be preserved combines considerations that include the nature of the mission and level of effects. For instance, we accept that decentralized execution maximizes tactical flexibility for CAS, but it is not an absolute since that mission is not limited to tactical-level effects. Against high-value or sensitive targets, CAS could yield operational- or strategic-level effects and therefore may warrant decisions made above the tactical level.

How Many Assets Are Available?

The need to centralize is proportional to asset availability and demand. High-demand, limited assets require enhanced levels of centralized control during planning and execution to ensure optimum allocation to the top priorities.

What Is the Geographical Range of Effects?

Hinote observes that centralized control over some assets with a constrained geographical range of effects, such as some rotary or remotely piloted systems, produces few benefits. However, it yields greater benefits for mobility and strike assets with their theater- and global-ranging effects because they can readily shift from one objective to another.³¹

Who Has the Best Situational Awareness?

Decision authorities should be delegated to the commander or operator with the best situational awareness, which may shift from the op-

erational to the tactical level during a mission. For example, aircraft performing on-call CAS may remain under centralized control until a situation develops in which airpower must support land operations. At this point, the joint terminal attack controller and aircrew will typically have the best situational awareness and should have the authority during execution to make decisions that maximize tactical flexibility. Scenarios marked by the optimization of situational awareness above the tactical level need a higher degree of centralized control. Execution decisions for time-sensitive, high-value targets, for instance, could be supported by analysis conducted above the tactical level—therefore driving the need for more centralization.

C2 capabilities and span of control are two other considerations important for determining the proper balance between centralized control and decentralized execution. We could generally characterize airpower operations in Iraq and Afghanistan as having a favorable span of control at the operational level—one enabled by a robust and uncontested C2 infrastructure. In the future, we may face adversaries in major contingency operations in which requirements for span of control exceed our C2 capabilities to centrally control or execute, thus driving a demand for decentralized execution. Additionally, future operational environments may prove less permissive. *The Joint Operating Environment 2010* describes future operational environments in terms of their complexity and uncertainty.³² The *Joint Operational Access Concept* describes antiaccess, area-denial trends that, combined with the operational environment anticipated in the *Joint Operating Environment 2010*, will present C2 challenges. These trends include (1) the dramatic improvement and proliferation of weapons and other technologies capable of denying access to or freedom of action within an operational area, (2) changes in the US overseas defense posture, and (3) the emergence of space and cyberspace as increasingly important and contested domains.³³ Given the effects of operating in an environment with degraded or denied space and cyberspace capabilities, either of which would likely degrade C2, then the question of balance between centralized control and decentralized execution quickly devolves to a

need for—not a choice of—decentralized execution, which also supports the rationale for the current mission command initiative.

The Airman's Response to Mission Command

For Airmen, understanding and effectively applying mission command begins with a solid foundation in airpower doctrine that will allow them to recognize the relationship between mission command and the airpower tenet of centralized control and decentralized execution. They should understand that the Air Force's preference for decentralized execution long antedates the recent initiative to implement mission command. In fact the mission command philosophy and its intent to foster flexibility at the tactical level are inherent to the airpower tenet of centralized control and decentralized execution. Airmen must also grasp that airpower capabilities are best employed with a balanced C2 approach that includes centralized control. Moreover, they should realize that balancing the appropriate degree of centralized control is not unique to the Air Force. The *Capstone Concept for Joint Operations: Joint Force 2020* acknowledges the requirement for centralized control: "It is important to note that while mission command is the preferred command philosophy, it is not appropriate to all situations. Certain specific activities require more detailed control, such as the employment of nuclear weapons or other national capabilities, air traffic control, or activities that are fundamentally about the efficient synchronization of resources."³⁴

Since *mission command* is a term in joint doctrine, Airmen have a responsibility to comprehend and apply it appropriately in a joint environment. They must fully understand that in joint doctrine, mission command is decentralized execution with mission-type orders and that C2 remains a joint function as described in JP 3-0.³⁵ Airmen should also know other services' approach to mission command and be able to engage other service members on this topic while clearly articulating Air Force doctrine. This ability is critical in a joint setting to ensure that the joint force appreciates the most effective applications of airpower.

Clear intersections exist among joint, Air Force, Navy, and Marine Corps doctrine regarding decentralized execution or mission command. Although all of the services advocate decentralized execution as the preferred approach to C2, the Army's approach to mission command and Air Force doctrine diverge significantly. As an overarching construct in Army doctrine, mission command implies the full spectrum of C2 options but does not adequately address detailed command and centralized control; neither does it recognize when these are appropriate and preferred. Therefore, Airmen must prepare themselves to articulate the appropriate application of centralized control for the reasons previously discussed. Regarding the philosophical intersections mentioned above, for example, the Army's principles of mission command—build cohesive teams through trust, create shared understanding, provide a clear commander's intent, exercise disciplined initiative, use mission orders, and accept prudent risk—are absolutely consistent with airpower doctrine.³⁶

Conclusion

All of the services and the joint force operate within environments characterized by the fundamental attributes of war, which include uncertainty and disorder. In these environments, we must generate the tempo described in General Dempsey's white paper on mission command as our ability to *operate at the speed of the problem*. Doing so will at times call for decisions made at speeds uncharacteristic of detailed or centrally controlled command systems; in other words, decentralized execution will be essential. However, we must also recognize that the C2 model for producing this tempo is not a one-size-fits-all proposition. According to the *Capstone Concept for Joint Operations*, "Each of the Services implement some version of mission command in the conduct of joint operations, but differences exist owing to characteristic missions and primary operating domains."³⁷ Each service shares common beliefs about the intrinsic value of decentralized execution and tailors its respective C2 approach to optimize the employment of its

unique capabilities within its domain. For the Airman, this means embracing the chairman's mission command philosophy while also promoting and maintaining the primacy of the airpower tenet of centralized control and decentralized execution. Airpower is still best employed with a balanced approach. ✪

Notes

1. Gen Martin E. Dempsey, *Mission Command White Paper* (Washington, DC: Joint Chiefs of Staff, 3 April 2012), 8, 6, <http://www.ndu.edu/pinnacle/docUploaded/MissionCommandPaper.pdf>.
2. Col R. R. Davis, "Helmuth von Moltke and the Prussian-German Development of a Decentralised Style of Command: Metz and Sedan, 1870," *Defence Studies* 5, no. 1 (March 2005): 84–85.
3. Robert M. Citino, *Death of the Wehrmacht: The German Campaigns of 1942* (Lawrence: University Press of Kansas, 2007), 4.
4. *Ibid.*, 305–6.
5. Marine Corps Doctrine Publication (MCDP) 6, *Command and Control*, 4 October 1996, 77–78, <http://www.fas.org/irp/doddir/usmc/mcdp6.pdf>.
6. *Ibid.*, 77.
7. *Ibid.*, 79.
8. MCDP 1, *Warfighting*, 20 June 1997, 14, <http://www.clausewitz.com/readings/mcdp1.pdf>.
9. MCDP 6, *Command and Control*, 63.
10. Navy Warfare Publication 3-32, *Maritime Operations at the Operational Level of War*, October 2008 (through change 1), 2-2.
11. Naval Doctrine Publication 1, *Naval Warfare*, March 2010, 36, [http://www.usnwc.edu/Academics/Maritime--Staff-Operators-Course/documents/NDP-1-Naval-Warfare-\(Mar-2010\)_Chapters2-3.aspx](http://www.usnwc.edu/Academics/Maritime--Staff-Operators-Course/documents/NDP-1-Naval-Warfare-(Mar-2010)_Chapters2-3.aspx).
12. Army Doctrine Publication (ADP) 6-0, *Mission Command*, 17 May 2012, 1, https://www.fas.org/irp/doddir/army/adp6_0.pdf.
13. *Ibid.*, 5.
14. ADP 3-0, *Unified Land Operations*, 10 October 2011, 13, http://usarmy.vo.llnwd.net/e2/rv5_downloads/info/references/ADP_3-0_ULO_Oct_2011_APD.pdf.
15. Army Doctrine Reference Publication 3-0, *Unified Land Operations*, 16 May 2012, 2-12, http://www.fas.org/irp/doddir/army/adrp3_0.pdf.
16. Combined Arms Doctrine Directorate Mission Command Center of Excellence, *Doctrine 2015 Developers' Guidance*, 4–12 (Fort Leavenworth, KS: US Army Combined Arms Center, 1 October 2012), 3, <https://www.milsuite.mil/book/docs/DOC-26286#comment-37380>.
17. Joint Publication (JP) 3-0, *Joint Operations*, 11 August 2011, III-I, http://www.dtic.mil/doctrine/new_pubs/jp3_0.pdf.
18. *Ibid.*, III-2.

19. Ibid., II-2.
20. JP 3-31, *Command and Control for Joint Land Operations*, 29 June 2010, IV-11, http://www.dtic.mil/doctrine/new_pubs/jp3_31.pdf.
21. Air Force doctrine describes air-mindedness as follows: "The perspective of Airmen is necessarily different; it reflects a unique appreciation of airpower's potential, as well as the threats and survival imperatives unique to Airmen. The study of airpower leads to a particular expertise and a distinctive point of view that General Henry H. 'Hap' Arnold termed 'air-mindedness.'" Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine, Organization, and Command*, 14 October 2011, 18, http://static.e-publishing.af.mil/production/1/af_cv/publication/afdd1/afdd1.pdf.
22. Joint doctrine defines centralized control as "placing within one commander the responsibility and authority for planning, directing, and coordinating a military operation or group/category of operations." JP 3-30, *Command and Control for Joint Air Operations*, 12 January 2010, GL-7, http://www.dtic.mil/doctrine/new_pubs/jp3_30.pdf. Air Force basic doctrine expands the definition of centralized control to "the planning, direction, prioritization, synchronization, integration, and deconfliction of air, space, and cyberspace capabilities to achieve the objectives of the joint force commander." AFDD 1, *Air Force Basic Doctrine*, 129. Decentralized execution is defined in JP 3-30 as "delegation of execution authority to subordinate commanders." JP 3-30, *Command and Control*, GL-8. AFDD 1 elaborates for clarification: "Decentralized execution of airpower is the delegation of execution authority to responsible and capable lower-level commanders to achieve effective span of control and to foster disciplined initiative, situational responsiveness, and tactical flexibility." AFDD 1, *Air Force Basic Doctrine*, 131.
23. AFDD 1, *Air Force Basic Doctrine*, 39.
24. Field Manual 100-20, *Command and Employment of Air Power*, 21 July 1943, 1, http://www.au.af.mil/au/awc/awcgate/documents/fm100-20_jul_1943.pdf.
25. For an expanded discussion on centralized control and decentralized execution, see AFDD 1, *Air Force Basic Doctrine*, chap. 4.
26. As part of the airpower tenet of flexibility and versatility, versatility is the ability to employ airpower effectively at the strategic, operational, and tactical levels of warfare. Ibid., 40.
27. Ibid., 39.
28. As part of the airpower tenet of flexibility and versatility, flexibility allows airpower to shift from one campaign objective to another, quickly and decisively. Ibid.
29. AFDD 6-0, *Command and Control*, 1 June 2007 (incorporating change 1, 28 July 2011), 13, http://static.e-publishing.af.mil/production/1/af_cv/publication/afdd6-0/afdd6-0.pdf.
30. Lt Col Clint Hinote, *Centralized Control and Decentralized Execution: A Catchphrase in Crisis?*, Research Paper 2009-1 (Maxwell AFB, AL: Air Force Research Institute, March 2009), 59–63, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA550460&Location=U2&doc=GetTRDoc.pdf>.
31. Ibid., 61.
32. US Joint Forces Command, *The Joint Operating Environment 2010* (Suffolk, VA: US Joint Forces Command, 2010), http://www.jfcom.mil/newslink/storyarchive/2010/JOE_2010_o.pdf.
33. Department of Defense, *Joint Operational Access Concept (JOAC)*, version 1.0 (Washington, DC: Department of Defense, 17 January 2012), 8, http://www.defense.gov/pubs/pdfs/JOAC_Jan%202012_Signed.pdf.

34. Joint Chiefs of Staff, *Capstone Concept for Joint Operations: Joint Force 2020* (Washington, DC: Joint Chiefs of Staff, 10 September 2012), 5, http://www.defenseinnovationmarketplace.mil/resources/JV2020_Capstone.pdf.
35. JP 3-0, *Joint Operations*, III-2.
36. ADP 6-0, *Mission Command*, 2.
37. Joint Chiefs of Staff, *Capstone Concept*, 8.



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