

CHANGES IN WAR'S CHARACTER

Small Forces and Crisis Management

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ABSTRACT: Widely available precision strike platforms, increasing weapons costs and systemic constraints on major war are altering how military actors prepare for future conflict. As the costs increase and the utility of fielding massed formations decreases, actors seek speed and surprise to force decisions short of escalating into costly major wars. The character of conflict is therefore evolving to favor small, multi-domain forces, which will require a new approach to crisis management.

Multiple US military services are experimenting with how to use smaller formations for missions ranging from crisis response to forced entry. The Unified Quest 2014 exercise, the deep futures war game run by the Army Capabilities Integration Center, featured units engaged in what the new operating concept refers to as “joint combined arms maneuver” in a megacity.¹ Bold Alligator 2014, the annual multinational littoral warfare exercise, experimented with smaller amphibious assault formations operating from Joint High-Speed Vessels and dry cargo ships, as well as long-range raids using MV-22 Osprey.² The force under examination was a composite, linking distributed units with a “fly in” command echelon.

Other nations are also beginning to experiment with smaller, multi-domain (i.e., air, sea, land, cyber) formations designed to fight short, intense conflicts. As part of an ongoing conventional force modernization since 2008, the Russian military is fielding modernized brigade combat team formations and smaller battalion tactical groups.³ Based on lessons learned from the near-war with Pakistan in 2001, and the ongoing challenge of balancing China, India is testing integrated battle groups and formations able to launch short-notice attacks beneath the threshold major theater war.⁴ The trend extends to armed proxies. As

1 David Vergun, “Army Prepares for Dangers Lurking in Megacities,” *Army*, August 28, 2014, <http://www.army.mil/article/132817>.

2 Lance M. Bacon, “Bold Alligator 2014 Tests New Ways of Biting the Enemy,” *Navy Times*, November 1, 2014, <http://archive.navytimes.com/article/20141101/NEWS/311010026/Bold-Alligator-2014-tests-new-ways-biting-enemy>.

3 Robert McDermott, “Moscow Resurrects Battalion Tactical Groups,” *Eurasia Daily Monitor*, November 6, 2012, http://www.jamestown.org/single/?tx_ttnews%5Btt_news%5D=40071#.VMUBokY8Kc0.

4 Walter C. Ladwig III, “A Cold Start for Hot Wars? The Indian Army’s New Limited War Doctrine,” *International Security* 32, no. 3 (Winter 2007/08): 158–190; the two and a half front war concept refers to China, Pakistan and terrorism, see: Nitin Gokhale, “India’s Doctrinal Shift? The Indian Army Is Undertaking Its First Strategic Transformation In More Than Two Decades and It Has Its Sights Firmly on China,” *The Diplomat*, January 25, 2011, <http://thediplomat.com/2011/01/indias-doctrinal-shift/?allpages=yes>.

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seen in Crimea in 2014, and in ongoing Iranian support to groups like Hezbollah, regional powers are arming their proxies with increasingly sophisticated weapon systems.

Despite different core missions and mandates as well as external threats, multiple security actors are clearly signaling preferences for smaller, modernized “joint” forces. What do these initiatives tell us about potential changes in the character of modern war? Are the reforms simply local adaptations to anticipated conflicts, or do they indicate a larger pattern?

This article analyzes the trend towards smaller, multi-domain force capabilities in global and regional powers. It argues that the character of contemporary conflict is being changed by the proliferation of precision strike and associated command, control, communication, computer, intelligence, surveillance and reconnaissance (C4ISR) systems combined with an assumption that conflicts will be fought beneath the threshold of major war. These forces are altering how officers imagine future war. As result, military thinkers appear to be developing new concepts and forces substituting speed and multiple domain maneuver for mass on the battlefield. The end result may be a new theory of victory.⁵ Multiple nations are planning to use smaller, modernized combat formations to signal their capabilities and gain advantage in a crisis, and if necessary, fight and win short wars either directly or through proxies.

Character(s) of War?

Analyzing emergent trends across armed forces is an old idea in military studies. Helmuth von Moltke the Elder (1800 – 1890) hypothesized the changing character of war was a function of how new material conditions, from railroads to telegraphs, changed the speed of mobilization and the character of war. Reflecting on his time, Moltke observed, “a change in the tactics of all branches” based on the fact that “. . . the firepower of an infantry platoon [today] surpasses the range and destructive effect of the case-shot of a six-pounder cannon.”⁶ Despite their differences, Russian military theorists Marshal Aleksander A. Svechin (1878-1938) and Marshal Mikhail Tukhachevsky (1893-1937) believed the material conditions of the industrial age called for a departure with the Jominian conceptualization of ground maneuver prevalent since Napoleon.⁷ Major General J.F.C. Fuller, architect of Plan 1919, sought a science of war based on technology and mysticism.⁸ William McNeill’s seminal work, *Pursuit of Power*, examined how material factors from

5 Stephen Peter Rosen was the first to introduce the term “theory of victory,” though the concept is closely related to multiple aspects of classical organizational theory. For Rosen’s definition, Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca: Cornell University Press, 1991), 19-20. The term is also used in Dima Adamsky, *The Culture of Military Innovation: The Impact of Cultural Factors on the Revolution in Military Affairs in Russia, the US, and Israel* (Pal Alto: Stanford University Press, 2010), 21, and Emily Goldman, “Introduction: Military Diffusion and Transformation,” in Emily Goldman and Thomas Mahnken, *The Information Revolution in Military Affairs in Asia* (New York: Palgrave Macmillan, 2004).

6 “Bemerkungen vom 12. Juli 1858 über Veränderungen in der Taktik infolge des verbesserten Infanteriegewehrs,” in *Militärische Werke*, Vol. II, Part 2, as it appears in Antulio J. Echevarria II, “Moltke and the German Military Tradition: His Theories and Legacies,” *Parameters* 26, no. 1 (Spring 1996): 91-99.

7 Jacob W. Kipp, “The Origins of Soviet Operational Art, 1917-1936,” in Michael D. Krause and R. Cody Phillips, *Historical Perspectives of the Operational Art* (Washington: Center of Military History, 2007).

8 J.F.C. Fuller, *The Foundations of the Science of War* (London: Hutchinson and Company, 1926).

technology to economic activity and the environment created different modes of warfare and a unique specialization of violence.⁹

After the Cold War, numerous scholars and practitioners sought to define the character of what former Army Chief of Staff General Gordon Sullivan called, “post-industrial warfare.”¹⁰ Observing the complexity of conflicts in West Africa and the Balkans in the early 1990s, Robert Kaplan argued there was a breakdown in the old state order leading to a new era of struggles defined by resource competition, pandemics, urbanization, demographic shifts, and state failure.¹¹ Former British Army General Sir Rupert Anthony Smith suggested modern war reflects the shift from the paradigm of industrial war to “war amongst the people.”¹² In industrial war, the utility of force, to use General Smith’s expression, was total. Accordingly, the theory of victory was the mass mobilization of society in order to defeat the armed forces of the enemy state - conventional military force aligned with clear political objectives. The emergent paradigm after the Cold War was war amongst the people. Here the theory of victory shifted from mass armies seeking decisive victory on a clearly defined battlefield, to a test of wills between rival populations. Military force was not decisive. Rather, the utility of force was establishing conditions for long-term conflict resolution, a concept captured in current US Army doctrine.¹³

The question becomes which forces of change coalesce to produce a paradigmatic shift in warfare. Borrowing from the Marxist concept of modes of production, Mary Kaldor hypothesized a new mode of warfare in which globalization internationalized intrastate identity conflicts leveraging illicit economic networks and guerilla tactics.¹⁴ Similar to Kaldor’s modes of warfare, William Lind and Thomas Hammes suggested distinct, identifiable generations of warfare paralleling larger technological changes. Modern war was in the fourth generation, involving the use of all available networks (e.g., social, economic, political) to compel an adversary.¹⁵ As seen in Russian actions in Crimea in 2014, these conflicts can be a hybrid mixture of conventional capabilities and irregular warfare conducted through proxies.¹⁶

9 William H. McNeill, *The Pursuit of Power* (Chicago: University of Chicago, 1982).

10 General Gordon Sullivan first used the term in a 1992 speech at the Land Warfare Forum.

11 Robert D. Kaplan, “The Coming Anarchy: How Scarcity, Crime, Overpopulation, Tribalism, and Disease are Rapidly Destroying the Social Fabric of Our Planet,” *The Atlantic*, February 1, 1994; Robert D. Kaplan, *The Coming Anarchy: Shattering the Dreams of the Post-Cold War* (New York: Vintage Press, 2001).

12 Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (New York: Vintage Press, 2008).

13 Unified Land Operations calls for INSERT (enabling conflict resolution). US Department of the Army, *Unified Land Operations*, ADRP 3-0 (Washington, DC: US Department of the Army, May 2014).

14 Mary Kaldor, *Old and New Wars: Organized Violence in a Global World* (Stanford University Press, 1999). For an overview of the “new wars” literature see Martin Shaw, “The Contemporary Mode of Warfare? Mary Kaldor’s Theory of New Wars,” *Review of International Political Economy* 7, no. 1 (Spring 2000): 171-180, and Mary Kaldor, “In Defence of New Wars,” *Stability: International Journal of Security and Development* 2, no. 1 (2013): 4.

15 T.X. Hammes, *The Sling and the Stone: On War in the 21st Century* (New York: Zenith Press, 2006), i.

16 The leading authority on hybrid warfare is Frank Hoffman. See Frank Hoffman and James N. Mattis, “Future Warfare: The Rise of Hybrid Wars,” *Proceedings* 132, no. 11 (November 2005): 18-19. For an overview of the broader literature Hoffman spawned, see Timothy McCulloh and Richard Johnson, *Hybrid Warfare* (Tampa: Joint Special Operations University Press, 2013).

The Current Character

For emerging powers like China and India, there is a perception that future conflicts will be fast, limited, and conducted by high capability, professional formations.¹⁷ Since the late 1990s, Chinese military planners have developed a vision of local wars waged by elite forces that strike first and seek a quick victory.¹⁸ Building on Jiang Zemin's 2002 guidance for the Chinese People's Liberation Army (PLA) to win local conflict rapidly and decisively under conditions of *xinxihua* or "informationized warfare," each Chinese service laid out aggressive modernization plans.¹⁹ According to an earlier PLA study, "on the high-tech battlefield, annihilating enemy vital forces and arms can no longer be achieved by simply adding numbers of forces, planes, tanks and artillery pieces."²⁰ Major General Zhang Shiping, Deputy Director of War Theory and Strategic Studies at the Academy of Military Science, defined these reforms as "the transformation from mechanization to informationization... from a defensive pattern to an offensive pattern."²¹ Conceptually, some observers assessed the reforms as shifting the focus from wars of attrition to quick campaigns, from an emphasis on defensive operation to offensive operations, and from absorbing blows to operational preemption.

Since 2004, Indian defense circles debated the extent to which the military should adopt a more offensive posture to deter Pakistan. Through the "Cold Start" doctrine, a war plan envisioning a series of joint strikes by integrated battle groups twenty kilometers into Pakistan, the Indian military hoped to create a more agile and precise instrument of war. Such an instrument would allow India to deter, and if necessary, attack Pakistan, as a reaction to, or to prevent, a Pakistani or Pakistani-backed limited attack on India.²² Indian planners believed a mix of diplomatic pressure and nuclear escalation increased the importance of smaller, high capability joint formations able to strike inside Pakistan on short notice.²³ To back Cold Start and other offensive, limited war concepts, the Indian military embarked on a \$100 billion, ten-year modernization program. The reforms also included upgrading the Pakistani air force to fifth-generation fighters and building a navy capable of projecting

17 The focus on this treatment is on conventional conflict. It does not look at hybrid warfare or referring to Russian actions in Crimea what Eastern European and Baltic scholars are calling "new generation" warfare.

18 Nan Li, "The PLA's Evolving Warfighting Doctrine, Strategy and Tactics, 1985–95: A Chinese Perspective," *China Quarterly* 146 (June 1996): 445–448, 451–453; Nan Li, "The PLA's Evolving Campaign Doctrine and Strategies," in James C. Mulvenon and Richard H. Yang, *The People's Liberation Army in the Information Age* (Santa Monica: RAND, 1999). For an overview, see Jacqueline Newmyer "The Revolution in Military Affairs with Chinese Characteristics," *Journal of Strategic Studies* 33, no. 4 (2011).

19 Shi Daoxian, "Analysis of Combat Styles In Informatized Warfare," *China Military Science Journal* 2 (August 2011).

20 Yang Yi, *Gaojishu Tiaojianxia Zuozhan Fangshi, Fangfa Yanjiu Yu Sikao* [Research and Reflection on the Styles and Methods of Operations Under High-Tech Conditions] (Beijing: Military Science Press, 1997), 7 as it appears in Nan Li, "The PLA's Evolving Campaign Doctrine and Strategies," 152.

21 Zhang Shiping, *China's Sea Power* (China: People's Daily Press, 2009), 191.

22 Walter C. Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security* 32, no. 2 (2007); Ali Ahmed, "The US Perspective on Cold Start," *Institute of Peace and Conflict Studies Online* (December 2010); Sunil Dasgupta and Stephen P. Cohen, "Is India Ending Its Strategic Restraint Doctrine?" *Washington Quarterly* 34, no. 2 (2011).

23 Walter C. Ladwig III, "A Cold Start for Hot Wars? The Indian Army's New Limited War Doctrine," *International Security* 32, no. 3 (Winter 2007/08): 158–190.

power—in the words of Prime Minister Manmohan Singh—“from the Hormuz to the Malacca Straits.”²⁴

In the United States, Cold War-era interdiction campaigns and Soviet military theory are the historical foundations of the emerging preference for smaller, joint precision forces. Starting with experiments in Vietnam in the 1970s and later Assault Breaker experiments led by the Defense Advanced Research Projects Agency (DARPA), the United States experimented with an integrated battle network of strike and C4ISR assets.²⁵ This move led Soviet military thinkers to theorize about a “reconnaissance strike complex” that would give conventional munitions the same effects as nuclear weapons. Between the 1990/1991 Gulf War and the air interdiction operation in Kosovo in 1999, the United States rapidly accelerated its use of different types of precision strike and ISR assets toward what Russian Major General Vladimir Slipchenko called “sixth generation warfare.”²⁶ Today, this network enables missions ranging from global strike to distributed ISR operations.²⁷

Yet, the state’s monopoly on precision strike proved short-lived. By 2006, even non-state actors like Hezbollah demonstrated the ability to engage an IDF Corvette with a Chinese-designed C-802 Anti-Ship Cruise Missile.²⁸ China and Russia both maintain high-end precision strike capabilities and a supporting constellation of space-based ISR assets.²⁹ Concerns over these near-peer capabilities animate Joint Staff interest in concepts and systems able to counter future anti-access/area denial threats to US power projection.³⁰

Furthermore, a greater number of states are using proxies armed with high-end capabilities to advance their interests. Although proxy warfare is an age-old practice, actors like Russia and Iran increasingly use their proxies to wage “hybrid warfare.” These groups benefit from the proliferation of high-end capabilities allowing “irregular groups” in Eastern Ukraine to operate advanced surface-to-air missiles and, in the case of Hezbollah, launch anti-ship missiles. The use of irregular proxies for crisis brinkmanship is not limited to traditional weapons or combat alone. For Martin Libicki, capabilities from drones to cyber technologies enable a new form of “non-obvious” warfare that enables

24 Ashok K. Mehta, “The Need for Long-Term Modernization Plan,” *Political and Defence Weekly* 10, no. 2 (October 2010). For a discussion, see Walter Ladwig III, “India and Military Power Projection: Will the Land of Gandhi Become a Conventional Great Power?” *Asian Survey* 50, no. 6 (2010): 1162-1183. Amit Gupta, “India’s Military Aviation Market,” *Strategic Studies Quarterly* 3, no. 2 (2009); and R. K. Jasbir Singh, ed., *Indian Defence Yearbook 2009* (Dehra Dun, India: Natraj Publishers, 2009).

25 Barry D. Watts, *Six Decades of Guided Munitions and Battle Networks: Progress and Prospects* (Washington, DC: Center for Strategic and Budgetary Assessments, March 2007); Barry D. Watts, *The Evolution of Precision Strike* (Washington, DC: Center for Strategic and Budgetary Assessments, August 2013); Thomas G. Mahnen, “Weapons: The Growth & Spread of the Precision-Strike Regime,” *Daedalus, Journal of the American Academy of Arts & Sciences* (June 1, 2011).

26 Vladimir Slipchenko and Voyna Budushchego. Moscow: Moskovskii Obshchestvennyi Nauchnyi Fond, 1999 as it appears in Jacob Kipp, “Russian Sixth Generation Warfare and Recent Developments,” *Eurasia Daily Monitor* 9, no. 17 (January 25, 2012).

27 Global strike and distributed ISR operations are part of USAF doctrine, see: <https://doctrine.af.mil>.

28 Randy Huis, *Proliferation of Precision Strike: Issues for Congress* (Washington, DC: Congressional Research Service, May 2012).

29 *Ibid.*, 13-15.

30 US Joint Chiefs of Staff, *Joint Operational Access Concept* (Washington: US Joint Chiefs of Staff, 2012).

states to conceal their involvement.³¹ With respect to Russia, NATO refers to a new strategy of “ambiguous warfare” leveraging covert action and cyber-attacks.³²

Just as the costs of hitting a target decrease for most modern militaries and their proxies, the price of force modernization is increasing. Compare the costs of the F-18 Super Hornet and the F-35C, the US Navy’s replacement. The unit cost of the older F/A-18 Super Hornet is \$57 million compared to nearly \$130 million for its replacement, the F-35C.³³ As platforms become more expensive, states have to make hard choices about their investments. While new systems like the F-35 promise superior capabilities, the sheer cost per unit restricts the ability of even the United States, whose defense budget dwarfs that of most other nations, to field mass formations.

The costs of large, conventional forces are increasing. Yet, the frequency of major theater war is decreasing. Most countries, especially in an interconnected world, are concerned about the negative consequences of long-term conflict. As seen in the collapse of the ruble since the Ukraine crisis and capital flight from Russia during the 2008 Georgian conflict, international investors are war wary. Through diplomatic pressure and financial flows, any actor seeking a purely military solution to a problem faces diminishing returns. In such a world, competition and militarized disputes do not go away. Rather, there are incentives for crisis brinkmanship and preparing for short wars waged by small joint combined arms teams or proxies.

Toward a New Theory of Victory

As seen in the previous examples, the proliferation of precision strike, increasing weapons costs and systemic constraints on major war alter how military actors approach operational art and prepare for future conventional conflict. As the cost and utility of fielding massed formations decreases, actors seek speed and surprise in an effort to achieve victory, that is, force a decision, short of escalating to costly major wars. Furthermore, there appears to be a growing appreciation for the utility of employing relative force ratios in multiple dimensions. This idea first emerged in early concepts for integrating rotary wing aviation into the Marine Air-Ground Task Force in the 1950s (e.g., single weapons system concept) and in theorizing Special Forces (i.e., relative superiority).³⁴ A military can achieve the effect of a 3:1 ratio even against a numerically superior opponent by attacking along multiple domains and presenting a foe with multiple dilemmas, a concept captured in the idea of

31 Martin Libicki, “The Specter of Non-Obvious Warfare,” *Strategic Studies Quarterly* 6, no. 3 (Fall 2012).

32 Peter Apps, “Ambiguous Warfare, Providing NATO with New Challenge,” *Reuters*, August 21, 2014, <http://uk.reuters.com/article/2014/08/21/uk-nato-summit-idUKKBN0GL1KA20140821>.

33 Costs for the F/A-18 Super Hornet obtained from F/A-18 Strike Fighter, United States Navy Fact File, Last Update: May 26, 2009, http://www.navy.mil/navydata/fact_display.asp?cid=1100&tid=1200&ct=1. Costs for the F-35 C are based off 2013 figures from Brendan McGarry, “Analyst: F-35C to Cost \$337 Million Apiece in FY15,” *DOD Buzz*, July 30, 2014, <http://www.dodbuzz.com/2014/07/30/analyst-f-35c-to-cost-337-million-apiece-2/>.

34 Terry C. Pierce, *Warfighting and Disruptive Technologies: Disguising Innovation* (London: Frank Cass, 2004), 80-83; and William F. McRaven, *Spec Ops: Case Studies in Special Operations Warfare: Theory and Practice* (New York: Presidio Press, 1996).

cross-domain synergy.³⁵ This evolving set of assumptions produces a preference for speed and multi-domain maneuver.

The new Army Operating Concept, *Win in a Complex World*, calls for “expeditionary maneuver” and “joint combined arms” to present “our enemies and adversaries with multiple dilemmas.”³⁶ The concept places a premium on operating “across multiple domains” and developing “situational understanding through action while possessing the mobility to concentrate rapidly.”³⁷ The Chief of Staff of the Army is pushing for a “professional force that is able to provide expeditionary, decisive landpower tailored and scaled to perform missions.”³⁸ Through Regionally Aligned Forces (RAF) connected by a global landpower network, the Army will gain the situational awareness and access points to achieve a “capability overmatch.”³⁹ As stated in the Army Operating Concept, “to retain overmatch, the Joint Force will have to combine technologies and integrate efforts across multiple domains.”⁴⁰ As seen in the 94th Army Air and Missile Defense Command Task Force Talon deployment of the High Altitude Area Defense battery to Guam and Pacific Pathways regional exercises with the 2nd Stryker Brigade Combat Team, setting the theater to achieve potential overmatch requires demonstrating the ability to re-posture capabilities.⁴¹

The idea of using speed and multi-domain maneuver to destabilize a numerically superior adversary is at the heart of Marine Corps doctrine.⁴² In the US Marine Corps, the new operating concept, *Expeditionary Force 21* calls for smaller, “special purpose” Marine Air-Ground Task Forces operating from a mix of shipping and partner nations.⁴³ These tailorable forces will be deployed forward and able to respond rapidly to evolving crises ranging from embassy evacuation, to arraying forces in theater to deter future aggression. The US Marine Corps is also experimenting with a new Distributed STOVL [short take-off, vertical land] Operations (DSO) concept that envisions employing F-35B to “activate a shifting network of expeditionary airfields, tactical landing zones and forward arming and refueling points with the intent

35 US Joint Chiefs of Staff, *Capstone Concept for Joint Operations* (Washington, DC: Chairman of the Joint Chiefs of Staff, 2012).

36 US Army Training and Doctrine Command, *The US Army Operating Concept: Win in a Complex World*, TRADOC Pamphlet 525-3-1 (Fort Eustis: US Army Training and Doctrine Command, October 13, 2014), iii.

37 Ibid.

38 Raymond Odierno, “The US Army: Trusted Professionals for the Nation,” *Army* (October 2014): 23.

39 David G. Perkins, “Army Operating Concept: Delivering the Future,” *Army* (October 2014): 65.

40 US Army Training and Doctrine Command, *The US Army Operating Concept: Win in a Complex World*, 11.

41 Vincent K. Brooks, “Rebalance and Beyond,” *Army* (October 2014): 107-108. Of interest, the push for Joint combined arms maneuver capabilities in the Pacific is leading the Army to explore additional watercraft and amphibious capabilities, see John Sullivan, “Army Watercraft Critical to Joint Combined Arms Maneuver,” *ARCIC-HQ*, December 19, 2014, <http://www.arcic.army.mil/Articles/arcichq-Army-Watercraft-Critical-to-Joint-Combined-Arms-Maneuver.aspx>.

42 US Marine Corps, *Warfighting*, MCDP 1 (Quantico: US Marine Corps, 1997). For a historical treatment of the emergence of maneuver warfare in the Marine Corps, see Pierce, *Warfighting and Disruptive Technologies: Disguising Innovation*, 85-103, and Terry Terriff, “Innovate or Die: Organizational Culture and the Origins of Maneuver Warfare in the United States Marine Corps,” *Journal of Strategic Studies* 29, no. 3 (2006).

43 US Marine Corps, *Expeditionary Force 21* (Washington, DC: US Marine Corps, March 4, 2014), 2.

of complicating enemy targeting solutions.⁴⁴ At the Infantry Officer Course, the capstone exercise has second lieutenants launching airborne raids with V-22s to destroy enemy air defenses and seize an airfield. The mission involves multi-domain coordination with simulated F-35s using Samsung tablets.⁴⁵ Students in the Advanced Studies Program at the Marine Corps Command and Staff College synthesized these concepts as a new approach to distributed maritime operations that envisions a wider range of expeditionary operations including using land forces for sea denial and new shaping activities.⁴⁶

The US Air Force and Navy are also examining ways to use tailorable strike packages with multi-domain overmatch potential. The Navy is exploring a new concept, “distributed lethality” that envisions “dispersed formations” of “hunter-killer surface action groups.”⁴⁷ The architects envision these formations achieving better multi-domain integration with the Marine Corps in order to, “provide persistent presence that can influence and control events at sea and in the littorals, applying the right capability to the right target for the joint-force commander.”⁴⁸ US Pacific Command is testing the evolving AirSea Battle concept (now called Joint Concept for Access and Maneuver in the Global Commons, JAM-GC), including most recently, Valiant Shield 2014, a combined air, sea and cyber exercise involving land and carrier based aviation assets.⁴⁹ Separately, the Air Force is conducting proof-of-concept exercises to test “Rapid Raptor,” deploying detachments of F-22s with all support personnel and material on C-17s to friendly air bases on short notice.⁵⁰ Over the last fifteen years, the Air Force has also developed leap ahead capabilities for remote split operation (RSO) using remotely piloted aircraft (RPAs) in support of both Joint Special Forces Task Forces and conventional ground units.⁵¹ While many of these systems and ideas, including rapid deployment and airborne raids, are old, they are being envisioned at lower echelons and in new contexts.

Other countries are also seeking fast, scalable multi-domain capabilities. Since 2000, the Indian military has conducted exercises in the Arabian Sea integrating air, sea, and land task forces designed to blockade Pakistani ports and launch small amphibious operations.⁵² Similar

44 Marina Malenic, “USMC Drafts Key F-35B Operational Concept,” *Janes* 360, May 21, 2014, <http://www.janes.com/article/38269/usmc-drafts-key-f-35b-operational-concept>.

45 Sydney J. Freedberg Jr., “F-35s, V-22s, and Samsung Tablets: Junior Marines Pioneer New Tech, Tactics,” *Breaking Defense*, May 21, 2014, <http://breakingdefense.com/2014/05/f-35s-v-22s-and-samsung-tablets-junior-marines-pioneer-new-tech-tactics>.

46 The papers are available on request. Contact benjamin.m.jensen@usmc.mil. For a discussion on possible ways to field smaller MAGTFs for distributed maritime operations, see Jeffrey Tlapa, “The Micro-MAGTF: Optimizing Distributed Amphibious Operations,” *Marine Corps Gazette* 99, no. 1 (January 2015).

47 Thomas Rowden, Peter Gumataoto, and Peter Fanta, “Distributed Lethality,” *Proceedings* 14, no. 1 (January 2015).

48 *Ibid.*

49 Brok McCarthy, “Valiant Shield 2014 Comes to Successful End,” *Pacific Air Forces*, September 23, 2015, <http://www.pacaf.af.mil/news/story.asp?id=123425856>.

50 “USAF Airmen Evaluate Rapid Raptor Concept in Guam,” *Air Force Technology*, December 5, 2014, <http://www.airforce-technology.com/news/newsusaf-airmen-evaluate-rapid-raptor-concept-in-guam-4460735>.

51 For an overview of USAF doctrine for reachback and distributed operations, see Curtis E. Lemay Center, “Annex 3-30: Reachback and Distributed Operations,” November 7, 2014, <https://doctrine.af.mil/download.jsp?filename=3-30-D09-C2-Distributed-vs-Split-Ops.pdf>.

52 Vinod Anand, “Evolution of a Joint Doctrine for Indian Armed Forces,” *Institute for Defence Studies and Analyses*, <http://www.idsa-india.org/an-jul-600.html>.

joint exercises between the Indian Army and Air Force since 2004 have tested the ability to deploy integrated battle groups.⁵³ During exercise Sudarshan Shakti in 2012, Indian forces leveraged UAVs and satellite precision targeting in support of a traditional integrated battle groups, consisting of a division minus with attached armor, artillery and aviation formations conducting short notice attacks against an adversary.⁵⁴ In December 2013 exercise Shahbaz Ajay sought to validate new, scalable joint formations including integrating Indian Air Force operations with airborne and helicopter insertion.⁵⁵

Based on the conduct of the 2008 war with Georgia, Russia began an aggressive military modernization effort focusing on ready brigades as opposed to larger divisions that required time to mobilize.⁵⁶ The concept focused on smaller ground forces as part of a larger Joint force (i.e., tri-service interconnectedness). To assess the progress of the reforms as early as 2009, the Russian military used the Zapad exercises to test new concepts and force readiness. Of interest, the overall direction of the reforms, similar to the Indians, is to use small, joint formations that can move on short notice and engage targets from multi-domains. In the Zapad 2013 exercise, Russian forces experimented with a wide array of UAVs for target acquisition and Intelligence, Surveillance, and Reconnaissance (ISR) in support of air and ground forces.⁵⁷ In separate exercises held in Kemerovo Oblast in 2013, the Russians successfully used UAVs to coordinate ground fires including rockets and self-propelled howitzers.⁵⁸ Based on events in Crimea and Eastern Ukraine in 2014, the Russians are also exploring new approaches to irregular warfare backed by the threat of conventional and strategic escalation.

Israeli Defense Force (IDF) doctrine calls for rapid counter-attacks leverage multi-arm coordination for quick attainment of war objectives.⁵⁹ After 2003, the IDF began exploring a “small and smart” Army to shock opponents.⁶⁰ According to IDF Chief of Staff Benjamin Gantz, “The time factor is critical, and the campaign must be shortened because the home front is paying a heavy price. The new operational outlook presents a swift transition to a state of war and the implementation of the “shock and awe” doctrine to achieve the campaign’s goal within a few days.”⁶¹ The concept envisions helping the IDF survive budget cuts while building on the assumption technological innovation will continue

53 Subhash Kapila, “India’s New Cold Start War Doctrine Strategically Review,” *South Asia Analysis*, Paper No. 991, May 4 2004, <http://www.southasiananalysis.org/paper991>.

54 Nitin Gokhale, “India Military Eyes Combined Threat,” *The Diplomat*, January 17, 2012, <http://thediplomat.com/2012/01/india-military-eyes-combined-threat>. For an analysis of the escalation potential of these exercises and the evolution of Cold Start, see Ali Ahmed, *India’s Doctrinal Puzzle: Limiting War in South Asia* (New York: Routledge, 2014).

55 IHS Jane’s, “India,” *Jane’s World Armies*, January 27, 2015.

56 For an overview as it relates to ground forces, see Rod Thorton, *Military Modernization and the Russian Ground Forces* (Carlisle, PA: US Army War College, Strategic Studies Institute, 2011).

57 IHS Jane’s, “Exercise Overview: Russian Federation,” *Jane’s World Armies*, November 12, 2014.

58 Ibid.

59 Israel Defense Forces, “Doctrine,” <http://dover.idf.il/IDF/English/about/doctrine/default.html>.

60 Alex Fishman, “The IDF of the Next War: Army Chief Gantz’s Bold and Revolutionary Plan Far More Significant than Money It Is Saving,” *YNet News*, November 7, 2013, <http://www.ynetnews.com/articles/0,7340,L-4403710,00.html>.

61 Ibid.

to favor increased lethality and precision.⁶² As seen in the 2008 and 2014 during operations in Gaza, the IDF worked to integrate air and ground fires in new ways, including how unmanned systems and intelligence fed targeting.⁶³ The IDF is at the forefront of developing mini-precision munitions that will enable dispersed ground and air elements to engage in multi-domain targeting in urban campaigns.⁶⁴

Large militaries are not the only ones developing these capabilities. Singapore is investing in what they refer to as a “3rd Generation Army” that integrates multi-domain platforms in an “integrated battlefield” construct capable of overmatching larger formations.⁶⁵ The idea is a “knowledge-based” force that observes and orients faster than future adversaries can react, a vision similar to former Vice Chairman of the Joint Chief of Staff Admiral William Owens in the 1990s.⁶⁶ Since 2007, the European Union has fielded two multinational battlegroups. The Nordic Battlegroup includes a Swedish infantry battalion designed to be “reinforced with support resources such as engineering, logistics, anti-aircraft, intelligence, transport helicopter, medical or mine clearance units [and] should the need arise, combat aircraft with an airbase unit or special forces.”⁶⁷

There appears to be an emerging character of modern conventional conflict. Military professionals the world over are imagining future war where diffusing precision strike-capabilities change the tempo of operations. Exercises, concept development, and procurement all point to a mode of warfare in which increasingly lethal, cheap technology as well as economic and diplomatic constraints on sustained, major theater war put a premium on fielding smaller, multi-domain capable forces. There appears to be an assumption that speed is more important than mass and forces can achieve short-term overmatch through multi-domain maneuver.

Implications for Crisis Management

The diffusion of precision-strike systems combined with an assumption that conventional conflicts will be fought beneath the high-end threshold is altering the character of war. Multiple nations are planning to use smaller, modernized combat formations or hybrid proxies to signal their capabilities and gain advantages in a crisis, and if necessary, fight and win short wars. Given this trend, the question becomes what are likely consequences?

62 Ibid.

63 For an overview of how Israel adapted from the 2006 conflict with Hezbollah for its operations in Gaza, see Benjamin S. Lambeth, “Israel’s War in Gaza: A Paradigm of Effective Military Learning and Adaptation,” *International Security* 37, no. 2 (Fall 2012): 81-118. On fire-support roles and missions, see Yaakov Katz, “Israeli Forces Deliberate Fire-Support Roles and Missions,” *Jane’s International Defense Review*, September 3, 2010.

64 On mini-precision munitions, see Robert Hewson, “Small but Perfectly Formed: Mini Munitions Offer Precision Impact,” *Jane’s International Defense Review*, August 14, 2009.

65 Speech by Senior Minister of State for Defence Mr Chan Chun Sing at the 3rd Generation Army Wide Area Communications System Commissioning Parade, May 10, 2013.

66 Neo Kim Hai, “Towards a Knowledge Based SAF,” *Singapore Armed Forces*, http://www.apqc.org/sites/default/files/files/KimHaiNeo_Towards%20a%20Knowledge-Based%20SAF.pdf.

67 “The EU Battlegroup Concept and the Nordic Battlegroup,” *Regeringskansliet*, May 5, 2014, <http://www.government.se/sb/d/9133/a/82276>.

There are two potential risks apparent in the emerging character of war that will require military and civilian decision makers alike to relearn the art of crisis management. First, as multiple countries optimize their forces and doctrine, they could produce a world prone to rapid escalation and miscalculation. One can imagine a scenario in which rapid deployments of multi-domain, first-strike systems accompany crisis bargaining as a form of coercive diplomacy. Actors threaten to strike first, crippling the adversary's C4ISR as seen in AirSea Battle.⁶⁸ Yet, because precision forces have an inherent "first-mover" or "first-strike" advantage, it could put premium on being the first party to strike a blow.⁶⁹ Such a situation could risk what Barry Posen calls "inadvertent escalation."⁷⁰ A world of small, optimized forces seeking advantage before tensions escalate could fuel a 21st century "short war illusion."⁷¹ Military planners could inadvertently box in political leaders to high-risk courses of action predicated on lightning fast assaults that force an adversary to capitulate.

Operational plans need to factor a broader range of instruments of power and move beyond flexible deterrent options to *flexible coercive options*. Current joint doctrine moves from Phase 0 Shaping to Phase I Deter.⁷² Yet, coercion, as latent force, is more than deterrence.⁷³ It includes compellence and coercive diplomacy, the art of finding levers to employ minimal threats across multiple instruments of power to induce a change in behavior.⁷⁴ In crisis management, one does not wait until Phase II to seize the initiative; one finds a way to force an adversary to back down short of pulling the trigger. The goal, to use Sun Tzu's phrase, is to win without fighting. Using a wider array of coercive threats reduces the incentives to rely on any single option, from military force to economic sanctions.

Second, if what can be seen can be hit, and military actors are primed for the offense, crisis response predicated on "showing the flag" is insufficient. The art of crisis management is in managing threat asymmetries and developing future options. Every action in the transition from Phase 0 to Phase I should produce potential costs for adversaries and increase the range of response options open to national decision makers. Large forces are large risks and, hence, potentially introduce more costs than benefits in an escalating crisis. They also potentially limit response

68 Jan van Tol, Mark Gunzinger, Andrew F. Krepinevich, and Jim Thomas, *AirSea Battle: A Point of Departure Concept* (Washington, DC: CSBA, 2010).

69 For an analysis of first-strike advantages, see Karl P. Mueller, et al., *Striking First: Preemptive and Preventive Attack in US National Security Policy* (Santa Monica: RAND Corporation, 2006).

70 Barry Posen, *Inadvertent Escalation: Conventional War and Nuclear Risks* (Ithaca: Cornell University Press, 1991).

71 For example, see debates about the origins and purpose of the Schlieffen plan: Holger H. Herwig, "Germany and the 'Short War' Illusion: Toward a New Interpretation?" *Journal of Military History*, 66, no. 3 (July 2002): 681-69, and Kier Lieber, "The New History of World War I and What It Means for International Relations Theory," *International Security* 32, no. 2 (Fall 2007): 155-191.

72 US Joint Chiefs of Staff, *Joint Operation Planning* (Washington, DC: US Joint Chiefs of Staff, 2011) discusses Flexible Response Options (FROs), but focuses the majority of the appendices on Flexible Deterrent Options (FDOs).

73 Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966).

74 In addition to Schelling, major studies on coercion include Daniel Byman and Matthew Waxman, *The Dynamics of Coercion: American Foreign Policy and the Limits of Military Might* (New York: Cambridge University Press, 2002); Gordon A. Craig and Alexander L. George, *Force and Statecraft: Diplomatic Problems in Our Time*, 2nd ed. (New York: Oxford University Press, 1990), Alexander L. George, ed., *Avoiding War: Problems in Crisis Management* (Boulder: Westview Press, 1991), Lawrence Freedman, ed., *Strategic Coercion* (Oxford: Oxford University Press, 1998), and Oran Young, *The Politics of Force: Bargaining During International Crises* (Princeton: Princeton University Press, 1968).

options as, with carriers, they change the focus from crisis response to protecting the proverbial capital ship. Future joint plans will need to look beyond traditional force demonstrations and uses of large formations like carriers and brigade combat teams to “pressurize” a crisis.

These risks highlight the need for the defense community at large to become more imaginative in approaching coercive diplomacy. Small, joint expeditionary forces imposing potential costs on an adversary act to signal intentions, but they are only one signal amongst a larger array of instruments of power. The effects of coercion tend to be cumulative. Therefore, new approaches to leveraging force demonstrations and other military signals alongside diplomatic and economic pressures become a strategic priority to advance national interests short of triggering increasingly dangerous “limited” wars. If a new theory of victory is emerging, then its core idea depends on credible signaling of the cascading risks and costs of any potential conflict.