

Iraqi security forces and coalition partners, including U.S. Army Soldiers with 3rd Cavalry Regiment, provided fire support to assist Syrian Democratic Forces as they continued military offensive to rid so-called Islamic State from Syria, June 8, 2018 (U.S. Army/Anthony Zendejas IV)



Fire for Effect

The Evolution of Joint Fires

By J. Mark Berwanger

On September 28, 2018, Joint Publication (JP) 3-60, *Joint Targeting*, was revised and signed by the Director of Joint Force Development, and JP 3-09, *Joint Fire Support*, is in the final stages of its revision, tentatively scheduled to be signed in the fall of 2019. While the level of effort put into the revision of both of these

documents is commendable, there will be many who will claim joint doctrine falls short in providing the joint force with the necessary fires- and targeting-related doctrine to properly integrate and synchronize all capabilities needed to accomplish the commander's intent.

The next step in the evolution of fires should involve a cultural change and expanded understanding of the concept, including all offensive capabilities used to influence an adversary, regardless of the originating weapon system, thereby allowing the targeting process to be

fully realized. For some time, adversaries have been honing their ability to influence the United States, using their full range of traditional and nontraditional military capabilities. The United States, however, continues to struggle with how to properly incorporate the totality of its own offensive capabilities. The daily news cycle is driven by the desired effects of U.S. adversaries operating below the level of armed conflict, but until change in U.S. military culture and perception takes place, the joint force's complications associated with integrating and synchronizing

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Scout snipers with 3rd Battalion, 3rd Marine Regiment, Marine Air-Ground Task Force-6, provide long-distance fire support while conducting the Air Assault Course during Integrated Training Exercise 2-19 aboard Marine Corps Air-Ground Combat Center Twentynine Palms, California, February 9, 2019 (U.S. Marine Corps/Victor A. Mancilla)

the full complement of capabilities will remain. Currently, there is no consensus on how to fully describe and fully encompass the magnitude of military capabilities that can be brought to bear in a coordinated effort to accomplish a mission.

Joint doctrine is considered the standardized foundation for military leaders and planners to use when employing the joint force. It is the “fundamental principles and overarching guidance for the employment of the Armed Forces of the United States. This represents the evolution in our warfighting guidance and military theory that forms the core of joint warfighting doctrine and establishes the framework for our forces’ ability to fight as a joint team.”¹ Throughout the operating joint force, terms like *kinetic* and *nonkinetic* or *lethal* and *nonlethal* are used. Some of these terms (lethal and nonlethal) are found in doctrine and

some of them (kinetic and nonkinetic) are not. Some of these terms are used correctly (in accordance with doctrine), and some of them are not. For example, the phrase *nonlethal weapon* is often used to describe any weapon that creates a nonlethal effect. However, nonlethal weapon is defined in joint doctrine as a “weapon, device, or munition that is explicitly designed and primarily employed to incapacitate personnel or materiel immediately, while minimizing fatalities, permanent injury to personnel, and undesired damage to property in the target area or environment” (that is, beanbag guns or tear gas).²

Many terms are not defined in doctrine purposely because the dictionary definition is sufficient. The reason behind the appearance or absence of certain “contentious” terms in joint doctrine is that doctrine development is a deliberate,

detail-based process. In order for information to be updated/added to joint doctrine, it must be shown to be extant in the joint force. The opposite of extant practice would be a concept, until it is proved and accepted (see Joint Concept Integration and Development System). Also, there must be consensus among the key voting members of the joint doctrine development community before information can be added or changed. Examples of voting members include combatant commands and the individual Services. This is the simple answer to why kinetic is not found anywhere in joint doctrine; currently, there is no consensus among the community regarding the definition of kinetic and how it should be used in joint doctrine, even though the term is widely used across the joint force. Ultimately, this does not prevent the joint force from using the term anyway.

It is noteworthy to mention that in the preface of any joint publication there is a statement under “Application” that states, “The guidance in this publication is authoritative; as such, this doctrine will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise.” While the term kinetic is commonly used across most combatant commands, the use of such a term does come with associated risk. When there is a lack of joint force consensus concerning a term, and therefore not resident within joint doctrine, there is the potential the term could be used dissimilarly, which could potentially carry serious implications.

During the revision process, a common response within the joint fires community was that clear doctrine is needed regarding how to integrate non-traditional capabilities with other more traditional ones. Theoretically, this is already answered in JP 3-60, which states that *targeting* is “the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.”³ The targeting process requires a continuous analytic process to identify, develop, and affect targets to meet the commander’s objectives and provides planners with access to detailed information on the targets, supported by the nominating component’s analytical reasoning that links the targets with the desired effects. Targeting helps integrate and synchronize fires among the other joint functions (command and control, intelligence, movement and maneuver, protection, sustainment, and information).⁴ Additionally, JP 3-60 states:

The employment of capabilities and other activities that create nonlethal effects such as key leader engagement, civil-military operations, and military information support operations can help address these concerns. Nonlethal effects, including use of information-related capabilities (IRCs), can also influence adversary decisionmakers’ choice of actions, local public opinion, and indirectly affect domestic and international support of the adversary. Nonlethal effects provide the joint force

*commander a range of flexible options. The selection, availability, scalability, and effectiveness of capabilities and activities provide the joint force commander the means to engage targets throughout the operational environment.*⁵

These passages from joint doctrine have not changed appreciably over past revisions, and the joint force continues to identify the need for doctrinal clarity with issues of integration and synchronization of capabilities.

Despite the limitations discussed, there have been many improvements to targeting doctrine. The recent changes to JP 3-60:

- clarify roles and responsibilities of components and joint force commander staffs during the joint targeting cycle (JTC)
- update and clarify the joint targeting coordination board’s roles and responsibilities
- update and clarify the joint fires element’s targeting roles and responsibilities
- update and clarify the joint fires targeting working group’s roles and responsibilities.
- add discussion on coordination between components when one component, supported or supporting, engages time-sensitive targets within another component’s area of operations
- update the target development discussion consistent with changes to Chairman of the Joint Chiefs of Staff Instruction 3370.01B, *Target Development Standards*
- consolidate and clarify the discussion of cognitive, control, and information characteristics
- add discussion clarifying the relationship between target lists and the no-strike list
- add new discussion on nonlethal effects estimates
- add new discussion for joint force maritime component targeting in appendix C, “Component Targeting Processes”

- add discussion on the integration of space operations in joint targeting in appendix C
- modify the name of Phase 6 of the JTC from “Assessment” to “Combat Assessment” and replace the phrase *targeting assessment* with *combat assessment* throughout the publication.

JP 3-60 does a reasonable job of being agnostic when it comes to determining which specific fires capability or solution should be used to achieve the desired effect on the target. This is a vitally important part of the JTC. The process begins with Phase 1, “Commander’s Objectives, Targeting Guidance, and Intent” and it is only in Phase 4, “Commander’s Decision and Force Assignment,” just prior to employment, that a decision is made as to which specific capability will be used to achieve the desired effects on the target. Ideally, this is only done after every available capability has been considered for the intended target. This process is similar to the way that defense acquisition programs are run.

To get the best possible solution, in any advance problem-solving method, the process should not begin with a preconceived notion of what the answer will be. Instead, regarding an acquisition program, a capability gap is identified first, and a deep understanding of the requirements is established. Then the process looks to develop a product that will satisfy that gap, instead of designing a new piece of gear and then looking for a military problem to apply it toward.⁶ The JTC was designed to work much the same way.

The commander’s objectives are understood first. A target is identified that if manipulated or influenced could create the effects that will achieve the commander’s intent. Then the targeting process attempts to match the best capabilities with that specific target. Yet it is still currently difficult (nearly impossible) for joint force planners to integrate their IRC capabilities with other, more traditional capabilities earlier in the targeting process. All too



Using Dazzler nonlethal weapon and blank rounds, Embarked Security Team on board USNS *Rainier*, along with Sailors on board Coastal Riverine Squadron Three's Riverine Command Boats, defend from simulated attack as *Rainier* departs to support ships for RIMPAC 2016, Joint Base Pearl Harbor-Hickam, Hawaii, July 24, 2016 (U.S. Navy/Martin Wright)

often, the IRC and traditional targeting working groups are held separately and only joined or integrated at the decision board level. Examples of these separate working groups include the information operations working group, which is often separate from the joint targeting working group. In many instances, planners come to these working groups having already identified the capability to use against a proposed target and the desired effect. The remaining tasks are to receive commander approval and synchronize the effort. While this process works, it is inherently flawed and contrary to the genesis behind the targeting cycle. Since warfighters are creatures of habit, they inherently fall back on what comes naturally. Cyber warriors will naturally look for cyber targets having already decided that a cyber weapon should be used—similar to the way bomber pilots will look for targets that they believe would best be serviced by a bomber. Instead, all warriors should integrate

earlier in the targeting cycle and consider all capabilities as possible “fires” providers. Only after all capabilities have been considered should a force allocation recommendation be made to the joint force commander.

Arguably, the issue resides in the fires culture and what has traditionally been considered fires. Furthermore, according to JP 3-09, “Joint targeting is a fundamental task of the fires function that encompasses many disciplines and requires participation from all joint force staff elements and components. The purpose of joint targeting is to integrate and synchronize joint fires into joint operations by utilizing available capabilities to create a specific lethal or nonlethal effect on a target.”⁷ Other key definitions are provided to fully understand the background of the issue:

- Fires: The use of weapon systems or other actions to create specific lethal or nonlethal effects on a target.⁸

- Joint fires: Fires delivered during the employment of forces from two or more components in coordinated action to produce desired effects in support of a common objective. See also fires.⁹
- Scheme of fires: The detailed, logical sequence of targets and fire support events to find and engage targets to support the commander’s objectives.¹⁰
- Joint fires observer: A trained Servicemember who can request, adjust, and control surface-to-surface fires, provide targeting information in support of Type 2 and 3 close air support terminal attack control, and perform autonomous terminal guidance operations.¹¹
- Munitions: Munitions are used to create desired effects on targets. The joint force commander may issue guidance on the use or restricted use of unique weapons or certain munitions types (for example, cluster

munitions or mines) and may prioritize the allocation or use of joint operations area-wide systems like the Tomahawk missile or the Army Tactical Missile System for specific purposes.¹²

- Munition: A complete device charged with explosives; propellants; pyrotechnics; initiating composition; or chemical, biological, radiological, or nuclear material for use in operations including demolitions.¹³

Culturally, the joint force understands what has traditionally been considered fires and how to apply the JTC to traditional fires. At first glance it appears that the definition of fires supports the solution-neutral approach to targeting as discussed. Nevertheless, once the first layer of fires is peeled back, the current understanding of the joint function is rooted in what is traditionally considered a weapon and weapon system. As described in doctrine, the joint force “engages” targets by “employing” weapon systems, which “deliver” munitions. Munitions are traditionally described by their type (for example, cluster munitions or mines)¹⁴ and defined in doctrine as “a complete device charged with explosives; propellants; pyrotechnics; etc.”¹⁵ This definition resonates through the traditional thought process on how conflicts are fought, and why many planner-level working groups are separated and stove-piped. Traditional weapons systems (a rifle) employ munitions (bullets) to create an effect (deceased enemy combatants).

With this in mind, it should come as no surprise that traditional capabilities work through traditional working groups and boards, while nontraditional IRCs work through their own working groups and boards, and the two try to deconflict from each other after most of the force allocation decisions have been made, instead of synchronizing and integrating early—the way the targeting cycle is designed to function. Admittedly, there are other barriers to bringing all the capabilities together in one room, namely classification issues. But this issue is easily overcome; in order to conduct the targeting process, only the knowledge



Barbados servicemember shoots nonlethal rounds with M32 grenade launcher during exercise Tradewinds 2016, at Twickenham Park Gallery Range, Jamaica, June 24, 2016 (U.S. Marine Corps/Justin T. Updegraff)

that an effect could be achieved, and to what extent, is necessary. The specifics on how the effect is achieved may remain protected while still allowing the process to run its course.

In previous conflicts, it may have been possible to focus mainly on traditional capabilities and targeting while sprinkling on IRCs as an afterthought. However, this is not the world of warfare anymore, and arguably never was. Adversaries have been using information as a weapon for quite some time and their prowess is only increasing. The increased focus placed on information-related capabilities is evident from the creation of the newest joint function, information; U.S. Cyber Command’s activation as a combatant command; the creation of a separate Space Force; as well as the focus of “competition short of armed conflict” found in the Joint Concept for Integrated Campaigning (and the subject of the forthcoming Joint Doctrine Note, “Competition Continuum”). Among many national defense documents, the amount of attention and focus all the other nontraditional capabilities are currently receiving is paramount. The speed of information is only increasing, and the effects of nontraditional capabilities are felt globally. It is difficult for a traditional military planner to consider something like a social media post (for instance, a

tweet) as munition and something like a blog as a weapon system, but this is the needed change in military thinking and doctrine that is required to bring the joint force in line with the Chairman’s focus and strategy.

The Joint Concept for Integrated Campaigning, which is gaining so much attention and popularity, agrees that the Department of Defense is already being outpaced by adversaries who are currently capable of integrating all of their offensive capabilities. According to the concept, “adversaries will continue to creatively combine conventional and nonconventional methods to achieve objectives by operating below a threshold that would invoke a direct military response from the United States while retaining the capability to engage in more conventional armed conflict.”¹⁶ The concept also places a large emphasis on integrating and synchronizing joint force capabilities and activities. One of the “interrelated elements” comprising the central idea behind integrated campaigning is “Employ the Integrated Force and Secure Gains.” Under this element is the required capability to “synchronize joint force and foreign partner activities in an integrated campaign construct.”¹⁷ The concept goes on to state, “The factors of integrated campaign design allow for an informed

application of joint force capabilities and strengthen the alignment of the instruments of national power. The factors work in conjunction with existing methodologies to assist the joint force in achieving U.S. policy aims.”¹⁸ Throughout all the strategic-level documents, the same conclusion can be found—all capabilities need to be integrated in order to achieve the optimal desired effects.

Until the definition, utilization, and cultural understanding of “fires” is updated to include *all* offensive capabilities, regardless of the weapon system they originate from, the integration and synchronization problem will remain. The JTC is designed to provide the optimal solutions, but stovepiping capabilities prevents the process from being fully realized. Instead of trying to achieve consensus on a specific term like *kinetic*, the joint doctrine development community and the joint force should focus on the primary warfighting function that is responsible for delivering the effects necessary to achieve the commander’s objectives. Without doing so, the same complications of synchronization and integrations will be manifested repeatedly and will continue to be brought up during joint exercise after action reports as well as feedback received during joint fires-related publications revisions. The capabilities are extant and efforts are ongoing to use the JTC the way it was designed. The missing piece now is the formalization of the idea that all capabilities need to be considered. To do this, all offensive capabilities should be considered under the fires function and thereby equally considered during the targeting process. Similar to a concept developing into the next major military acquisition program, the solution cannot already be assumed. Incorporating the integration and synchronization of all offensive capabilities allows joint planners, through the JTC, the ability to recommend an optimal solution to achieve the desired effects, enhancing how fires are understood at the fundamental level. It will refocus the joint warfighting community and open the eyes of those who have been constrained

Joint Publications (JPs) Under Revision (to be signed within 6 months)

- JP 1-0, *Joint Personnel*
- JP 2-0, *Joint Intelligence*
- JP 3-(number not yet assigned), *Information*
- JP 3-05, *Special Operations*
- JP 3-09, *Joint Fire Support*
- JP 3-10, *Joint Security Operations*
- JP 3-31, *Command and Control for Joint Land Operations*
- JP 4-09, *Distribution Operations*
- JP 4-10, *Operational Contract Support*
- JP 6-0, *Joint Communications System*

JPs Revised (signed within last 6 months)

- JP 1, *Doctrine for the Armed Forces of the United States*
- JP 3-02, *Amphibious Operations*
- JP 3-11, *Operations in Chemical, Biological, Radiological, and Nuclear Environments*
- JP 3-28, *Defense Support to Civil Authorities*
- JP 3-29, *Foreign Humanitarian Assistance*
- JP 3-72, *Nuclear Operations*
- JP 4-0, *Joint Logistics*
- JP 4-04, *Contingency Basing*
- JP 4-05, *Joint Mobilization Planning*

by compartmented ideologies. Then joint force commanders will truly know what it means to “fire for effect.” JFQ

Notes

- ¹ Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States* (Washington, DC: The Joint Staff, March 25, 2013, Incorporating Change 1, July 12, 2017).
- ² JP 3-28, *Defense Support of Civil Authorities* (Washington, DC: The Joint Staff, October 29, 2018).
- ³ JP 3-60, *Joint Targeting* (Washington, DC: The Joint Staff, January 31, 2013).
- ⁴ Ibid.
- ⁵ Ibid., II-17.
- ⁶ *Defense Acquisition Guidebook* (Fort Belvoir, VA: Defense Acquisition University, 2017), available at <www.dau.mil/tools/dag/>.

⁷ JP 3-09, *Joint Fire Support* (Washington, DC: The Joint Staff, December 12, 2014).

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ JP 3-09.3, *Close Air Support* (Washington, DC: The Joint Staff, November 25, 2014).

¹² As described in JP 3-09.

¹³ JP 3-42, *Joint Explosive Ordnance Disposal* (Washington, DC: The Joint Staff, September 9, 2016).

¹⁴ JP 3-09.

¹⁵ JP 3-42.

¹⁶ *Joint Concept for Integrated Campaigning* (Washington, DC: The Joint Staff, March 16, 2018), available at <www.jcs.mil/Portals/36/Documents/Doctrine/concepts/joint_concept_integrated_campaign.pdf?ver=2018-03-28-102833-257>.

¹⁷ Ibid.

¹⁸ Ibid.