

# Furthering the Discussion on METT-TC

Lt. Col. Brian R. Hildebrand, Texas Army National Guard

**H**ealthy debate from multiple perspectives encourages critical analysis and stimulates creative thought. Moreover, embracing differences in cultural perspectives promotes the Army profession and enhances interoperability amongst allies. Maj. Gintautas Razma from the Military Academy of Lithuania presents important insights about a new way to prepare for combat in his October 2022 online exclusive article for *Military Review*.<sup>1</sup> He offers a competing analytical framework to the long-standing mission analysis framework, METT-TC (mission, enemy, terrain, troops, time available, and civilian considerations). Razma thinks hard and smart about mission analysis and invites others to do the same.

In the spirit of doctrinal debate, this article constitutes not just a furtherance of the discussion but a response to his work and its underlying assumptions. Razma's framework, called MT-GLEO (mission, time, geospace, local, enemy forces, own forces), explores new concepts and questions old ones; it uses

a conceptual discipline to challenge METT-TC. MT-GLEO recasts the mission elements as components of an equation and emphasizes the importance of sequence as if solving a mathematical expression. As a result, the MT-GLEO framework rests on several critical assumptions and implications. Namely, mission and time are givens in an operational premise, thereby reducing their role to a part of an equation. Furthermore, MT-GLEO emphasizes the importance of conceptual discipline in combat analysis, implying that military history is second to scientific reasoning in military problem-solving.<sup>2</sup>

The MT-GLEO framework uses precise, prescriptive, and scientific language to describe variables, givens, and factors.<sup>3</sup> Within the MT-GLEO framework, higher headquarters assign missions to units and allot time to achieve them.<sup>4</sup> Once handed down from higher headquarters, MT-GLEO presupposes missions cannot be changed during combat—to change the mission is to alter the equation.<sup>5</sup> Experience, however, suggests



## A New Combat Analysis Framework

Maj. Gintautas Razma, Military Academy of Lithuania

Few would disagree with the assertion that management, when combined with leadership and command and control, is one of the core combat competencies of commanders, whatever their rank. The general expectation is that a commander should manage combat dynamics effectively, lead troops in the face of uncertainty, give clear orders, and ensure they are carried out. To read Razma's October 2022 *Military Review* online exclusive, visit <https://www.armyupress.army.mil/Journals/Military-Review/Online-Exclusive/2022-OLE/Razma/>.



otherwise. Missions do change during combat and change often. U.S. Army commanders on the ground have the trust of their superiors to change missions as the situation dictates.

Unplanned transitions are unanticipated changes in the operational environment that cause the commander and unit to react and evolve to meet the new demands of the situation.<sup>6</sup> They can be both points of friction and opportunities. In combat, this transitions among offense, defense, and stability operations to maintain the initiative or consolidate gains.<sup>7</sup> Consolidating gains is an operational imperative that takes on slightly different meanings along the range of military operations, from competition to conflict.<sup>8</sup> In conflict, consolidating gains means exploiting tactical success in bypassed areas by defeating the enemy's will to resist.<sup>9</sup> To accomplish this, units must transition and change mission quickly.<sup>10</sup> At any one time, elements of one unit may be in the defense, the offense, or stability operations.

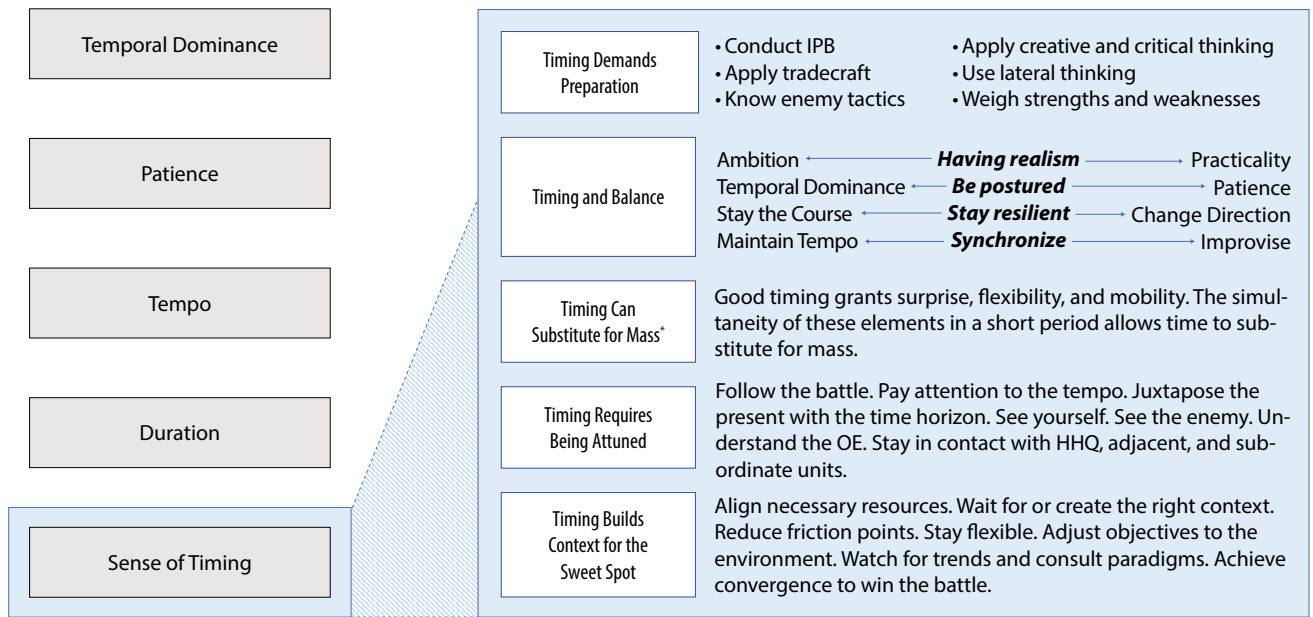
The U.S. Army has empowered commanders to change their mission through a two hundred-year tradition of mission command.<sup>11</sup> The Army concept of mission command inherently expects subordinates to exercise disciplined initiative to achieve the commander's intent.<sup>12</sup> No one knows the ground truth better

The U.S. Army's Multidomain Task Force operates from a tactical command post as a part of their premier appearance at Valiant Shield on 20 September 2018. Valiant Shield is a biennial, U.S.-only field training exercise with a focus on integration of joint forces. (Photo by Mass Communication Spc. 1st Class Danica M. Sirmans, U.S. Navy)

than the soldiers in the fight. In essence, subordinates with disciplined initiative

follow their orders and adhere to the plan until they realize their orders and the plan are no longer suitable for the situation in which they find themselves. This may occur because the enemy does something unforeseen, there is a new or more serious threat, or a golden opportunity emerges that offers a greater chance of success than the original course of action. The subordinate leader then takes action on their own initiative to adjust to the new situation and achieve their commander's intent, reporting to the commander about the new situation when able to do so.<sup>13</sup>

In this way, the U.S. Army prepares for the many planned and unplanned transitions by allowing subordinate leaders the discretion to adapt to and overcome obstacles, seize the initiative, capitalize on opportunities, and change the mission to achieve success. Mission



\*From Phillip S. Meilinger, "Time in War," *Joint Force Quarterly* 87 (4th Quarter, 2017): 99

HHQ—higher headquarters

IPB—intelligence preparation of the battlespace

OE—operational environment

(Figure by author)

**Figure. Factors of Time**

changes happen through commander-to-commander dialogue and nest within the overall scheme of maneuver, campaign objective, overarching mission, or strategy.

Razma’s explanation of time is not wrong; it is just incomplete. By limiting time to simply an immutable given, Razma reduces time to a mathematical factor of an algorithm.<sup>14</sup> Razma fails to consider the psychological aspect of time, where time is a factor that is both a given and a variable.<sup>15</sup> Time is a given because it is a constraint imposed on the battlefield’s strategy, operations, and tactics. In this sense, action depends on the time available—*leaders are using time*. Time is a variable because leaders can understand the situation to create windows of opportunity. In this sense, time depends on action—*leaders are making time*.

*Making time* requires perspective. Leaders from across the world understand and use time differently. Richard Lewis developed a model to explain the differences in perspective regarding time.<sup>16</sup> In addition, Kevin Cunningham and Robert Tomes argue that time is inextricably linked to geography and that all military strategy, operations, and tactics have a spatial-temporal component.<sup>17</sup> As time expires, so does the window of opportunity. Opposing forces move, make decisions, and alter the course of events. For example, in defense,

leaders attempt to slow down the enemy’s sequence and actions, trading space for time to delay the enemy and concentrate forces at the right place and time. In the offense, the focus shifts to offensive maneuver, and leaders attempt to speed up time to disrupt the enemy’s decision cycle, what John Boyd described as the Observe, Orient, Decide, and Act (OODA) loop.<sup>18</sup> In both cases, leaders consider time a window of opportunity to control. Opposing forces vie with each other to compress or extend these windows throughout the battle. The more time they have to act, the more opportunity they have to beat their enemy, and vice versa. Ultimately, Lewis, Cunningham, Tomes, and Boyd contribute valuable insights to the conversation on time. Standing on their shoulders, we see that time is more than just a given; it is also a variable.

Building on their work, leaders can think more broadly about the psychological aspect of time. Top of mind for leaders should be making the best use of the time available and creating windows of opportunity that make time for military operations or actions on the objective. To do this, leaders should consider how time can factor into their mission analysis and battle plans, such as temporal dominance, patience, tempo, duration, and sense of timing (see figure).

Cunningham and Tomes explain temporal dominance as a preference for compressed decision cycles and rapidity of action, which is designed to disrupt the enemy's timeline, push leaders to think faster through the action-reaction-counteraction sequence, and gain and maintain the initiative in battle.<sup>19</sup> This way, tempo-

of U.S. Army combat units, charges leaders with the requirement to make sure conditions are set to ensure success, resources are committed at the appropriate time and place, and leaders shape the situation to achieve success.<sup>25</sup> Ultimately, patience at all levels builds a long time tolerance for the necessary delay

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ral dominance “creates a climate favoring preemption, rapid dominance, and campaigns designed to achieve shock and awe.”<sup>20</sup> The U.S. military emphasizes temporal dominance over all other factors.<sup>21</sup>

Opposing temporal dominance, patience factors into the perspective that cultivates the long-term view of winning the war, not just battles. Hence, patience occurs at the strategic, operational, and tactical levels. Strategic patience allows for the fullness of thought and the opportunity to develop a superior strategy that

between two actions with a shared dependence.

The perspectives of temporal dominance and patience loom large in the figurative equation of operational tempo. Commanders control and adjust tempo based on the other mission variables; sometimes, they are patient but often temporally dominant. U.S. Army doctrine writers define tempo as the “relative speed and rhythm of military operations over time with respect to the enemy.”<sup>26</sup> Tempo is an essential characteristic of offensive operations. It should be “repetitive, recurring, unstoppable, and inevitable.”<sup>27</sup> Most U.S. Army leaders understand only rapid tempo. A rapid tempo creates opportunities, reduces vulnerabilities, and denies enemy forces the chance to rest, synchronize, or mass.<sup>28</sup>

If the tempo is the rhythm and speed by which forces act, duration is the time forces have to act and figures into a leader's calculations for how long they can or must hold the initiative. Within the context of duration, “time itself emerges as an area of conflict, a flank, a dimension, a domain, and not just as a competitive edge or weakness in our well-established operationalization of timing.”<sup>29</sup> Ultimately, duration is important for understanding the strategic context of the range of military operations and the windows that open between domains in the context of the multidomain battle.<sup>30</sup> Leaders attempting to create windows of opportunity to make time are intently focused on duration.

Understanding when and how to create windows of opportunity or operational windows into different domains requires knowledge of capabilities and a good sense of timing. A good sense of timing develops from personal and shared observations, assessments, intuition, expertise, and knowledge. A good sense of timing

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avoids predictability and harnesses the full potential of national powers.<sup>22</sup> Operational patience is a term borrowed from the U.S. Air Force.<sup>23</sup> It allows time for certain changes and courses of action to have their desired effects, promotes understanding of the operational environment and its impact on the mission, and allows commanders and staff to more fully determine threat intent, systems, culture, and probable courses of action.<sup>24</sup> Tactical patience, most often heard in the vernacular

flows from our decisions and actions and differs at each level of warfare.<sup>31</sup> At the strategic level, a good sense of timing helps to determine when to compete along the continuum of the range of military operations and the appropriate national response or action.<sup>32</sup> A good sense of timing at the operational level helps to figure

studies factors, intentions, and points of view to determine how they were achieved and what they may offer to the current situation. Leaders in the Army need both approaches to succeed.

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out the tempo and duration of operations.<sup>33</sup> A good sense of timing at the tactical level helps determine the right time and place to apply force.<sup>34</sup> Sometimes called *fingerspitzengefühl*, or “the fingertip feeling,” leaders have to pick the right time to act, to seize the initiative, and to drive momentum.<sup>35</sup> Sense of timing requires preparation, balance, and attunement to the operational environment. Good timing grants surprise, flexibility, and mobility. The simultaneity, or in a broader sense, the convergence of these elements in a short period allows time to substitute for mass.<sup>36</sup>

A good sense of timing ultimately depends on aligning the necessary resources in advance, identifying trends, and consulting paradigms.<sup>37</sup> It reduces friction points and builds the context for the sweet spot to manifest itself so commanders can achieve convergence.<sup>38</sup> Convergence is how commanders exploit opportunities, generate combat power throughout the depth of the battlefield, and ultimately win.

In this sense, Army leaders can factor time as both a given (using the time available) and a variable (creating opportunity and *making time*) when applying it within an analytical framework. As commanders orchestrate their staff and orient them onto the military problem set, it is important to consider a twofold approach: historical and scientific. As the MT-GLEO framework manifests, the scientific approach is not only methodical, but it is also very prescriptive and emphasizes conceptual discipline, sequence, and order.<sup>39</sup> In contrast, the historical approach includes perspective from the past applied to the future, what Michael Neiberg coined as “historical mindedness.”<sup>40</sup> It begins with the already known outcomes and

light a scientific approach toward combat analysis, they subdue the benefits of the historical perspective. History has much to offer to the military mind in terms of analysis.<sup>41</sup> Leaders can learn by revisiting the factors that antagonists on historical battlefields considered in their preparation for combat and prosecution of the battle. Gen. Donn Starry thought historical perspective was important enough that he took his leaders on military terrain walks across Europe and America, revisiting the battle sites, playing out the sequence of events, and reimagining the factors that fed into the success or defeat of the units.<sup>42</sup> This tradition is carried on by the Army today.

As witnessed in the doctrinal debate during the U.S. Army doctrinal renaissance, a scientific approach and historical perspective combined produce the best ideas. One could make a case that it was during this time that METT-TC in its original incarnation was born, though as Razma points out, its pedigree is not thoroughly documented.<sup>43</sup> Regardless, the scientific approach from Active Defense and the historical perspectives from AirLand Battle were combined in 1986 to produce Field Manual 100-5, *Operations*—often labeled as the operations bible and the source from which the many editions of Field Manual 3-0, *Operations*, spring.<sup>44</sup> Gens. William Depuy, Donn Starry, Glenn Otis, and William Richardson created one of the greatest evolutions in military doctrine by providing the operational level of war.<sup>45</sup> Evident from the interplay of ideas during this period is the antiphony of historical perspective and scientific analysis—sometimes historical analysis plays the second chair to the scientific approach, and sometimes it is reversed.<sup>46</sup>

The point is that you cannot promote one at the expense or exclusion of the other, which the MT-GLEO framework inadvertently does by narrowly defining mission and time.

Razma is right to question the creation and evolution of the METT-TC framework. The formulation of the MT-GLEO framework represents critical analysis and creative thought and is a significant contribution to a healthy doctrinal debate. Divergences in how armies use mission analysis tools create opportunities for perspectives to converge. While MT-GLEO is unique to Razma's military culture and METT-TC to the U.S. Army military culture, embracing these differences will

help produce better mission and combat analysis and leadership tools. With the Russian threat looming, we will need tools that contribute to a repeatable and scalable solution, enable analysis (both hasty and thorough) of real-time information, and allow for speedy discrimination of various factors within the decision-making process. The furtherance of the discussion about METT-TC or MT-GLEO promotes interoperability between allies, a necessary ingredient for large-scale combat operations. As this debate continues, keep in mind Winston Churchill's wise words, "There is only one thing worse than fighting with our allies and that is fighting without them."<sup>47</sup> ■

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## Notes

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2. *Ibid.*, 7.
3. *Ibid.*, 5–7.
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5. *Ibid.*
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8. *Ibid.*
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14. Razma, "A New Combat Analysis Framework," 5–6.
15. Phillip S. Meilinger, "Time in War," *Joint Force Quarterly* 87 (4th Quarter, 2017): 93–100, accessed 24 February 2023, <https://ndupress.ndu.edu/Publications/Article/1326002/time-in-war/>.
16. Gus Lubin, "The Lewis Model Explains Every Culture in the World," *Business Insider*, 6 September 2013, accessed 24 February 2023, <https://www.businessinsider.com/the-lewis-model-2013-9>.
17. Kevin Cunningham and Robert R. Tomes, "Space-Time Orientations and Contemporary Political-Military Thought," *Armed Forces & Society* 31, no. 1 (2004): 119–40, <https://doi.org/10.1177/0095327X0403100106>.
18. John Boyd, "Patterns of Conflict" (PowerPoint presentation, Washington, DC: Defense and the National Interest, January 2007), slide 131, <http://www.d-n-i.net/>.
19. Cunningham and Tomes, "Space-Time Orientations and Contemporary Political-Military Thought."
20. *Ibid.*
21. FM 3-0, *Operations*, chap. 3, sec. II. FM 3-0 uses the word "rapid" eighty-nine times. The authors emphasize or imply rapidity in all the operational tenets and imperatives.
22. This definition derives from multiple sources and represents the author's integration of concepts from these authors. Walter D. Givhan, "The Time Value of Military Force in Modern Warfare: The Airpower Advantage" (master's thesis, School of Advanced Airpower Studies, March 1996), 43–44; Cunningham and Tomes, "Space-Time Orientations and Contemporary Political-Military Thought"; Andrew R. D. Sharpe, "Synchronise Watches," Centre for Historical Analysis and Conflict Research (CHACR), 26 November 2020, accessed 24 February 2023, <https://chacr.org.uk/2020/11/26/synchronise-watches/>; Ziya Meral, "Re-Thinking Time in Warfare," CHACR, 23 November 2020, accessed 24 February 2023, <https://chacr.org.uk/2020/11/23/re-thinking-time-in-warfare/>.
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26. Army Doctrine Publication 3-0, *Operations* (Washington, DC: U.S. GPO, 2019), 2-8.
27. Sharpe, "Synchronise Watches."
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29. Meral, "Re-Thinking Time in Warfare."
30. Joint Publication 3-31, *Joint Land Operations* (Washington, DC: U.S. GPO, incorporating Change 1, 2021), I-12, accessed 24 February 2023, [https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3\\_31ch1.pdf?ver=3GGP54v-edJvxacEMfbUoQ%3D%3D](https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_31ch1.pdf?ver=3GGP54v-edJvxacEMfbUoQ%3D%3D).
31. Meilinger, "Time in War"; Cunningham and Tomes, "Space-Time Orientations and Contemporary Political-Military Thought."
32. Cunningham and Tomes, "Space-Time Orientations and Contemporary Political-Military Thought," 120.
33. Meilinger, "Time in War," 95.
34. Boyd, "Patterns of Conflict," slides 33–39.
35. Ibid., slide 76; Antulio J. Echevarria II, "Moltke and the German Military Tradition: His Theories and Legacies," *Parameters* 26, no. 1 (1996): 6.
36. Meilinger, "Time in War," 99.
37. "What Are Kamikaze Drones? Here's How Russia and Ukraine Are Using Them," Center for a New American Security, 17 October 2022, accessed 24 February 2023, <https://www.cnas.org/press/in-the-news/what-are-kamikaze-drones-heres-how-russia-and-ukraine-are-using-them>. Paradigms in this sense can describe new tactics devised from emerging technology. Consider Russia's use of kamikaze drones during its invasion of Ukraine. Michael S. Neiberg, "Reflections of Change: Achieving Intellectual Overmatch through Historical Mindedness" (Carlisle Barracks, PA: United States Army War College, n.d.), 11, accessed 24 February 2023, <https://www.armywarcollege.edu/documents/Reflection-ReadingAY23.pdf>. In many ways, however, paradigms come from historical mindedness—"by casting our mind backwards, we can see more accurately when we look forward."
38. FM 3-0, *Operations*, 3-3. The FM defines convergence as "an outcome created by the concerted employment of capabilities from multiple domains and echelons against combinations of decisive points in any domain to create effects against a system, formation, decision maker, or in a specific geographic area."
39. Razma, "A New Combat Analysis Framework," 2–4.
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41. Ibid., 51–53.
42. Donn A. Starry, *Press On! Selected Works of General Donn A. Starry*, ed. Lewis Sorley, vol. 2 (Fort Leavenworth, KS: Combat Studies Institute Press, 2009), 1245, <https://apps.dtic.mil/sti/pdfs/ADA507479.pdf>.
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44. John L. Romjue, ed., *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command, 1973–1993*, TRADOC Historical Study Series (Fort Monroe, VA: Office of the Command Historian, U.S. Army Training and Doctrine Command [TRADOC], 1993), 53–57.
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