Military Review

Military Review

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2214400

Cover photo: Ukrainian soldiers fight with Russian troops from a trench on the front line in the Lugansk region of Ukraine, 11 April 2022. (Photo by Anatolii Stepanov, Agence France-Presse)

Next page: A soldier assigned to the 10th Mountain Division surveys the terrain from the back of a CH-47 Chinook during a 3 March 2020 flight over Kabul, Afghanistan. (Photo by Spc. Jeffery J. Harris, U.S. Army Reserve)

2022 General William E. DePuy

Special Topics Writing Competition

This year's theme is "Insights from Two Decades in Afghanistan"

The intent of this year's DePuy competition is to highlight from a "boots on the ground" perspective what specifically the U.S. Army should learn from its twenty-year experience in Afghanistan. Possible topics might include the following: What faulty assumptions did leaders at all levels make that should be avoided in the future? What lessons should future senior military leaders learn from Afghanistan? How did the perception of success affect operational planning and assessments of progress? To what degree was Afghanistan a failure of mission-command or counterinsurgency doctrine? Any other salient topics that might be gleaned from an individual's experience and point of view.

Cautionary note: Over the course of the next several years, the topic of U.S. military involvement in Afghanistan will likely be intensely examined, debated, and heatedly argued; primarily at the strategic level and among a host of entities both in and out of the military. In contrast, while *Military Review* (*MR*) will consider all submissions received, the DePuy contest has historically been a venue that places a premium on careful, impartial, and scholarly work in the practical pursuit of applicable lessons learned. *MR* has selected the 2022 topic specifically to take advantage of the wealth of relatively recent experience still resident in the active-duty or just-retired force for the purposes of practical learning. Consequently, the judges will be advised that preference will be given to articles where authors primarily discuss issues that outline lessons learned salient to the operational and tactical levels of conflict. Authors are advised to avoid attempting to use the contest as a forum for partisan/political-oriented assignment of credit and liability for the outcome of the Afghanistan Campaign.

Contest opens 1 January 2022 and closes 18 July 2022

1st Place	**$1,000 and publication in *Military Review***
2nd Place	**$750 and consideration for publication in *Military Review***
3rd Place	**$500 and consideration for publication in *Military Review***

For information on how to submit an entry, please visit https://www.armyupress.army.mil/DePuy-Writing-Competition/.

Articles will be comparatively judged by a panel of senior Army leaders on how well authors have clearly identified issues requiring solutions relevant to the Army in general and/or to a significant portion of the Army; how effectively detailed and feasible solutions to the problems identified are presented; and the level of expository skill the author demonstrates in developing a well-organized article using professional standards of grammar, usage, critical thinking, original insights, and evidence of thorough research in the sources provided.

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The Geopolitical Consequences of the Special Operation Will Change the Entire View of the World

Konstantin Sivkov

Translation and Foreword by Lt. Col. Charles K. Bartles, U.S. Army Reserve

The below article, authored by Konstantin Sivkov, "Ukraine is just the beginning: The geopolitical consequences of the special operation will change the entire view of the world," was published in the March 28, 2022, edition of Voyenno-Promyshlennyy Kuryer, which, until it closed in March, was a prominent, conservative weekly newspaper focusing on military and defense issues.[1] Sivkov is a retired naval officer and General Staff Academy graduate who served in the Center for Military-Strategic Research of the General Staff from 1995 to 2007. He is also a Doctor of Military Sciences, and member of Russian Academy of Missile and Artillery Sciences, who has published over 200 articles dealing with the processes of armed struggle, the nature of modern wars and armed conflicts, and the organizational development of the Armed Forces. In addition, he is a cofounder and first vice president of the Academy of Geopolitical Problems, an independent non-governmental scientific organization specializing in military analysis.

It is important to note that Sivkov comes from the influential military-scientific community, which includes elements of the General Staff, the Russian Academy of Military Science, portions of academia, and Russian think tanks. This community is not only concerned with the research and development of militarily useful technologies; but also has a role in the development of Russian military strategy, operations and tactics; and understanding, and developing policy recommendations for geopolitical issues. Consequently, given Sivkov's background, close government ties, and the severe penalties for criticizing Russia's military or spreading "fake news" in Russia, it can safely be assumed that Sivkov's article accurately reflects the Kremlin's inner circle view in what is depicted as 'big picture' explanation of the ramifications of Russia's 2022 invasion of Ukraine in the context of a "global war" against the West led by the United States.

Sivkov starts by laying out the argument that Russia is opposed by a coalition of mostly Western client states, led by the United States. This understanding is certainly in line with other comments from the Russian leadership, as they view only a few states as truly sovereign, such as Russia,

China, and the United States, maintaining that smaller and/or weaker states must inevitably fall into the orbit of a greater power. Sivkov further posits that Russia is not just opposed by this coalition, but it has in fact been long at war, albeit a "hybrid" war, of economic and information means, though it has not yet entered a "shooting" war. Therefore, the Kremlin does not see the 2022 invasion of Ukraine as a local conflict between two nations, but as just a front of a larger war between Russia and the West, with Ukraine simply a Western proxy. This is the thinking behind cynical Russian statements such as "NATO will fight to the last dead Ukrainian."

Perhaps most salient within Sivkov's article is the explanation of the conflict between the West, Ukraine's role in it, and the consequences for Russian success or failure of Russia's current campaign. In general, the Kremlin sees its conflict with the West as between two competing worldviews. The Western view (from the Kremlin's perspective) is one of globalism with weaker nation states, global elites, and universal values. The Kremlin proffers a very different view, with a multipolar system (not dominated by the United States) that emphasizes state power, national elites, and traditional values. These positions are mutually exclusive—the success of one means the failure of the other. Sivkov explains that what happens in Ukraine will do much to strengthen one of these narratives, and weaken the other. Furthermore, the success of this campaign will just not result in the imposition of Russia's will on Ukraine but will also further its narrative on the world. Therefore, the Ukrainian campaign is of paramount importance for the Kremlin and it will not be easily dissuaded from its objectives in Ukraine by either international or domestic pressure. Perhaps the most disturbing aspect of the article is that the Kremlin does not believe that the conflict will stop after the Ukraine situation is resolved. Instead, Ukraine is seen as just the beginning of possibly a much larger conflict between Russia and the West.

—Lt. Col. Charles K. Bartles, U.S. Army Reserve,
U.S. Northern Command
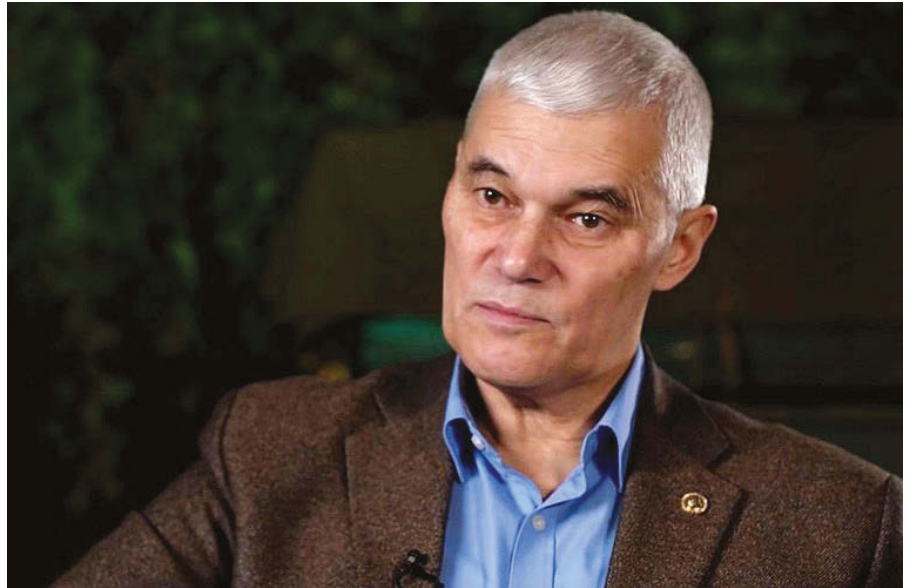
Konstantin Sivkov (Photo courtesy of Reporter, en.topcor.ru)

Ukraine Is Just the Beginning: The Geopolitical Consequences of the Special Operation Will Change the Entire View of the World

The special operation of the Armed Forces of the Russian Federation in Ukraine continues to develop. Serious shifts are taking place in the nature of the operational use of the Russian group of forces, indicating a qualitative change in the course of the armed struggle. Under these conditions, the question arises: what will happen next, will the West stop its pressure on Russia and start negotiations, as many Russians hope, or vice versa—will the pressure become even more fierce, will new armed conflicts arise?

Special Operation as Part of the Third World [War]

To answer these questions, one must turn to a military-political analysis of the situation, focusing on its key aspects, which make it possible to accurately identify relations between Russia and the united West.

First, it is noteworthy that the West acts as a single system. This is expressed by the fact that there is consistency both in actions and in time of all NATO countries led by the United States, as well as their allies in the Pacific Ocean—Japan and Australia, to exert a complex of measures to pressure the Russian Federation. This gives the basis to assert that Russia is opposed by a coalition of states, including one global center of power—the

United States, and a number of regional centers—Japan, Germany, and France. Thus, there is an open confrontation of the coalition at the head of one global center of power against another global center, the partners of which are not so numerous—Belarus is Russia's open ally so far, but it tends to expand.

Third, the West is pursuing an extremely active foreign policy toward those countries that have a relatively neutral position to get them to join its coalition or at least prevent them from supporting Russian policy. Particularly great efforts are being made in the Chinese direction in order to achieve a split in the emerging Russian-Chinese alliance.

> "Great efforts are being made ... to achieve a split in the emerging Russian-Chinese alliance."

Second, the set of measures taken by the West in confrontation with Russia can be attributed to open economic warfare. The EU has imposed almost the full range of the most serious sanctions that it can implement. This was openly announced by Josep Borrell, President of the European Parliament. That is, there is a pressure, a characteristic of war, of all possible resources of the participating countries. So far, Russia has not really responded, excluding symmetrical and ineffective actions. However, Western sanctions have already inflicted serious economic losses on the EU and the United States, which threaten to turn into social problems in the future. Nevertheless, the expansion of sanctions pressure on secondary areas continues. This testifies to the extreme determination of the Western coalition, which is also one of the signs of war.

Konstantin Sivkov is a retired Russian naval officer and General Staff Academy graduate who served in the Center for Military-Strategic Research of the General Staff from 1995 to 2007. He holds a Doctor of Military Sciences degree and is a member of Russian Academy of Missile and Artillery Sciences. Sivkov has published over two hundred articles dealing with the processes of armed struggle, the nature of modern wars and armed conflicts, and the organizational development of the armed forces. In addition, he is a cofounder and first vice president of the Academy of Geopolitical Problems, an independent nongovernmental scientific organization specializing in military analysis.

Fourth, the struggle of the Western coalition against Russia in the information sphere has all the characteristics of a period of war: bitterness, disregard for all norms of morality, massive influence, the use of short-term fakes that have operational or tactical significance but are not designed to have long-term consequences. Plus, the unity of the information plan in all of the media in the United States and NATO countries.

Fifth, the provision of full-scale military assistance, taking into account only critically important restrictions, to Ukraine, which is conducting an armed confrontation with Russia. In fact, the West cannot offer any other weapons than those that are currently supplied to Ukraine—only small-sized portable weapons systems. It does not make sense to supply larger and more complex items, since they will be quickly identified and destroyed, and the soldiers of the Armed Forces of Ukraine simply do not have time to master them—the size of the country's territory and the pace of advancement of Russian troops and police units of the LPR [Luhansk People's Republic] and DPR [Donetsk People's Republic] do not permit it. At the same time, it is impossible to provide military assistance to Ukraine through the direct intervention of the armies of NATO countries in the Russian-Ukrainian armed confrontation due to the extremely high risk of the conflict going nuclear, or at least resulting in large losses of the alliance's troops. Even the introduction of a no-fly zone can lead to unacceptable losses of NATO and U.S. aircraft due to the peculiarities of the operational-strategic situation and military-geographical conditions. Moreover, even with the obviously low

effectiveness of the current range of weapons, they continue to build up, indicating the desire of the West to prevent the complete defeat of the Armed Forces of Ukraine and the current Nazi Ukrainian government at any cost. Thus, the nature of the actions of the Western coalition fully corresponds to a period of war.

a political settlement." [In reference to https://www.europeanleadershipnetwork.org/group-statement/the-expert-dialogue-on-nato-russia-risk-reduction-a-joint-appeal-for-a-ceasefire-and-risk-reduction/] Under the current conditions, this is actually a demand for Russia's surrender to Ukraine and the united West behind it.

> " Russia is currently at war with the united West. This is a war of a different nature than those that took place in the 20th century. It cannot be declared, because in essence it is a classic hybrid one, from the side of the West. "

Sixth, it should be noted what are the decisive goals of the parties. The Western coalition pursues the goal of defeating Russia by initiating a coup in the country to eliminate the current government headed by President Putin, not ruling out the possibility of his physical destruction, and establishing undivided control of Russia by global and Western elites. On the part of Russia, the goal of the campaign is to disrupt attempts of the West and other world players to expand into the post-Soviet space. The elimination of the Nazi regime in Ukraine, which is the most immediate source of military and ideological threat in this context, is only part of the strategic task. The resoluteness of the opposing sides' goals is an important sign of the state conflict between them.

Seventh, regardless of the outcome of the confrontation between the Western coalition and Russia, there will be a radical reshaping of the system of regional relations, and even the geopolitical picture of the world, which is also a sign of war, and a large-scale war at that.

Finally, one cannot fail to mention the unprecedented activity of the "fifth column," which began to act almost openly, condemning and sabotaging the actions of the president and the Russian Armed Forces. Suffice it to recall the escape from Russia under various pretexts of various "stars" and "outstanding businessmen," as well as the "The Expert Dialogue on NATO-Russia risk reduction: a joint appeal for a ceasefire and risk reduction" dated March 2–3 this year, wherein the first paragraph explicitly stated, "All parties should immediately and unconditionally agree to a ceasefire, take coordinated measures to de-escalate the situation, and negotiate

Thus, we can safely say that Russia is currently at war with the united West. This is a war of a different nature than those that took place in the twentieth century. It cannot be declared because in essence it is a classic hybrid one, from the side of the West: Russia in Ukraine, conducting a special military operation, has not yet begun a large-scale application of measures typical of a hybrid war. After all, even gas continues to flow to Europe, including through the GTS [gas pipeline] of Ukraine. The scale of this hybrid war with the West suggests that it has all the hallmarks of a world war: the presence of opposing coalitions led by global centers of power that have entered directly into a military confrontation, albeit it just in the economic and information spheres, the resoluteness of goals, the use of all possible means of confrontation, refusal to comply with peacetime legal norms with the transition to the principle of military expediency practically on a global scale, drawing most countries of the world into the conflict according to the principle "if not with us, then against us." That is, we are talking about the beginning of the third world war, which is still taking place in a refined hybrid form—the Western coalition conducts armed confrontation using its proxies—the Armed Forces of Ukraine, in a limited TVD [theater of operations] within Ukrainian territory, while conducting full-scale global economic and information warfare against our country.

One may object that it is too early to talk about a world war. Well, let's compare the current world situation with the beginning of World War II. It began on September 1, 1939, with the attack of Nazi

Germany on Poland. France and Great Britain immediately declared war on the Germans, bound by an agreement with Poland. However, having declared war, they did not lift a finger to attack Germany from the West, where Hitler did not have combat-ready troops. Poland fought alone, without any help from

fairly high-ranking prisoners of war who voluntarily laid down their arms; the actions of Western elites that are completely meaningless from a military and economic point of view, such as the supply of S-300 air defense systems to Kiev from Slovenia or demands for Turkey to give S-400 air defense systems to Ukrainians; the

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its Western allies, even in the form of arms supplies. The only thing the British and French did was start an economic blockade of Germany. Doesn't it remind you of anything? In fact, the situation in the autumn of 1939 is structurally identical to the current one: the three leading geopolitical centers of that time officially entered the war—Germany on the one hand, and Great Britain and France on the other, battles took place only in Poland, where the Wehrmacht was opposed by the Polish Armed Forces, which can be considered as a proxy for Western powers. Only the interests differed: at that time, France and Great Britain were interested in defeating Poland so that their higher-level proxies—Hitler could attack the USSR, and so today for the united West, the defeat of Nazi Ukraine would mean a heavy strategic defeat. So, February 24, 2022, military historians of the future may well recognize the date of the start of the third world war.

What's Next?

Based on such an understanding of the essence of the current historical moment, it is possible to predict the development of the world geopolitical situation and the direction of the strategic efforts of the warring parties. It must be stated that if we consider the purely military aspect of the special operation in Ukraine, then the defeat of the Armed Forces of Ukraine and the entire Nazi government is predetermined in a fairly short time. There are many signs of this. Among them are changes in the way Russian aviation is employed; the appearance of

frankly decadent speeches of the leadership of Ukraine and a number of others. Under these conditions, only political betrayal can prevent the complete defeat of the Ukrainian Nazi regime, if the "fifth column" manages to achieve a cessation of hostilities before the Armed Forces of Ukraine are utterly defeated and compelled to complete and unconditional surrender.

However, regardless of the outcome of the special operation in Ukraine, the war of the Western coalition against Russia will continue to escalate—the Western and global elites cannot stop without defeating Russia or suffering a final defeat in this war. After all, at stake is the shape of the future world, of which there are only two variants. One proclaimed Klaus Schwab—the mouthpiece of the globalists. It has no place for states and national elites—the world is controlled by transnational corporations and is actually privatized by them. An alternative to it is the concept of a multipolar world proclaimed by our president last year at the Davos forum and subsequent key international summits, where states remain the subjects of world politics, and there is no place for the global power of transnational corporations and the corresponding elites.

These two options are mutually exclusive. The victory of one of them means the inevitable collapse, death, at least political and economic sense, and the disappearance of the bearers and beneficiaries of the alternative option into history. Therefore, the struggle has an extremely tough character, when all means are used that can be used without risking their own immediate death. For Western and global elites, the central task on

this path is the defeat and subjugation of Russia since it is so far the only leader who has proclaimed an alternative world agenda to globalism. Russia has a nuclear potential capable of physically destroying the global elites and the entire Western world. Without the unification of Russian and American nuclear potentials under the

Therefore, further escalation of tension in the world, especially military, will increase, and we can expect the next stage of the initial period of the third world [war]. Its main content, most likely, based on the expected global balance of power following the results of the special operation in Ukraine, will be the final

> " Within the framework of this stage, the Western coalition will focus its main efforts on solving the problem of the final defeat of Russia by initiating an unconstitutional change of power with the subsequent control of it. "

control of the globalists, it is impossible to bring China to its knees. Therefore, the defeat of Russia by initiating a revolution in it in the next few years (two to three years) is a vital task for the globalists and the current Western elites.

The defeat of Nazi Ukraine will mean the collapse of the entire strategy built by the West and the globalists over the last twenty years. The consequences of this defeat could be catastrophic for the globalists and have a geopolitical scale. Signs of this are already manifesting themselves today in the emerging rapprochement between the United Arab Emirates and Saudi Arabia with Russia, China's tough position on the Ukrainian issue, Venezuela's demand to recognize Maduro as the country's legitimate president as a condition for starting negotiations with the United States on oil supplies, and a number of other similar manifestations that indicate a loss of authority of the U.S. and the West in the general world order. The result of the defeat of Nazi Ukraine will be a sharp drop in American and, in general, Western influence in the world, which will have the most severe consequences for the economy. Under these conditions, revenge for the Ukrainian defeat may become the main leitmotif of U.S.-European geopolitics.

In turn, the termination of the special operation with the preservation of the current regime, even with a host of various treaty guarantees, will mean a military defeat for Russia. And the consequences of this will be very severe, primarily in the domestic socio-political situation. Such a step will have a negative impact on the international position and status of our country.

division of the states of the world into opposing coalitions, economic and information confrontation, as well as the creation of zones of armed confrontation between irregular formations and regular armed forces of countries that are proxies of the leading centers of power. In each of the coalitions, a core will be clearly identified, which will include the leading centers of power with their closest allies, who strictly pursue a common policy and actively participate in the struggle, and the periphery—countries that support this coalition but only participate in its actions to a limited extent. The core of the Western coalition will be the United States and Britain, and probably France, Germany, and Turkey. The periphery will be made up of the rest of the EU countries, oriented toward Western civilization or the states of Latin America, the Middle East and Africa dependent upon them. The core of an alternative coalition could be Russia, Belarus, and China, and probably North Korea and Iran. The periphery can be made up of the rest of the CSTO countries, as well as the countries of the regions mentioned above, oriented toward Russia and China, in particular Syria.

Within the framework of this stage, the Western coalition will focus its main efforts on solving the problem of the final defeat of Russia by initiating an unconstitutional change of power with the subsequent control of it. To this end, an unlimited economic and information war will continue, combined with attempts to create centers of internal and external armed conflicts and even local wars on the territory of our country or near its borders. Possible areas where the Western

coalition may try to initiate military conflicts may be in Russia, in the areas adjacent to Ukraine; in the North Caucasus; in depressed regions, as well as in the regions of the Russian Federation with a significant Islamic population. Possible zones of external military conflicts that our country could be drawn into could be Ukraine,

conflicts between countries that are on the periphery of opposing coalitions are also likely to escalate.

In terms of duration, this period of the third world war can range from one to three years. It will end with the formation of opposing coalitions and the emergence of clear zones of armed confrontation, where

> "This is possible as a result of an internal conflict that is growing in American society, expressed in the confrontation between the national and globalist elites. It may enter an acute phase after the autumn elections.

where the West will try to deploy and support the Bandera movement; Central Asian countries with unstable regimes or territorial claims to their neighbors, as well as those bordering Afghanistan. Under certain conditions, the most important of which may be the termination of the special operation without achieving the stated goals, one cannot rule out U.S. attempts to push Japan toward a military solution to the problem of the northern territories.

Russia will most likely be forced to take radical economic measures against the EU, up to a complete shutdown of energy supplies and other raw materials, while simultaneously resolving the tasks of parrying the threats posed by the Western coalition, paying special attention to the military ones. China, subject to a weakening U.S. position in the world and the decrease in the integrity and economic potential of the NATO bloc will be the result of sanctions on Russia, can opt for a forceful solution to the Taiwan problem. Against this background, one should expect a sharp increase in military tension around Iran. In Latin America and Africa,

conditions will be created for the start of direct armed confrontation between the armies and navies of the leading world powers. The beginning of this period will put the world on the brink of nuclear war.

And it can be assumed with a high probability, that with the emergence of a more or less large-scale precedent of conflict between the armed forces of the United States, China, and Russia, steps will be taken to prevent further escalation by all conflicting parties. At the same time, this stage of the third world war may end in connection with the withdrawal from the Western coalition of the world's leading center of power—the United States. This is possible as a result of an internal conflict that is growing in American society, expressed in the confrontation between the national and globalist elites. It may enter an acute phase after the autumn elections, when the U.S. will plunge into solving internal problems, which may lead to a decrease in international tension and the beginning of a de-escalation of the confrontation between Russia and the Western coalition. ∎

Note

1. Konstantin Sivkov, "Украина—только начало: Геополитическим последствием спецоперации станет изменение" [Ukraine is just the beginning: The geopolitical consequences of the special operation will change the entire view of the world], *Voyenno-Promyshlennyy Kuryer*, 28 March 2022, https://vpk-news.ru/articles/66370.

People look at the gutted remains of Russian military vehicles on a road in the town of Bucha, close to the capital Kyiv, Ukraine, 1 March 2022. (Photo by Serhii Nuzhnenko, Associated Press)

Winning by Outlasting

The United States and Ukrainian Resistance to Russia

Marc R. DeVore

Andrew Orr, PhD

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The failure of Russia's plan to quickly win the war in Ukraine and topple the country's democratically elected government by occupying Kyiv and other major cities has opened strategic possibilities, including a long-term war of attrition that most strategists did not anticipate before Russia's expanded invasion. Nevertheless, the Russian invasion still poses an existential threat to Ukraine. Russia retains large reserves of equipment and munitions and can mobilize far more troops than it has thus far committed. The invasion and continuing conflict also challenge NATO deterrence and European security more broadly. The threat of economic sanctions—even massive ones—failed to deter Russia's invasion, as such threats have failed to deter aggression in the past.[1] Since the war began, sanctions are clearly already punishing Russia's economy, but show no signs of compelling President Vladimir Putin to withdraw from Ukraine.

Despite the Ukrainian government and military's heroic resistance, an outright military victory for Ukraine appears impossible. Russian forces are making important gains in the south and show no sign of being forced to withdraw from Ukraine. Only NATO military intervention can drive the Russians out of Ukraine quickly, but direct intervention would place nuclear-equipped militaries into conflict and precipitate a general war in eastern Europe, the consequences of which are hard to predict and extraordinarily dangerous. In addition, Putin has threatened to widen the war and even use nuclear weapons if the United States or its NATO allies increase support for Ukraine. NATO—for perfectly good reasons—has been more fearful of Putin's threats of escalation to the nuclear level than Putin has shown himself of NATO. In effect, the United States has ceded escalation dominance by allowing Russia to control intrawar deterrence.

NATO is heading toward a position that will be increasingly hard to justify, domestically or morally, as its members express solidarity with Ukraine but take very limited military action in its support. NATO's quandary will become increasingly acute as Russia forces escalate the battle of Kyiv using the tactics they are employing in the siege of Mariupol. As the war drags on, supporting Ukraine will require the United States and its NATO allies to be creative and accept a level of risk to make sure Ukrainian forces have the equipment and munitions they need to continue to resist Russia.

Washington can do this by looking to history for examples of ways to extend Ukraine's resistance short of committing their own military forces.

The United States can help Ukraine's government show Russian leaders that it can keep the Ukrainian military in the field for much longer than they had imagined. The longer Ukraine resists, the more effect sanctions will have on Russia's economy. The combination of deepening economic pain, high casualties, and a war with no end in sight will maximize the pressure on Putin to seek a negotiated settlement. A strong and stable Ukrainian resistance will also shift the balance of power in negotiations toward the Ukrainians by reducing their need to make major concessions for a quick cease-fire.

NATO and the United States need military options that allow them to challenge Russia's escalatory dominance, further bleed Russian forces, and give Ukraine a realistic chance of surviving a long war as an independent state that controls its own political, economic, and cultural life. Military actions can demonstrate NATO's willingness to act beyond economic sanctions and light defensive weapons, helping to restore a deterrent capability that seems to have all but collapsed. Those options, however, must be chosen with great care given the risks of escalation. Western leaders should empower the Ukrainian armed forces by extending their material and political means of resistance without directly engaging Russian forces. By avoiding overt acts of military intervention, Western leaders can deny Putin the ability to effectively use the threat of Russian escalation to publicly deter their military actions.

Based on a careful analysis of historical examples, we recommend that the United States and its NATO allies

- increase the training and equipping of Ukrainians abroad to contribute to their country's defense,
- train and support "cyber auxiliaries,"
- provide large numbers of unmanned combat air vehicles (UCAVs),
- become a "middleman" by buying weapons systems that are compatible with Ukrainian inventories from third parties and transferring them to Ukraine,
- assist Ukraine in recruiting foreign volunteer pilots and ground crews, and
- help Ukraine establish a fallback government and defensive bastion in western Ukraine.

Ukrainian Territorial Defence Forces members train to use an NLAW antitank weapon in Kyiv outskirts, Ukraine, 9 March 2022. (Photo by Efrem Lukatsky, Associated Press)

Training Ukrainians Abroad

Weaponry is flowing into Ukraine, including much needed antitank and antiaircraft missiles. Shoulder-launched missiles are particularly vital to thwarting aero-mechanized assaults, especially once conventional air defense capabilities are lost. Ukraine, however, faces substantial challenges incorporating all the sophisticated shoulder-launched missiles being provided by NATO members due to a dearth of trained crews. The United States and its allies can mitigate this shortage of skilled crews by training Ukrainian expatriates at their own domestic training facilities on man-portable missile systems before returning them home to fight.[2]

At the beginning of the 1973 Arab-Israeli War, Israel did not possess any of the cutting-edge American TOW (tube launched, optically tracked, wire guided) antitank missiles that later proved extremely valuable to their success. Much like Ukrainians today, Israelis from all over the world returned to Israel to aid in the defense of their homeland. When the U.S. government agreed to provide Israel with TOWs, Israel's embassy in Washington, D.C., mobilized Israeli students studying at American universities. The U.S. Army rushed these students through a rapid training program that included firing far more practice rounds in a shorter time than was normally the case. This, in turn, significantly boosted their proficiency since a lack of practice rounds is a key inhibitor for confidence in usage regardless of simulators' quality. The U.S. Air Force then airlifted the Israelis with their TOWs to the conflict zone as part of President Richard Nixon's Operation Nickel Grass. This was done fast enough that the TOW teams reached combat and scored ample tank kills before the two-week war concluded.[3]

Ideally, the United States would have begun this program within days of the Russian invasion, but there are still Ukrainian expatriates who have military experience and want to fight. There are also expatriates and refugees, including women, who are making up a growing percentage of returnees and who lack military experience but are willing to fight.[4] While prioritizing expatriates with military

Sgt. Richard Lacombe, a soldier from Company C, 173rd Airborne Brigade, shows Ukrainian National Guard soldiers the proper procedures for operating an M4 rifle during situational training exercise lanes at Rapid Trident 2014. A rapid and steep increase in focused training of Ukrainian military personnel by U.S. military advisors would increase the chances of the Ukrainian military facilitating the survival of Ukraine as a nation. (Photo by Spc. Joshua Leonard, U.S. Army)

experience, the U.S. government should divert some of these returnees into short, intensive training courses for using Javelin, Stinger, and other shoulder-launched missiles. This could also be extended to tube-launched, antiarmor loitering munitions such as the Polish Warmate. Ukrainian consulates, embassies, cultural organizations, and immigrant aid societies can be helpful in identifying candidates, providing transportation, and facilitating their link-up with the Ukrainian military. Training could be conducted either on U.S. military bases, in camps near the Ukrainian border, or even by private military companies, should deniability be desired.

Promising basic military training will encourage patriotic Ukrainians who want to contribute but fear their lack of experience would make them militarily useless to volunteer. Providing specialized training in man-portable systems will reduce the time it takes to make volunteers minimally effective. It would take longer to train Ukrainians without military experience than those with experience, but even previously untrained volunteers could be made effective in time to support military operations if Ukraine receives enough other support to elongate the war.

Channeling "Cyber Auxiliaries"

Civilian hackers—most prominently the loosely connected global group calling itself Anonymous—have already begun independently targeting Russia and Belarus, reportedly bringing down or defacing government or state-linked websites and releasing hacked documents.[5] The impact of these efforts has been limited, but the effect can be amplified by better guidance on target selection, including what not to attack. Computer programmers, though highly skilled, often lack contextual knowledge to maximize damage from their efforts. Civilian hackers in the West are by inclination distrustful of governments; any attempt to fruitfully channel their expertise needs to be done with tact and likely surreptitiously through front entities.

Eugene Dokukin, known on the internet as "MustLive," is a principal organizer of cyber resistance against Russian cyberwar efforts aimed at undermining the government of Ukraine. He is an example of many Ukraine cyber experts who have organized themselves in an effort to counter Russian cyber attacks and to conduct counterattacks against Russian networks. (Photo courtesy of Euromaidan Public Relations)

Utilizing civilian auxiliaries in pursuit of national security goals is not novel. In naval warfare, nations have long used private citizens called privateers to support military operations.[6] In the cyber domain, Russia and China have already demonstrated efficacy of employing private actors as "cyber auxiliaries" to target adversaries.[7] During Russia's 2007 distributed denial-of-service (DDoS) attacks on Estonia, Moscow's intelligence agencies provided software and guidance to ordinary citizens, or "patriotic hackers," wanting to punish Estonia for removing a statue to the Red Army's victory over Germany.[8] For reasons already mentioned, Western governments would need to take a more indirect approach to channeling the capabilities of their citizen hackers.

From behind the scenes, security agencies could provide technical succor and encouragement to cyber auxiliaries to subvert Russian efforts to shut down or censor those domestic news outlets trying to provide accurate war coverage. Civilian hackers' efforts could be channeled toward gathering images and videos of Russian indiscriminate attacks, Russian military casualties, and instances of Russian domestic opposition and getting this information through to Russian audiences. Finally, and more actively, cyber auxiliaries could, with discreet direction, use DDoS attacks to target companies identified as bottlenecks

in economic and military supply chains. Despite media hype about civilian groups unleashing a cyber war, such efforts, even with greater direction and support, will not change the facts on the ground. Nonetheless, they represent a relatively low-cost and largely deniable means of causing disruption to the Russian state and for shaping the battle over information.

More Unmanned Combat Air Vehicles

In the first three weeks of war, Turkish-made Bayraktar TB2 UCAVs have been one of the only means Ukraine has used to attack Russian ground forces from the air.[9] The boost to morale from videos of TB2s striking Russian targets is palpable (so much so that a catchy Ukrainian tune of indeterminant origins titled "Bayraktar" has gone viral).[10] The success of the TB2 is all the more remarkable considering Russia's much lauded air defenses, which have largely neutralized Ukrainian Su-25s, and that Ukraine possesses so

A Bayraktar TB2 drone of the Ukrainian Air Force armed with a MAM-L Smart Micro Munition guided bomb; two ground control stations are in the background. (Photo courtesy of Ministry of Defence of Ukraine via Wikimedia Commons)

few of these systems. More UCAVs would threaten Russian supply lines and slow movement, especially given how strung-out Russia's armored and mechanized columns are and how poor their short-range air defenses appear to be.

Ukraine is not the only recent conflict in which tactical UCAVs—and Bayraktar TB2s in particular—have proved their worth. Azerbaijan used UCAVs extensively during the 2020 Nagorno-Karabakh War to defeat Armenia's Russian-style army.[11] They destroyed significant quantities of Armenian military equipment and convoys, eventually leading to operational paralysis. Indeed, rather than risk airstrikes by operating in the open or resupplying their units, Armenians mostly hunkered down under camouflage.

The best means to sustain and build upon successful UCAV attacks on Russian forces would be to acquire and send TB2s, which the Ukrainian military already operates, from stockpiles and production lines in Turkey and have them piloted by private sector contractors. Existing and very public prewar contracts between Kyiv and Ankara provides reasonable political cover for Turkey, who has, at any rate, already taken more provocative actions such as selectively closing the straits to Russian naval vessels.[12]

If Turkey is hesitant, other UCAVs could easily be substituted. Medium-altitude, long-endurance (MALE) UCAVs hold the advantage of being remotely piloted, perhaps by private sector personnel, at longer distances from the battlefield. American Predators and Reapers are the best systems and could be provided in large numbers yet would appear the most provocative. Chinese Wing Loongs, on the other hand, are less capable but widespread globally (employed, for example, by Nigeria, Egypt, Saudi Arabia, Morocco, and the United Arab Emirates).[13] They could thus be supplied without Russia easily discerning their origins. Even providing MALE drones in an unarmed intelligence, surveillance, reconnaissance role would significantly boost Ukrainian forces' effectiveness by giving them real-time sensor/targeting data.

In parallel with UCAVs, NATO governments could provide Ukraine with small commercial-off-the-shelf drones such as the DJI Mavic and Phantom, whose widespread availability make them difficult to trace. These platforms provide tactically useful intelligence, can be modified to carry explosives, and can be used for propaganda purposes such as documenting Russian war crimes and filming successful Ukrainian operations.[14]

Brokering the Replacement of Ukraine's Equipment Losses

Despite significant losses, Ukraine's land and air forces have prevented Russia obtaining air superiority. The Russian air force's unexpected failure to destroy Ukraine's surface-to-air missile capability or its MiG-29 and Su-27 fighter force has impeded Russia's close air support and ability to target Ukraine transportation infrastructure. This has allowed Ukrainian forces to

weapons systems and munitions that the United States and its western European allies neither build nor operate. There are, however, ways for the United States to obtain what Ukraine needs.

In World War II, the United States was the arsenal of democracy that provided weapons and munitions to its allies, but Ukraine needs the United States to become the middleman of democracy that scours the globe for replacement MiG-29s; spare parts for Hind attack heli-

> " The Russian air force's unexpected failure to destroy Ukraine's surface-to-air missile capability or its MiG-29 and Su-27 fighter force has impeded Russia's close air support and ability to target Ukraine transportation infrastructure. "

hamper Russia's ground offensives by moving troops and supplies around the country and stopping Russia from establishing air bridges to resupply its ground forces.[15]

Russia can replace its losses by transferring planes and surface-to-air missiles (SAM) from other areas, but Ukraine cannot organically replace its lost equipment. Based on previous examples such as the 1973 Arab-Israeli War, Ukraine is likely losing trained operators and pilots more slowly than it is equipment. In 1973, Israel, Egypt, and Syria all ran out of usable aircraft despite still having robust pools of pilots. Emergency deliveries of fighters from American and Warsaw Pact stocks kept their air forces operational until the end of the war. For Israel, that meant relying on American-made aircraft that its pilots had trained in before the war. The United States transferred approximately one hundred F-4 Phantom fighter-bombers and another thirty-two A-4 Skyhawk attack aircraft (all the A-4s and 40 F-4s arrived before the cease-fire), which enabled the Israel Defense Forces to maintain full air-support operations despite suffering heavy losses.[16]

The United States has a vast inventory of air and land equipment, but unlike Israeli personnel in 1973, Ukrainian soldiers and pilots are not trained to use American aircraft and heavy weapons systems; the Ukrainian air force needs MiG-29s, Su-27s, Su-24s, and Su-25s.[17] The Ukrainian army needs replacement

copters; and replacement missiles, radars, and launchers for Ukraine's S-300 SAMs. Several eastern European NATO members have compatible weapons and munitions, and some have shown a willingness to transfer them to Ukraine. Slovakia has pledged to provide S-300 systems from its inventories, but Russia has threatened to target any attempt to transfer the systems. The United States should firmly support suppliers, including by backfilling the lost defense capabilities and providing interim defense by deploying U.S. personnel and until replacement systems are operational.[18]

If U.S. leaders believe it is too dangerous for NATO to openly supply major weapons systems and munitions, the United States could work with states outside of NATO that have compatible weapons to encourage them to transfer their systems to Ukraine. The United States could accomplish this through a multitude of techniques. The U.S. government can bankroll Ukraine's buying the weapons directly from foreign suppliers, it can purchase the weapons and then provide them to Ukraine, or it orchestrate barter deals, providing replacement weapons on favorable terms in exchange for states supplying their own ex-Soviet/Russian weapons to Ukraine. Many of the weapons Ukraine needs, including SAM systems and MiG-29s, can be broken down and carried in C-5, C-17, or IL-76 aircraft, allowing them to be move

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quickly to Ukraine. Between Soviet-era and Russian post-Cold War sales, many countries operate systems identical or similar to Ukraine's existing equipment. Even after excluding states the United States might be loath to deal with, Poland, Bulgaria, Slovakia, Peru, Chad, Malaysia, Indonesia, Algeria, and Angola operate MiG-29s and/or Su-25s. Su-27s are rarer, but Angola, Eritrea, and Indonesia have Su-27s.[19] Russian tanks and artillery are ubiquitous, and even SAM systems are widespread. Algeria, Armenia, Bulgaria, Azerbaijan, Greece, and Slovakia operate either the same model of S-300 SAMs the Ukrainians possess or potentially superior versions that, critically, are later evolutions of the S-300 PS systems the Ukrainians use.

Foreign Volunteer Pilots and Ground Crews

To keep flying, the Ukrainian air force will soon need more pilots and ground crews. This presents a dilemma: it takes a long time to train pilots and maintenance crews, and training needs to match aircraft type. NATO governments have thus far hesitated to commit their own pilots to Ukraine's defense, either by intervening on behalf of Ukraine or declaring some form of "no fly zone," which would entail similar escalatory risks. They can, nonetheless, still help Ukraine's efforts to deny Russia air supremacy in less escalatory and more deniable ways, mainly by facilitating eastern European volunteers' flying for Ukraine.[20]

There is historical precedent for such efforts. Before the United States officially joined the Second World War, President Franklin D. Roosevelt authorized American Army Air Corps, Navy, and Marine Corps pilots to fly American-made aircraft for China against Japan.[21] The ninety-nine American pilots who originally comprised the American Volunteer Group (AVG, or "Flying Tigers") were discharged from the U.S. Armed Forces with the clear understanding that they would be welcomed back thereafter. The AVG impeded Japan's offensives in Burma, contested Japanese air supremacy, and achieved a favorable kill ratio.[22] The AVG is but one example of volunteer fighter groups. Finland's 19th Squadron during its 1940 Winter War with the

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A Ukrainian air force Mikoyan-Gurevich MiG-29A (9-12A) departs the Royal International Air Tattoo 1997 in Fairford, England. (Photo courtesy of Mike Freer via Wikimedia Commons)

Soviet Union was comprised entirely of Swedish pilots, Israel's air force in 1948 was comprised almost entirely of foreign volunteers, and France's Lafayette Escadrille of World War I was comprised of American volunteers.[23] Although not exactly volunteers, Soviet pilots flew MiGs with Chinese markings against Americans in Korea, and they flew Egyptian aircraft against Israelis in 1970.[24]

Eastern European volunteer pilots and ground crews who already have familiarity with Ukrainian aircraft models can be encouraged to serve in Ukraine in several ways. They can be offered leaves of absence from their own national armed forces or reserve forces. Commercial airlines employing military veterans and reservists could be incentivized to do the same. A state could donate its Soviet-era aircraft and encourage their pilots to volunteer for Ukrainian service. Limited numbers of volunteer pilots and ground crews qualified on NATO-standard aircraft could also be recruited by providing conversion training. Western European and American pilots tend to fly more hours and train more realistically than their Russian or Ukrainian counterparts (150–250 hours per year as opposed to 100–120).[25] Non-Ukrainian pilots, however, should not fly beyond the forward-edge of the battle area because of the negative consequences of foreign volunteers falling into Russian custody.

Continuing the War in Western Ukraine

Russian commanders focused their planning on taking Kyiv because they believed it would end effective Ukrainian resistance and allow them to form a client government. The key to prolonging Ukraine's resistance from weeks to many months or years is to prepare for the day when Kyiv falls. President Volodymyr Zelensky's decision to remain in Kyiv energized Ukraine's resistance and influenced global popular opinion. Ideally, Zelensky and other government leaders will escape from Kyiv if it falls, but steps need to be taken to allow a legitimate Ukrainian government to continue functioning even if Zelensky, his ministers, and much of the parliament are killed or captured. The survival of a legitimate government will make it extremely difficult for a Russian-installed regime in occupied Kyiv to garner any domestic legitimacy and will inspire resistance behind Russian lines.

The United States and its allies should strongly encourage the Ukrainian government to establish a fallback government based in western Ukraine. This government should consist of a person who can

legitimately succeed to the office and functions of the presidency and a fully staffed cabinet of shadow ministers who would assume their powers if the incumbents were captured or killed. The United States and European countries should provide any communications technology and other infrastructure necessary for the government to communicate with its own people and the rest of the world.

Winston Churchill laid plans for re-creating a British government in 1940 when he, like Zelensky

but in the west, it touches and crosses the Carpathian Mountains. Zakarpattia Oblast extends west of the Carpathian passes and parts of three neighboring oblasts include the heights of the Carpathians. If properly fortified and defended by a well provisioned and determined force, the Carpathian line could prove extremely difficult, and very expensive, for the Russian army to break through.

The United States and European countries should help prepare a defense of the Carpathians. This in-

> "This government should consist of a person who can legitimately succeed to the office and functions of the presidency and a fully staffed cabinet of shadow ministers who would assume their powers if the incumbents were captured or killed.

now, faced the prospect of his capital being attacked. Churchill previewed his intentions in the House of Commons on 4 June 1940 when he promised that "even if, which I do not for a moment believe, this Island or a large part of it were subjugated and starving, then our Empire beyond the seas, armed and guarded by the British Fleet, would carry on the struggle."[26] At the time of his speech, Churchill's plans were not fully formed, but he soon approved plans to send King George VI and his family to Madresfield Court in Worcestershire if the need arose. The plan, dubbed Operation Rocking Horse, also provided for the reconstitution of a British government in Stratford-upon-Avon.[27] Churchill also laid the groundwork to send the king and part of the government abroad by ordering Operation Fish, which transported billions of pounds worth of gold and securities from Britain to Canada so a resistance government would have access to the resources necessary to continue the war.[28]

Maintaining a legitimate existent government will help remaining Ukrainian forces to keep their cohesion and reform a defensive front in western Ukraine. It may be possible to defend Lviv, but even if that proves untenable, the Ukrainian army can sustain resistance by taking advantage of extreme geography. Most of Ukraine consists of a flat plain,

volves building infrastructure including ammunition depots and hardened command complexes to support a defending army and tactical fortifications to block the passes through the Carpathians. The work can be done by Ukrainian workers, but some experts will be needed to properly design and oversee the work. Any Western experts should be contractors instead of serving soldiers.

If strongly fortified, the Carpathians are a formidable barrier. Twice in the twentieth century, the Carpathians frustrated victorious Russian or Soviet Armies—first in 1914–1915 and again in 1944. In 1914 and 1915, the leaders of Tsarist Russia's army, which had inflicted crushing losses on the outnumbered Austro-Hungarian army, found to their dismay that even outnumbered and previously demoralized troops were capable of successfully stopping them from breaking through the Carpathians.[29] In 1944, despite Soviet air superiority, German and Hungarian forces held the Dukla Pass against a Red Army force that outnumbered them 3.7:1 for over fifty days and inflicted an estimated sixty-five thousand casualties on the eventual victors. Soviet forces ultimately forced their way across the Carpathians but had to rely on forces moving through Romania to overrun Hungary, lengthening Germany's resistance on the eastern front.[30]

The use of extreme geography to shelter outnumbered armies and beleaguered governments is an ancient tactic. In 878, Alfred the Great used the Somerset marshes as a base of operations that allowed his outnumbered army to survive in the face of superior Danish forces. His tactic proved critical in laying the foundations of English nationhood.[31] Both the Chinese Communist Party (CCP) and the Kuomintang (KMT) survived annihilation at each other's hands by taking advantage of extreme geography. When KMT forces defeated the CCP in Jiangxi in 1934, it began the Long March to Yan'an, a mountainous region in the north. Then, when the CCP defeated the KMT's armies in 1949, Chiang Kai-Shek ordered a retreat to Formosa (Taiwan), which took advantage of the Formosa Strait to delay any PLA attack. The retreat ultimately saved the Republic of China as a state.[32] Finally, during World War II, the Swiss military used the threat of retreating to a well-provisioned fortress belt in the Alps to deter Adolf Hitler from invading Switzerland after the fall of France.[33]

Conclusion

Ukraine's best chance to survive the Russian invasion is to prolong the war and force Putin to reassess the cost of winning. The longer the war lasts, the more likely it is that the growing economic damage sanctions are causing Russia will combine domestic discontent and casualties to convince Putin it is too politically dangerous for him to continue the war. Putin has implicitly and explicitly threatened to use nuclear weapons against the United States or NATO, and the United States should not needlessly risk a nuclear exchange. However, it is not strategically, morally, or politically tenable for the United States and NATO to allow Russia to conquer Ukraine through a strategy of attrition while the West stands aside. Such a policy would undermine deterrence by making it look to Putin like the West can be cowed by using threats of escalation.

The best way forward for the United States and its allies is to dramatically broaden the range of support it is providing to Ukraine to include the full spectrum of modern war. The United States should train and arm Ukrainian expatriates and refugees who wish to go home to fight. It should also facilitate Ukraine obtaining equipment ranging from fighters to SAMS, and UCAVs, artillery, and ammunition to sustain Ukraine's forces. If the political will exists, it could also facilitate cyberattacks by cyber auxiliaries and encourage the formation of international volunteer squadrons to help defend Ukraine's air space. Finally, the United States should strongly encourage the Ukrainians to create a backup government in western Ukraine and to take advantage of Western aid to create a western redoubt by fortifying western Ukraine, especially the Carpathian Mountains.

These measures will not guarantee Ukraine wins the Russo-Ukrainian War but will help Ukraine hinder Russia and help restore NATO's deterrence by confronting Russia with hard-to-stop military actions that signal that new acts of aggression will lead to escalation by NATO and the United States. Should Ukraine fall to Russia, many of these policies—including training returning Ukrainians, creating a backup government, and preparing western Ukraine to resist Russian attacks—would facilitate Ukrainian resistance against the occupation. If Ukraine is more successful in defending itself, such measures would strengthen Ukraine's hand in any negotiations with Russia. Ukraine cannot defeat Russia alone, but with enough help it might be able to force Russia to negotiate seriously with Zelensky's government. Whatever the outcome, deepening the United States' military support of Ukraine will leave the United States in a better strategic position at the end of the war than if it just continues a policy of sanctioning Russia and providing Ukraine with financial aid and light weapons. ∎

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A Ukrainian service member takes a selfie in a front of a destroyed Russian T-72 tank 1 April 2022 in the village of Dmytrivka in Kyiv region, Ukraine. (Photo by Oleksandr Klymenko, Reuters/Alamy Stock Photo)

Tactical TikTok for Great Power Competition

Applying the Lessons of Ukraine's IO Campaign to Future Large-Scale Conventional Operations

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As the first large-scale conventional conflict between near-peer adversaries since the 1973 Yom Kippur War, the Russian invasion of Ukraine has provided warfighters a unique opportunity to assess prevailing assumptions about large-scale combat operations (LSCO) in real time. The conflict offers lessons spanning the full spectrum of U.S. arms, and its campaigns must be carefully studied as the U.S. Army focuses on great-power competition.

As we write, the conflict is barely four weeks old. Yet the impressive results of Ukraine military operations have already galvanized wholesale revisions to Army tactical and strategic doctrine, ranging from the lethality of antitank guided missiles to the efficacy of loitering munitions against lines of communication.

But of all the lessons available to Army warfighters, the most significant is the role of information operations (IO) in modern LSCO. By empowering soldiers to rapidly distribute tactical information and shape a focused narrative that seamlessly integrates battlefield imagery, heroic exploits, and evidence of potential Russian war crimes, the Ukrainian military and its civilian leadership have mobilized the globe against Russia and contributed substantially to degrading enemy will. Meanwhile, the Russian military—purported experts at disinformation and cyberwarfare—has been utterly incapable of rebutting Ukrainian messaging or communicating a coherent explanation of Russian war aims.

Ukraine has achieved these results by merging commercial applications, including mobile devices, messaging services, and social media, into its IO strategy and delegating distribution authority—by design or by default—to the tip of the spear.[1] Ukraine has also merged strategic communications into its IO programming, empowering Ukraine warfighters to reinforce themes articulated by their political leadership.

The result is a stand-alone combat capability that has rallied international support, allowed rapid dissemination of battlefield success, humiliated the adversary, and produced an authentic narrative that resonates with target markets.

For the U.S. Army, the Ukraine conflict offers a timely opportunity to review existing doctrine and consider whether current Army IO and public affairs (PA) methodologies adequately leverage IO as a combat capability. More specifically, the Army must examine whether its existing IO and PA strategies address winning the information war at the point of contact.

In this article, we first trace the evolution of IO; summarize Army and joint doctrine on IO, PA, and strategic communications; and assess whether the present Army approach fully leverages the potential of IO at the tactical level. We pay particular attention to the failure of present IO doctrine to embrace winning the IO fight at the point of contact. We then examine the use of IO in Ukraine and argue that the experience of the Ukraine army (UA) demonstrates that with appropriate training, guidance, and oversight, the tactical deployment of IO improves combat performance and is a necessary component of great power competition. Finally, we offer recommendations and considerations for the Army and the joint force to ensure that in the battlefield of the future, warfighters can apply IO to neutralize adversaries and improve combat outcomes.

Importantly, we do not purport to have all the answers on the integration of IO into Army doctrine. We do not, for example, address the implications of the Ukraine conflict for traditional information warfare—the use of sensors, software, and data to disrupt or destroy the information systems of the adversary. Access to the information required for that analysis is not available at this time. Nor do we provide solutions to the inherent tension between IO, information security, and information assurance. Instead, we mean for this article to be the catalyst for important conversations on the future of IO and how to best position the Army for dominance in future LSCO.

Historical Summary of Army IO Initiatives

While this article is not a comprehensive history of IO, a summary of recent Army efforts to explore and implement IO helps explain current Army IO doctrine and its application on future battlefields.

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The Army's IO and PA record during the Second World War, Korea, Vietnam, and Operation Desert Storm has been the subject of detailed analysis and does not require further explication here.[2] The most helpful starting point is instead the post-Cold War focus on future conflict, generally referred to as the revolution in military affairs (RMA).

> **The RMA also witnessed the first attempt by the Army to define IO. In a pattern that remains true, the Army framed IO as an ancillary attribute of combat operations, rather than a stand-alone combat capability.**

The revolution in military affairs. Widely attributed to Andrew Marshall and the Office of Net Assessment, RMA theory coalesced after the fall of the Soviet Union.[3] RMA advocates focused on the potential for technology—including information technology—to drive rapid change in warfare.

The RAND Corporation's 1996 treatise, *Strategic Information Warfare: A New Face of War*, is a useful exemplar of RMA theory because it identifies "information" as a core domain of future conflict. The authors repeatedly emphasize the low entry costs of information warfare, the security risks of growing network dependence, and above all, the potential for new technology to enhance deception techniques and allow the manipulation of public perception.[4]

For the Army, RMA theories found their first expression in "Force XXI," a catchall for efforts preparing the force for operations in a unipolar world.[5] As stated by Lt. Gen. Paul E. Menoher Jr. in "Force XXI: Redesigning the Army through Warfighting Experiments," the Army sought to "push[] the envelope and transform[] … into an even better information age, knowledge- and capabilities-based Army, capable of land force dominance across the continuum of 21st century military operations."[6]

The RMA also witnessed the first attempt by the Army to define IO. In a pattern that remains true, the Army framed IO as an ancillary attribute of combat operations rather than a stand-alone combat capability. U.S. Army Training and Doctrine Command Pamphlet 525-5, *Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Twenty-First Century*, defined IO as

> continuous combined arms operations that enable, enhance, and protect the commander's decision cycle and execution while influencing an opponent's operations are accomplished through effective intelligence, command and

control, and command and control warfare operations, supported by all available friendly information systems; battle command information operations are conducted across the full range of military operations.[7]

Two years later, Field Manual (FM) 100-6, *Information Operations*, modified the definition to

> continuous military operations within the military information environment that enable, enhance, and protect the friendly force's ability to collect, process, and act on
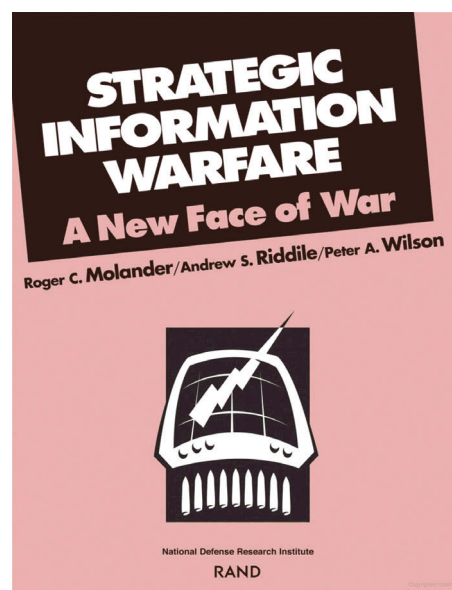
To view *Strategic Information Warfare: A New Face of War*, visit https://www.rand.org/content/dam/rand/pubs/monograph_reports/2005/MR661.pdf.

information to achieve an advantage across the full range of military operations; IO include interacting with the GIE (Global Information Environment) and exploiting or denying an adversary's information and decision capabilities.[8]

Thus, even early RMA advocates classified IO by technical features rather than war-making potential. This dynamic was highlighted by Robert J. Bunker in 1998. Bunker questioned whether IO was properly classified as a force multiplier serving existing combat functions or as a stand-alone capability for the warfighter to exploit in the combat environment.[9] Bunker stated that the "actual value" of IO was disputed because

> One school of thought posits that [IO] represent an adjunct to current operations—the end result of which is to enhance current Army capabilities by making what it has traditionally done better by means of a force multiplier effect. Another school of thought suggests that information operations will provide the Army with new capabilities. Instead of being a simple adjunct to current operations, according to this school, the influence of the "information revolution" on warfare will result in the redefinition of operations themselves.[10]

Those who saw IO as a force multiplier focused on the ability of IO to identify, geolocate, and neutralize an adversary using sensors, high-speed data transmission, and imagery. Warfighters who saw IO as a stand-alone capability, by contrast, tended to focus more on the potential for information itself to impose substantial costs on an adversary, whether through the elimination of electronic systems or the dissemination of adverse content.

There were also debates about what precisely *information* meant in the context of IO and the RMA. None of the Army publications cited above offered a clear definition for "information." The Joint Chiefs of Staff offered a concise definition in 1997, describing information as "data collected from the environment and processed into usable form."[11] Data, meanwhile, was defined as "representations of facts, concepts, or instructions in a formalized manner suitable for communications, interpretation, or processing by humans or automated means."[12]

Gen. Gordon Sullivan, by contrast, offered a more nuanced and functional definition of information that focused on the character of the data involved. Writing in *War in the Information Age*, Sullivan identified four distinct types of information: content information, "the simple inventory of information about the quantity, location and types of items"; form information, "the descriptions of the shape and composition of objects"; behavior information, "three dimensional simulation that will predict behavior of at least physical objects, ultimately being able to 'wargame' courses of action"; and action information, "information that allows operations to take the appropriate action quickly."[13]

Regardless of these semantic debates—which continue to this day—by 2001, IO was a featured aspect of the Bush administration's revisions to national defense policy. IO was identified as a "key military capability" for the future joint force in the 2001 *Quadrennial Defense Review*.[14] Two years later, the Department of Defense issued its *Information Operations Roadmap*, intended to serve as a blueprint for the development of IO capabilities.[15] The roadmap recommended the creation of a "well-trained" IO workforce, and identified IO as a "core competency" for warfighters, stating "the importance of dominating the information spectrum explains the objective of transforming IO into a core military competency on par with air, ground, maritime, and special operations."[16]

The Global War on Terrorism. Despite these aggressive mandates, the intervening years—and the Global War on Terrorism (GWOT)—did not result in widespread deployment of Army IO capabilities. Said another way, while the GWOT demonstrated the potential benefits of IO, the application of IO in a static counterinsurgency environment arguably institutionalized many habits that may not readily translate to LSCO. As an example, the staffing, centralization, and withholding of IO authority at echelons above brigade (EAB)—a central attribute of current Army IO doctrine—may limit the Army's ability to deploy IO in a fast-paced LSCO environment.

In fact, third-party experts noted deficiencies in Army IO from the outset of the GWOT.[17] And while Army IO arguably improved during the GWOT, it is difficult to assess the overall impact of IO on adversaries because the targets often lacked meaningful access to digital devices and were arguably less susceptible to American influence than potential near-peer opponents.

To the Army's credit, many senior commanders granted IO deployment authority to battalion- and

company-grade officers during the GWOT.[18] This was particularly true for key leader engagements. Junior and field-grade officers were empowered to engage directly with tribal elders, religious figures, and political leaders.[19]

However, according to the Center for Army Lessons Learned, formal IO battle rhythm events that required extensive IO planning and outputs were concentrated

implicitly acknowledged by the Joint Chiefs of Staff in 2018. The *Joint Concept for Operating in the Information Environment* identified "information" as the seventh joint function for the Armed Forces of the United States.[25] Noting that "every joint force action, written or spoken word, and displayed or related image has informational aspects," the document demanded that

> In evaluating Army IO efforts during the GWOT, it is fair to question why junior and field-grade officers were often encouraged to build interpersonal relationships with centers of influence in Iraq and Afghanistan but excluded from other IO initiatives.

at the division and joint task force levels, and largely orchestrated by dedicated IO professionals and IO working groups at EAB.[20] Meanwhile, officers at the point of contact who sought to deploy IO as an alternative to lethal force often faced cumbersome procedures, onerous questioning from targeting boards, and excruciating approval timelines.[21] In evaluating Army IO efforts during the GWOT, it is fair to question why junior and field-grade officers were often encouraged to build interpersonal relationships with centers of influence in Iraq and Afghanistan but excluded from other IO initiatives.

Critics pointed to these and other deficiencies as the GWOT progressed. Writing in 2007, Dr. Daniel Kuehl, professor of information warfare at the National Defense University, commented that the Army suffered from a deficit of "information strategists" with the ability to "coordinate and exploit the contribution of the information component of power and the synergies it offers."[22] Several years later, Corey D. Schou, J. Ryan, and Leigh Armistead wrote in the *Journal of Information Warfare* that many of the same commands conducting IO "over 15 years ago … are still the key agencies conducting IO, just renamed and slightly expanded, but with no true increase in scope and capability."[23] The authors concluded "it is not surprising that in many ways, the Department of Defense [and by default, the Army] are moving backwards with regard to [IO] strategy, capabilities, and scope."[24]

The failure of the Army (and other service branches) to embrace IO across all combat functions was

the service branches "shift how [they] think about information *from an afterthought* … to a foundational consideration for all military activities."[26]

For the Joint Chiefs to admit that IO was still an operational afterthought—nearly twenty years after the publication of the 2001 *Quadrennial Defense Review*—speaks volumes about the failure of the joint force to recognize the importance of IO and develop IO expertise and capabilities across all combat commands.

QUADRENNIAL DEFENSE REVIEW REPORT

September 30, 2001
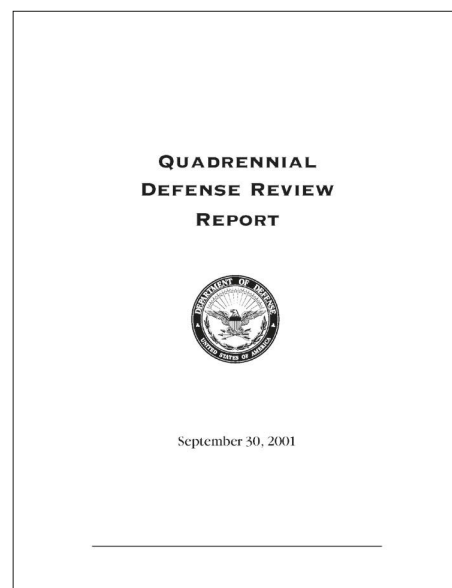
To view the 2001 *Quadrennial Defense Review* report, visit https://history.defense.gov/Portals/70/Documents/quadrennial/QDR2001.pdf?ver=AFts7axkH2zWUHncRd8yUg%3d%3d.

The Present State of Army IO Doctrine

The transition in Army focus from the GWOT to near-peer competition—a policy shift that began in earnest in 2014 with the Russian invasion of Crimea and the U.S. military's shift in focus to the Indo-Pacific theater in response to increasing threats from China—gave the Army an opportunity to rethink its IO strategy.

Near-peer competition also arguably requires a different structural approach to Army IO. As noted above, senior commanders generally oversaw IO campaigns in Iraq and Afghanistan, and delegated campaign execution to subject-matter experts (SME) who did not always possess tactical experience at the point of contact. With the transition from low-intensity conflicts to LSCO, Army leadership reemphasized the need for combat arms to "win at the point of contact" in "all warfighting functions."[27] That principle now echoes throughout Army Doctrine Publication 6-0, *Mission Command: Command and Control of Army Forces*. For example, paragraph 1-26 instructs commanders in LSCO to prepare mission orders that "focus on the purpose of an operation and essential coordination measures rather than on the details of how to perform assigned tasks, giving subordinates the latitude to accomplish those tasks in a manner that best fits the situation."[28]

Field Manual 3-13. Considering the growing need for tactical IO capability, the demonstrated success of IO efforts by near-peer competitors in Syria, and the Army's renewed emphasis on dominating LSCO at the point of contact, it is surprising that the Army's primary IO doctrines continue to reflect a centralized, hierarchical approach to IO deployment. FM 3-13, *Information Operations*, published on 6 December 2016, does not contain a single instruction for the tactical deployment of IO by junior officers or noncommissioned officers (NCOs) in the field. Instead, the manual institutionalizes IO as a function executed primarily at EAB levels.

As an initial matter, we note that much content in FM 3-13 is quite relevant and useful for Army professionals, regardless of rank. The manual offers a concise definition of IO: "the integrated employment, during military operations, of information-related capabilities in concern with other lines of operation to influence, disrupt, corrupt, or usurp the decision-making of adversaries while protecting our own."[29] The manual identifies IO as an essential feature of all

FM 3-13
INFORMATION OPERATIONS

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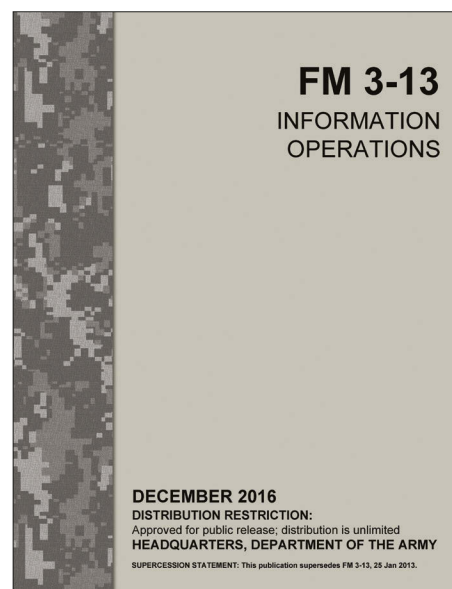
To view Field Manual 3-13, *Information Operations*, visit https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/FM%203-13%20FINAL%20WEB.pdf.

combat operations.[30] And the manual properly identifies the purpose of IO: to "create effects in and through the information environment that provide commanders decisive advantage over enemies and adversaries."[31] Overall, FM 3-13 provides the Army with an outstanding conceptual foundation for IO.

The critical area where we believe FM 3-13 (and Army IO doctrine as a whole) requires revision, considering recent events in Ukraine, is the absence of any specific guidance for or discussion of tactical IO application.[32] The current manual focuses on IO deployment at the EAB level. The manual positions brigade and division staffs as the centerpiece of the IO infrastructure but provides very limited guidance for field-grade officers, junior officers, and NCOs to apply in conducting IO at the point of contact.

Further, FM 3-13 does not encourage brigade and battalion commanders to develop internal IO expertise. Instead, the manual briefly discusses the potential for division commanders to employ an IO specialist and provides an extensive overview of the SMEs available to senior commanders upon request. In other words, the manual seems to conceive of IO as a specialized capability with identical application across the spectrum of Army combat units, regardless of the function a unit serves or the theater where the unit deploys.

Future LSCO will arguably feature a battle rhythm requiring maneuver officers and their support staff—rather than EAB SMEs—to plan and execute IO within the relevant commander's intent. It is therefore critical that the IO field manuals not only discuss IO in accessible language but also offer junior and field-grade officers a practical framework for deploying IO in the field.[33]

junior officers and NCOs leading soldiers in combat—can effectively communicate the strategic objectives of the Army and the joint force, or reinforce messaging developed by commanders in the EAB.

There is a fundamental difference, in our view, between instructing public affairs officers in providing rudimentary training to soldiers and empowering the

> "Future LSCO will arguably feature a battle rhythm requiring maneuver officers and their support staff—rather than EAB SMEs—to plan and execute IO within the relevant commander's intent.

Field Manual 3-61. Review of Field Manual 3-61, *Communication Strategy and Public Affairs Operations*, produces a similar result.[34] The manual devotes extensive attention to the Army's public affairs infrastructure, the training of public affairs officers, and the importance of unified messaging across combat commands. The manual also provides detailed descriptions of messaging protocols and the translation of commanders' intent into effective communications by the public affairs officer and subordinates. But the manual devotes almost no attention to how combatants at the tip of the spear—the

most educated military force in history to make good decisions about content creation and distribution. In an environment where every noncombatant will have a mobile device and the ability to immediately stream footage of Army operations to the world, the failure of the Army to develop doctrine that empowers every soldier to advance favorable narratives and reinforce U.S. war aims leaves a glaring hole in Army LSCO capabilities.

Convergence. Turning from doctrine to planning, the Army's most significant future force initiative, Project Convergence, also relegates IO to a subordinate discipline. Convergence, at its core, focuses on the integration of capabilities from a multitude of domains, including information, and the synchronized deployment of those capabilities against an adversary at greater speed and range to achieve decision dominance. Yet review of the Army Futures Command materials on Convergence—at least those within the public domain—show the same focus on command-level IO deployment and the same preference for the more machine-driven aspects of IO.[35] Theoretically, the concept of convergence compels the Army to match its IO doctrine and techniques to an increasingly flat and interconnected network of battlefield nodes from the point of contact to strategic headquarters.

Present Army training programs for company- and field-grade officers. The absence of IO doctrine focused on tactical deployment would be less noteworthy if Army training programs for new officers, NCOs, and recruits rectified the gap. That is unfortunately not the case. The U.S. Army's Maneuver Center of Excellence

FM 3-61
COMMUNICATION STRATEGY AND PUBLIC AFFAIRS OPERATIONS

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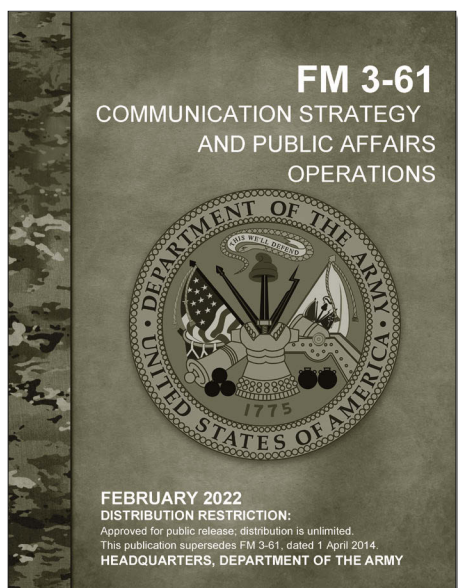
To view Field Manual 3-61, *Communication Strategy and Public Affairs Operations*, visit https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN34864-FM_3-61-000-WEB-1.pdf.

curriculum for the Maneuver Captain's Career Course (MCCC) does not contain an instructional block for IO, and the Command and Tactics Directorate does not employ IO professionals. Of the eight orders produced by students in the MCCC, only one includes a psychological operations team, and effective deployment of that team is immaterial to the student's overall grade.[36]

stripped of intellectual pretense and unleashed at the tactical level. In many ways, the use of IO by the UA represents the most comprehensive expression to date of the RMA. RMA advocates envisioned a fully networked battlefield with each soldier as a node, capable of receiving and distributing information in real time about enemy movements, fires, capabilities, and morale.

> " The IO campaigns waged by Ukraine against Russia are perfect examples of the efficacy of IO when stripped of intellectual pretense and unleashed at the tactical level. "

The Command and General Staff College (CGSC) includes a single two-hour block of instruction in its months-long curriculum to prepare majors to serve at EAB. To be fair, the IO lesson plan thoroughly reviews doctrine and concepts and offers techniques for integration IO planning into the military decision-making and targeting processes. To our point, however, the lesson concentrates on actions at EAB with little focus on integrating or enabling leaders at the point of contact. The CGSC also offers an elective with approximately thirty students attending each class.[37]

Why is this significant? Because the MCCC and the CGSC produce the majority of maneuver commanders at the company and battalion levels and develop most officers assigned to battalion, brigade, and division staff positions. MCCC and CGSC graduates will therefore play a disproportionate role in the planning and execution of future LSCO. There is no question that future LSCO will feature a contested information environment and cognitive domain. Absent independent study, few of these officers will have any exposure to or training for IO.

In light of the July 2018 mandate from the Joint Chiefs of Staff, instructing the joint force to prioritize IO and identifying information as the seventh joint function, the failure to incorporate IO as a foundational aspect of recruit and officer training curricula is quite striking.

Analysis of the Ukraine IO Campaign

The IO campaigns waged by Ukraine against Russia are perfect examples of the efficacy of IO when

A few caveats are necessary here. First, we acknowledge that we write without the benefit of a full record of UA operations and largely rely on facts drawn from third-party reporting, social media, and public statements from the UA and the government of Ukraine. Second, we acknowledge that we do not currently have access to UA war plans, IO doctrine, training manuals, or policies and procedures governing the use of mobile devices and social media by UA personnel. Third, the record that we do have is biased in favor of content-based IO readily discernible from the public domain. We do not currently have visibility into electronic warfare or psychological operations by the UA or efforts by the UA to disrupt Russian command, control, communications, computers, intelligence, surveillance, and reconnaissance. Therefore, the findings below and our recommendations may require revision as more facts come to light.

Features of Ukraine IO strategy. As we write, the Ukraine army has not only weathered the initial storm of the Russian invasion, but after four weeks of continuous combat, it has also begun to retake territory previously occupied by Russian units. Before the conflict began, these results were inconceivable. The overwhelming majority of pundits, military experts, and public officials in the United States and across the European Union anticipated a rapid Russian victory. That did not happen.

Instead, the UA has inflicted tremendous damage on Russian forces, and in the process, radically altered global perceptions of Russian military competence. While

A group of Ukrainian men cheer as they take a Russian tank on a joyride on 2 March 2022. (Screenshot from Twitter/@666_mancer)

numerous authors have commented on the unanticipated weakness of Russian combat arms, perhaps the most concise summary of this remarkable transformation in perception came from CNA's Michael Kofman. Speaking to War on the Rocks on 7 March 2022, Kofman remarked that he had spent much of the past decade attempting to "convince the world that the Russian Army was not twelve feet tall," but now expected to spend the next decade attempting to convince policy makers that the Russian army was "not two feet tall."[38] Meanwhile, global support for Ukraine has reached heights that were unimaginable when the war began.

Obviously, much of the credit for these titanic opinion shifts in global opinion goes to the competence of the UA and the leadership of Ukraine President Volodymyr Zelensky. But Ukraine is not the first underdog to achieve surprising results against a purportedly superior adversary. In fact, the Soviet Union endured a similar experience in the "Winter War" of 1939–1940, when its invasion of Finland resulted in horrendous casualties.

But the Winter War did not generate the same rapid revision in global perception; while observers at the time noted the poor tactics employed by the Soviet army, few commentators saw in the conflict evidence that Soviet forces were completely inept.[39] Only when the Wehrmacht swept aside Red Army divisions early in Operation Barbarossa did most observers recognize that the Winter War was an accurate reflection of then-existing Soviet capabilities, training, and doctrine. Compare that to the present mood among policy makers in Washington. On 28 March 2022, for example, the *Washington Post* reported that senior Department of Defense officials were convinced that Russia was effectively finished as a global power and ebullient about the prospects for the United States and its allies in future competition with China.[40]

So what has made the difference? The answer is simple. Ukraine, whether by prewar design or by postinvasion necessity, has taken the war viral—unleashing IO at the tactical level and weaving every heroic deed, every Russian misstep, and every successful combat operation into a persuasive multimedia narrative that, when aggregated with ongoing success on the battlefield, has proven largely invulnerable to Russian influence.

We now attempt to isolate—from the thousands of UA videos, social media postings, "tactical TikTok," and pronouncements—the doctrinal foundation and critical features of Ukraine's IO campaign. Because the relevant content is published across diverse platforms, including TikTok, Facebook, Telegram, Twitter, and too many others to name, we focus less on specific examples (and the resulting citations), and more on the general strategies and narrative themes that the UA has used to successfully conduct IO.

A Ukrainian serviceman talks on a smartphone in front of a damaged residential building, allegedly hit by a Russian shell, on 25 January 2022 on Koshytsa Street in a suburb of the Ukrainian capital Kyiv. Russian forces reached the outskirts of Kyiv as Ukrainian President Volodymyr Zelensky said the invading troops were targeting civilians and explosions could be heard in the besieged capital. Russia's full-scale ground invasion and air assault in January claimed dozens of lives and displaced at least one hundred thousand people. (Photo by Daniel Leal, Agence France-Presse)

Risk acceptance in the use of mobile devices. By far, the most striking characteristic of Ukraine IO has been the prevalence of mobile devices among UA forces. From the opening moments of the Russian invasion, UA personnel were uploading carefully curated imagery, videos, and messages to multiple social media platforms.

While we do not, as noted above, have access to current UA policies on mobile devices, it is obvious that the Ukraine army has made a calculated decision to (a) permit some soldiers to retain their devices—whether privately owned or issued—and (b) to use those devices to selectively document combat activities.[41]

What does that tell us? That in confronting an unprovoked invasion by a hostile power, the UA has likely decided to accept the risks that accompany the use of mobile devices in a tactical environment. Put another way, the UA has apparently decided that, since its soldiers are defending their homeland against a hostile invasion, it makes no sense to impose onerous restrictions on devices that have shown meaningful combat potential.

Implementation of best practices for recording and publication. Four weeks into the conflict, it is also apparent that while the UA has decided to accept the risks of allowing soldiers to carry mobile devices at the forward line of troops, it has not given carte blanche to transmit every unscripted moment. Instead, it appears that UA field commanders have included IO in their statements of intent, and company and field-grade officers have given maneuver units guidance on what is and is not appropriate for documentation and transmission.[42]

In some ways, this is more discernable by what is absent from the current landscape than what is present. In surveying the universe of UA messaging, we have seen little to no evidence of the following: (1) Russian soldiers in flex cuffs or otherwise restrained after combat, (2) documentation of Russian fatalities that permits identification, (3) severely wounded Russian soldiers, (4) punishment or torture inflicted on Russian combatants, (5) videos of UA tactics that resemble tactics employed by insurgents in Iraq or Afghanistan and that might

therefore inspire conflicted emotions from viewers in NATO units—such as IEDs, (6) documentation of vindictive actions taken by UA personnel or Ukraine civilians on Russian prisoners, or (7) overt taunting or mockery of Russian personnel or Russian capabilities.[43]

Now contrast that to the most common tactical scenarios on social media platforms: (1) the aftermath of antitank guided missile (ATGM) strikes on Russian convoys, (2) the poor supply situation affecting Russian soldiers, (3) the high state of morale among UA squads and platoons, (4) the compassion of UA soldiers for civilians and noncombatants, (5) the heroic exploits of individual UA personnel, and (6) the use of excessive force by Russia against civilian targets.

Some might argue that the above merely reflects the exercise of common sense by UA personnel or aggressive filtering by combat commanders. We believe that explanation is too simplistic. The type of images and videos missing from the narrative represent the "worst nightmare" of every combat commander, and senior Army leaders have invoked the same to deny mobile devices to soldiers in active combat. And lest we forget, UA personnel are operating under conditions of immense stress, facing an enemy that has shown no qualms in the indiscriminate use of unguided munitions against a civilian population. Yet at least in terms of publication, UA personnel have shown tremendous discipline in their use of mobile devices and social media.

While we have no direct evidence, we believe that the best explanation for the above is that the UA has provided practical guidance to its personnel on the appropriate uses of mobile devices and content that is suited for distribution. We further believe that UA personnel have embraced this trust and discretion and demonstrated tremendous buy-in to achieve their strategic and tactical objectives.

Leveraging civilian expertise to build an IO infrastructure. While much of the footage of UA operations appears to come from the mobile devices held by UA personnel, the vast volume of publication across numerous social media platforms, and the postproduction processing (such as time stamps, text, and other after-the-fact edits) show that Ukraine has also implemented a substantial IO support infrastructure.

Given that the UA is relatively small, it is not surprising that rather than assign soldiers fit for combat to IO support, Ukraine relied on its substantial civilian

expertise in information technology. On 26 March 2022, *The Economist* highlighted how the UA mustered substantial portions of Ukraine's private sector to support its IO campaigns.[44] Noting how the Ukraine government mobilized the private sector shortly after the invasion, *The Economist* noted that "across Ukraine, public-relations specialists, designers and other media types have banded together through bottom-up networks that emerged within hours of the invasion."[45] The result has allowed Ukraine to focus its limited military manpower on combatants, but also provided expertise that the UA arguably lacked before the war began. These ad hoc, public-private partnerships have likely facilitated the widespread distribution of what otherwise might have been limited and isolated publications by tactical combatants.

The absence of embedded reporters. One of the most compelling contrasts between Ukraine IO and the IO/PA efforts of the Army in the GWOT is authenticity. Ukraine has forsaken the U.S. Army approach of permitting approved reporters to embed with tactical units and report their observations. Regardless of the underlying intent, the resulting coverage never, in our opinion, produced an authentic interpretation of events as they unfolded. Not only were the reports often delayed due to the use of traditional media outlets and long-form journalism, but readers on the home front understood that the footage and articles were subject to curation and careful review, if not by the Army, then by network executives.

Ukraine, by contrast, has seemingly made little effort to arrange for embedded media or scripted coverage, at least for international correspondents. Instead, whether by design or necessity, Ukraine has frequently distributed live-action footage alongside announcements from its military about operations and outcomes. While some of the footage released by the UA shows signs of editorial review, rarely do the clips contain narrative overlays, expert analysis, or overt propaganda. By letting its soldiers and the power of imagery tell the story, Ukraine has ensured a more authentic record of its resistance. In our opinion, the absence of embedded reporters and staged interviews has contributed to the massive outpouring of international support for the UA and for Ukraine's political leadership.

Use of military IO to reinforce political messaging. Ukraine has also leveraged military imagery and narratives to validate and reinforce the decisions and

messaging of its political leadership. Zelensky and his key ministers have shown remarkable discipline in articulating a unified message to Russia (Ukraine will resist to the end), to Ukraine citizens (your leadership is here, will stay here, and will suffer with you), and to NATO leadership (we require your help and are grateful for your assistance). These themes are communicated across social media platforms and echoed in every speech, press conference, and meeting with foreign dignitaries.

The UA shows how effectively the battlefield imagery published by the UA and its organic support infrastructure reinforce Ukraine's political messaging. When NATO forces began to supply Ukraine with antitank guided missiles, for example, the UA distributed videos from combat units gratefully unpacking British Next-Generation Light Antitank Weapons and using Javelin missiles to disable Russian armored vehicles. Taken together with stunning images of the devastation caused by Russian artillery and missile strikes, and selectively published photographs of wounded civilians, this coordinated IO campaign made it very difficult for NATO governments to refuse additional aid.

Similarly, Ukraine has opted for complete transparency in the publication of Russian military efforts to disrupt or eliminate its political leadership. For example, as Zelensky and his military and civilian advisors publicize their activities on a daily basis, meet with combat units, and emphasize their commitment to staying the course, the UA has selectively released evidence that Russian units have sought to kill Zelensky and seize control of Ukraine's political institutions.[46] The concurrent narrative of a political leader refusing to abandon his people while repeatedly surviving military decapitation attacks that flout international law has helped propel Zelensky to global prominence while further degrading the reputation of President Vladimir Putin.

Thematic Narratives

It is also important to highlight the thematic focus of Ukraine's IO campaign, as these narratives have resonated with a global audience that, before hostilities broke out, seemed remarkably uninterested in Ukrainian affairs.

UA battlefield performance. Perhaps the most frequent subject of Ukraine IO is highlighting the success of its forces in engaging Russian units. The videos of Ukraine ATGM teams ambushing Russian armor or devastating Russian supply columns contain far more

Recent headlines reflect the social media content posted by Ukrainian soldiers on the battlefield. (Composite graphic by Beth Warrington, Army University Press)

narrative power than the most beautifully written piece of favorable journalism. Similarly, videos of Ukraine antiaircraft units successfully engaging Russian helicopters and attack aircraft have rallied the population centers subject to attack.

Russian war crimes. The UA has also made a point of highlighting Russian tactics that potentially

targeting efforts on ensuring that Russians are able to access and view combat footage. Thus, Russian soldiers intimately aware of shortages are subject to further demoralization in the form of daily announcements about the destruction of additional supplies.

Statements from Russian prisoners. One of the most powerful moments in the Ukraine IO offensive

> " The images and videos, again often shared on social media with little to no narrative overlays, have eliminated any opportunities for Russia to plausibly defend its war aims and further rallied international support for UA resistance. "

violate international law. In particular, the UA and the Ukraine government have circulated a large volume of video demonstrating the indiscriminate use of heavy artillery, rocket artillery, and thermobaric weapons against population centers. More recently, the UA has focused on showcasing conditions in the eastern theater of operations, where Russian forces have laid siege to Mariupol. The images and videos, again often shared on social media with little to no narrative overlays, have eliminated any opportunities for Russia to plausibly defend its war aims and further rallied international support for UA resistance.

Russian logistical difficulties. While many UA IO efforts focus on documenting combat efficacy, the UA has also layered IO onto its lethal targeting priorities by documenting the consistent failure of Russian forces to protect supply columns and the poor logistical performance of the Russian army. Social media is replete with video documentation of UA strikes on Russian trucks and transports, and similar footage of captured Russian equipment revealing shoddy maintenance, insufficient food and water, and the absence of adequate medical supplies. While some of the documentation is clearly after the fact and may originate from civilian sources, there is also abundant footage shot by UA infantry during or shortly after engagements. Importantly, Russian soldiers captured or killed by Ukraine forces have often been in possession of mobile devices, and there are reports that Ukraine has focused its IO

came on 9 March when Ukraine officials released interviews taken with Russian prisoners captured during combat operations.[47] Each of the prisoners affirmed that they were speaking to media outlets voluntarily and provided stunning revelations about the conduct of senior Russian officers in advance of the invasion. Specifically, the Russian soldiers testified that enlisted personnel received no prior notice of the invasion and received no briefings on operational plans. The soldiers further testified to shortages of food, medical supplies, and adequate clothing. Finally, the soldiers claimed to have been misinformed about both the purpose of the operation and the reception to expect from the UA and from Ukraine civilians. And because Ukraine permitted the soldiers to speak rather than layering their words with narratives and/or arranging media interviews, the messaging resonated with the target market—civilians in the NATO countries supplying the UA with critical munitions.

Heroic deeds. The UA has also prioritized distribution of narratives surrounding heroic deeds by Ukrainian personnel. Very early in the conflict, the focus of these narratives was the potentially mythic "ghost of Kyiv," a MiG-29 pilot allegedly responsible for numerous air-to-air kills.[48] Later, Ukraine media and the UA lauded the heroic sacrifice of combat engineer Vitaliy Skakun, who sacrificed himself to complete the demolition of the Genichesky Bridge on the Crimean isthmus.[49] Finally, there was the widely publicized

The Henichesky Bridge was blown up by Ukrainian marine engineer Vitaly Skakun. A Russian column was nearing Kyiv & there was no time to detonate the bridge remotely. Skakun radioed his unit and told them he would do it manually, saying goodbye. Absolute hero.

Vitaly Skakun

11:51 AM · 2/26/22 · Twitter Web App

1,049 Retweets 130 Quote Tweets 7,278 Likes
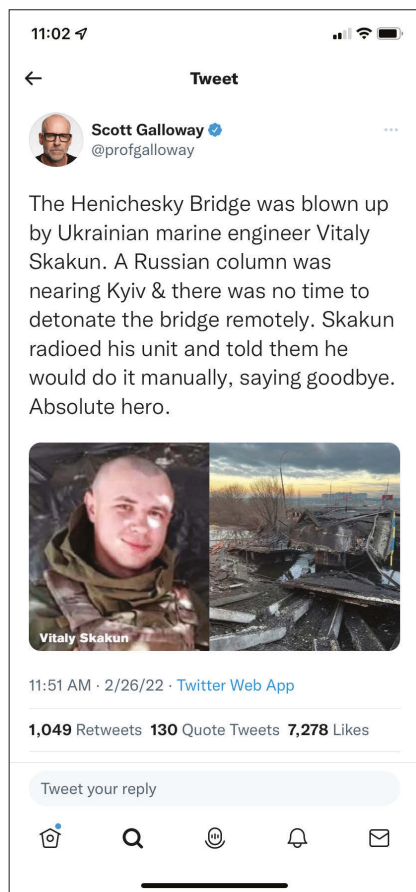
(Screenshot from Twitter/@profgalloway)

engagement between a Russian frigate and a small detachment of Ukraine personnel on Snake Island.[50] Initially, reports suggested that when the frigate demanded that Ukrainians surrender, Ukrainian personnel responded with obscenities, and were killed to the last man. It was later acknowledged that the Russians had captured Snake Island and merely taken Ukrainian soldiers as prisoners, but by that point, the image of Ukrainian resolve was firmly fixed in the global conscience.

The tendency of UA IO practitioners to stretch the truth highlights an important lesson for future LSCO. The Army cannot expect domestic media outlets to provide the same leeway to public statements or narratives, as the international media has afforded Ukraine. In many ways, the international media have afforded Ukraine a measure of forgiveness for factual errors. The Army must expect the opposite. Every Army factual error or exaggeration, no matter the source, will be magnified and cited as evidence of dishonesty. It is therefore imperative that all commanders that implement IO insist facts drive the narrative and train their subordinates that it is better to omit a publication altogether than to push out content that may not withstand scrutiny.

Presidential appearances. We would be remiss if we did not discuss the appeals and statements issued by Zelensky. From the tactical garb that the president donned after the invasion began to his epic video on the streets of Kyiv early in the invasion, when Zelensky personally refuted Russian reports that he had fled the capital, the Ukrainian president has become a critical component of the UA IO offensive.[51] Arguably, Zelensky's aggressive use of social media, in the form of Twitter statements and live appeals for military assistance, were the critical factor in persuading NATO governments to increase their military support. Zelensky also gained legendary status when he refused U.S. offers to evacuate from Kyiv, allegedly telling State Department officials that he "needed ammunition, not a ride." Through these and other direct statements, and appeals to NATO governments, the president has reinforced the IO effects of the UA while generating massive support for Ukraine across the globe. And Zelensky's widely publicized and repeated visits to the front lines have corroborated the emerging narrative of his personal heroism.

Comic relief and adversary humiliation. The final theme of the IO offensive that we wish to highlight is the use of comic relief to humiliate the adversary in the international court of public opinion. Of all the UA narratives to heap scorn on the Russian military, none have had more impact than the repeated videos of

Ukrainian President Volodymyr Zelensky addresses his country 3 April 2022 following the massacre of Ukrainian civilians by Russian military forces in Bucha. (Screenshot from YouTube/President of Ukraine)

Ukraine farmers using John Deere tractors to tow away abandoned or disabled Russian military vehicles. The sight of multiple T-90 tanks and advanced air defense systems dragged behind Ukrainian tractors after either running out of gasoline or suffering mechanical breakdowns is now a global meme for Russian military incompetence. Making these narratives more compelling

decision-makers. In Ukraine, the UA is currently engaged in LSCO on three fronts, each featuring multiple commanders at the EAB, and all in direct proximity to a civilian population. To prevail in this ultimate test of wills, the UA must rapidly identify IO targets that align with tactical objectives, push out information, assess the impact, and prepare for the next cycle—

> Digital devices will blanket the battlefield in any future near-peer engagement. Even if the Army retains its current restrictions on personal devices, future adversaries may not.

is, once again, the relative absence of commentary or heavy edits. While UA IO teams may identify or take these videos and increase their circulation, the UA has largely allowed the images to speak for themselves—adding authenticity to an already compelling storyline.

Recommendations and Caveats

If the war in Ukraine offers a preview of future Army engagements—and we believe it does—then LSCO will offer a target-rich IO environment. Three characteristics of near-peer LSCO make these engagements particularly suitable for IO deployment.

First, because future LSCO would be likely be waged against state militaries, LSCO offer an unprecedented opportunity to target the nexus of an adversary's military leadership, political leadership, and popular support—a radical departure from recent counterinsurgency campaigns.

Second, digital devices will blanket the battlefield in any future near-peer engagement. Even if the Army retains its current restrictions on personal devices, future adversaries may not. We also anticipate that every noncombatant will have access to multiple digital platforms. In Ukraine, for example, the latest figures show that at least 70 percent of the population have internet access, while 87 percent have access to a 4G/LTE network.[52] Therefore, IO practitioners will have a broad array of options for generating influence.

Third, the pace and scale of LSCO will require a faster IO decision cycle involving more

while simultaneously ensuring appropriate coordination with civilian authorities. Such a rapid operational tempo—that almost certainly will characterize future Army engagements—is fundamentally incompatible with the concentration of IO at the EAB. As noted above, Ukraine has deployed its entire civilian IT infrastructure alongside its IO experts and combatants to expedite the targeting and distribution cycle. Present Army IO strategies do not in any way account for the pace and scale of LSCO.

Policy Recommendations

In the hopes of helping the Army capitalize on the success of the UA and implement prudent modifications to current IO doctrine suitable for near-peer LSCO, we humbly offer the following recommendations for consideration.

First, we recommend revisions to Army doctrine to require the incorporation of IO in all statements of commander's intent, at least at the brigade combat team-level and above. A commander's IO intent should be articulated in the statement describing the purpose of the operation (often addressing the operational framework) or the end state the operation seeks to achieve. The incorporation of IO into the commander's intent will ensure that company-grade commanders incorporate IO into their own procedures for briefing and deploying tactical units. At the present, IO is generally absent from commander's intent. Instead, most EAB staffs prepare a separate statement of intent specifically focused on IO

and relegate the statement to the base order's IO annex. It is therefore unsurprising that IO remains an ancillary consideration in the planning and execution of LSCO. By requiring combat commanders to address IO before operational planning begins, the Army will ensure that IO figures prominently in every commander's approach to future engagements.

Second, the Army and the joint force must debate the appropriate amount of IO and PA control that is appropriate for LSCO. Under the policy mandates of ADP 6-0, that debate should center on the degree of empowerment and execution appropriate to the situation. In our view, achieving significant IO outcomes will require less control by the EAB. The more senior commanders consolidate IO and PA at the division and brigade levels, the less likely the Army is to achieve the results seen by Ukraine. This is hardly a revolutionary idea; the core of the Army's approach to mission command is to empower subordinates wherever possible and appropriate. This could see leaders at the point of contact not waging their own discrete IO but rather rapidly feeding relevant facts, truths, and narratives only available at the forward line of troops up through the chain of command using Integrated Tactical Network end-user devices—Samsung phones with cameras—to drive the tempo of IO targeting while pushing their own facts, truths, and narratives through engagement and psychological operations.

This comes with some risk acceptance by EAB leaders, which private sector research indicates may be reasonable. In recent years, domestic corporations have increasingly empowered employees to use social media and other digital tools to advance corporate aims and market products and ideas while also tracking the statements of competitors to identify opportunities for capturing market share. Generally, corporations that vest junior and mid-career employees in public-facing positions (such as sales, marketing, diversity and inclusion, and vendor management) with publication discretion rely on training, best practices, and oversight to ensure compliance with federal law and the mission and goals of the organization—the civilian equivalent of commander's intent. Corporations that take this leap nearly universally find that employees embrace the trust and responsibility conferred and use the discretion provided to bolster customer relationships and improve productivity and profitability.[53] By contrast,

there are relatively few instances where *employees* (as opposed to activists, hackers, or competitors) have used social media to reveal trade secrets, disclose confidential information, or otherwise compromise corporate interests. Summarized succinctly, corporations that trust and educate their people in the information domain achieve better results. We believe the same will be true for the Army maneuver units in future LSCO.

Third, the Army and the joint force must enable echelons at the tactical level to create IO and PA effects. This is not merely a matter of doctrine and mission command. Producing tactical IO results will require examination of technology infrastructure and staffing, and review of the equipment provided to soldiers on the front lines. The Army must also review policies governing military hardware, including the Samsung end-user devices currently fielded as part of the Integrated Tactical Network, and the potential viability of personally owned devices for official use.

Fourth, as we noted earlier, the Army as an institution should emphasize IO education, starting with entry-level officer training and the education of NCOs. Presently, IO education for tactical warfighters is cursory at best. As a result, junior officers and NCOs lack the professional foundation for conducting offensive IO. More importantly, without a doctrinal grasp of IO, the soldiers most vulnerable to enemy IO on the battlefield may struggle to recognize and mitigate adverse effects. They certainly will lack the intellectual agility to know how their feel for the battlefield can contribute tangibly to their battalion commander's IO line of effort. The current generation of platoon and company leaders had access to smartphone technology from the age that they could reasonably gain digital literacy. Their generation possesses an unprecedented familiarity with technology and the skills to influence. It is now up to the Army to educate tactical leaders on how that skill contributes to the broader operational framework.

Fifth, Army and joint targeting methodologies provide a readily available medium for the deployment of IO in multi-domain operations. Targeting boards should not allow IO to be eclipsed by lethal effects. This may require staffing targeting boards with an IO professional, as the Army brigade combat team PA officer cannot reasonably conduct public affairs activities and remain an active member of the targeting team.[54] Further, the Army should scrutinize

LSCO assumptions about the pace of IO. In doing so, the Army and the joint force may determine that IO targeting cycles move faster than lethal targeting cycles. Brigade targeting boards routinely convene based on the air tasking cycle. The tasking cycle generally occurs every twenty-four hours and projects assets for seventy-two hours. Arguably, a social media influence cycle

Seventh, the Army should incorporate tactical application in future revisions to FM 3-13 and FM 3-61 and incorporate IO into the MCCC and CGSC curricula.

We believe that IO doctrine must provide maneuver and planning officers with a functional understanding of IO that readily translates to future LSCO, and a practical and flexible menu of techniques and options

> IO doctrine must provide maneuver and planning officers with a functional understanding of IO that readily translates to future LSCO, and a practical and flexible menu of techniques and options for using IO to achieve effects on the battlefield.

will repeat multiple times within a single tasking cycle, rendering targeting boards reactive rather than offensive. In either case, those findings should be incorporated into the targeting process and unit standard operating procedures, even if the outcome is the creation of a separate IO targeting board.

Sixth, the U.S. Army Training and Doctrine Command must double down on its investment in the Information Operations Network (ION), the series of closed internets that contribute to the realistic training environment at the combat training centers (CTCs). ION currently hosts applications that mimic the most popular social media applications, and it allows a limited number of devices to interact, both friend and foe. To date, the ION and applications on it are largely used for open-source intelligence and less so for IO.[55] Improvements to the ION should include an increase in the number of phones issued for use commensurate with the inundation of phones on the LSCO battlefield, a full upgrade of the network's 4G/LTE capability, and the continued evolution of applications in use on the ION to better replicate the quality and plethora of social media applications available worldwide. Further, units training at the CTCs should be incentivized to increase their use of ION to support IO influence in the cognitive domain. With improvements to IO education, manning, doctrine, and techniques, the ION-enabled CTCs will become the proving grounds for the future of IO at the point of contact.

for using IO to achieve effects on the battlefield. IO is a relatively straightforward capability. It is no more difficult to comprehend intellectually than the lethal force doctrine that junior officers must master before earning the right to lead troops in combat. Yet the combat potential of IO is, in our view, too often obscured by the highly abstract and technical language used to convey Army IO doctrine.

The demands on maneuver officers and their field-grade counterparts on battalion and brigade staffs are considerable. In the high-pressure and fast-paced planning environment that will characterize future LSCO, it is simply unrealistic to expect staff and maneuver officers and NCOs to deploy effective IO campaigns when Army IO doctrines remain abstract and conceptual rather than practical.

The Army excels at translating complex lethal-force concepts into accessible materials for rapid absorption and application to a tactical environment. The same should be true for IO. Given the absence of IO from nearly all officer training, we support the development of concrete and highly accessible IO doctrine that permits rapid assimilation of IO principles and ready translation of those principles into practice.

Eighth, the Army need not reinvent the wheel. The IO campaigns executed by Ukraine have roots in and borrow heavily from the social media and information strategies of domestic corporations. *The Economist*, among others, has repeatedly highlighted the contributions of Ukraine's

private sector. The private sector in the United States leads the world in the use of information to persuade, inform, compete, and influence behavior. The Army would be foolish not to leverage such expertise.

The appalling behavior by Russian forces in Ukraine also offers the Army a convenient basis to open conversations with the companies largely driving the IO revolution. Any arguments about the relative values of the United States and its near-peer competitors have vanished over the past three years, with the indiscriminate use of Russian artillery in Ukraine and the absence of Chinese condemnation serving as the final nail in the coffin. The Army should seize this moment to onboard expertise from the private sector to bolster IO capabilities. For lessons in outreach, the Army can look to the efforts of former Air Force Assistant Secretary of Acquisition William Roper, who made tremendous progress in expanding the defense industrial base to include cutting-edge, privately held companies focused on sensors, software development, and materials science.

Caveats

We make these recommendations while remaining cognizant of several underlying realities. First, Army and joint force leadership can raise legitimate questions about the relationship between tactical IO and increased risks to information and network security. We are not experts on cybersecurity or network infrastructure, and we do not purport to offer solutions to this tension. However, we do believe it is possible to strike an appropriate balance between deployable IO capabilities at the tactical level and information security.

Emissions control is also a legitimate concern, as is the potential geotracking of units in the field. It is important to note, however, that unless future Army deployments occur in an unpopulated area, noncombatants will likely observe and report on all movements and actions by Army units operating on foreign soil via mobile devices or other means. Note that in Ukraine, even when Ukrainian citizens refrain from publishing information on UA units operating in their vicinity, journalists and expatriates from other countries have published real-time video and photographs of UA soldiers that permit the identification of units, assessments of size and scale, and armaments. Further, Army units engaged in LSCO produce a massive electromagnetic footprint that will scarcely be affected by

the use of mobile devices by individual soldiers. Again, we believe that the potential power of IO as a tactical capability supports exploring the appropriate balance with emissions control.

Finally, we acknowledge the delicate balance between effective IO and compliance with the Uniform Code of Military Justice (UCMJ) and the Geneva Conventions. Some Ukrainian IO, while arguably compliant with the Geneva Conventions, would likely run afoul of the UCMJ or existing Army best practices on the treatment of enemy combatants and the publication of enemy casualties. And if history is any guide, Army forces in the next war will be subject to far greater scrutiny from U.S. media outlets—which has generally refrained from criticizing Ukraine IO. The importance of Geneva Conventions and UCMJ compliance further reinforces the need for the Army to develop highly effective training modules for junior officers and NCOs to ensure that adequate instruction is provided to all soldiers at the tip of the spear.

Conclusion

In writing this article, we were guided by one fundamental conviction: that by successfully deploying IO as a tactical combat capability, the UA has erased any doubts about the significance of IO as a core component of modern warfare, and it is a domain the Army must master to achieve battlefield dominance in future LSCO.

To its credit, over the last eight years, the Army has embraced the shift to great-power competition and undertaken a systematic effort to modernize and streamline its lethal force capabilities, doctrine, and training for near-peer engagement. As part of that modernization, the Army has boldly embraced recent changes in munitions, C4/ISR, and unmanned aircraft systems. Army warfighters and doctrine writers, in our view, deserve tremendous credit for these efforts, particularly given the nearly overnight shift in Army focus from counterinsurgency to great-power competition.

IO is the one domain where the Army and the joint force must make significant and meaningful improvements. At a minimum, the Ukraine experience demonstrates the need for the Army to develop a practical approach to IO that emphasizes the ability of information, in all its modern facets, to diminish enemy will.

Ultimately, all UA IO—from the celebration of heroic deeds and the photographs of burned-out

supply columns to the videos of UA soldiers opening ATGM shipments—has one objective: reducing Russian morale and will to fight. TikTok videos and Telegram taunts are not bullets, but in our view, the tactical deployment of IO has contributed significantly to UA lethality. The numerous reports of low Russian morale, elite Russian units fleeing at the first sign of contact, and fratricide among Russian enlisted personnel and officers testify to the efficacy of UA

IO and the integration of IO into all aspects of UA combat operations.

Our review of existing Army IO capabilities and infrastructure suggests that, were the Army to face a near-peer opponent in LSCO soon, the Army could not reasonably expect to match the UA standard. That must change, and we hope this article will facilitate the difficult conversations necessary to rectify the prevailing gaps in Army IO capabilities. ∎

Notes

1. Currently, public domain primary source material on Ukraine's current information operations (IO) strategy, policies, procedures, and training is extremely limited. The conclusions on Ukrainian military strategy we offer are therefore preliminary, drawn primarily from open-source intelligence and may require supplementation or revision based on the future dissemination of primary source material.

2. For scholarship on IO and public affairs efforts in the Second World War, see Anthony Rhodes, *Propaganda: The Art of Persuasion: World War II* (New York: Chelsea, 1988); John W. Dower, *War Without Mercy: Race & Power in the Pacific War* (New York: Pantheon, 1987); and Allen Winkler, *The Politics of Propaganda: Office of War Information, 1942-1945* (New Haven, CT: Yale University Press, 1978). On Vietnam, see Caroline Page, *U.S. Official Propaganda During the Vietnam War, 1965-1973: The Limits of Persuasion* (New York: Bloomsbury Academic, 1981); and Robert W. Chandler, *War of Ideas: the U.S. Propaganda Campaign in Vietnam* (Boulder, CO: Westview Press, 1978). For Operation Desert Storm, we recommend Michael R. Gordon and Bernard R. Trainer, *The General's War: The Inside Story of the Conflict in the Gulf* (New York: Little, Brown, 1995).

3. For examples of revolution in military affairs (RMA) scholarship, see Elinor C. Sloan, *The Revolution in Military Affairs* (Montreal: McGill-Queen's University Press, 2002); Ashton B. Carter and William J. Perry, *Preventative Defense: A New Security Strategy for America* (Washington, DC: Brookings Institution Press, 1999); John Arquila and David Ronfeldt, *In Athena's Camp: Preparing for Conflict in the Information Age* (Santa Monica, CA: RAND Corporation, 1997); Roger C. Molander, Andrew S. Riddile, and Peter A. Wilson, *Strategic Information Warfare: A New Face of War* (Santa Monica, CA: RAND Corporation, 1996); and Earl H. Tilford Jr., *The Revolution in Military Affairs: Prospects and Cautions* (Carlisle, PA: U.S. Army War College Press, 1995).

4. Molander, Riddile, and Wilson, *Strategic Information Warfare*, 15–19.

5. With the benefit of hindsight, it is tempting to classify the RMA as a misguided attempt to endorse wholesale revisions to Army doctrine, based on the speculative combat potential of immature technology and "netcentric" warfare. Critics of the RMA often invoke costly, problematic experiments such as LandWarrior to discredit an entire generation of professional military scholarship. We believe that approach is simplistic and fails to account for the austere budgets and global obligations the Army faced following the collapse of the Soviet Union, and the difficulties of adapting to

a unipolar world order while simultaneously implementing massive conventional force reductions. Viewed in that context, it is readily apparent why the RMA had such appeal to senior warfighters instructed to do more with less.

6. Paul E. Menoher Jr., "Force XXI: Redesigning the Army through Warfighting Experiments," *Military Intelligence Professional Bulletin* (April-June 1996): 6–8, accessed 11 April 2022, https://www.ikn.army.mil/apps/MIPBW/MIPB_Issues/MIPB%20Apr%201996.pdf.

7. U.S. Army Training and Doctrine Command (TRADOC) Pamphlet 525-5, *Force XXI Operations: A Concept for the Evolution of Full-Dimensional Operations for the Strategic Army of the Twenty-First Century* (Fort Monroe, VA: TRADOC, 1 August 1994 [obsolete]), Glossary-4.

8. Field Manual (FM) 100-6, *Information Operations* (Washington, DC: U.S. Government Printing Office, 27 August 1996 [obsolete]), Glossary-7.

9. Robert J. Bunker, *Information Operations and the Conduct of Land Warfare*, Land Warfare Paper 31 (Arlington, VA: Association of the United States Army, 1998), accessed 11 April 2022, https://www.ausa.org/sites/default/files/LWP-31-Information-Operations-and-the-Conduct-of-Land-Warfare.pdf.

10. Ibid., 2.

11. Joint Chiefs of Staff, *Concept for Future Joint Operations: Expanding Joint Vision 2010* (Fort Monroe, VA: Joint Warfighting Center, 1997), 85.

12. Ibid.

13. Gordon R. Sullivan and James M. Dubik, *War in the Information Age* (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 6 June 1994).

14. Department of Defense (DOD), *Quadrennial Defense Review Report* (Washington, DC: DOD, 30 September 2001), 43.

15. DOD, *Information Operations Roadmap* (Washington, DC: DOD, 30 October 2003).

16. Ibid., 4.

17. Peter W. Singer, "Winning the War of Words: Information Warfare in Afghanistan," Brookings Institution, 23 October 2001, accessed 11 April 2022, https://www.brookings.edu/research/winning-the-war-of-words-information-warfare-in-afghanistan/ (highlighting poor outcomes of Army IO during initial Afghanistan campaigns).

18. U.S. Army Combined Arms Center (USACAC) Center for Army Lessons Learned (CALL) Report No. 08-31, *Gap Analysis: Information Operations Tactics, Techniques, and Procedures* (Fort Leavenworth, KS: USACAC CALL, May 2008); CALL Initial Impressions Report, *III Corps as Multinational Corps Iraq, December*

2006-February 2008 (Fort Leavenworth, KS: USACAC CALL, n.d.); USACAC CALL, *Tactical Commander's Handbook: Information Operations* (Fort Leavenworth, KS: USACAC CALL, May 2005).

19. This dynamic conforms to the personal experience of author Theodore Kleisner as a company commander in the 82nd Airborne Division, where he served as a member of the Shullah District Council in Baghdad and received significant discretion to operate and meet with local leaders, within the defined intent of his superior officers.

20. Ibid.

21. Kleisner served as a Combined Joint Special Operations Task Force J-3 and commander during four deployments from 2010 to 2013 in Afghanistan. This statement reflects his professional experience in those assignments.

22. Dan Kuehl, "Introduction: 'Brother, Can You Spare Me a DIME?,'" in *Information Warfare: Separating Hype from Reality*, ed. Leigh Augustine (Dulles, VA: Potomac Books, 2007), 1.

23. Corey D. Schou, J. Ryan, and Leigh Armistead, "Developing an Academic Curriculum in Information Operations: The First Steps," *Journal of Information Warfare* 8, no. 3 (2009): 50.

24. Ibid.

25. Joint Chiefs of Staff, *Joint Concept for Operating in the Information Environment (JCOIE)* (Washington, DC: DOD, 25 July 2018), iii.

26. Ibid., viii (emphasis added).

27. Michael X. Garrett, "Winning at the Point of Contact," Army. mil, 13 August 2020, accessed 11 April 2022, https://www.army.mil/article/238107/winning_at_the_point_of_contact.

28. Army Doctrine Publication 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: U.S. Army Government Publishing Office [GPO], July 2019), 1-6.

29. FM 3-13, *Information Operations* (Washington, DC: U.S. GPO, 6 December 2016), 1-2.

30. Ibid., 1-3.

31. Ibid., 1-4.

32. Ibid., 9-1–9-2. FM 3-13 as presently construed devotes two pages to IO below the brigade level.

33. The authors cannot emphasize strongly enough that their desire to see future IO doctrine expressed in concise and practical language does not in any way imply that junior- and field-grade officers are incapable of understanding and processing complex and abstract ideas or technical explanations. Rather, the authors believe that in future large-scale combat operations, the maneuver and staff officers charged with planning and deploying IO at the point of contact will operate under incredible stress. Many officers may be required to learn IO "on the fly," in addition to numerous other responsibilities. Therefore, the authors believe that IO field manuals should provide tactical warfighters with concrete and readily applicable explanations and techniques for exploiting IO at brigade level and below.

34. FM 3-61, *Communication Strategy and Public Affairs Operations* (Washington, DC: U.S. GPO, February 2022).

35. See "Project Convergence," Army Futures Command, 2022, accessed 12 April 2022, https://armyfuturescommand.com/convergence/ (discussing features of Project Convergence and describing methodology and areas of focus); Stew Magnuson, "Army's Project Convergence Continues on 10-Year Learning Curve," *National Defense* (website), 17 December 2021, accessed 12 April 2022, https://www.nationaldefensemagazine.org/articles/2021/12/17/armys-project-convergence-continues-on-10-year-learning-curve.

36. Author interview with small-group instructor, U.S. Army Maneuver Center of Excellence, Maneuver Captain's Career Course, 27 March 2022.

37. Author review of Command and General Staff College (CGSC) lesson plan for IO and an interview with an Army doctrine writer and former CGSC instructor, U.S. Army Combined Arms Center, Fort Leavenworth, Kansas, 28 March 2022.

38. Michael Kofman and Ryan Evans, *11 Days In: Russia's Invasion Stumbles Forward* (podcast), War on the Rocks, 7 March 2022, accessed 14 April 2022, https://warontherocks.com/2022/03/11-days-in-russias-invasion-stumbles-forward/.

39. See William R. Trotter, *The Winter War: The Russo-Finish War of 1939-1940* (London: Aurum Press, 1991).

40. Greg Jaffe and Dan Lamothe, "Russia's Failures in Ukraine Imbue Pentagon with Newfound Confidence," *Washington Post* (website), 26 March 2022, accessed 13 April 2022, https://www.washingtonpost.com/national-security/2022/03/26/russia-ukraine-pentagon-american-power/.

41. We purposefully do not cite specific examples from Twitter, Telegram, TikTok, or other platforms to corroborate this point and others that follow, for several reasons. First, the sheer volume of IO, the ephemeral nature of many postings, and the difficulty of pinpointing the original source for an image or video (as opposed to a retweet, share, or copy). Second, much of the IO playing out between Ukraine and Russia is first distributed on an encrypted messaging platform (Telegram) that we are not professionally authorized to use. Nor do we possess the necessary expertise to find and cite to original Telegram content.

42. Michael Kofman and Ryan Evans, *A New Phase of the Russo-Ukrainian War Begins* (podcast), War on the Rocks, 27 March 2022 accessed 12 April 2022, https://warontherocks.com/2022/03/a-new-phase-of-the-russo-ukrainian-war-begins/. One factor that may also contribute to the decentralized and organic nature of Ukraine IO is the high degree of operational independence exercised by the military district commanders in the Ukraine army and the relative autonomy exercised by local elected officials in Ukraine's constitutional system.

43. Sinead Baker, "Video Appearing to Show Ukraine Forces Shooting Russian Prisoners Seems Plausible but Remains Unverified, Experts Say," Business Insider, 29 March 2022, accessed 12 April 2022, https://www.businessinsider.com/video-ukrainians-apparently-shooting-russian-prisoners-plausible-not-verified-experts-2022-3. There is one exception. On 28 March 2022, a video of questionable legitimacy emerged on Telegram, purporting to show Ukrainian soldiers wounding Russian prisoners. The Ukrainian government has questioned the authenticity of the video but has stated that it will conduct a full investigation and takes the matter "extremely seriously." In the view of the authors, even if the video is authentic, the absence of others, after more than four weeks of brutal urban warfare, and considering the diverse mix of professional soldiers, militia, and international volunteers defending Ukraine, remains powerful evidence of the efficacy of Ukrainian policy.

44. "The Invasion of Ukraine Is Not the First Social Media War, but It Is the Most Viral," *The Economist* (website), 26 March 2022, accessed 12 April 2022, https://www.economist.com/international/the-invasion-of-ukraine-is-not-the-first-social-media-war-but-it-is-the-most-viral/21808456; Missy Ryan et al., "Outmatched in Military Might, Ukraine Has Excelled in the Information War," *Washington Post* (website), 16 March 2022, accessed 12 April 2022, https://www.washingtonpost.com/national-security/2022/03/16/ukraine-zelensky-information-war/ (discussing key features of Ukraine IO campaign).

45. Ibid.

46. See, for example, Gerrard Kaonga, "Zelensky Has Survived Over a Dozen Assassination Attempts, Ukraine Claims," *Newsweek*

(website), 9 March 2022, accessed 12 April 2022, https://www.newsweek.com/volodymyr-zelenskyy-assassination-attempt-killing-ukraine-president-russia-1686329.

47. *Russian Prisoners of War in Ukraine Deliver a Message to Vladimir Putin*, YouTube video, posted by "7News Australia," 9 March 2022, accessed 12 April 2022, https://www.youtube.com/watch?v=tQDFmRJddWo.

48. Thomas Novelly, "Ukraine's Fighter Ace 'Ghost of Kyiv' May Be a Myth, but It's Lethal as War Morale," Military.com, 2 March 2022, accessed 12 April 2022, https://www.military.com/daily-news/2022/03/02/ukraines-fighter-ace-ghost-of-kyiv-may-be-myth-its-lethal-war-morale.html.

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50. Bill Chappell, "Snake Island Sailors Are Freed as Ukraine and Russia Conduct Prisoner Exchange," NPR, 24 March 2022, accessed 12 April 2022, https://www.npr.org/2022/03/24/1088593653/snake-island-sailors-freed-prisoner-swap.

51. *Ukrainian President Volodymyr Zelenskyy Shares a Message from Kyiv*, YouTube video, posted by "USA Today," 25 February 2022, accessed 12 April 2022, https://www.youtube.com/watch?v=tLv9IqcoNe8.

52. International Telecommunications Union Office for Europe, *Ukraine: Digital Development Country Profile* (Geneva: International Telecommunications Union, February 2022), 6, accessed 12 April 2022, https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Publications/Publications.aspx.

53. As part of his legal practice, author Trevor Garmey frequently advises multinational corporations on mitigating reputational risk and provides training and best practices for social media use by employees. The conclusions in this paragraph reflect lessons learned from his professional experience.

54. This recommendation will become increasingly prudent after the fiscal year 2023 modified table of organization and equipment adjustment removes public affairs officers from brigade-level headquarters. This ostensibly leaves brigades with no professionals who identify with IO as their primary tradecraft.

55. Author interviews with a former military intelligence observer/coach/trainer and a current senior leader at the Joint Readiness Training Center, 27 March 2022.

Military Review

WE RECOMMEND

For those interested in learning more about information operations, we invite your attention to a selection of articles previously published in *Military Review*:

"Massing Effects in the Information Domain: A Case Study in Aggressive Information Operations," by Lt. Gen. Thomas F. Metz, U.S. Army; Lt. Col. Mark W. Garrett, U.S. Army; Lt. Col. James E. Hutton, U.S. Army; and Lt. Col. Timothy W. Bush, U.S. Army

https://apps.dtic.mil/sti/pdfs/ADA489043.pdf

"The Decisive Weapon: A Brigade Combat Team Commander's Perspective on Information Operations," by Col. Ralph O. Baker, U.S. Army

https://apps.dtic.mil/sti/pdfs/ADA489185.pdf

"How We Win the Competition for Influence," Lt. Col. Wilson C. Blythe Jr., U.S. Army; and Lt. Col. Luke T. Calhoun, U.S. Army

https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2019/Blythe-Calhoun-Influence/

Irregular Competition

Conceptualizing a Whole-of-Government Approach for the United States to Indirectly Confront and Deter State and Nonstate Adversaries

Lt. Col. Jeremiah C. Lumbaca, U.S. Army, Retired

Despite increased global interest in "gray-zone" activities, the United States does not have a whole-of-government policy to deter or indirectly confront state and nonstate adversaries in this expanding security domain. With the release of the December 2017 *National Security Strategy*, a policy shift occurred overnight that fundamentally changed the direction that the U.S. security enterprise had been heading for two decades.[1] After sixteen years, trillions of dollars spent, and hundreds of thousands of lives lost during the War on Terrorism, the United States redirected its primary focus away from asymmetric threats and looked instead toward strategic competition, sometimes referred to as "great-power competition" or "near-peer competition." The 2021 *Interim National Security Strategic Guidance*, released by the White House, continues and reinforces the strategic competition policy direction.[2]

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Notwithstanding a redirect toward conventional security concerns, America's state and nonstate adversaries continue to operate globally with malign intent through unconventional security efforts. Consequently, there is a need for the United States and like-minded nations to indirectly implement a discreet set of activities—during times of peace, competition, and war—to maintain international order.

Gray zone, fourth generation, new generation, irregular, hybrid, asymmetric, compound, and unrestricted "warfare" or "conflict"; all these terms, and many others, have made their way into the contemporary lexicon. Each comes with bias and a preconceived definition. Ask anyone in the national security arena if the United States should have some type of irregular warfare capability in its toolbox and the answer will undoubtedly be "yes." Ask people to define "irregular warfare" and the answers will be numerous, vague, and confusing. Establishing common meaning that everyone agrees on would be helpful but would also cost precious time and likely prove impossible. Therefore, for the purposes of this article, the term "irregular competition" is utilized to describe this space. The reason for the use of this term is to avoid inherent bias that comes with the more

common terms listed above. Irregular competition is defined as state and nonstate actors engaging in activities during times of peace, competition, and war to influence populations and affect legitimacy. These activities by themselves are unlikely to elicit a kinetic response. Additionally, "whole-of-government" will precede "irregular competition" in this article to emphasize the necessity for government synergy. This article will answer the following question: How might the United States conceptually model a whole-of-government approach to irregular competition?

(Composite graphic by Jeff Buczkowski, Army University Press)

Definitions and Context

It is often said that irregular-competition-type activities take place somewhere "between peace and war," and that these activities by themselves are unlikely to elicit a major conventional military response.[3] This statement is only partly correct. For example, Ukrainian President Volodymyr Zelensky is executing an aggressive irregular competition campaign to influence (global) populations and affect (Russian) legitimacy far from the battlefields. The specific irregular competition activities in isolation, however, remain unlikely to elicit a major conventional military response. The notion of "between peace and war" is inaccurate since irregular competition persists regardless of any state of peace, competition, or conflict.

As outlined in the *National Security Strategy*, the Chinese Communist Party is the primary strategic security concern for the United States with other states like Russia, Iran, and North Korea close behind. The *National Security Strategy* acknowledges persistent threats from extremist and terrorist organizations as well, but these nonstate actors are no longer the top priority they were in the nearly two decades following 9/11. In this era of strategic competition, one might assume that the lessons and concepts associated with irregular competition have limited applicability since priorities have shifted. This assumption is incorrect. As David Ucko and Thomas Marks have written, the two sets of challenges—traditional and nontraditional—share crucial traits:

> Both employ diverse lines of attack to undermine resolve and build leverage, often by exploiting vulnerabilities within target societies—economic, social, and/or political. Both weaponize narratives to confuse analysis, co-opt contested audiences, and lower the cost of action. And both revolve around questions of legitimacy, or the right to lead, so as to shape new and long-lasting political realities.[4]

"Whole-of-government" needs defining for the purposes of this article. There are numerous ways to define this term, including several acronyms that attempt to capture the idea. "DIME" will be used here to define a whole-of-government strategy that encompasses the diplomatic, informational, military,

Evening view of the Blue Shield Casino, owned by the King Romans Group, in the Golden Triangle Special Economic Zone in Bokeo Province, Laos. China's influence in the region goes beyond electric grid control and environmentally disastrous dam building. Chinese casinos and microcommunities—hotbeds for human trafficking, illegal weapons sales, methamphetamine shipping, and wildlife smuggling—undermine local economies and build dependence on cash infusions from Beijing. (Photo courtesy of Slleong via Wikimedia Commons)

and economic instruments of power. A few caveats should be made regarding nonstate actors and DIME. First, nonstate actors may not have a government, as in whole-of-government. Second, nonstate actors may not have a formally recognized nation to govern, utilizing elements of national power. Third, nonstate actors may not have a standing military, represented by the "M" in DIME. Despite these realities, nonstate actors may nevertheless behave similarly to a government that may govern territory like the way a recognized nation does and may engage in military-like activities. Examples include the Islamic State in Iraq and Syria during the height of the "caliphate," the Maute and Abu Sayyaf groups in Marawi (which attempted to govern but never truly got there), the Taliban in Afghanistan today, and numerous other insurgent groups throughout history who have governed or attempted to govern. This is not to imply that there is no difference between state and nonstate actors. Instead, the point is that nonstate actors sometimes behave in ways similar to state actors and, as a result, one should not limit one's thinking to nation states alone when considering whole-of-government

irregular competition. Nonstate actors may employ the instruments of power found in DIME.

Finally, it must be acknowledged that several U.S. adversaries—with particular emphasis on China and Russia but knowing that others do it as well—manage to execute whole-of-society irregular competition as their authoritarian reach allows mobilization of resources beyond just the government. While whole-of-society action may be ideal in effecting irregular competition, authoritarianism is contrary to U.S. principles and, as a result, this expansion of irregular competition activity to mobilize society itself is likely out of reach for the United States. U.S. education about irregular competition, however, should not be discounted.

Adversarial Irregular Competition Demonstrated

While it can be said that irregular competition—as defined above—has been employed in various forms for centuries, research here is focused on the turn of the twenty-first century onward as the global technological and threat landscapes have evolved considerably since then. America's adversaries are adept at operating in this space. As former White House national security advisor Lt. Gen. H. R. McMaster emphasized throughout his book *Battlegrounds,* these actors synergize disinformation, denial, disruptive technologies, coercion, and other tactics to accomplish strategic objectives below the threshold of what might elicit a military response.[5]

Examples originating from the Chinese Communist Party alone include

- artificial island-building and fishing fleet intimidation in the South China Sea;
- debt diplomacy and economic coercion throughout the Indo-Pacific, along the Silk Road, and into Africa to influence state behavior in ways beneficial to China; economic espionage and theft of intellectual property;
- military intimidation of Taiwan;
- funding research on alternative approaches to international law to rewrite history; efforts to influence politics in Australia and New Zealand; hostage diplomacy;
- seizing unmanned underwater vessels;
- internment and genocide of Uighurs in Xingjian to cleanse Chinese soil of indigenous non-Chinese cultures;
- co-opting small countries in Southeast Asia;
- river patrols, casinos, and the establishment of Chinese microcommunities in the Mekong River Basin to exert influence on host nations;
- strong-arming the extradition of overseas critics back to China; and
- influencing foreign media, sports, and Hollywood organizations to maintain a positive image of China.[6]

In the case of Russia, irregular competition has become a steady-state endeavor. This can be seen in

- the employment of the Wagner Group and other nonuniformed proxies in Syria, Ukraine, Georgia, Estonia, and elsewhere;
- employment of the Night Wolves Motorcycle Gang to execute information operations and proxy conflict in Australia and Ukraine;
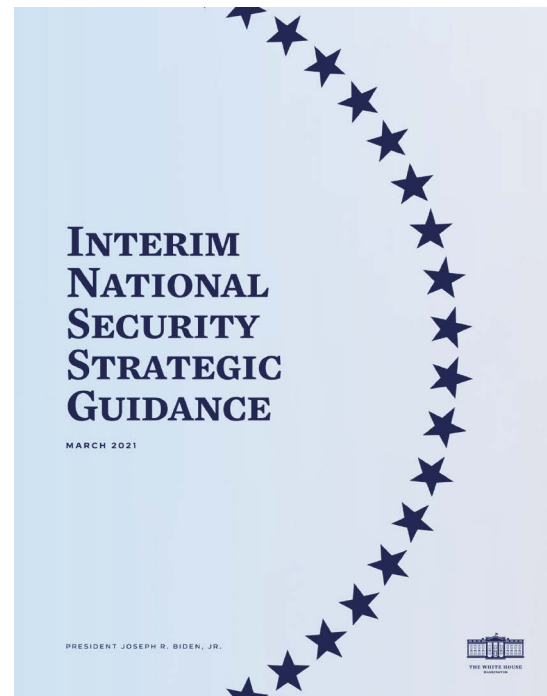
To view the *Interim National Security Strategic Guidance* (Washington, DC: The White House, March 2021), visit https://www.white-house.gov/wp-content/uploads/2021/03/NSC-1v2.pdf.

- election meddling in Europe and America;
- financing foreign political parties like the repressive Maduro regime in Venezuela;
- energy coercion;
- flying close to U.S. warships in attempts to elicit an overreaction;
- cyber-enabled disinformation campaigns; and
- poisoning of critics.[7]

Iran sponsors terrorism globally, often through proxies. It also illegally transfers and sells weapons, and routinely uses armed small boats to harass UK and U.S. warships.[8] North Korea utilizes irregular competition by routinely threatening other nations with nuclear devastation, which has resulted in its designation as a state sponsor of terrorism, as well as its successful assassination of individuals considered to be a political threat.[9]

From a position of weakness, nonstate actors often employ components of irregular competition to gain a relative advantage over better-resourced adversaries. These initiatives include, but are not limited to,

- disinformation campaigns to purport government illegitimacy;
- propaganda initiatives to incite violence;

Element of Power	Manifested predominantly as:
Diplomatic	Foreign Diplomacy
Information	Strategic Messaging
Military	Security Cooperation, Show of Force
Economic	Transparent Economic Cooperation, Competition, and Sanctions

Element of Power	Manifested predominantly as:
Diplomatic	Political Warfare
Information	Propaganda, Psychological Operations, Information/Disinformation
Military	Irregular Warfare
Economic	Less Transparent Economic Pressure, Persuasion, Coercion, and Subversion

Strategic Competition

May occur simultaneously

Traditional Competition enacted by State Actors

Irregular Competition enacted by State and Nonstate Actors

Related Terms: Gray Zone, Hybrid, Asymmetric, 4th Generation, Compound, Unrestricted, New Generation Conflict

Not mutually exclusive. Cross-cutting. Overlap possible.

(Figure by author)

Figure. Irregular Competition as a Subcomponent of Strategic Competition

- money laundering and the creation of shell companies/fake nongovernmental organizations to support terrorism;
- the use of piracy, kidnapping for ransom, cybercrime, and other forms of transnational organized crime to raise funds for illicit operations;
- sarin attacks on public transportation; and
- online radicalization to recruit new members.[10]

Numerous other examples exist from other countries and organizations that may be categorized as irregular competition as well, so the above list should not be considered exhaustive. Instead, the purpose of the examples provided is to inform the reader of the tremendous depth and breadth of this elusive operating environment. This ambiguous arena with unclear parameters and often conflicting definitions is the background for this research.

Irregular Competition as a Subcomponent of Strategic Competition

"Irregular competition" should be understood as one of two subcomponents of strategic competition. The other subcomponent is "traditional competition." The

National Security Strategy does not contemplate such a construct so the figure is provided for illustration. Traditional competition is predominantly government focused while irregular competition is people focused. The emphasis of this article is on irregular competition, not traditional competition, so little will be discussed about the latter. It is crucial to note, however, that the figure cannot adequately emphasize the overlap that exists between irregular and traditional competition. Lines between the two are not clear but are instead blurred and cross-cutting; activities can and should occur in both at the same time and are not mutually exclusive.

As depicted in the figure, the DIME instruments of power in irregular competition manifest differently than they do in traditional competition. The *diplomatic* instrument of power, for example, is manifested in irregular competition as political warfare. In his book *On Political War*, which remains a seminal work on the subject, author Paul Smith describes political warfare as the use of "political means to compel an opponent to do one's will, based on hostile intent."[11] It is a calculated interaction between an actor and a target audience, including a competitor's government, military, and/or general

population, which uses a variety of techniques to coerce certain actions, thereby gaining relative advantage over an opponent.[12] Furthermore, political warfare's coercive nature leads to the weakening or destroying of an opponent's political, social, or societal will, and forces a course of action favorable to an actor's interest.

The *informational* instrument of power is manifested in irregular competition as propaganda and psychological operations. According to Smith, propaganda is driven by national objectives, has many aspects, and has a hostile and coercive political purpose. Psychological operations, on the other hand, are driven by strategic and tactical military objectives and may be intended for hostile military and civilian populations. Whether propaganda or psychological operations are discharged, the primary vehicle is the use of "words, images, and ideas," which, when combined, may enable information and disinformation campaigns to alter a target audience's opinions. It involves heartening friends and disheartening enemies, of gaining help for one's cause and causing the abandonment of the enemies.[13] Propaganda and psychological operations involve both information and disinformation and may be cyber-enabled.

The *military* instrument of power is manifested in irregular competition as irregular warfare, where the security sector of both state and nonstate actors attempts to influence populations and affect legitimacy. The U.S. Department of Defense's *Summary of the Irregular Warfare Annex* makes clear that irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capabilities.[14] According to the U.S. military, irregular warfare includes five primary activities: unconventional warfare (enabling resistance movements), foreign internal defense (supporting another country's security programs), counterterrorism, stability operations, and counterinsurgency. Beyond what is formally written in military doctrine, irregular warfare might also encompass such things as support to political warfare (defined earlier), counter-unconventional warfare (countering an adversary's will and capability to enable a resistance movement), proxy warfare, military information support operations (also known as psychological operations), cyberspace operations, countering threat networks, countering threat finance, civil-military operations, and security cooperation. As evident above, the military's irregular warfare construct is quite expansive.

The *economic* instrument of power is manifested in irregular competition as economic pressure, persuasion, coercion, and/or subversion. In adapting Smith's writing to the subject of irregular competition, activities undertaken in the economic space are intended to inflict necessary economic damage to force political change. Conduct here will differ according to whether the actor is authoritative or democratic since standards, laws, norms, and the ability to mobilize an actor's resources differ. Economic activities in irregular competition support furthering political goals without the use of direct confrontation. With the interconnectedness of global economies, economic activity executed as part of any irregular competition strategy must be carefully calculated and integrated with all other instruments of power to achieve political objectives but not provoke direct conflict.

Concluding Thoughts

Very few people agree on the finer points surrounding irregular competition and this article will surely not rectify that. Irregular competition is a sensitive subject, but the United States, its partners, and its adversaries are all involved in it … one way or another. To paraphrase a quote from Leon Trotsky, you may not be interested in irregular competition, but irregular competition is interested in you.[15]

When studying literature, or congressional testimony, or military doctrine, it is understood that gray-zone or hybrid warfare activities are those conducted by adversaries. They are threats that must be identified, prevented, countered, or mitigated. Irregular competition, on the other hand, is a proactive tool that the United States and its adversaries may both employ to confront and deter. Political, cultural, religious, legal, psychological, and historical factors among diverse populations must all be considered on this journey. This is a people-centric struggle in which cognitive awareness and emotional intelligence are more important than military power. Additionally, any irregular competition strategy must be flexible enough to transform with space, cyber, surveillance, social media, and other technological innovations. Cold War era irregular competition constructs like "resistance" and "subversion," for example, are important and relevant in this campaign but must be adapted to the current operating environment where adversaries are plugged in and hyper-networked. This expanding physical and virtual operating

An undated photo of Russia's Trefoil military base in the Arctic. An essential region for Russia's aggressive military, economic, and political aspirations, the Arctic has become a focal point for irregular competition. Russia exploits weak governing mechanisms to advance its own military posturing, natural resource claims, and projection through the Northern Sea Route. (Photo courtesy of Ministry of Defence of the Russian Federation via Wikimedia Commons)

space makes working by, with, and through like-minded partners more important than ever. The threat space is bigger than any one actor can manage. As U.S. Gen. Richard Clarke noted, we must look to the multinational community, "leverage exporters of security, and pull them in with shared interests."[16]

Irregular competition as depicted by the four-pillar model presented in the figure is truly a "whole-of-government" endeavor. Unfortunately, most who spend time thinking about such matters are not able to mobilize the whole government. For example, the U.S. military's special operations community thinks, plans, and trains on the concept of irregular warfare with great consistency. Unfortunately, irregular warfare alone, implemented primarily by the security sector, is not enough. Despite attempts to envision irregular warfare as whole-of-government and something bigger than the military, the literature and practice as it exists today is military-centric and incapable of orchestrating all the instruments of power highlighted in the figure. In fairness to those who study and practice irregular warfare, those professionals are well aware of irregular warfare's shortcomings; they have labeled irregular warfare efforts as only "whole-of-department," and they

understand that the military alone is not in a position to lead a whole-of-government endeavor in this space.

To rely on one, two, or even three elements of the DIME construct in implementing irregular competition is insufficient. All four instruments combined are essential to planning, synchronizing, and leading a true whole-of-government campaign. It is in fact a "campaign" that is needed since this word implies that any strategy developed must be continuously refined and executed over many years, perhaps decades.

The ideas highlighted here likely lead to more questions that must be addressed but go beyond the scope of this article. These questions include but are not limited to the following: Who should lead such a whole-of-government effort? What does it look like to take the strategic objectives of irregular competition and translate them into pragmatic activities? What are the political costs

and benefits of implementing such a strategy? How do we educate and inform our own citizens as well as our foreign partners of the importance of irregular competition? While these questions must be carefully considered and answered, the United States and its friends must first simply embrace the concept of whole-of-government irregular competition itself. This requires political will that transcends administrations and rarely provides legislators with quick evidence of success in exchange for the cost of doing business in this space.

This article and the model it proposes are not intended to take the place of existing doctrine or practice. Those who are well read on U.S. doctrine will immediately realize that the definitions presented in this work are a hybrid of many things. The reader is encouraged to focus on the overarching idea of whole-of-government irregular competition rather than any organizational or cultural dogma encoded in doctrine. Furthermore, this article is not meant to imply that an irregular competition strategy should replace any current plan or policy. On the contrary, the intent is to illuminate the unfortunate reality that no whole-of-government strategy for irregular competition exists—and that the United States needs one to complement and render its strategic competition objectives achievable. The principles of irregular competition discussed here appear occasionally in disjointed, unrelated, incomplete literature or doctrine—not policy—mostly geared toward the military. No policy exists. There is no obligation within the U.S. government for institutions to collectively think about the principles of irregular competition, no office or individual charged with synchronizing a holistic effort, no institution empowered to provide interagency education

on the subject (although the military is considering it), and no strategic plan to build a multinational irregular competition network of like-minded partners and allies. As the Defense Department itself has written, "No single U.S. Government department or agency has primacy in the prosecution of irregular conflict or adversarial competition."[17]

The question asked in the opening of this article was "how may the United States conceptually model a whole-of-government approach to irregular competition?" The answer to this question is a whole-of-government irregular competition policy model, illustrated in the figure, that includes four pillars: political warfare (the diplomatic element of power), propaganda and psychological operations (the information element of power, which may be cyber-enabled), irregular warfare (the military element of power), and economic pressure, persuasion, coercion, and/or subversion (the economic element of power). Without whole-of-government synchronization, numerous agencies, organizations, and individuals across the U.S. government are left to execute their irregular competition programs—if they even exist—without common understanding, direction, or purpose. If the United States instead develops a whole-of-government irregular competition strategy with the four elements outlined in this article, the country will increase its capacity to deter and confront adversarial state and nonstate actors in this new era of competition. ∎

The views expressed here are the author's alone and do not reflect the official policy or position of the U.S. Department of Defense or the U.S. government.

Notes

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History, Mission Command, and the *Auftragstaktik* Infatuation

Ricardo A. Herrera

History informs the military profession and is a central, foundational element in professional military education. History is also employed to validate, provide context to, and thereby legitimate concepts like doctrine. Unfortunately, it is not always done properly, or with much regard to, or understanding of the evidence or to historians' analyses. This is glaringly so in the case of Army Doctrine Publication (ADP) 6-0, *Mission Command: Command and Control of Army Forces*, and now-withdrawn Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command*, and their unfounded claim for mission command's historical roots in *Auftragstaktik*, more properly termed *Führen mit Auftrag*. ADP 6-0, which superseded ADRP 6-0 in 2019, states that "Mission command traces its roots back to the German concept of Auftragstaktik (literally, mission-type tactics)," while ADRP 6-0 similarly claims that "mission command …, the Army's preferred style for exercising command since the 1980s …, traces its roots back to the German concept of *Auftragstaktik*, which translates roughly to mission-type tactics."[1]

ADP 6-0 acknowledges that "aspects of [what is today termed] mission command, including commander's intent, disciplined initiative, mission orders, and mutual trust, have long been part of U.S. Army culture" as far back as 1864, and that American "commanders have employed elements of [what is today deemed] mission command since the 18th century."[2] Having

acknowledged this, the Center for Army Doctrine Development's assertion for mission command's Prussian or German lineage for longstanding American practices is curious. It ignores the historical record and overlooks the American experience. While there may be similarities between mission command and Führen mit Auftrag, to claim that the latter led to the former is to ignore the massive weight of evidence from Prussian, German, and American histories, and importantly, their historical origins.[3]

"Auftragstaktik," notes ADP 6-0, "was a result of Prussian military reforms following the defeat of the Prussian army by Napoleon at the Battle of Jena in 1809 [*sic*]," and then traces it through the "Franco-Russian [*sic*] War of 1870," finally culminating in the "1888 German Drill Regulations."[4] Rightfully, ADP 6-0 gives due credit to reformers like Gerhard von Scharnhorst and August von Gneisenau for their part in the reconstruction and regeneration of the Royal Prussian Army (*Königlich Preußische Armee*).[5] Putting aside the fact that the battles of Jena and Auerstädt took place on 14 October 1806, not 1809, and that France went to war with Prussia, not Russia in 1870, this assertion regarding the Prussian origins of mission command is rife with problems.[6] Chief among them is it ignores the evidence. Moreover, the mythical Prusso-German antecedents gloss over the vast historical, social, political, and cultural gulfs that separated and helped define the Prusso-German and American

Prussian troops retreat 14 October 1806 after the disastrous double battle of Jena and Auerstadt. The twin battles were fought near the river Saale in Germany between the forces of Napoleon I of France and Frederick William III of Prussia. Prussian military leader Charles William Ferdinand, duke of Brunswick (1735–1806), was blinded in the battle and died soon after. (Illustration by Richard Knötel [1895] via Wikimedia Commons)

military experiences and the fact that American military leaders have, for over two centuries, exercised what is today termed mission command. Taking this to heart, there ought to be a greater wariness in embracing uncritically Auftragstaktik.

Historian and now-retired U.S. Army officer Antulio J. Echevarria II argues that the "US Army's rather free and enthusiastic use of the term Auftragstaktik in the 1980s has become something of an embarrassment."[7] It remains so. Echevarria traces it to Trevor N. Dupuy's *Genius for War: The German Army and the General Staff, 1807-1945*, "An oft-cited source of this confusion."[8] Furthermore, he has written that "*Auftragstaktik* has been greatly abused in military publications in recent years."[9] Its original understanding was as something of a free-form approach to directing troops on the battlefield, as opposed to *Normaltaktik*,

which called for a "few standardized formations."[10] Hence Auftragstaktik originally referred more to the liberal use of skirmishers and firepower in infantry tactics over formal, heavy infantry columns or lines than anything else. Nonetheless, modern interest in the Auftragstaktik (and seemingly all things *Wehrmacht* [armed forces]) began with British and American efforts at crafting doctrine and tactics to counter the threat emanating from the Group of Soviet Occupation Forces in Germany, later the Group of Soviet Forces in Germany (German Democratic Republic), during the extended Anglo-American occupation of the Federal Republic of Germany during the Cold War (1945–1991). Echevarria is not alone in his critique, nor is he the first in calling out the U.S. Army's infatuation with Germany's supposed military prowess. Historian Roger A. Beaumont critiqued the Army's uncritical

Konrad Adenauer, first chancellor of West Germany from 1949 to 1963. (Photo courtesy of German Federal Archive via Wikimedia Commons)
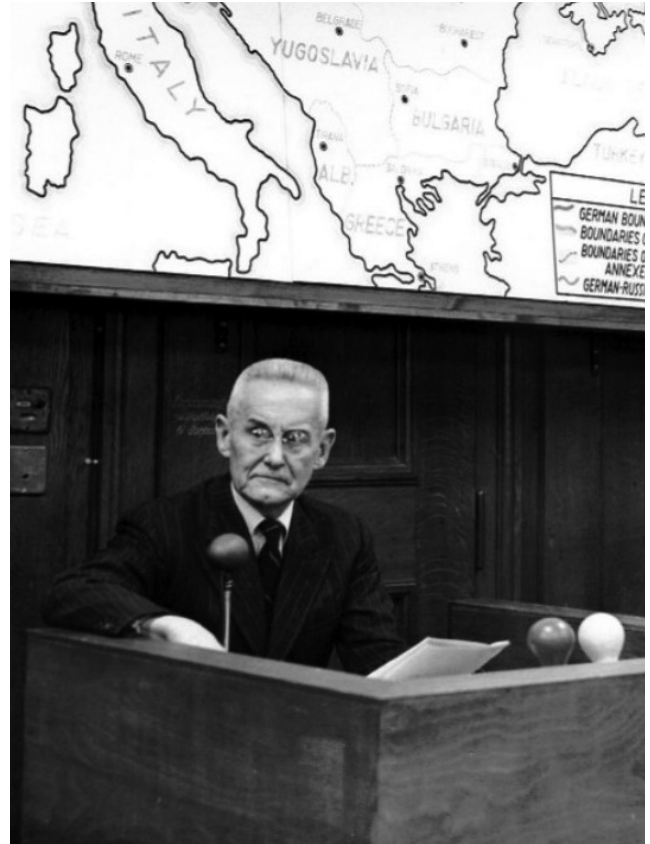
Franz Halder, former chief of the General Staff of the German army, was a prosecution witness in the "High Command" trial at the Nuremberg Trials in 1948. (Photo courtesy of the U.S. Army)

infatuation with the Wehrmacht and asks the question, "If they were so good, why did they lose? Were the odds just too great? If they were so smart, after losing once, why did they try again?"[11]

Robert M. Citino, a preeminent historian of the Wehrmacht, makes the point abundantly clear when he writes that merely invoking "*Auftragstaktik* is completely mythological. The Germans hardly ever used the term when discussing issues of command. Rather they spoke of 'the independence of subordinate commanders,' which is a very different thing."[12] Citino states emphatically that in the late nineteenth century and into the twentieth, "Operational-level German commanders (corps and above) saw themselves, and were recognized by the General Staff, as absolutely independent in spirit and behavior; they were free agents while on campaign," and that "it is almost impossible to find an occasion when a 'mission' as defined by the supreme command took precedence over the wishes of a battlefield commander."[13] All of this is a far cry

from the disciplined initiative American subordinates are, and have been, expected to exercise within the commander's intent. It is long past time for U.S. Army doctrine writers and military professionals to jettison their Prusso-German infatuation.

Cold War Blinders

Anglo-American officers reasoned that the German army (*Deutsches Heer*) had often succeeded beyond expectations against the much larger Red Army in World War II. Since they anticipated fighting outnumbered the same enemy in World War III, they believed that had much to learn by adopting German practices, a narrative shaped by German generals. At the tactical level of war, the German army had won some stunning victories against larger forces, and that enthralled Anglo-American officers. Tactical virtuosity aside, that army was sorely bereft of any capable or serious strategic thought or action in either of its wars, but that was beside the point.

Anglo-American admiration dovetailed with the much larger and more extensive project of rehabilitating Germany and its armed forces, and the German generals were only too eager to whitewash their crimes and tell their captors what they wanted to hear. Chancellor Konrad Adenauer led the political effort to rearm the forces of the Federal Republic of Germany. Central to his efforts was cleansing the name of the Wehrmacht and

numbers of its subordinate officers, noncommissioned officers, and enlisted men eagerly participated in these crimes against humanity.[17] Organized murder and the enslavement or extermination of undesirables were central tenets of the Nazi strategy of territorial expansion. Hence, the myth of the clean Wehrmacht is a lie. With Adenauer and Halder having led the whitewashing of the Wehrmacht, an open American embrace followed.

> Starry ..., like DePuy, was impressed with the German army's tactical prowess in World War II, never mind its strategic ineptitude and criminal conduct.

assigning all crimes to the SS (*Schutzstaffel*) and its ilk.[14] Furthermore, Adenauer was also after the votes of veterans, and what better way to garner their support than by purifying their units' records.[15] Assisting Adenauer was Franz Halder, former chief of staff of the German army's High Command (1938–1942). Halder led the cleansing while working for the U.S. Army Historical Division, today the Center of Military History as a consultant.[16]

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With NATO a recent creation and the defense of Western Europe paramount in American eyes, the United States silently acquiesced. An essential pillar of the clean Wehrmacht was assigning all responsibility for the murder of Jews, intellectuals, communists, gays, and countless others to the SS, the armed SS (*Waffen-SS*), concentration camp guards (*SS-Totenkopfverbände*), and the extermination or deployment groups (*Einsatzgruppen*), when in fact, the Wehrmacht leadership and countless

The most overt admiration of the Wehrmacht came during one of the U.S. Army's most difficult periods, its emergence from the Vietnam War and focus on the defense of Western Europe. Gens. William E. DePuy and Donn A. Starry, who were instrumental in the Army's revitalization following the Vietnam War, played leading roles. DePuy was a veteran of the war against Nazi Germany and had served in the postwar Federal Republic of Germany. Importantly, he was also the first commander of Training and Doctrine Command from 1973 to 1977, and drove the creation of FM 100-5, *Operations*.[18] His biographer, Henry G. Gole, writes that DePuy "admired German [tactical] elasticity in 1944 and 1945 and later rediscovered it in his reading of German military history."[19] DePuy especially admired the "skill of the Wehrmacht, particularly on the Eastern Front against the vastly numerically superior Russian Army in World War II."[20] In his mind, German techniques "demonstrated an elasticity in the German way of war that he felt was 'never understood, mastered or accepted by the U.S. Army.'"[21] In Gole's telling, DePuy's "frequent praise of both the old and new German Armies" verges on idolatry, and in doing so, he dismissed American soldiers' capabilities.[22] According to Gole, DePuy believed that only one-tenth of the soldiers he led in World War II had stuff of soldiers.[23] In his quest to revamp the Army's doctrine and prepare the force for combat against the Soviets, DePuy took inspiration from his former enemies.

Starry, who followed DePuy as Training and Doctrine Command commander from 1977 to 1981,

Gen. William E. DePuy, first commanding general of Training and Doctrine Command (TRADOC) from 1973 to 1977. (Photo courtesy of the U.S. Army)

Gen. Donn A. Starry, second commanding general of TRADOC from 1977 to 1981. (Photo courtesy of the U.S. Army)

drove the creation of a new doctrine as he too took inspiration from the German army.[24] In the development of AirLand Battle, Starry went to great lengths to ensure that U.S. Army doctrine was consonant with Deutsches Heer doctrine, HDv 100/100.[25] Although Starry had not served in World War II, he, like DePuy, was impressed with the German army's tactical prowess in World War II, never mind its strategic ineptitude and criminal conduct, but also the postwar Deutsches Heer's emphasis on trust and subordinates' initiative within the scope of their commanders' intents. In the search for allied doctrinal consonance and profound doctrinal change in the U.S. Army, DePuy and Starry seem to have planted the seeds for the false historical narrative that eventually accorded primacy of place to Auftragstaktik in the creation of mission command. The embrace of German practices thus shunted aside long-held American practices that antedated the creation of the U.S. Army and left unexamined the fuller history underpinning the much-admired Auftragstaktik.

The Historical Basis and Development of Auftragstaktik

The tradition of German commanders' autonomy on the battlefield did not develop overnight. It was not immediate, nor readily apparent, but evolve it did, slowly, and from the world of the early-modern Hohenzollern state, wherein the seventeenth and early eighteenth-century rulers of Brandenburg sought to stabilize, defend, and expand Brandenburg-Prussia, largely a flat, sandy, and agriculturally worthless land in northern Germany. Not fully geographically contiguous, defending the dominion was no small challenge, hence the need to create an effective and powerful army.[26]

Over the course of the seventeenth and early eighteenth centuries, Prussia's rulers turned to the nobility, the Junkers, to both officer the army and staff the Hohenzollern bureaucracy. A symbiotic relationship between the prince and his officer corps developed. Each relied upon the other to prosper. A process initiated by the "Great Elector" (*Der Große Kurfürst*), Frederick William

Frederick William of Brandenburg, circa 1650–1651 (Painting by Frans Luycx, *Friedrich Wilhelm [1620-1688], Kurfürst von Brandenburg*, canvas, 139 cm x 199 cm, Vienna, Kunsthistorisches Museum, Gemäldegalerie via Wikimedia Commons)

Field Marshal Helmuth von Moltke the Elder (Photo courtesy of Kunstverlag der Photographischen Gesellschaft Berlin via Wikimedia Commons)

(r. 1640–1688) during the Thirty Years' War, created the social, political, and economic seedbed out of which commanders' autonomy grew. The Great Elector used the army to suppress provincial autonomy in outlying lands, particularly to the west, and to tax those provinces. In doing so, he established the basis for Prussian absolutism and the foundation for Prussia's service nobility, which became the bulwark of the ruler and his state.[27]

Both monarch and Junker needed the other to exist, and consequently, for the Prussian state to exist. It was personal relationship, a social contract predicated upon distinct, even inviolable, rights, privileges, and customs unique to the social order into which they were born— once a Junker, always a Junker. The monarch's absolute reliance upon Junker officers and bureaucrats endowed those nobles with enviable degrees of autonomy and independence, even as they relied upon the ruler for their positions within the army and the state's bureaucracy.[28] "We should keep in mind the true nature of its

[Auftragstaktik] social background," Citino reminds us.[29] Their symbiotic relationship was the "basis of the Prussian state. Toward those of the lower orders under his control, whether [serfs or peasants toiling] on the land or [soldiers toiling] in the army, a Prussian Junker had not just privilege, but absolute sovereignty."[30] As the Prussian and later German army increased in size, members of the bourgeoisie gained entrance into the officer corps, and in doing so were educated and socialized according to its Junker norms. None of this is to say Prussian commanders exercised the operational autonomy of late-nineteenth century or World War II corps or army commanders; rather, the early relationship between the ruler and the Junkers was the basis for that establishment and growth of that autonomy.

By the mid-nineteenth century, for a prince of the house of Hohenzollern, or even his senior uniformed representative, the chief of the Prussian and later German General Staff (*Chef des Großen Generalstab*), "to

insist on close supervision of a subordinate commander's plan of action would have been a grievous infraction. In other words, Auftragstaktik grew directly out of [nineteenth-century] Prussian culture."[31] It was a mutually exploitative and beneficial relationship and tradition between the ruler and his officer corps that morphed, ebbed, and flowed until 1945.[32] Even before the creation of the Second Reich and the Imperial German Army

commands' lines of advance and then along their axes of attack and engaged in foolhardy battles that cost the lives of thousands of German soldiers.[36] Steinmetz is evidence that for every successful application of a commander's autonomy, there was the attendant risk of foolishness and disaster, but as a Junker, Steinmetz and those of his ilk need not brook any interference from senior officers. This was true even when some thirty percent

> **The Prusso-German command tradition often worked brilliantly, and just as often failed spectacularly, and soldiers paid the price.**

(*Kaiserlich Deutsches Heer*) in 1871, historian Geoffrey Wawro argues that "*Auftragstaktik*—'mission tactics'—permitted orderly decentralization," and that this philosophy permeated the ranks of the Prussian army.[33] ADP 6-0, however, mistakenly credits Field Marshal Count Helmuth von Moltke the Elder (1800–1891) for first promulgating Auftragstaktik in the 1888 infantry exercise regulations, which distilled and reinforced his earlier and more expansive injunctions in the "1869 Instructions for Large Unit Commanders."

Auftragstaktik, in its original nineteenth-century usage, "amounted to something of a free-form approach to directing troops on the battlefield," as opposed to Normaltaktik, which called for a "few standardized formations," and "accords well with the principle of maneuver recognized in most of today's armies."[34] It was a tactical philosophy that drew from Prussia's unique history, circumstances, and military theorists. Auftragstaktik developed against the backdrop of theoretical tactical innovations proposed in the aftermath of the Seven Years' War (1756–1763), enacted during the French Revolutionary and Napoleonic wars (1791–1815), and further refined in later conflicts.

The Prusso-German command tradition often worked brilliantly, and just as often failed spectacularly, and soldiers paid the price. A typical exemplar of Junker privilege was Gen. Karl von Steinmetz (1796–1877), a "willful, obstinate" officer, whose "appointment had been greeted with surprise" in 1870.[35] In the wars against Austria and France, Steinmetz marched across other

of one Prussian corps fell to French rifles, artillery, and mitrailleuses (multiple barrel guns that could fire in volley or in rapid succession) at Saint Privat on 18 August 1870.[37] "What often is overlooked," as historian Gerhard P. Gross argues, "is that as early as World War I, Auftragstaktik, as the name implies, was a tactical rather than an operational procedure. At the operational level an excess of command freedom can lead quickly to disaster," as the German army experienced at the battle of the Marne in August and September 1914.[38] Once Germany's enemies adapted, as they did at the Marne and later at the battles of Moscow in 1941, El Alamein in 1942, and elsewhere, Auftragstaktik degenerated into incoherent assaults devoid of a higher guiding principle or commander. As for linking tactics toward the accomplishment of clear, realistic strategic goals, the German army of 1939–1945 was every bit as bad as its 1914–1918 predecessor.

The American Experience

Unlike Prussia, the United States had no serious threats to its security following independence. Even before the completion of continental expansion in 1854, the Early Republic had little to fear from other countries. Following the end of the War of 1812, the United States and Great Britain had come to a modus vivendi. Mexico, independent since 1821, was in a near-continuous state of turmoil as empire replaced empire, republic replaced empire, and a series of generals overthrew one another. Except for the brief war against

Mexico (1846–1848), the U.S. Army was an imperial constabulary and nation-building force rather than a proper army designed, trained, and prepared for war against an enemy force. Its policing and nation-building mission scattered it in penny packets across the frontier and in coastal fortifications. Its officers were surveyors, engineers, policemen, diplomats, and more. Distant from the centers of power, they were accustomed to acting with little direction, and even greater freedom, a far cry from the Prussian experience.[39]

The guiding lights for the nineteenth-century U.S. Army were the imperial French armies of Napoleon I and his nephew Napoleon III.[40] Dennis Hart Mahan, a long-serving professor at the U.S. Military Academy and noted Francophile, declared, "The systems of tactics in use in our service are those of the French."[41] Although his works seemed in some cases to reduce warfare to a series of geometrical propositions, Mahan understood that chance and contingency worked to defeat the most carefully laid plans. He believed that campaign plans had to be "limited as to comprise only the leading strategical dispositions, thus presenting only the outline features, within which the meshwork of the minor operations is to be confined; thus leaving ample latitude for all movement of detail and their execution."[42] Moreover, Mahan argued that the commanding general had to have "*carte blanche* for carrying out the details of the campaign, the plan of which may have been decided upon by a council" well in advance.[43] Even this most admiring of Francophile theoreticians argued for the disciplined initiative of the commander. Yet, like so many admirers of the Corsican, Mahan equated tactical victories with strategic insight and ability.

Napoleon Bonaparte's marshalate system was probably the first true example of so-called Auftragstaktik exercised in the strategic realm. Broad mission orders, expansive command latitude, and minimal guidance to his marshals allowed Bonaparte to consistently wage and lose wars from Spain to Russia, each one a sparkling failure. Like the later German generals of 1914–1918 and 1939–1945, Bonaparte's marshals, with few exceptions, were mere tacticians. They might defeat their enemies, but they failed to suppress them for long, and in the end, France's enemies learned, turned, rose, and defeated Napoleon and his marshals. Stunning battlefield victories do not a successful strategy make.[44]

Nevertheless, and well before Mahan, U.S. commanders had nearly always acted in accordance with the broader orders of their superiors. As was the case in the Prussian tradition, some commanders were better and more successful than others. This notwithstanding, trust, but also physical distance and the nature of communications, precluded anything but the broadest of guidance and the expectation that commanders acting away from headquarters would do the right thing.[45] Certainly, during the American Civil War, the U.S. Army learned how to wage war, however imperfectly, on a continental scale that surpassed the entirety of France in 1871. As the size of the U.S. Army grew, it increasingly operated along extensive rail, riverine, and coastal lines, and communicated at a distance by telegraph. By 1864, with the appointment of Ulysses S. Grant as general-in-chief, trusted field army commanders like Maj. Gen. William T. Sherman demonstrated the Army's mastery of what is today called mission command. Sherman's campaigns for Atlanta, Savannah, and the Carolinas were perhaps the greatest examples what of what is deemed mission command. There was no need to emulate Prussia, and Americans did not.

For the post-Civil War U.S. Army, Lt. Gen. Philip H. Sheridan did not believe there was much to learn from Prussia's army. Sheridan, who had observed Prussian forces during the Franco-Prussian War, wrote that the "methods pursued on the march were the same as we would employ," save the ability to find quarters easily.[46] France, more densely populated than the American South, provided (however reluctantly) fixed quarters in homes, barns, and public buildings for soldiers. The general who had campaigned across far more extensive territory than any Prussian army in the war of 1870–1871 found "campaigning in France … an easy matter, very unlike anything we had during the war of the rebellion."[47] He could "but leave to conjecture how the Germans would have got along on bottomless roads—often none at all—through the swamps and quicksands of northern Virginia, from the Wilderness to Petersburg, and from Chattanooga to Atlanta and the sea."[48]

Although Sheridan admired the "perfect [Prussian] military system," he noted it had been "devised by almost autocratic power," and in this he detected but one element in the nature and culture of Prussian command.[49] In Sheridan's final reflection, he "saw no new military principles developed, whether of strategy
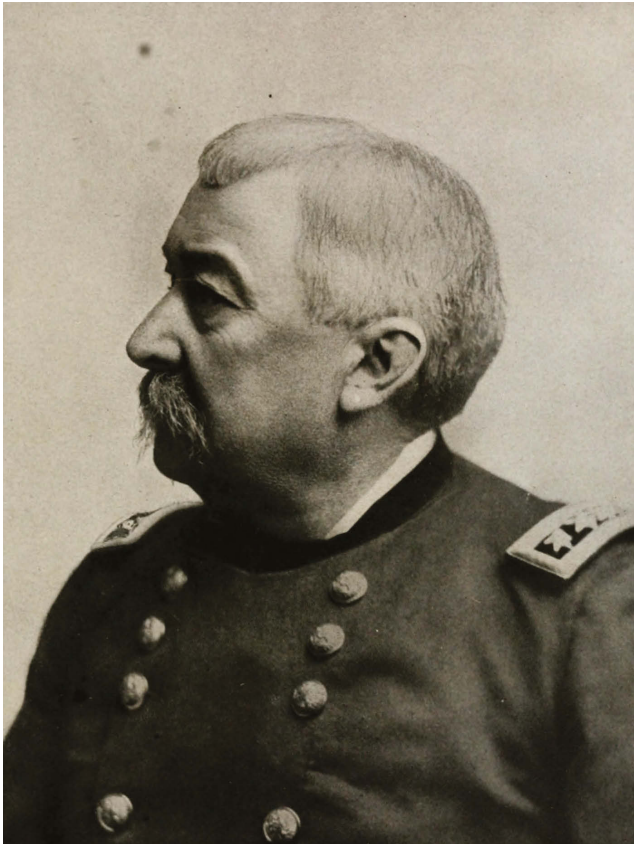
General of the Army Philip H. Sheridan (Photo courtesy of Internet Book Archive Images via Wikimedia Commons)
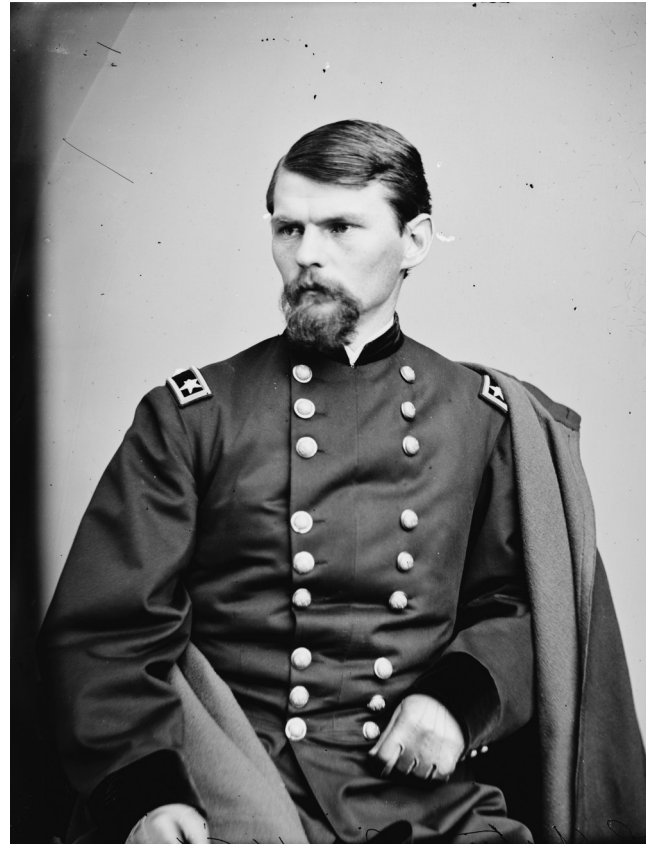
Gen. Emory Upton (Photo courtesy of the Library of Congress)

or grand tactics, the movements of the different armies and corps being dictated and governed by the same general laws that have so long obtained, simplicity of combination and manoeuvre, and the concentration of a numerically superior force at the vital point."[50] Sheridan observed that "the earlier advantages gained by the Germans may be ascribed to the strikingly prompt mobilization of their armies, one of the most noticeable features of their perfect military system."[51] Still, as Sheridan noted, the Prussians' "later successes were greatly aided by the blunders of the French, whose stupendous errors materially shortened the war, though even if prolonged it could, in my opinion, have had ultimately no other termination."[52]

Historian David J. Fitzpatrick has deemed Sheridan's view, like that of a handful of other Civil War generals, "American chauvinism."[53] Most American officers admired Prussian military education, the general staff system, and more, and herein is the distinction. Col. Emory Upton, perhaps the most consequential American

military thinker and reformer of the late nineteenth century, proposed a thorough-going reform of the Army. He did not, however, seek to emulate the nature of command, for there was no need. In his posthumously published *Military Policy of the United States*, Upton observed the "want of post-graduate schools to educate our officers in strategy and the higher principles of the art of war."[54]

Writing to Lt. Col James H. Wilson in 1870, Upton, like Sheridan, tartly declared "the stupidity of the French generals has no parallel in History."[55] Five years later, Upton attributed Prussia's success to "French incompetence," even as he challenged the "efficacy of the entire Prussian tactical system."[56] Thus, Upton's views were in line with Sheridan's. Prussia's general staff, its system of professional education, the army's organization, and other structural elements offered much to be admired and emulated, but it offered little in the way of tactics, the art of war, or command for experienced officers like Sheridan and Upton. As historian Brian

McAllister Linn stresses, "Upton wanted to replicate another nation's military structure, but without transposing the underlying philosophy of war that had created these forces and guided them to victory."[57] In reviewing "The Prussian Company Column," Upton offered a profound criticism of those given to uncritical appreciation and mimicry when he advised that "prudence would therefore suggest that we pause in our

the terrain and stated that the "captain determines upon the direction and character of the attack" of his company and relied upon the company commander's judgment and discretion when acting alone.[62] In a like vein, the battalion commander, a major, "regulates the progress of the action …, leaving the execution of the details to his subordinates, he exercises a general control, and endeavors constantly to increase the energy

> In 1905, the U.S. War Department issued the *Field Service Regulations (FSR)*, the first American publication rightfully deemed doctrine.

admiration of a system which has been insufficiently tried, and refuse, till further developments take place, to abandon a company organization, which, notwithstanding all changes in arms, has met every requirement for more than thirty centuries."[58] Upton was not alone in critical analyses of Prussia's stunning victories.

In a series of lectures on the Austro-Prussian War of 1866 at the Infantry and Cavalry School at Fort Leavenworth, Kansas, Lt. Col. Arthur L. Wagner, a leading theorist of the late nineteenth-century Army and admirer of the Prussian army, emphasized its preparation and technological advancements in the victory over Austria. Wagner then criticized the Austrian commander at Königgrätz of having wanted "nothing more than … blind obedience" from his corps commanders, and for having communicated poorly with them.[59] He praised the high quality of the Prussian general staff, but generously claimed that the senior generals, one and all, deferred to the "wisdom" of Moltke.[60] Like Upton before him, nowhere did Wagner draw upon Prussian regulations or their philosophy of command. Impressive as Prussian staff work was, its command philosophy was unremarkable to this admirer.

An American Doctrine of Command

In 1891, the U.S. Army broke with its nineteenth-century past when it adopted the *Infantry Drill Regulations*. It made the infantry squad led by a corporal the "basis of extended order."[61] It emphasized individual soldiers' discretion in using and exploiting

of the action."[63] Trust, individual skill and judgment, flexibility, and an adherence to the broader concept of the operation were central. The battalion commander "should leave to each [company] commander the discretion necessary to enable him to profit by all circumstances."[64] The same spirit informed ever higher levels of command, from regiment to brigade to division.[65] This was an American philosophy of command and leadership written by and for American soldiers. Moreover, as Echevarria notes, many American commanders were skeptical of German practice, although historian Perry D. Jamieson noted that a reviewer in the *Army and Navy Register* "deduced that the Leavenworth panel had … [drawn] on French, and, to a lesser extent, Belgian and German, sources."[66]

In 1905, the U.S. War Department issued the *Field Service Regulations* (*FSR*), the first American publication rightfully deemed doctrine.[67] It was much more than drill. The *FSR* amplified or expanded upon well-established practices in the U.S. Army, such as the all-important mutual trust and "complete confidence" between the commanding general and his chief of staff.[68] Moreover, declared the *FSR*, the chief of staff needed to enjoy a "considerable degree of independence in the performance of his ordinary duties."[69] Yet, Article II, "Orders. General Principles," is chock full of nearly verbatim plagiarism from "Communications Between Staffs and Troops. The Issuance of Orders. General Principles," *The Order of Field Service of the German Army*, an 1893 translation of the 1887

Field Service Regulations, United States Army: Prepared by the General Staff, Under the Direction of the Chief of Staff, U.S. Army (1905); Field Manual 100-5, *Operations* (1976) ; and Army Doctrine Publication 6-0, *Mission Command: Command and Control of Army Forces* (2019).
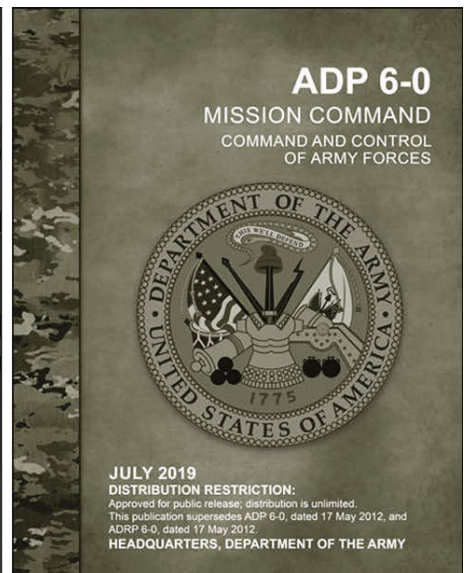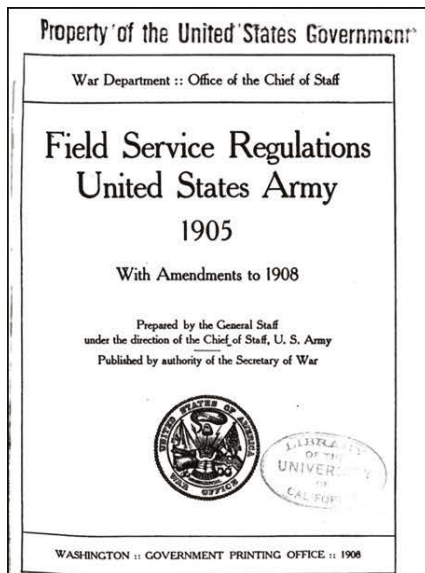
Felddienst-Ordnung, the German field service regulations as modified through 1892.[70]

Orders, according to the *FSR*, had to be brief, clear, and precise, but they "should not trespass on the province of a subordinate."[71] They "should contain everything which is beyond the independent authority of the subordinate, but nothing more."[72] In the translation, it reads "the order must be short, clear, definite, and suitable to the receiver's range of vision."[73] The new regulations recognized the dynamic nature of battle when it stated that "orders should not attempt to arrange matters too far in advance."[74] Reinforcing that point, the *FSR* noted that "frequent changes weary the men, shake their confidence in their commander, and tend to make subordinates uncertain in their action."[75] Furthermore, the *FSR* recommended that orders include "intentions of the commanding officer." Because of the fluid nature of combat, not every circumstance could be anticipated. Moreover, the *FSR* enjoined commanders to "lay stress upon *the object to be attained*, and leave open the means to be employed."[76] The *FSR* had codified the Army's long-standing practices of trust, initiative, experience, and commander's intent.

On the surface, the *FSR* suggests the truth underpinning ADP 6-0 and mission command's Prusso-German origins. Yet, going beyond the *FSR*'s plagiarism and examining the historical development and practices underpinning Prusso-German and American command and leadership traditions reveals a different story. Grafting the bud of Auftragstaktik upon the root stock

of American military history and well-established practice does not a Prusso-German practice create.

Conclusion

In his 1875 critique of the Prussian army's tactics, Upton writes, "History teaches, that after every great modern war, which has surprised the world by brilliant results, the organization and tactics of the victor have been the subjects of admiration and imitation, to a degree often bordering on servility."[77] The irony of Upton's observation is that in the twentieth century, the U.S. Army departed from its past practice of emulating foreign victors and embraced, defended, and whitewashed the consistent losers of two world wars. Consider instead the degree to which FM 100-5, *Operations*, and the doctrine of AirLand Battle and concept of operational art resemble the work of Soviet theoreticians like Georgii Samoilovich Isserson, Aleksander A. Svechin, and V. K. Triandafillov. In those cases, U.S. Army doctrine embraced the victors, though it did not directly recognize them as such since the Soviets were the new potential enemy.[78]

While there is no historical basis to assert that Auftragstaktik is a root for mission command, this is not to say that the baby should be thrown out with the bathwater. Rather than claiming this fictional

ancestor, doctrine writers would better serve the Army by acknowledging that while there are some similarities between Auftragstaktik (Führen mit Auftrag) and mission command, that is where the relationship begins and ends. The U.S. Army was practicing what it today calls mission command long before it discovered German practices, and ADP 6-0 acknowledges this, even as it returns to its imaginary German origins.[79]

It is long past time to shed the infatuation with the German military experience and fatuous lineage of mission command. Historians have more than amply demonstrated for over two decades that similarities aside, there is no exclusive or even specific Prusso-German foundation in what is today termed mission command. Confusion about complex historical concepts such as the origins of mission command and Auftragstaktik reveals why doctrine writers and military professionals should consult professional historians and their works, those whose analyses and conclusions are grounded in primary sources, archival research, and historiography when they seek to understand and draw from the past and to understand the past as it exists in the present and informs it. There is much to be studied, learned, and even adopted in some fashion from the practices of other armies, just as there is much to realize that mission command is far more American, and far less German than doctrine pretends. This is not to say that there is nothing of value in German, or other armies' practices. Rather, deeper understanding, greater historical literacy, and more precision in thought and language are needed, and a recognition that longstanding American practices do not require other armies' validation. A conjured past is worse than no past at all. ∎

Notes

1. Army Doctrine Publication (ADP) 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: U.S. Government Publishing Office, 2019), vii; Army Doctrine Reference Publication 6-0, *Mission Command* (Washington, DC: U.S. Government Printing Office, 2012 [obsolete]), v.

2. ADP 6-0, *Mission Command*, vii.

3. Examples of what is today termed mission command abound in scholarly works on American military history. A highly selective list of works, whose bibliographies are also well worth consulting, includes John Grenier, *The First Way of War: American War Making on the Frontier, 1607–1814* (New York: Cambridge University Press, 2005); John Ferling, *Almost A Miracle: The American Victory in the War of Independence* (New York: Oxford University Press, 2007); Ricardo A. Herrera, *Feeding Washington's Army: Surviving the Valley Forge Winter of 1778* (Chapel Hill: University of North Carolina Press, 2022); William B. Skelton, *An American Profession of Arms: The Army Officer Corps, 1784–1861* (Lawrence: University Press of Kansas, 1993); Samuel J. Watson, *Jackson's Sword: The Army Officer Corps on the American Frontier, 1810–1821* (Lawrence: University Press of Kansas, 2013); Samuel J. Watson, *Peacekeepers and Conquerors: The Army Officer Corps on the American Frontier, 1821–1846* (Lawrence: University Press of Kansas, 2013); Durwood Ball, *Army Regulars on the Western Frontier, 1848–1861* (Norman: University of Oklahoma Press, 2001); Robert Wooster, *The United States Army and the Making of America: From Confederation to Empire, 1775–1903* (Lawrence: University Press of Kansas, 2021).

4. ADP 6-0, *Mission Command*, vii.

5. Ibid.

6. David Chandler, *The Campaigns of Napoleon: The Mind and Method of History's Greatest Soldier* (New York: Scribner, 1966), 479–502. For a more recent study, see Dennis Showalter, "The Jena Campaign: Apogee and Perihelion," in *Napoleon and the Operational Art of War: Essays in Honor of Donald D. Horward*, ed. Michael V. Leggiere (Leiden, NL: Brill, 2016), 173–98. Dierk Walter, "A Military Revolution?: Prussian Military Reforms Before the Wars of German Unification," *Forsvarsstudier/Defence Studies* 2 (2001): 7–9; for a more nuanced appreciation of the differences, see Jens Küster, "'Führen mit Auftrag': Mission Command from a German Point of View," *Military Review* (Online Exclusive, 13 May 2016), accessed 24 March 2022, https://www.armyupress.army.mil/Journals/Military-Review/Online-Exclusive/2016-Online-Exclusive-Articles/Führen-mit-Auftrag/.

7. Antulio J. Echevarria II, "Moltke and the German Military Tradition: His Theories and Legacies," *Parameters* 26, no. 1 (Spring 1996): 99n35.

8. Trevor N. Dupuy, *Genius for War: The German Army and the General Staff, 1807–1945* (Englewood, NJ: Prentice-Hall, 1977), 116, 268, 307; Roger A. Beaumont, "On the Wehrmacht Mystique," *Military Review* 66, no. 6 (July 1986): 44–56. See also Daniel J.

Hughes, "The Abuses of German Military History," *Military Review* 66, no. 11 (December 1986): 66–76.

9. Antulio J. Echevarria II, *After Clausewitz: German Military Thinkers Before the Great War* (Lawrence: University Press of Kansas, 2000), 38.

10. Ibid., 33.

11. Beaumont, "On the Wehrmacht Mystique," 44–56; see also Hughes, "The Abuses of German Military History," 66–76.

12. Robert M. Citino, *The German Way of War: From the Thirty Years' War to the Third Reich* (Lawrence: University Press of Kansas, 2005), 308.

13. Geoffrey P. Megargee, *Inside Hitler's High Command* (Lawrence: University Press of Kansas, 2000).

14. Wolfram Wette, *The Wehrmacht: History, Myth, Reality*, trans. Deborah Lucas Schneider (Cambridge, MA: Harvard University Press, 2006), especially chapter 5, "The Legend of the Wehrmacht's 'Clean Hands.'" Wette turns to the process of proper historical examination of the myth in chapter 6, "A Taboo Shatters."

15. Ronald M. Smelser and Edward J. Davies II, *The Myth of the Eastern Front: The Nazi-Soviet War in American Popular Culture* (New York: Cambridge University Press, 2008), 74–75.

16. Ibid., 4, 56–61; for the narrative crafted by the German generals, see the post-World War II "German Report Series," written by former generals of the Nazi army and published by the Historical Division, European Command. The series is available at "Former DA Pamphlets," U.S. Army Center of Military History Publications Catalog, 10 December 2021, https://history.army.mil/catalog/browse/pubnum.html; see also Records of the Foreign Military Studies (FMS) Program and Related Records, 1941–67 (RG 549.3), Records of United States Army, Europe, National Archives and Records Administration, Washington, D.C. The literature exposing the myth of the clean Wehrmacht is too extensive to note.

17. Waitman Wade Beorn, *Marching into Darkness: The Wehrmacht and the Holocaust in Belarus* (Cambridge, MA: Harvard University Press, 2014), 12–17; for visual evidence, see "Photo Archives," United States Holocaust Memorial Museum, accessed 29 December 2021, https://www.ushmm.org/collections/the-museums-collections/about/photo-archives. The U.S. Holocaust Memorial Museum holds an extensive collection of photographic materials documenting Wehrmacht war crimes. It is but one of many archives with similar materials.

18. Field Manual (FM) 100-5, *Operations* (Washington, DC: U.S. Government Printing Office, 1976).

19. Henry G. Gole, *General William E. DePuy: Preparing the Army for Modern War* (Lexington: University Press of Kentucky, 2008), 49, 112, 142, 262–63; FM 100-5, *Operations* (Washington, DC: U.S. Government Printing Office, 1982).

20. Gole, *General William E. DePuy*, 262–63.

21. Ibid.

22. Ibid., 49.

23. Ibid., 49, 112.

24. Donn A. Starry, "To Change an Army," *Military Review* 63, no. 3 (March 1983): 21–23.

25. Donn A. Starry, "US and Federal Republic of Germany Doctrine, Letter to Lt. Gen. John R. Thurman, 27 September 1978," "US and Federal Republic of Germany, Letter to Col. William F. Burns, 30 April 1979," "FM 100-5, *Operations*, Letter to Gen. E. C. Meyer, 26 June 1979," in *Press On!: Selected Works of General Donn A. Starry*, ed. Lewis Sorley, vol. 1 (Fort Leavenworth, KS: Combat Studies Institute Press, 2009), 335, 340, 343–44; FM 100-5, *Operations* (1982); Federal Republic of Germany, HDv 100/100,

Command and Control of the Armed Forces (Bonn, DE: Minister of Defense, 1973).

26. Thomas Hobbes, *Leviathan, or the Matter, Forme, & Power of a Common-Wealth Ecclesiastical and Civil* (London: Andrew Crooke, 1651), 98. Depending on the period and geographic and political context, the ruler of Prussia was variously styled duke, elector, king in Prussia, or king of Prussia. It was only after the dramatic maneuvering and fighting across Germany and portions of the Habsburg realms, and surviving the Seven Years' War (1756–1763), that Frederick II, "the Great," and his successors were acknowledged solely as kings of Prussia; see Peter H. Wilson, *The Thirty Years War: Europe's Tragedy* (Cambridge, MA: Belknap Press of Harvard University Press, 2009), 463, 717. Wilson is also the most recent and authoritative history of the war; see also Peter H. Wilson, *German Armies: War and German Society, 1648–1806* (London: UCL Press, 1998).

27. Tim Blanning, *Frederick the Great: King of Prussia* (New York: Random House, 2016), 6–17, 22–26; William W. Hagen, *Ordinary Prussians: Brandenburg Junkers and Villagers, 1500–1840* (Cambridge: Cambridge University Press, 2002), 69, 70; Derek McKay, *The Great Elector: Frederick William of Brandenburg-Prussia* (London: Routledge, 2001), details the "Great Elector's" forging of the Prussian state, especially pages 49–72, 108–96; Otto Buesch, *Military System and Social Life in Old Regime Prussia, 1713–1807: The Beginnings of the Social Militarization of Prusso-German Society* (Atlantic Highlands, NJ: Humanities Press, 1997), carries on the analysis of the militarized Prussian state from the reign of the "Soldier King," Frederick William I (1713–1740); his son "Der Alte Fritz," Frederick II (r. 1740–1786); and concludes with the 1806 disasters at Jena-Auerstädt during the reign of Frederick William III (r. 1797–1840); Wilson, *German Armies*, 244. For the larger process of European state formation, and how war made the state, and the state made war, see Charles Tilly, *Coercion, Capital, and European States, AD 990–1992* (Cambridge, MA: Blackwell, 1990).

28. Junker political beliefs are examined in Robert M. Berdahl, *The Politics of the Prussian Nobility: The Development of a Conservative Ideology, 1770–1848* (Princeton, NJ: Princeton University Press, 1988); see Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (Garden City, NY: Anchor Books, 1966), on the processes of primary and secondary socialization.

29. Citino, *The German Way of War*, 32, 152, 170, 308.

30. Ibid.

31. Ibid., 32.

32. Recent scholarship points to the continuance of Auftragstaktik throughout World War II but also to politicized elements within the officer corps; see Robert M. Citino, *The Wehrmacht's Last Stand: The German Campaigns of 1944–1945* (Lawrence: University Press of Kansas, 2017); David Stahel, *Retreat from Moscow: A New History of Germany's Winter Campaign, 1941–1942* (New York: Farrar, Straus & Giroux, 2019); David K. Yelton, "Older German Officers and National Socialist Activism: Evidence from the German Volkssturm," *Journal of Military History* 83, no. 2 (April 2019): 455–85; Miguel A. López, "The Survival of Auftragstaktik during the Soviet Counterattack in the Battle for Moscow, December 1941 to January 1942," *Journal of Military History* 84, no. 1 (January 2020): 187–212.

33. Eric Dorn Brose, *The Kaiser's Army: The Politics of Military Technology in Germany during the Machine Age* (New York: Oxford University Press, 2001), 20, 61, 90, 124, 150, 153–54,

190, 200; Geoffrey Wawro, *The Franco-Prussian War: The German Conquest of France in 1870–1871* (New York: Cambridge University Press, 2003), 54, 59, 62.

34. Echevarria, *After Clausewitz*, 33, 38.

35. 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): 90–91, 94.

36. Wawro, *The Franco-Prussian War*, 108, 110–11, 119; Citino, *The German Way of War*, 152, 170, 308; see also Geoffrey Wawro, *The Austro-Prussian War: Austria's War with Prussia and Italy in 1866* (New York: Cambridge University Press, 1996).

37. Wawro, *The Franco-Prussian Wa*r, 164, 172–73, 184, 194, 302; Dennis Showalter, "Army and Society in Imperial Germany," 585, 588; Arthur T. Coumbe, "Operational Command in the Franco-Prussian War," *Parameters* 21, no. 1 (Summer 1991): 94–95; Harry Bell, trans., *St. Privat: German Sources* (Fort Leavenworth, KS: Staff College Press, 1914), is a useful collection of reminiscences regarding the battle of Saint Privat. As with all reminiscences, however, care must be taken in their reading and analysis. Too often, memory is conflated with history.

38. Gerhard P. Gross, *The Myth and Reality of German Warfare: Operational Thinking from Moltke the Elder to Heusinger*, ed. David T. Zabecki (Lexington: University Press of Kentucky, 2016), 38, 60, 78, 305.

39. See Skelton, *An American Profession of Arm*s; Wooster, *The United States Army and the Making of America*; Watson, *Jackson's Sword*; Watson, *Peacekeepers and Conquerors*; Ball, *Army Regulars on the Western Frontier*.

40. Michael A. Bonura, *Under the Shadow of Napoleon* (New York: New York University Press, 2012).

41. Dennis Hart Mahan, *An Elementary Treatise on Advanced-guard, Out-post, and Detachment Service of Troops*, new ed. (New York: John Wiley & Sons, 1861), 33.

42. Dennis Hart Mahan, *Advanced-guard, Out-post, and Detachment Service of Troops, with the Essential Principles of Strategy, and Grand Tactics for the Use of Officers of the Militia and Volunteers*, new ed. (New York: John Wiley & Sons, 1870), 185.

43. Ibid., 186.

44. See Chandler, *Campaigns of Napoleon*, for a classic account of the Napoleonic Wars. More recent studies include Michael V. Leggiere, ed., *Napoleon and the Operational Art of War*; Alexander Mikaberidze, *The Napoleonic Wars: A Global History* (New York: Oxford University Press, 2020).

45. See William P. Craighill, *The Army Officer's Pocket Companion: Principally Designed for Staff Officers in the Field* (New York: D. Van Nostrand, 1862), 46. Executing an order according to its "spirit and [commander's] intent" were vital; Craighill translated Philippe Brunot de Rouvre, *Aide-memoire de l'officier d'état-major principalement nc e qui concerne le service en campagne* (Paris: J. Dumaine, 1859).

46. Philip H. Sheridan, *Personal Memoirs of Philip Henry Sheridan, General United States Army: With an Account of His Life from 1871 to His Death, in 1888*, ed. Michael V. Sheridan, vol. 2, new & enl. (New York: D. Appleton, 1902), 447.

47. Ibid., 448, 451.

48. Ibid., 451.

49. Ibid., 448.

50. Ibid., 451–52.

51. Ibid., 448.

52. Ibid.

53. David J. Fitzpatrick, *Emory Upton: Misunderstood Reformer* (Norman: University of Oklahoma Press, 2017), 217; see especially chapters 6–8.

54. Emory Upton, *The Military Policy of the United States* (Washington, DC: U.S. Government Printing Office, 1912), xiv.

55. "Upton to James H. Wilson, 21 August 1870," quoted in Fitzpatrick, *Emory Upton*, 144; Emory Upton, "The Prussian Company Column," *International Review* 2, no. 3 (May 1875): 303.

56. Fitzpatrick, *Emory Upton*, 144.

57. Brian McAllister Lin, *The Echo of Battle: The Army's Way of War* (Cambridge, MA: Harvard University Press, 2007), 50, 75.

58. Upton, "The Prussian Company Column," 316.

59. Arthur L. Wagner, *The Campaign of Königgrätz, a Study of the Austro-Prussian War in Light of the American Civil War*, 2nd ed. (Kansas City, MO: Hudson-Kimberly, 1899), 11, 90–91.

60. Ibid., 102.

61. *Infantry Drill Regulations. United States Army. Adopted Oct. 3, 1891* (New York: D. Appleton, 1898), 186–87.

62. Ibid., 194–95, 211, 213.

63. Ibid., 219–20.

64. Ibid., 219.

65. Ibid., 227–29.

66. Perry D. Jamieson, *Crossing the Deadly Ground: United States Army Tactics, 1865–1899* (Tuscaloosa: University of Alabama Press, 1994), 110.

67. War Department, *Field Service Regulations, United States Army: Prepared by the General Staff, Under the Direction of the Chief of Staff, U.S. Army* (Washington, DC: U.S. Government Printing Office, 1905).

68. Ibid., 15.

69. Ibid.

70. J. M. Gawne and Spenser Wilkinson, trans., *The Order of Field Service of the German Army* (London: Edward Stanford for the Manchester Tactical Society, 1893), 4, 22–23; Preußisches Kriegsministerium, *Felddienst-Ordnung* (Berlin: Ernst Siegfried Mittler und Sohn, 1887).

71. War Department, *Field Service Regulations*, 29.

72. Ibid.

73. Ibid.; Gawne and Wilkinson, *The Order of Field Service of the German Army*, 22.

74. War Department, *Field Service Regulations*, 30.

75. Ibid.

76. Ibid.; Gawne and Wilkinson, *The Order of Field Service of the German Army*, 23.

77. Upton, "The Prussian Company Column," 302.

78. FM 100-5, *Operations* (1982). For a brief overview of the debate over the German and Soviet origins of AirLand Battle, see Curry, "From Blitzkrieg to Airland Battle," 18–25. For English translations of leading Soviet theoretical works on deep battle, see Georgii Samoilovich Isserson, *The Evolution of Operational Art*, trans. Bruce W. Menning (Fort Leavenworth, KS: Combat Studies Institute Press, 2013); Aleksandr A. Svechin, *Strategy*, ed. Kent D. Lee (Minneapolis: Eastview Information Services, 1992); and V. K. Triandafilov, *The Nature of the Operations of Modern Armies*, ed. Jacob W. Kipp, trans. William A. Burhans (New York: Routledge, 1994). See also David M. Glantz, *Soviet Military Operational Art: In Pursuit of Deep Battle* (New York: Frank Cass, 1991).

79. ADP 6-0, *Mission Command*, vii.

Cpt. Kris Candelaria (*left*) with Team 513, 5th Security Forces Assistance Brigade, and Indonesian army 1st Lt. Wilhelmus Raditya, attached to 1st Battalion, 27th Infantry Regiment, 2nd Brigade, 25th Infantry Division, discuss plans for approaching an objective 27 October 2020 during a live-fire exercise at the Joint Readiness Training Center (JRTC), Fort Polk, Louisiana. The JRTC exercise is a capstone training event that allows 2nd Brigade to achieve certification for worldwide deployment while building interoperability with key allies in support of a free and open Indo-Pacific. (Photo by Pfc. Rachel Christensen, 28th Public Affairs Detachment)

Understanding Mission Command

Lt. Col. Lee Robinson, U.S. Army

You get the best effort from others not by lighting a fire beneath them, but by building a fire within.

—Bob Nelson

In 2015, the Army published the "Mission Command Assessment Program" to measure progress toward achieving the objectives of the Army Mission Command Strategy.[1] The first strategic objective in the Army Mission Command Strategy is that "all Army leaders understand the mission command

philosophy."[2] As the Mission Command Assessment Program concluded in 2019, a series of articles published in *Military Review* made a persuasive case that the institution fell short of this objective.[3] While there is undoubtedly progress since 2019 on generating greater understanding of the mission command philosophy, instilling an understanding of mission command is a continuous process rather than a milestone fixed in time.

In this article, I share some perspectives on the difficulties of educating and training Army leaders on the mission command philosophy, and I recommend a method to address shortcomings in our current approach. I describe a tool grounded in the relationship between trust and competence as an intuitive approach to coach subordinates and inform our practice of mission command.

Mission Command Confusion

Gen. Stephen Townsend (then the commanding general of the U.S. Army Training and Doctrine Command) and several coauthors discussed the Army's struggles with generating a shared understanding of mission command in three articles published in *Military Review* in 2019. They focused on two culprits. First, the Army's rhetoric and actions were not consistent with mission command, evidenced by centralized training processes that constrained opportunities for subordinates to exercise initiative.[4] Second, instead of clarifying mission command, the 2012 version of Army Doctrine Reference Publication 6-0, *Mission Command*, served as a source of confusion. Removing the term "command and control" and replacing it with mission command resulted in misunderstanding between mission command as a philosophy and mission command as a warfighting function.

As I attended pre-command courses in preparation for battalion command in the summer of 2019, Army senior leaders explained our institutional struggles to understand and practice mission command routinely. They implored our cohort of future battalion and brigade commanders to do better. Updated doctrine published in the summer of 2019 provided us some tools to coach subordinates on mission command.

The revised Army Doctrine Publication (ADP) 6-0, *Mission Command: Command and Control of Army Forces*, remedied the shortcomings of the 2012 version of Army Doctrine Reference Publication 6-0. As stated in the introduction to this manual, "Labeling multiple things mission command unintentionally eroded the importance of mission command, which is critical to the command and control of Army forces across the range of military operations."[5] This update restored command and control as a warfighting function. It also clarified that mission command is the Army's approach to command and control with the goal of empowering subordinate decision making and decentralized execution of operations that is appropriate to the situation.

With a firmer doctrinal foundation for mission command, I prioritized coaching subordinate leaders on the practice of mission command. Company grade leaders expressed skepticism on mission command in practice despite the revisions to ADP 6-0 during my first leader development session on this topic. I found that I needed a better leader development tool to coach subordinates on mission command than what I found in doctrine. This session began a two-year journey to increase the understanding and practice of mission command in the formation. As Townsend noted, "At its heart, the Army's approach to mission command is about applying the appropriate level of control so that, given the circumstances and information available, leaders make the best possible decision at the right level and at the right time."[6]

In our initial discussions on mission command, company grade leaders expressed a perspective that close control of subordinate leaders was antithetical to the spirit of mission command. From these

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conversations, I felt that grasping the nuance of the *appropriate* level of control was the key to unlocking the essence of mission command. A confluence of factors, among them the reduction of mandatory training under Army Secretary Mark Esper's tenure, removal of the term "command and control" from doctrine, and discussions in professional journals about the effects on the institution of myriad reporting requirements, created the conditions under which control was seen as

success with a more intuitive approach to enable the exercise of mission command.[9]

Relationship of Competence and Trust

My recommendation for a more intuitive guide for the practice of mission command is rooted in the relationship between trust and competence. ADP 6-0 states, "Mission command requires *competent* forc-

> Educating the force on mission command by imparting the knowledge from ADP 6-0 is insufficient. It must be accompanied by training in which the knowledge in ADP 6-0 is put into practice.

a dirty word and inconsistent with mission command.[7]

The revised ADP 6-0 provides a path away from the perspective that control is antithetical to mission command, stressing that the appropriate level of control is part of the art of command.[8] However, educating the force on mission command by imparting the knowledge from ADP 6-0 is insufficient. It must be accompanied by training in which the knowledge in ADP 6-0 is put into practice. If you have ever picked up a musical instrument or a paintbrush, you are familiar with the rough state of your early practice as a musician or painting artist. Similarly, early practice of the art of command can be rough. Some artists learn to employ their skills more quickly than others, but familiarization and training on the basic tools of the practice provide a foundation for experimentation and learning.

If determining the appropriate level of control is part of the art of command, perhaps the Army's struggles with practicing mission command stem in part from the tools provided to establish the foundations for the practice of mission command. I sought a tool to help subordinates understand that control measures or risk mitigation practices were not automatically signals of distrust, but rather application of the appropriate level of control in a given situation. ADP 6-0 discusses the use of mission variables and eight other considerations to guide leaders in the exercise of control over subordinate elements, but I found

es and an environment of mutual *trust* and shared understanding among commanders, staffs, and subordinates" (emphasis added).[10] While not downplaying the importance of the other variables a leader should consider in determining the appropriate level of control for a given situation, conceptualizing mission command in terms of the relationship between trust and competence provides a more instinctive method to teach our warfighting philosophy.

What do we mean by trust and competence? ADP 6-22, *Army Leadership and the Profession*, states that the foundation of competence is military-technical expertise. Trust is the "shared confidence between commanders, subordinates, and partners that they can be relied on and are competent in performing their assigned tasks."[11] Competent leaders perform duties with discipline and to standards while striving for excellence; display the appropriate knowledge of equipment, procedures, and methods; and recognize and generate innovative solutions.[12] Competence is therefore rooted in a subordinate's ability to perform tasks, while trust centers on the perception between leaders and subordinates of their ability to accomplish a task. Of note, trust depends on a "shared confidence," meaning that if a leader trusts a subordinate but the subordinate does not perceive that the leader trusts him or her, trust is suboptimal.

Characterizing mission command as the relationship between trust and competence allows us to put

these two concepts on a dichotomy (see figure). On the *x*-axis, competence of subordinates ranges from low on the left side of the dichotomy to high on the right side. The *y*-axis represents the perceived trust between leaders and subordinates, ranging from an environment of low trust on the bottom of the dichotomy to high trust on the top.

This diagram provides a visual representation of the relationship between trust and competence to aid leaders in understanding the appropriate level of control for a given situation. As an illustration, consider the case of a company tasked to conduct convoy protection platform gunnery. A leader faces many decisions on risk management and control measures to ensure a successful outcome and maximize this training opportunity. The appropriate level of control for this training exercise rests on the relationship of trust and competence as illustrated by each quadrant of the diagram.

Macromanagement (upper left quadrant). When the competence of subordinates is low but trust between leaders and subordinates is high, it is likely that leaders will fail to exercise the appropriate amount of control for the task. In our platform gunnery example, the inappropriate amount of control for the level of subordinate competence may manifest in inadequate leader presence at rehearsals or during execution. The risk in this situation is that leaders do not apply the appropriate level of control given the low competence of subordinates, leading to suboptimal outcomes due to an inappropriate level of supervision. A little league baseball coach could schedule practices run by
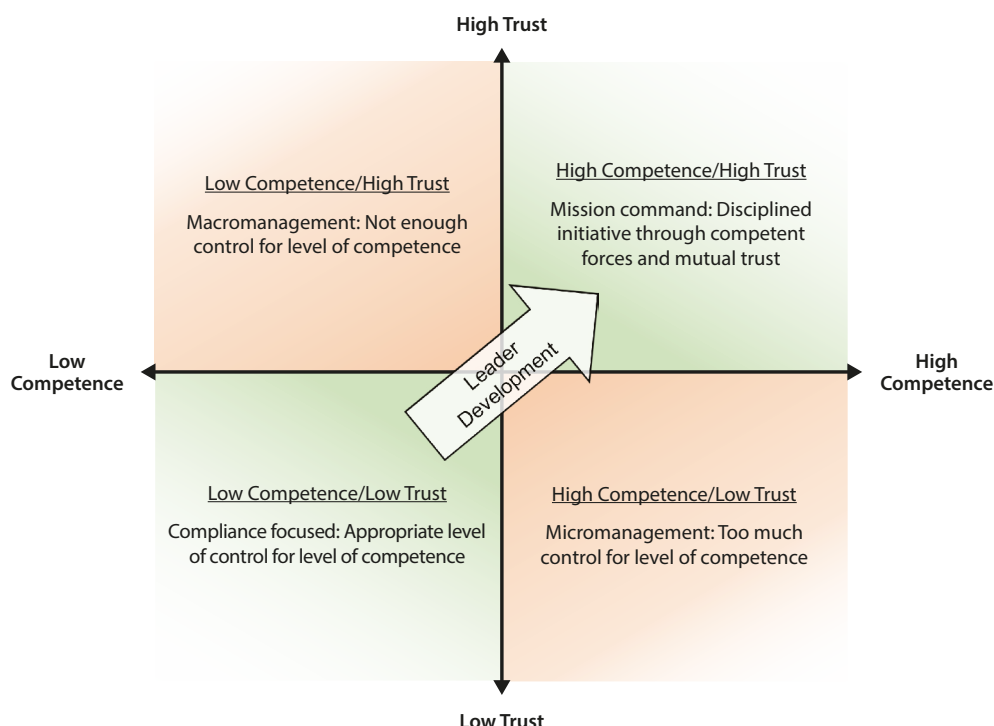
(Figure by author)

Figure. Understanding Mission Command: The Relationship Between Trust and Competence

his or her players, but of course the team will improve much more with deliberate, supervised practice rather than relinquishing total control to the players. Macromanagement is a quadrant to avoid; a hands-off approach for a low level of subordinate competence will likely lead to suboptimal outcomes as the leader is absent when subordinates need a coach to help them through the fundamentals of a given task.

Micromanagement (lower right quadrant). Suboptimal outcomes of a different sort are likely to result when subordinate competence is high but trust is low. Whereas subordinate competence and insufficient control limit performance in macromanagement, too much control limits performance in micromanagement. Performance limitations in this quadrant stem from the harmful effects on motivation when leaders apply too much control in an environment of high subordinate competence. Drawing on situational leadership theory from the field of organizational behavior, delegation should increase with subordinate maturity.[13] In this quadrant of high subordinate competence, subordinates are likely to view a leader's influence tactics as

Maj. Brendan Baker, operations officer for 2nd Armored Brigade Combat Team, 1st Cavalry Division, briefs the brigade commander and brigade staff during a combined arms rehearsal in preparation for movements during a live-fire exercise before Combined Resolve XIII in Grafenwohr, Germany, 13 January 2020. (Photo by Staff Sgt. Noshoba Davis, U.S. Army National Guard)

inappropriate since they are not consistent with their needs. Suboptimal outcomes result from the decrease in subordinate satisfaction and creativity due to the mismatch of leader actions to the situation. Returning to our platform gunnery example, micromanagement will lead to an environment in which competence is not rewarded with increased latitude to apply creativity. The potential for the training event will be therefore limited by the leader's actions rather than the collaborative power of the group.

Compliance focused (lower left quadrant). This quadrant demonstrates how a high level of leader engagement can lead to best case outcomes when subordinate competence and trust are low. The exercise of compliance-focused leadership is appropriate when subordinate competence is low and the perception of trust between leaders and subordinates is also low. In sharp contrast to the expectations under micromanagement, the coaching and influence tactics of a leader in this quadrant are likely to be well received by subordinates because they are consistent with the subordinates' needs, especially if the leader explains that the control measures are in place to build trust

and competence. In our platform gunnery example, detailed planning and the use of backbriefs and rehearsals will lead to positive outcomes rather than relying on intent-based mission orders.

Mission command (upper right quadrant). This quadrant represents mission command in its ideal state with high trust and high competence. In this environment, mission orders focused on a clear commander's intent with latitude for subordinate creativity will maximize the potential outcome. Returning to our platform gunnery example, this quadrant is the most likely scenario for subordinates to draw upon their experience and creativity and maximize the outcome of the training event within the commander's intent.

As the shading in the figure indicates, leaders should strive to operate within the quadrant of the ideal state of mission command but should understand that compliance-based leadership is appropriate in some situations. In these quadrants, the leader applies the appropriate control for the given level of trust and competence among subordinates. The figure provides an intuitive approach for leaders to decide on the appropriate level of control for a given situation

management and risk management practices are two methods to move from a compliance-focused form of mission command to the ideal state.

Training management is the process by which leaders prioritize, plan, resource, and execute training events. Mission command depends on competence, so leaders must ensure that subordinates have sufficient repetitions to build competence on mission essential tasks. As subordinates demonstrate mastery of tasks,

> "Leadership is a constant process of adjustment of the reins with the goal of applying the right level of control for the circumstances at hand. Variables such as new leaders or unfamiliar circumstances may impact the perception of trust and competence."

and communicates that compliance focused leadership is desirable in some cases.

Moving from Compliance-Focused to the Ideal State of Mission Command

An appropriate analogy to think about the movement between these quadrants is the relationship between a rider and a horse. When trust between the rider and horse is low and the situation is unfamiliar, the rider holds the reins tightly. As trust increases and competence grows through repetition, the rider holds the reins more loosely. A well-trained horse may complete a familiar ride without prompts from the rider. The rider seldom leaves the reins in place; however, circumstances may change that cause the rider to tighten or loosen the reins.

Leadership is a constant process of adjustment of the reins with the goal of applying the right level of control for the circumstances at hand. Variables such as new leaders or unfamiliar circumstances may impact the perception of trust and competence. In such cases, akin to a rider feeling nervous when the horse may not be, a leader may tighten the reins out of caution, bumping the level of control into an undesirable quadrant.

As the figure indicates, the method to move to the ideal state of mission command is leader development. Incorporating leader development in our training

leaders introduce ambiguity and complexity to allow subordinates to make decisions and learn from them. Incorporating command-and-control systems is a critical aspect of training management to train subordinates and leaders to operate from shared understanding. As competence and trust increase, training management is the process that commanders use to provide leader development opportunities to move from detail-based to intent-based mission orders.

ADP 6-0 provides a perspective on how risk management practices aid an organization to move from compliance-focused leadership to the ideal state of mission command. It explains that two ways of managing risk are "managing the number of tasks assigned to subordinates and by providing the appropriate resources to accomplish those tasks."[14] As subordinate competence increases, commanders have more opportunities to add complexity to an operation to further leader development while appropriately managing risk. This complexity may involve varying resources such as information, forces, materiel, and time as described in ADP 6-0.

The Mission Command Journey

The road to understanding mission command has been a bumpy one through the way mission command was taught and practiced. Our ability to practice mission command will increase with our efforts to

communicate this philosophy in a way that our subordinates easily grasp. Understanding the relationship of trust and competence provides a useful pathway to a firmer grasp of mission command among Army leaders. I found the tool described in this article helpful to coach subordinate leaders on mission command. It generated a constructive dialogue in our training management and risk management practices. It also helped subordinates feel less guilty about using compliance-focused leadership when it was appropriate. ∎

Notes

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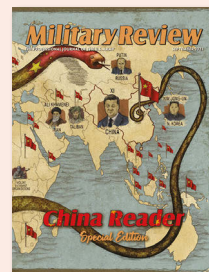
U.S. military vehicles fill a staging area near the port of Dammam, Saudi Arabia, in preparation for transport back to the United States following Operations Desert Shield/Desert Storm. This equipment represents only a fraction of the "iron mountain" required to expel Iraqi forces from Kuwait in 1991, of which, nearly two million tons were delivered uncontested by the Iraqi military through Saudi ports in the first six months alone. (Photo by Sgt. Bohmer, courtesy of the National Archives)

Intratheater Logistics Proficiency

Preparing for the Modern Contested Fight

Maj. Bryan J. Quinn, U.S. Army

Combat fills but a moment, of course the most important one, but the movements leading to battle, marching, fill the entire life of an army.

—Helmuth von Moltke the Elder

As a maritime nation, the United States depends on its ability to convert combat potential from the strategic support area to combat power on battlefields far removed from the continental United States (CONUS). This process requires the movement of significant amounts of equipment, personnel, and supplies, often over long distances, highlighting the fundamental challenge the United States faces in time and space. Nowhere are these challenges more apparent than in the European theater. Following decades of competing requirements in Iraq and Afghanistan, redeployment of conventional U.S. ground forces, and subsequent atrophying of theater logistics capability, the United States' ability to project power in conflict is in doubt.[1]

Meanwhile, Russia increasingly threatens to challenge the security environment and prevent U.S. access by advancing antiaccess/area denial (A2/AD) capabilities designed to hinder U.S. freedom of action and ability to build combat power.[2] As a result, every day Russia prevents the United States from building combat power, potential adversarial gains remain uncontested, and the United States' ability to achieve strategic aims diminishes. While the United States has developed doctrinal concepts in response to this threat, the question remains whether the theater sustainment architecture can deliver the land forces necessary to succeed against a near-peer adversary in conflict. In an environment defined by increasing time and space challenges, U.S. Army Europe and Africa (USAREUR-AF) must ensure the sufficient throughput of land forces by expanding the capability of intratheater logistics architecture. USAREUR-AF can accomplish this by mitigating risk and improving proficiency at two critical points. First, by increasing the resiliency of theater access and improving proficiency of joint logistics over the shore (JLOTS) during large-scale, degraded port operations. Second, by ensuring throughput of forces from port to battlefield by improving reception, staging, onward movement, and integration (RSOI) proficiency during rotational unit opportunities. As

the chief of staff of the Prussian army, Helmuth von Moltke the Elder, recognized, "even the loss of a single day in mobilization can have significant impacts" on a campaign, and mistakes in deployment cannot easily be corrected.[3] Therefore, regardless of Russia's intent or ability to prevent U.S. freedom of action long-term, merely delaying U.S. forces and buying time to seize the initiative short-term may achieve its goals.[4] To better understand this challenge, it is essential to first understand the adversarial threat that intends to limit U.S. freedom of action and the inherent challenges facing USAREUR-AF theater logistics.

Framing the Problem: Russian and U.S. Strategy

Because of favorable battlefield geometry and shorter operational reach, Russia maintains inherent advantages in time and space in Europe. Over the past decade, Russia has further expanded this advantage by increasing A2/AD capabilities on NATO's eastern flank and increasingly relying on the fait accompli, a tactic designed to rapidly achieve objectives before the U.S. and NATO allies can react, leaving would-be adversaries little choice but to accept the new status quo.[5] Russia demonstrated the challenges of this strategy in 2014 when a combination of Russian-backed militias, private military companies, and conventional forces invaded Crimea and the eastern Donbas region of Ukraine. In coordination with mutually supporting cyberattacks on critical infrastructure, Russia quickly seized Ukrainian territory, catching the United States and its European allies off guard.[6] Without credible combat forces postured to counter this aggression, Russia's strategy exposed U.S. and NATO vulnerabilities and demonstrated a blueprint for future conflict in Europe.[7] Despite an inability for Russia to replicate similar success in its larger 2022 Ukrainian invasion, the fundamental challenge of time and distance for U.S. force projection persists.

Central to this theory of victory is an intent to exploit U.S. disadvantages in space by disrupting and delaying theater access

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and power projection through a layered A2/AD strategy. While the core of Russia's A2/AD strategy remains its integrated air defense systems and long-range precision fires, Russia has further expanded its cyber capability as a first layer of standoff.[8] Russia uses this layer to challenge the day-to-day operations of adversaries below the level of armed conflict, extend influence, and disrupt freedom of action, as demonstrated in many European countries since 2008.[9]

> Combined with U.S. dependence on commercial deep-water ports for theater access, European port and transportation infrastructure offers Russia a prime target consistent with its cyber standoff strategy.

Of these attacks, the NotPetya exploit, a repurposed National Security Agency cyber tool, best demonstrates this capability's potential to disrupt U.S. freedom of movement and mobility.[10] In 2017, a Russian-backed group intending to punish Ukrainian businesses targeted them with this malware.[11] The virus then spread from Ukrainian servers to major corporations worldwide, including the global shipping provider Maersk, responsible for seventy-six ports and one-fifth of global shipping.[12] As a result, essential port infrastructure, including security access, cranes, and other essential material handling equipment, came to a standstill for weeks, leaving Maersk employees blind to the contents of eighteen thousand ships and reliant on social media for communication.[13] Elsewhere in Europe, Chernobyl's technology administrator resorted to a loudspeaker to demand employees rip computers from walls to avert further damage, later stating, "there is now only life before NotPetya and life after NotPetya."[14] Despite global commerce implications, this attack demonstrates not only modern infrastructure's reliance on the digital substrate but also the high payoff potential of targeting European transportation architecture to degrade any U.S. military response on the continent.

Although the European Union (EU) and NATO recently increased their focus on critical infrastructure following the 2017 attacks through revised and updated cybersecurity strategies, risk to U.S. land force theater access remains a critical vulnerability.[15] Due to an expansion of connected devices, a complex information security environment, and a broad attack surface, transportation infrastructure remains highly vulnerable.[16] In 2019 alone, the EU reported 230,000 new malware strains, the majority targeting industry and infrastructure.[17] Combined with U.S. dependence on commercial deep-water ports for theater access, European port and transportation infrastructure offers Russia a prime target consistent with its cyber standoff strategy. A significant degradation of transportation infrastructure would ultimately cast doubt on USAREUR-AF's assumptions of theater access and ability to build combat power absent a robust or proficient theater logistics capability.

While Russia pursued an advanced standoff capability over the past decade, due to a drawdown of conventional forces and subsequent atrophying of logistics capability, USAREUR-AF's challenges in space and time increased. To account for these disadvantages and address Russian aggression, the U.S. Department of Defense developed the Global Operating Model (GOM), implemented in the 2018 *National Defense Strategy* (*NDS*).[18] This model categorizes U.S. forces into contact, blunt, and surge forces, designed to "defeat Chinese or Russian theories of victory."[19] While contact and blunt forces are intended to prevent an adversary from achieving near-term objectives by contesting initial gains, surge forces projected from CONUS strategic support areas remain a critical aspect of the U.S. theory of victory within the *NDS* to compel an adversary's withdrawal.[20]

Demonstrating the potential scale of this surge force requirement, during Desert Storm, the United States and its allies assembled over five hundred thousand troops across three corps and six armored divisions to expel Iraq's large-scale, conventional threat from Kuwait in 1991.[21] As the last time U.S. forces deployed multiple corps in large-scale combat, Desert Shield/Desert Storm represents a potential baseline for large-scale combat operation land force requirements. Unfortunately, to

ESC—Expeditionary sustainment command
MSC—Military Sealift Command
SMDC—Space and Missile Defense Command

TRANSCOM—Transportation Command
TSC—Theater sustainment command
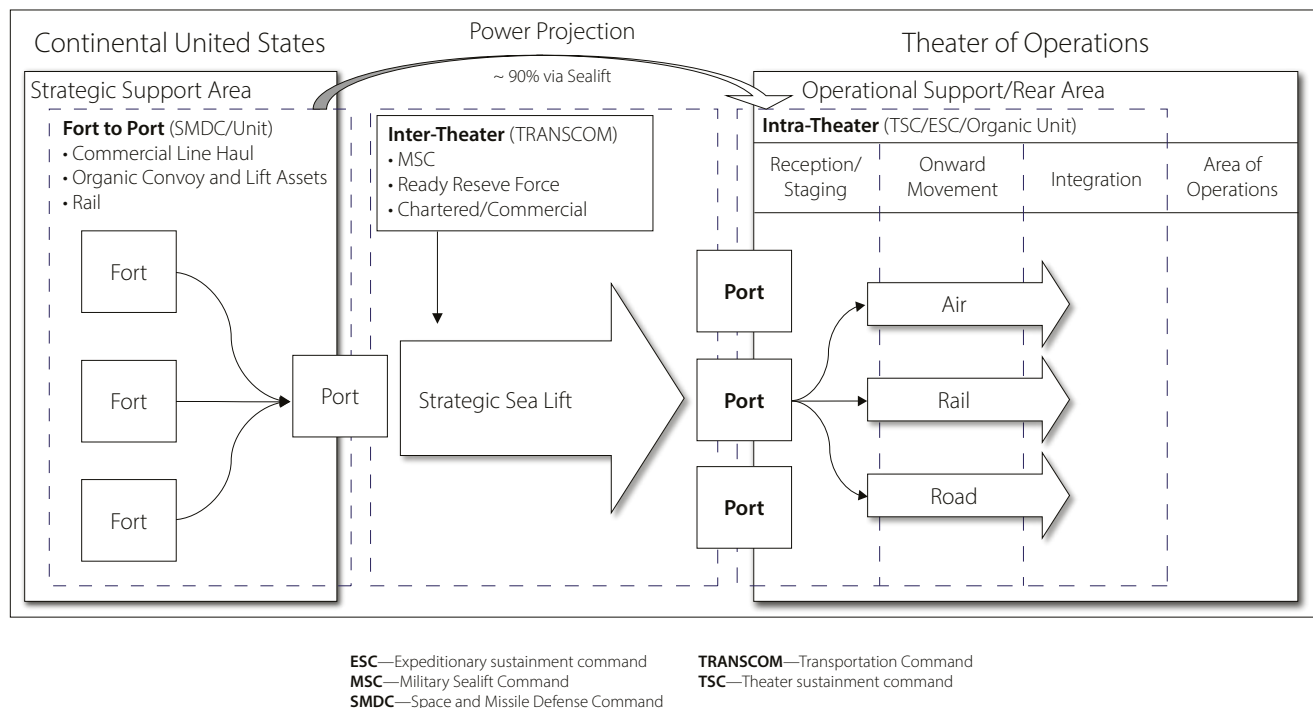
(Figure by author)

Figure 1. Power Projection in an Uncontested Environment

deliver comparable land forces in support of *NDS* and GOM requirements today requires a theater logistics capability that USAREUR-AF lacks and one that Russia intends to disrupt. While GOM and future service concepts like the Army's multi-domain operations concept expand the United States' ability to respond in competition, a fundamental reliance on mass in large-scale conflict only reinforces the challenges in time and space they are designed to mitigate.[22]

Theater Logistics Capabilities

While adversarial disruption presents one potential impediment to access and throughput, theater logistics must already overcome significant inherent friction and complexity from numerous actors, organizations, transactions, and human error to achieve success.[23] To build combat power, land forces rely on strategic mobility to deliver equipment from CONUS to theaters overseas. Historically, U.S. Transportation Command (USTRANSCOM) delivers 90 percent of this combat power through strategic sealift.[24] Within the theater, this process depends on the throughput of capable seaports of debarkation and subsequent intratheater logistics through RSOI to build combat

power, depicted in figure 1.[25] These ports provide theater access for Military Sealift Command (MSC) deep-draft vessels through the same critical infrastructure already demonstrated to be at risk from Russian standoff capabilities.

The U.S. Navy is responsible for conducting strategic sealift, authority, and responsibility transfers once cargo arrives in theater to the Army's Surface Deployment and Distribution Command (SDDC), and it is in coordination with USAREUR-AF's organic logistics units to conduct vessel discharge operations.[26] The theater sustainment command, supporting expeditionary sustainment command, and subordinate sustainment units execute these activities, facilitating cargo from vessel discharge, through RSOI, to a tactical assembly area, demonstrating the full span and complexity of intratheater logistics required to build combat power.[27] However, this logistics architecture has been mostly dismantled following the drawdown of almost four hundred thousand troops from the height of the Cold War.[28] While other theaters have seen an increase in logistics capability, Europe remains outpaced three to one in comparison, making the proficiency of current organic units paramount in future conflict.[29]
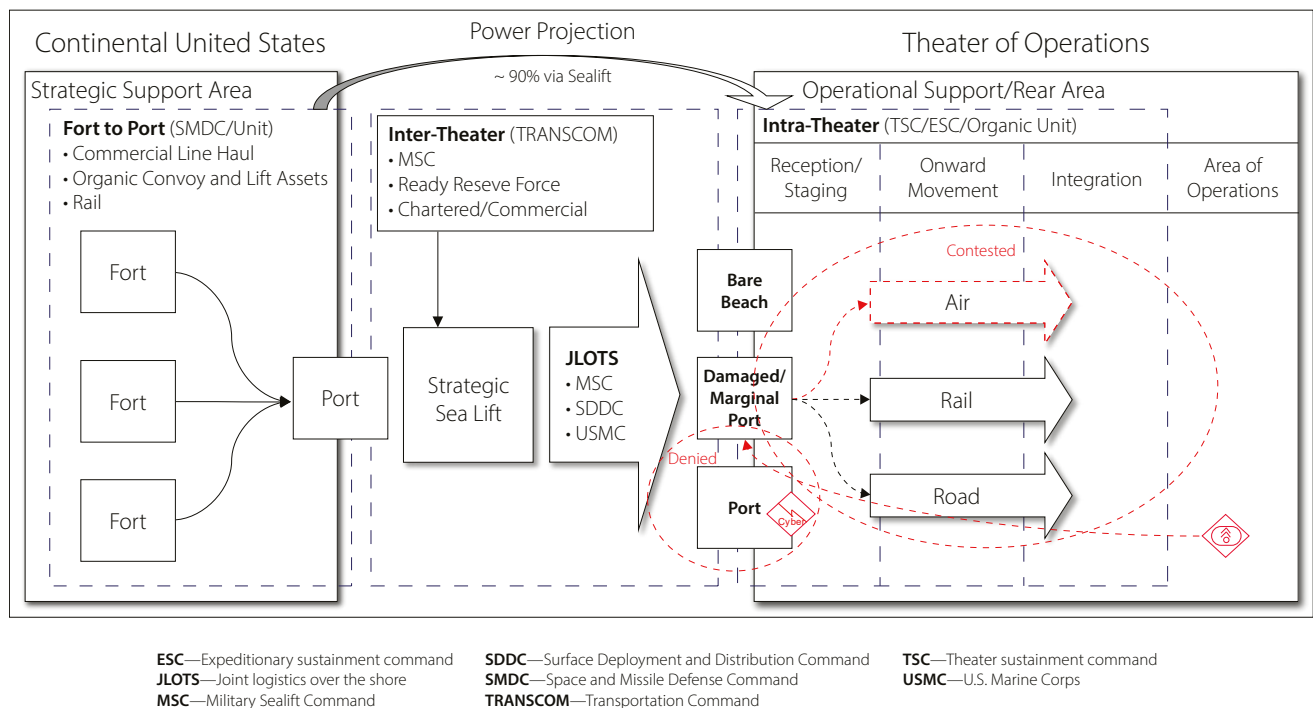
Figure 2. Power Projection in a Contested/Denied Environment

In the event a port is damaged or incapable of accommodating strategic sealift vessels due to obstacles, disabled infrastructure, or other inherent insufficiencies, USTRANSCOM and USAREUR-AF logistics units execute JLOTS operations to transfer equipment from vessels at anchorage to shore.[30] JLOTS complexity and requirements for SDDC and theater army units can vary widely depending on the situation, ranging from amphibious landing forces on bare beaches to augmenting degraded ports in disaster relief, as demonstrated following the 2010 Haiti earthquake.[31] While U.S. operations in World War II and Korea famously required bare-beach operations to build combat power, global infrastructure and urbanization have altered the context in which JLOTS operations will likely occur in Europe. Importantly, by simply holding favorable ports at risk and forcing the United States to resort to less capable infrastructure, Russia's standoff capability may easily achieve its desired disruptive effect, demonstrated in figure 2. Therefore, in future conflict, other lesser-known JLOTS requirements such as those in Saudi Arabia in 1991, requiring port augmentation due to insufficient infrastructure rather than the amphibious operations represented in popular culture, provide a more accurate

indication of future requirements.[32] Combined with improving Russian standoff capability and European infrastructure vulnerability, degraded port operations represent a likely requirement for future theater access demanding greater JLOTS proficiency.

To account for the complexity and reduction of theater logistics capability as well as Russia's increased ability to disrupt U.S. power projection, USAREUR-AF must increase the proficiency of intratheater logistics: first, by ensuring theater access through JLOTS and large-scale, degraded port operations; and second, through ensuring throughput of forces from the port to the battlefield by improving RSOI proficiency. By requiring rotational and exercise participants to deliver a greater portion of forces through degraded ports and the theater logistics architecture, USAREUR-AF can mitigate these challenges, validate theater access assumptions, and build the in-theater proficiency required to plan and execute JLOTS and RSOI in conflict.

First, due to a unique combination of low-density platforms and multiservice requirements occurring across multiple domains, JLOTS is operationally and organizationally complex. For example, during a 2008

exercise, the JLOTS joint task force (JTF) required more than three thousand soldiers, sailors, marines, and civilians from over eighty units to offload a single brigade combat team.[33] Considering the added friction of an adversary intent on denying or disrupting operations and the requirement to move multiple divisions in conflict, any increase in scope and scale escalates operational complexity and threatens throughput.

Furthermore, the JLOTS JTF is an ad hoc orga-

same year only further highlights the risk these ports pose. Furthermore, a reliance on a smaller number of larger vessels, although preferable for discharge, further limits the number of available ports. Despite frequent opportunities to increase JLOTS and port operations proficiency, USAREUR-AF has failed to build the necessary knowledge base at the tactical-unit level or expertise at the theater-level required to ensure throughput and access in conflict.

> The JTF must consider a significant number of technical and operational factors even purpose-built organizations struggle to grasp, including lighterage capabilities, host-nation support and customs laws, sea states, access to inland transport, as well as the integration of cyber and air defense assets critical to JLOTS success.

nization, only created by the combatant command when required. Yet, the JTF must consider a significant number of technical and operational factors even purpose-built organizations struggle to grasp, including lighterage capabilities, host-nation support and customs laws, sea states, access to inland transport, as well as the integration of cyber and air defense assets critical to JLOTS success. Failure to manage this complexity or execute efficiently based on knowledge and experience could result in frustrated cargo and the piecemeal delivery of equipment, ultimately delaying throughput and USAREUR-AF's ability to build combat power.[34]

Despite this complexity, USAREUR-AF and USTRANSCOM historically rely on a small number of large, capable, and familiar ports in support of operations and exercises.[35] This overreliance on modern port and shipping infrastructure ultimately limits USAREUR-AF's theater logistics ability to build experience and proficiency to reduce inherent complexity and friction risks. For example, in 2017, three commercial supercargo ships delivered a rotational unit to Gdansk, Poland, the second largest port in the Baltic Sea.[36] While advantageously close to training areas, Gdansk is 150km from Kaliningrad, well within Russian A2/AD threat rings. That the NotPetya malware heavily impacted similar European ports that

Compounding operational complexity, JLOTS is also organizationally complex. Throughout the course of an operation, command relationships can span across over thirty unique organizations and transition quickly between multiple service leads dependent on the environment, requirement, and operational phase.[37] This frequent handoff of responsibilities represents additional risk to building combat power. However, exercise executive agents often assign a single organizational lead for the entirety of an operation, leaving this transition unrehearsed and untested.[38] To alleviate this friction, USAREUR-AF must exercise JLOTS across multiple operational phases within a dynamic environment.

JLOTS command relationships also span multiple combatant commands, adding the additional friction point of competing authorities. For example, USTRANSCOM, through the SDDC, is the single port manager responsible for managing ports across Europe.[39] However, during JLOTS operations, this authority conflicts with combatant command authority exercised through the JLOTS commander, responsible for all discharge assets and ship-to-shore operations.[40] Unless transferred to the U.S. European Command (USEUCOM) at the direction of the secretary of defense, USTRANSCOM retains combatant command authority over sealift platforms and assets, potentially

USNS *Yuma* (T-EPF 8) arrives in Durres, Albania, 2 May 2021 to assist JLOTS-21 and vehicle cargo ship USNS *Bob Hope* in conducting intratheater lift in conjunction with Defender-Europe 21. JLOTS-21, the first joint logistics over the shore exercise in Europe since World War II, delivered only a small fraction of the exercise participants' cargo and equipment. A majority of European exercise equipment is historically delivered commercially through large ports. (Photo courtesy of the U.S. Navy Military Sealift Command)

conflicting with JTF and theater priorities. While this situation may be quickly resolved for a single theater through the joint deployment distribution operations center, in the event of multiple priorities or crises, the question of authority becomes essential for building combat power.

Yet, due to the scale of JLOTS exercises, frequently isolated from theater-level exercises and often executed to preserve tactical skill and demonstrate capability, the extent of SDDC authority and the relationship between combatant commands remains untested. To reduce organizational friction and ensure throughput in conflict, in coordination with USEUCOM and USTRANSCOM, USAREUR-AF must more closely integrate large-scale JLOTS into annual exercises to rehearse the full spectrum of operations and mitigate complexity and risk. Exercises such as Defender Europe and Atlantic Resolve represent key opportunities for USEUCOM, USTRANSCOM, and USAREUR-AF to combine resources consistent with defense planning guidance limitations to build in-theater proficiency and knowledge to mitigate this risk.[41] Although many other JLOTS challenges persist, including a lack of MSC Ready Reserve Force vessels, availability of U.S. flagged commercial vessels, and the dwindling number of Army lighterage, without greater proficiency and

knowledge, these capability gaps remain divorced from operational experience and lose meaning and staying power with those making resource decisions.

JLOTS complexity, however, represents only one theater logistics friction point in building combat power. To ensure sufficient throughput from CONUS, USAREUR-AF must also ensure combat power, once delivered to theater, reaches the area of operations by improving proficiency in large-scale RSOI. RSOI facilitates the transition between deployment and employment and is critical in building combat power following its arrival in theater.[42] Like JLOTS, RSOI complexity and scale requires a knowledge base, experience level, and proficiency to overcome friction and reduce the time required for unit assembly at tactical assembly areas.[43] For example, in support of VII Corps' Desert Storm mobilization, over one hundred commercial and MSC ships transported thirty-eight thousand

vehicles and seven thousand containers from Europe to Saudi Arabia.[44] However, despite the lack of an Iraqi threat to disrupt theater access, throughput, or RSOI, unit equipment arrived on average by nine vessels over twenty-six days, resulting in the extension of unit assembly and closure by multiple weeks due to theater logistics mismanagement.[45] That is, even with a cooperative enemy in Saddam Hussein, as well as other favorable conditions such as uncontested SLOCs, an open

in 2015 and establishment of a rotational brigade in 2017.[49] However, absent an adversarial threat or potential environmental frictions, this experience is not indicative of RSOI in conflict, allowing bad practices and unrealistic assumptions to persist. Following a 2017 rotation, senior Army leaders recognized the absence of a threat environment as an obvious advantage in RSOI and acknowledged the limited experience provided under unrealistic conditions.[50] Yet, current

> "To ensure more realistic theater planning and mitigate force projection risk, USAREUR-AF must link the throughput of forces, both simulated and real-world, to forces available to training audiences at the start of an exercise."

Suez, modern, capable seaports, and over forty-four thousand soldiers dedicated to RSOI operations, the United States still struggled to build combat power.[46]

While in the past, forward or prepositioned personnel and equipment reduced the importance of RSOI in Europe, in a contested fight today, proficiency in RSOI operations is critical to projecting and building credible combat power. Additional European friction considerations include the navigation of EU and individual country customs, rules, and infrastructure differences, as well as competing with commercial activities on the same road and rail networks in an urban environment.[47] Comparatively, USAREUR-AF required over two weeks to complete RSOI of a single brigade combat team without enemy threat or real-world operational pressure in 2017.[48] Considering the additional friction of adversarial action intent on disrupting infrastructure and essential services, USAREUR-AF must improve its ability to conduct RSOI to ensure its ability to build combat power through sustained port and transportation node throughput.

However, despite complexity and critical importance in building combat power, RSOI is continually treated as an administrative function, separate from large-scale exercises and immune to opposing force tactics. USAREUR-AF has executed limited RSOI operations since the inaugural Atlantic Resolve exercise

large-scale exercises continue to neglect RSOI.

Historical experiences demonstrate a direct connection between realistic training and success, highlighting the importance of training the way a unit intends to fight.[51] Nowhere is this notion more apparent than during a series of corps-level exercises in preparation for World War II. When questioned by a senator about the mistake-riddled Louisiana Maneuvers, Gen. George Marshall responded, "I want the mistakes made down in Louisiana and not over in Europe, and the only way to do this thing is to try it out, and if it doesn't work, find out what we need to make it work."[52] The same remains true of intratheater logistics. Executed under unrealistic conditions, RSOI remains an administrative and supporting task resulting in bad practices, insufficient standard operating procedures, and invalid assumptions, ultimately leaving U.S. forces unprepared in conflict.

To ensure more realistic theater planning and mitigate force projection risk, USAREUR-AF must link the throughput of forces, both simulated and real-world, to forces available to training audiences at the start of an exercise. During a recent Army Forces Command sponsored exercise, executed in coordination with other joint and theater exercises, multiple simulated divisions began in eastern Europe at 95 percent combat strength. This practice is not only inconsistent with modest adversarial

assumptions but ignores the complexities and throughput challenges facing intratheater logistics and reinforces unrealistic planning factors. Imposing uncertainty through real-world or simulated friction and placing access, RSOI, and available forces in doubt would reinforce logistical priority and force theater and unit planners to consider the impact of force projection challenges. Although these actions may limit a training audience's available forces and place some training objectives at risk, without realistic training opportunities, deficiencies and gaps in capabilities remain unexposed. Consistent with Marshall's comments in Louisiana, exercises can be reset while wars cannot. As a result, tactical-level training objectives cannot be met at the expense of realistic conditions and theater logistics proficiency.

Do Large-Scale Logistics Matter for the Future Fight?

In a recent paper on multi-domain operations, the chief of staff of the Army laid out a vision for the Army in the future operating environment, calling into question the need for a large land-force buildup to defeat an adversary.[53] Instead, the paper described a future in which the Army mitigated disadvantages in space and time through emerging concepts including "low signature, asymmetric forces," and "cross-domain maneuver" enabled by emerging, yet immature, technologies.[54] This theory of victory is in line with others that similarly relied on the promise of technology and innovation to decisively defeat an adversary.[55] However, technology alone

is not a strategy. Multi-domain operations and other concepts, although important for how the Army thinks about the employment of forces in the future, cannot on their own achieve success consistent with current NDS requirements and adversarial threat. As Laurie Anderson states, "If you think technology will solve your problems, you don't understand technology—and you don't understand your problems."[56] Likewise, reliance on technological overmatch of in-theater, expeditionary forces and the promise of future technology alone risks failure. As a result, how much emerging concepts can offset land-force requirements in large-scale combat remains in question. If the requirement to forcibly expel adversaries from future land grabs and restore borders persists, the necessity to project large amounts of land forces from CONUS will remain.

In summary, USAREUR-AF is at risk of ensuring the sufficient throughput of forces to displace adversarial forces in the event of conflict. To mitigate the risk posed by an increased Russian A2/AD threat, USAREUR-AF must mitigate intratheater logistics risk. To achieve this, USAREUR-AF must increase JLOTS and RSOI capability by exercising large-scale degraded port operations through JLOTS and by expanding the contested environment of theater RSOI in peacetime. Failure to improve intratheater logistics will leave theater access and the ability to build combat power at risk. However, by improving proficiency in intratheater operations, USAREUR-AF can ensure its ability to deliver sufficient land forces in conflict in support of allies. ∎

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Does China Have Enough Food to Go to War?

Practical Indicators for U.S. Military and Policy Makers

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The ongoing escalation in diplomatic tensions between the United States and China along with the recent trade war and the COVID-19 pandemic have exposed the fragility of the economic and political ties between the two nations. In addition, as China continues to pursue an increasingly aggressive diplomatic agenda and expands its military capabilities, there is a growing concern about the risk of a military confrontation with the United States and its allies. However, while some of these concerns may arguably be warranted, food self-sufficiency and internal food security challenges could dissuade China from launching a prolonged and full-scale war.

China is the largest food producer in the world, and agriculture has played a pivotal role in its emergence as a global economic powerhouse. Chinese economic transformation throughout the twentieth century was sparked by agrarian reforms (e.g., the "Household Responsibility System") that transferred rights and the responsibility for profits and losses to individual farmers. These policy changes resulted in dramatic improvements in agricultural production and laid the foundations for the Chinese industrial revolution. As

testaments to that success, China has achieved high levels of food self-sufficiency, and ironically now has the highest number of obese people in the world.[1] More recently, agricultural trade and investments have become important components of China's diplomacy and its Belt and Road Initiative.[2]

Despite this remarkable progress, Chinese authorities are increasingly challenged to feed their 1.4 billion people. Recent events such as the COVID-19 pandemic, several outbreaks of African swine fever, floods sweeping southern regions, and severe droughts in the northern areas have revealed weaknesses in China's food security.[3] For instance, these events caused pork prices (the main source of protein for Chinese population) to spike and the imports of grains and oilseeds to soar to unprecedented levels. China is now the world's largest buyer of key agricultural commodities, and it imports nearly 60 percent of global soybean export flows.[4] These developments are in clear contrast with China's decades-long efforts to develop and implement policies aimed at grain self-sufficiency. The Chinese Communist Party (CCP) has tried to avoid international dependency by supporting domestic production and by stocking grain reserves, and it claims

that China has enough wheat and rice reserves to feed its population for up to two years.[5] Nevertheless, these food self-sufficiency goals are threatened by demographic pressures, growing urbanization, climate change, land and water scarcity, changing diets, and extensive pollution. To counter this trend, the CCP has recently launched the "Clean Plate Campaign" to curb food waste, has provided guidance for livestock producers to reduce corn and soybean volumes in livestock rations, and has projected political discourses all signaling that food security remains a priority for Chinese authorities.[6]

Such government measures are unsurprising given the history of food shortages sparking political unrest in China and because food security has been part of Chinese people's psyche for many centuries. Memories of China's Great Famine that swept the country from 1958 to 1962, killing tens of millions of people, remain rooted in the minds and hearts of older generations and in the political leadership.[7] Food prices are volatile in China and tend to rise during winter seasons, and it was no coincidence that the 1989 Tiananmen Square

prodemocracy protests took place during a period of general economic malaise and high food prices.[8]

As the world emerges from the turbulent COVID-19 pandemic, ensuring food security and self-sufficiency is once again front and center in Beijing's political calculus and will remain a national security issue for Chinese authorities.[9] Consequently, the CCP is pushing new strategies to enhance domestic food production and to reduce China's exposure to external uncertainties and shocks.[10] Nevertheless, both increasing urban population and fast-growing demand for animal products will continue to exert enormous pressure on China's limited and formerly depleted arable land and water endowments.[11] This is because livestock and processed foods often require the most arable land for production.

Winston Churchill's words described the intentions and interests of Russia in 1939 as looking at "a riddle, wrapped in a mystery, inside an enigma," but this sentiment certainly applies to understanding the true food security situation in China.[12] This is because China routinely maintains large stockpiles of selected grains, but

these are a state secret and outsiders can only speculate about their true size and quality. However, this article presents an overview of food self-sufficiency and food security in China and seeks to understand how those factors may influence the likelihood of China launching a war soon. The proposed premise is that a prolonged and full-scale conflict would inevitably deteriorate food security in China, revive the ghosts of the Great Famine, and even lead to political instability and social unrest. This study also identifies key agricultural indicators that warrant close monitoring by the U.S. intelligence and military communities as they could signal preparation efforts by China for a military campaign. These economic indicators are tangible metrics that include the trade of agricultural products, commodity stock levels, changes in demand for certain food products, etc. The collection and interpretation of such data could be conducted by a coalition of different U.S. government agencies such as the Department of Defense, U.S. intelligence agencies, and the U.S. Department of Agriculture. U.S. Army officers from the 38G program (agricultural officers, 6U), are particularly well poised to inform U.S. military leadership and other stakeholders on these issues.

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Overview of Agriculture and Food Security in China

China began its massive economic reforms last century with an overhaul of the agricultural sector, specifically with a focus on grain production. New policies transformed the Chinese agricultural production model and resulted in significant increases in productivity, with China now feeding 20 percent of the world's population with only 8 percent of the world's freshwater resources and 9 percent of arable land.[13] As a result, Chinese leaders have been able to bargain political quiescence from the general population in exchange of economic gains and increased food security.[14] On the flip side, this progress has taken a heavy toll on China's land and water resources and have greatly deteriorated its overall environment. In addition, as China's average household income has increased, so has the demand for new types of foods such as meat and dairy products, certain vegetables, fruits, etc.

Grains are essential to China's national food security because they are a main source of human food, animal feed, and raw materials for processed food products.[15] In fact, the term "food security" translates literally to "grain security" in the Chinese language and is measured exclusively in terms of self-sufficiency. Thus, grain self-sufficiency has been at the heart of long-term Chinese food security plans, with established targets at 95 percent or higher for rice, wheat, and corn.[16] More specifically, China aimed at producing 95 percent of its domestic consumption of these three grains. When combined, these commodities account for 99 percent of Chinese grain production.[17] Thanks to government market interventions (e.g., subsidies or prices incentives) and large-scale investments in agricultural R&D and infrastructure, China achieved grain self-sufficiency throughout the 1980s and 1990s.[18] As part of these efforts, China established national grain stockpiles in 1990 and a system that coordinates central state and provincial grain reserves.[19] As previously discussed, these strategic reserves are a state secret, and Western countries have little information about their true size and quality.

Despite the earlier successes, self-sufficiency rate of certain foods fell below the 95 percent target in the early 2000s and agricultural imports began to surge. Past concerns about food security in China led the Chinese government to commission studies looking at changing food consumption patterns starting in the 1980s. Those studies predicted important deficits in
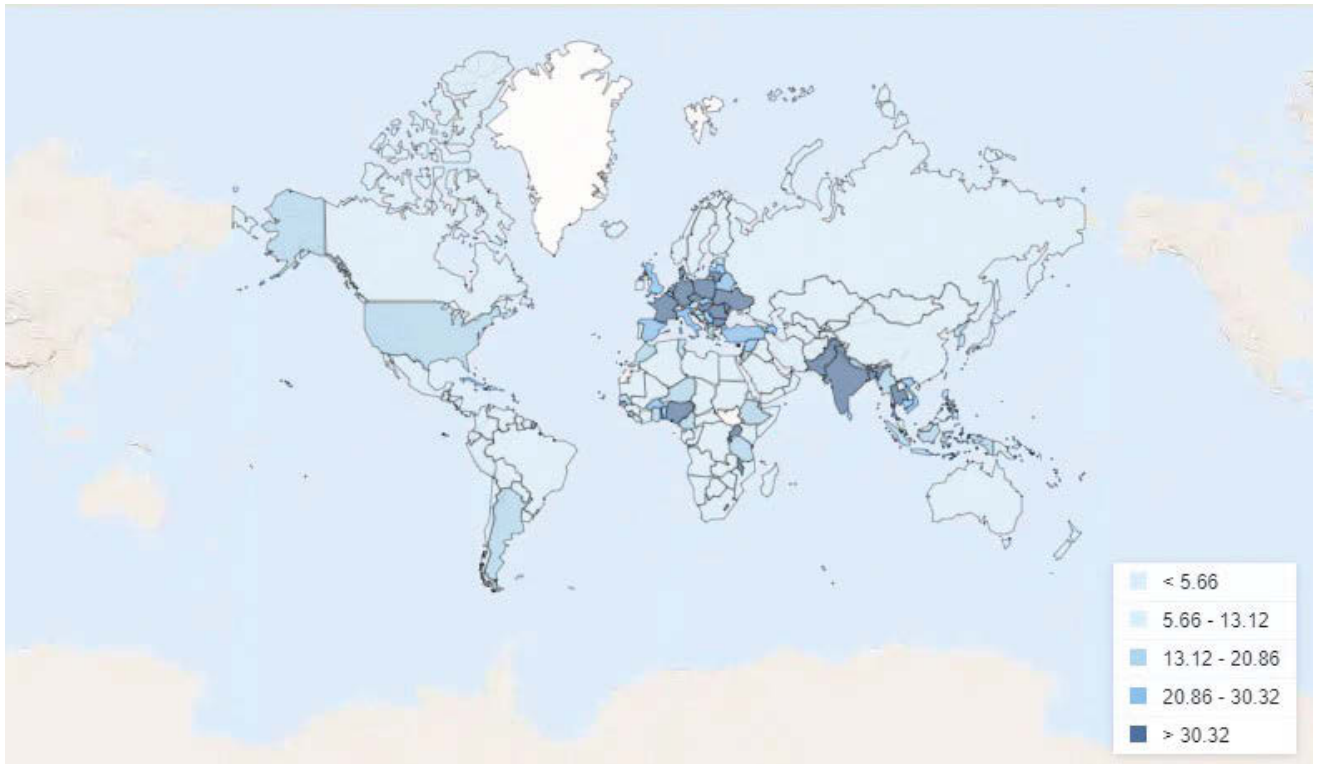
(Figure courtesy of the World Bank [2021])

Figure 1. Arable Land as a Percentage of Total Land (2018)

key food products such as grains, meats, and vegetable oils by the end of the twentieth century.[20] Another study later argued that grain production in China would stagnate due to limited arable land, lack of important productivity grains, water insufficiency, and environmental problems. The same study predicted that China would have to import 200 million tons of grain by 2020.[21] Interestingly, in that same year, China's combined imports of corn, soybeans, wheat, rice, and sorghum already totaled 150 million metric tons. These shortcomings in food production can be explained by two major causes.

Challenges of Agriculture and Food Systems in China

Land. Despite its place as the third largest nation in the world, China falls behind other major food producing countries in terms of the availability of arable land (figure 1). Rapid urbanization, pollution, and uses of land for other purposes have all contributed to a rapid decline of agricultural land in China. The total pollution rate in China's farmland soil is estimated at 10 percent,

and about 2.5 percent of that land cannot be cultivated due to excessive contamination with heavy metals.[22] As a result, it is estimated that the country has a domestic planting area shortage of 90 million hectares.[23] This cropland shortage is expected to worsen and will further undermine China's goals for food self-sufficiency.[24] To address this issue, the CCP accepted a growing reliance on imported soybeans to free up millions of cropland acres for other higher yielding crops.[25] Despite that effort, as environmentalist and author Lester Brown had predicted, the production of rice, wheat, and corn have remained flat or have trended downward in the last decade mostly due to decreases in area planted.[26]

Water. China's agricultural sector became heavily dependent on irrigation after important public investments over the last five decades to expand irrigated crop areas. Today, half of the cultivated land is irrigated and between 70 and 90 percent of Chinese grain, cotton, and vegetable production comes from this irrigated land. However, the sustainability of the current agricultural model is now in question due to widespread water scarcity.[27] Irrigation agriculture

accounts for 60 percent of China's total water demand and is characterized by inefficient delivery—30 to 40 percent efficiency versus 70 to 80 percent in developed countries. Freshwater resources are also geographically unevenly distributed, with 80 percent of the water resources concentrated in southern China; the northern part of China is expected to run dry within thirty years. This spells trouble for food security because the northern provinces account for 65 percent of the country's cultivated land and 50 percent of the country's grain production.[28]

The groundwater water table in China has fallen steadily or has been contaminated following over forty years of excessive water withdrawals. In addition, there have been significant declines of the river runoff across the six major river basins. The United Nations concluded that China is facing extreme water shortages and the underlying causes behind this water crisis include growing demands from the agricultural sector, rapid urbanization, and pervasive pollution of water sources. Climate change will likely exacerbate water scarcity in all river basins in northern China and some river basins in the south.[29] If not addressed, water scarcity will endanger irrigated agricultural production of wheat and rice—productivity of these two crops in rainfed areas is much lower than yields from irrigated operations.[30]

Agricultural labor. As China industrializes its economy there has been a massive exodus of labor out of rural regions toward more urban and industrial areas. The decreased availability of agricultural laborers could become a constraint if China seeks to suddenly increase agricultural production to meet food security objectives in the years ahead.

Food waste. In line with what occurs in developed economies, food waste is also a growing problem in China. Due to inefficiencies, it is estimated that between 14 and 18 percent of Chinese total grain production is lost along different stages of the supply chain—production, processing, and distribution or transportation.[31] The CCP has been tackling this issue and launched a national campaign last year in which President Xi Jinping asked people not to waste food. Chinese authorities are also encouraging families to preserve food stocks that could be interpreted as setting the stage for a scenario in which they may need to implement stringent measures to secure food supplies.[32]

Changes in Chinese Diets

For decades, the Chinese diet has shifted from traditional grain consumption to animal products (e.g., meats and dairy products) and other processed food products (e.g., wine and liquor). Today, China accounts for nearly 30 percent of global meat consumption, with pork accounting for 75 percent of that.[33] This puts tremendous pressure on China's limited resources because production of animal products requires much more arable land and other inputs. To keep up with this fast-growing demand, Chinese livestock production has been shifting from small-scale and backyard production to much larger-scale and concentrated operations. For instance, new hog production facilities are several stories high with many animals. Under this new production model, traditional feeds like brans and hulls of wheat and rice, tubers, and food wastes that used to supply a significant share of energy to China's livestock have been replaced by soybean meal and corn rations.[34] Due to domestic production shortages, imports of soybeans rose from 3.85 million metric tons in 1998/99 to about 100 million metric tons in the 2020/21 season. Today, China accounts for about one-third of the world's soybean consumption, and it buys 60 to 70 percent of global soybean exports.[35] China is also importing more corn as the consumption of corn for feed, processed foods, and industrial products continues to grow.[36] Chinese corn imports increased from 262,000 metric tons in 1998/99 to 28 million metric tons in 2020/21. These changes are shaping international grain markets and have already sparked increases in global prices for corn and soybeans during 2020 and 2021.[37]

In summary, until China properly addresses these serious challenges, it will struggle to attain desired grain self-sufficiency goals, and it will continue to rely on imports.

Growing Dependence on Imports

Up to 2007, China was a net exporter of cereal grains (mainly corn) and achieved a 97 percent self-sufficiency in major bulk commodities.[38] With China's changing diets and limited endowments of land and water, grain self-sufficiency cannot be fully achieved with domestic production alone. Faced with this new reality, Chinese authorities introduced a new food security strategy in 2014 and embraced the growing use of international markets and "moderate imports" for agricultural products
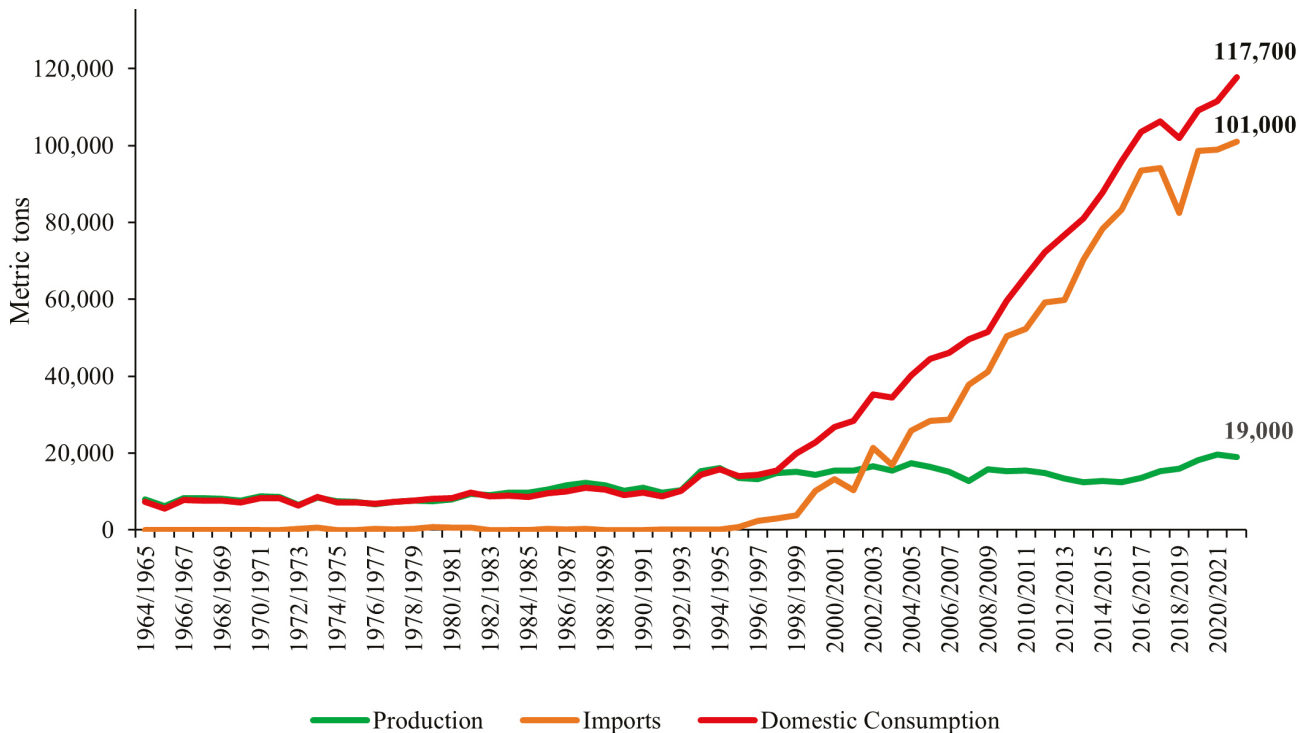
(Figure courtesy of the Foreign Agricultural Service, U.S. Department of Agriculture)

Figure 2. China's Annual Production, Consumption, and Imports of Soybeans (in Metric Tons) from 1964 to 2022

as a complement to domestic supply.[39] More specifically, China began to focus on maintaining self-sufficiency for certain grains (e.g., wheat, rice, etc.) while accepting a growing dependence on imported feed grains, oilseeds, food oils, meat, dairy, and processed foods.[40] By choosing to fully depend on foreign soybean imports, China is freeing up enough land to remain self-sufficient in the production of rice and wheat. China is already the world's largest food importer, but by 2030, Chinese foods imports shares are expected to increase between fivefold and sevenfold over today's baseline, depending on overall economic growth. Food imports now account for 7 percent of the country's overall imports, and China now imports nearly 80 percent of consumed soybean and other food products such as milk and sugar.[41]

Under this new strategy, China's current domestic food supply gap stabilized at a range of 100 million to 150 million tons. As shown in figure 2, this includes around 100 million tons of soybeans that must be imported every year along with tens of millions of tons of feed grains such as corn, sorghum, etc.[42]

A handful of countries supply most of these imports. More specifically, in the past five years, the United States and Ukraine accounted for 98 percent of China's corn imports (see figure 3, page 90). The United States, Brazil, and Argentina supplied nearly 97 percent of all Chinese soybean imports, with Brazil emerging as the world's leading producer and exporter. It is important to note that South American countries and the United States sell these commodities to China at different times of the year due to differences in their crop cycles. For instance, the U.S. soybean export peak season goes from September to February, while South American countries ramp up their soybean shipments in the following months.

While China produces large amounts of meat and dairy products, imports of these products have also surged in recent years (see figure 4, page 91). Recent events exposed the fragility of China's livestock sector and its growing dependence on international protein sources. First, from 2018 to 2021 there were various outbreaks of African swine fever–a highly contagious virus. During this time, China was forced to cull about
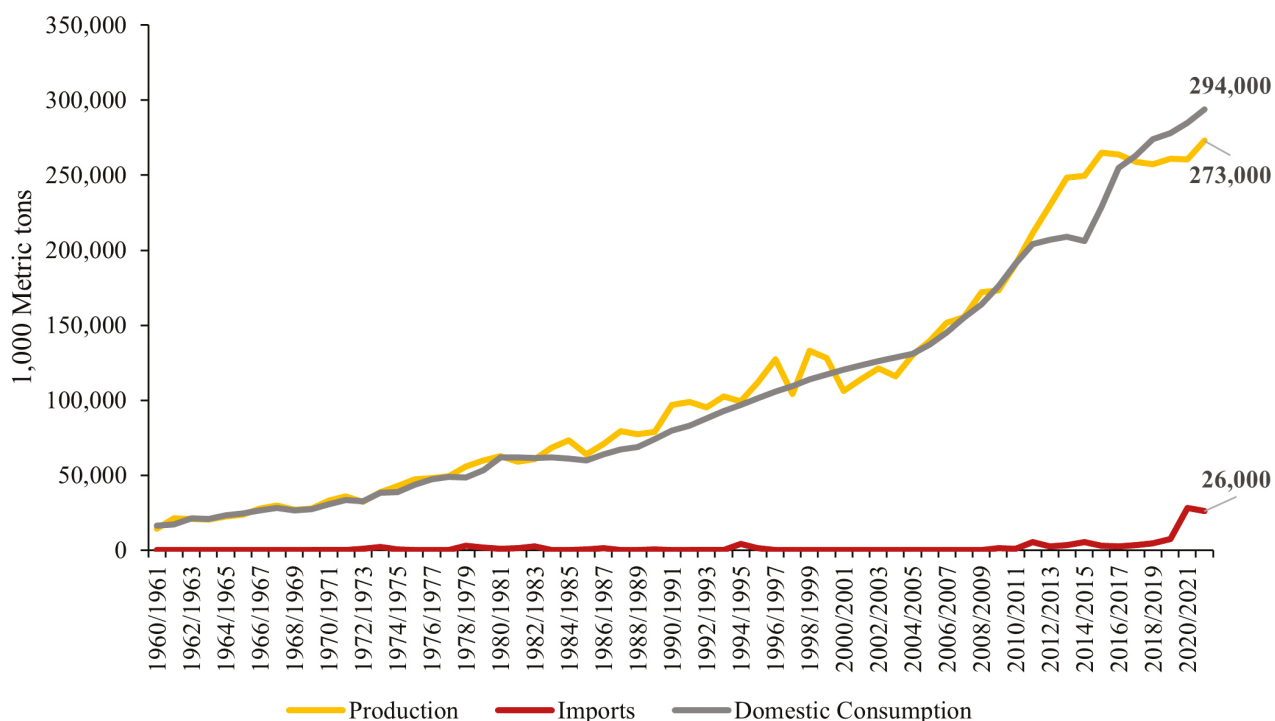
(Figure courtesy of the Foreign Agricultural Service, U.S. Department of Agriculture)

Figure 3. China's Annual Production, Consumption, and Imports of Corn (in Metric Tons) from 1964 to 2022

half of the world's largest swine herd.[43] While it was tackling these outbreaks and rebuilding its swine inventory, China was forced to import record volumes of pork to meet domestic demand and to control spikes in local pork prices. Because pork is such a staple food, the CCP closely monitors pork prices and availably because high prices can quickly lead to consumer inflation and popular discontent. Also, China recently banned imports of Australian beef as a retaliation to Canberra's call for an inquiry into the origins of the COVID-19 pandemic. However, other supplying countries quickly filled the void left by Australia and beef imports continue to increase. For instance, the United States is exporting record volumes of beef to China this year.

While China is the world's largest milk producer, it only meets 70 percent of its domestic consumption and must import the remainder. Moreover, Chinese population is suspicious of domestic milk products and prefers to purchase imported dairy products following several deadly food contamination and adulteration events. As figure 5 shows (on page 92), imports of dairy

product have been rapidly increasing since 2008. To address this deficit, China is expanding the number of large-scale dairy farms. However, a larger dairy-cow herd will require even more feed grains and only exacerbates China's existing dependency on imports.

China's food self-sufficiency is in fact more compromised than what an initial look at agricultural import numbers might suggest. Driven by oilseeds, vegetable oils, certain meat and dairy products, China's food self-sufficiency could come down to 87 percent.[44] Unless it undergoes major agricultural reforms that increase productivity and address structural factors such as a shrinking rural labor force and scarce farmland and water, China will continue to import more grain and other food products in the foreseeable future.[45]

Food Security and Military Conflicts in China

A full-scale war between China and Western countries would disrupt international trade flows. China would not be able to maintain its current levels of food
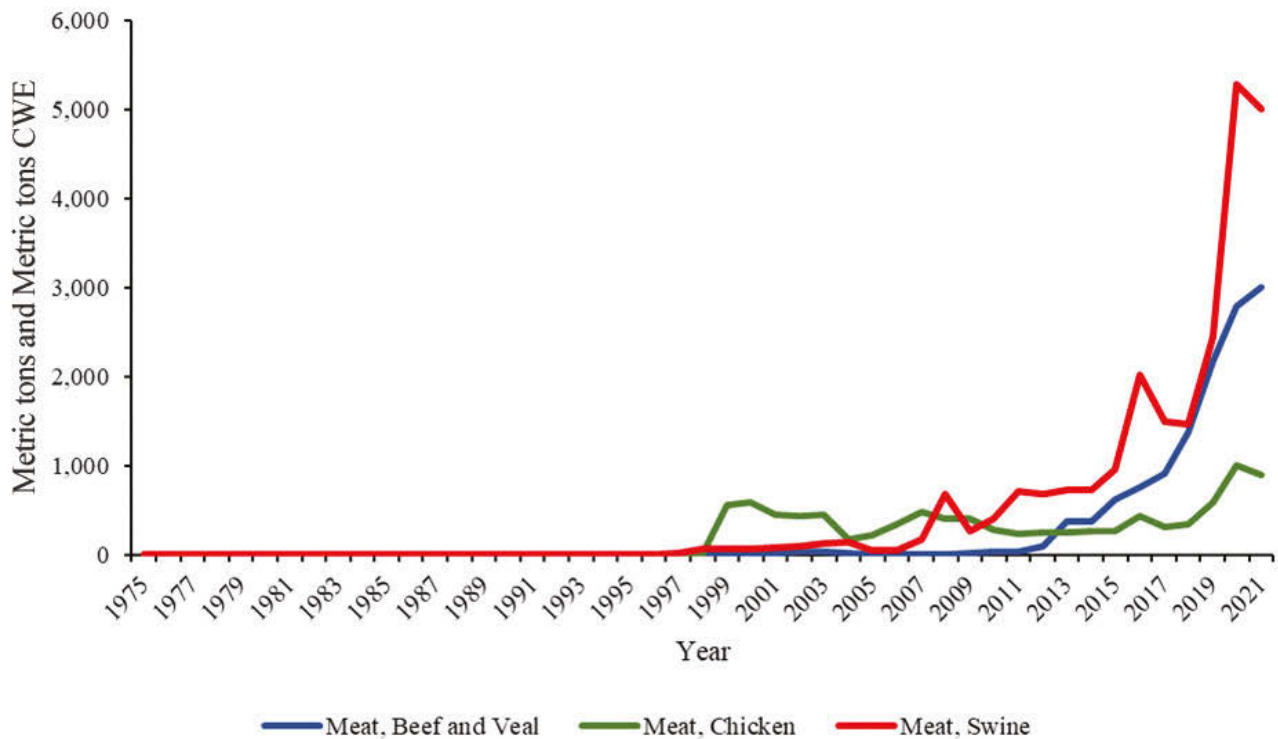
(Figure courtesy of the Foreign Agricultural Service, U.S. Department of Agriculture)

Figure 4. China's Annual Imports of Meat by Animal Species (in Metric Tons and Metric Tons Carcass Weight Equivalent [CWE]) from 1975 to 2021

imports and its population would be forced to change its food consumption patterns.[46] Furthermore, Western nations could impose trade embargos or naval blockades to China to exert economic pressure. This section discusses how a military conflict could impact food security in China and what possible actions the CCP could take to mitigate those impacts.

Use of national strategic food reserves. The Chinese government would resort to its strategic food reserves to at least meet the country's subsistence food consumption levels during the early stages of a conflict. However, this raises important questions such as how much food China can store, which commodities can be stockpiled, and for how long. While these questions remain mostly unanswered due to the secrecy surrounding these strategic food reserves, Chinese authorities assure that wheat and rice reserves are large enough to feed their population for up to two years.[47] Another important consideration is the quality of grains, which invariably degrades over time, but at a faster pace in the absence of the right storage

conditions (e.g., moisture levels). Furthermore, setting aside such large volumes of grain requires a massive infrastructure of grain silos and elevators, and there is anecdotal evidence that China has resorted to other storage alternatives such as tunnels dug into mountains. Such options are clearly suboptimal and will affect grain quality and shorten storage durability. Moreover, grain reserves would only buy Chinese livestock producers one to two years before they would start struggling to feed their animals.

Increasing domestic food production in China and abroad. With China using up its national strategic reserves and unable to import the food it needs, the country would have to find ways to quickly ramp up its domestic food production. This strategy not only would take years to yield visible results but would also face formidable challenges. For instance, limited endowments or widespread pollution of arable land and water, coupled with the decline of rural population, would all limit China's ability to quickly increase food production. In fact, China's recent massive investments
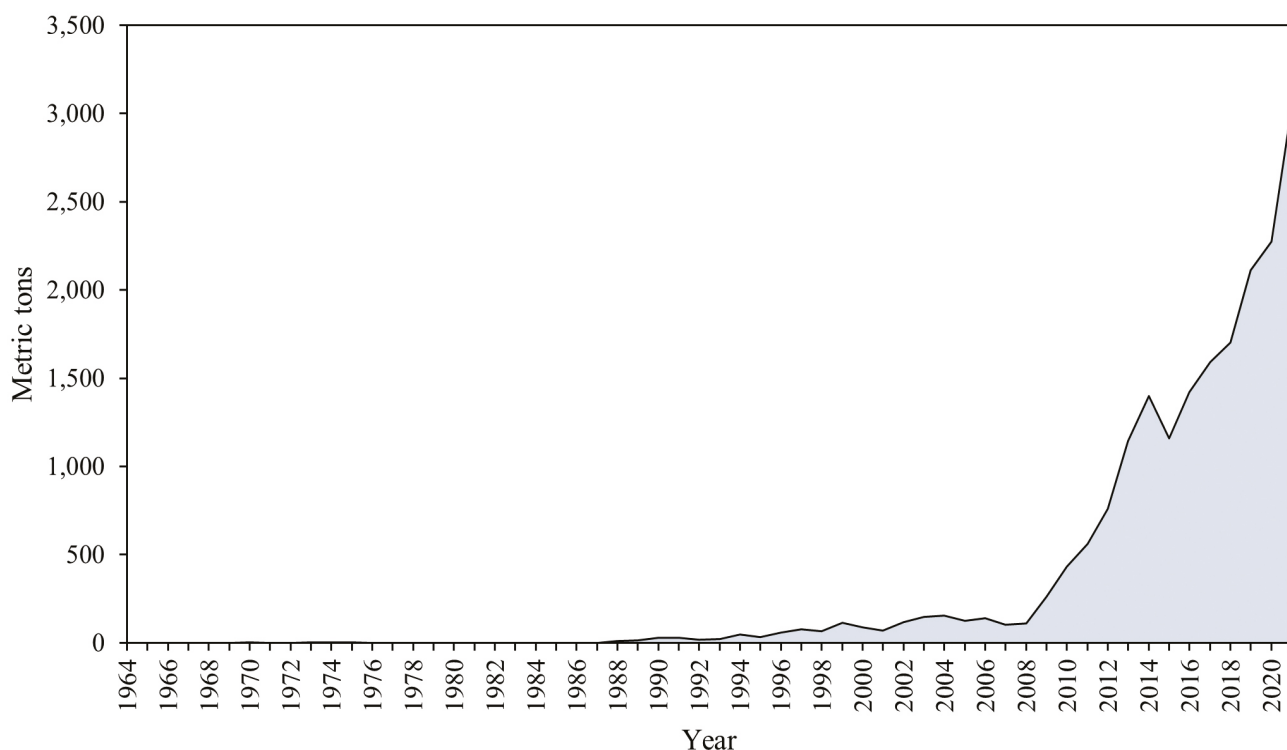
(Figure courtesy of the Foreign Agricultural Service, U.S. Department of Agriculture)

Figure 5. China's Annual Imports of Dairy Products (in Metric Tons) from 1964 to 2021

on fishing and agricultural production in Africa and Asia bear testament to that grim reality. More specifically, China is purchasing agricultural land and food businesses around the world and contracting foreign farmers to supply China with specific food products.[48] For example, Chinese agribusinesses have purchased and leased large amounts of farmland in African countries such as Algeria and Zimbabwe to produce crops and export them to China. China also made important investments in pork and dairy production in the United States and New Zealand.[49] These investments are part of China's food security strategy to gain greater control over the supply chains for food imports. In fact, Xi encouraged agricultural investment abroad as a means of preserving national food security and in support of China's diplomatic efforts.[50] Nevertheless, it is unclear how effective and resilient this strategy would be during a war in which opponents could target and disrupt the international supply chains.

Mandating changes in food consumption patterns. During a full-scale military conflict, the civilian population of a combatant country might have to endure shortages or rationing of food products. Meats, seafood, dairy products, and processed foods might no longer be available to the general public, and people would then be forced to live at a subsistence level surviving on basic staple foods. As previously stated, without a steady supply of imported animal feed, the Chinese livestock sector may have to resort to culling animals or even facing temporary shutdowns that would reduce the steady production of pork, beef, or milk. These shortages would also be worsened by any disruption of Chinese imports of those same goods.

This would force large shares of the Chinese population to revert to primary food products (rice, wheat, pulses, etc.) and to give up "luxury" food products such as animal protein. One can only speculate as to how the average Chinese person—especially the burgeoning middle class—would react to food shortages and rationing for extended periods of time. Nevertheless, the CCP would be looking for signs of growing social discontent and political unrest. Equally difficult to
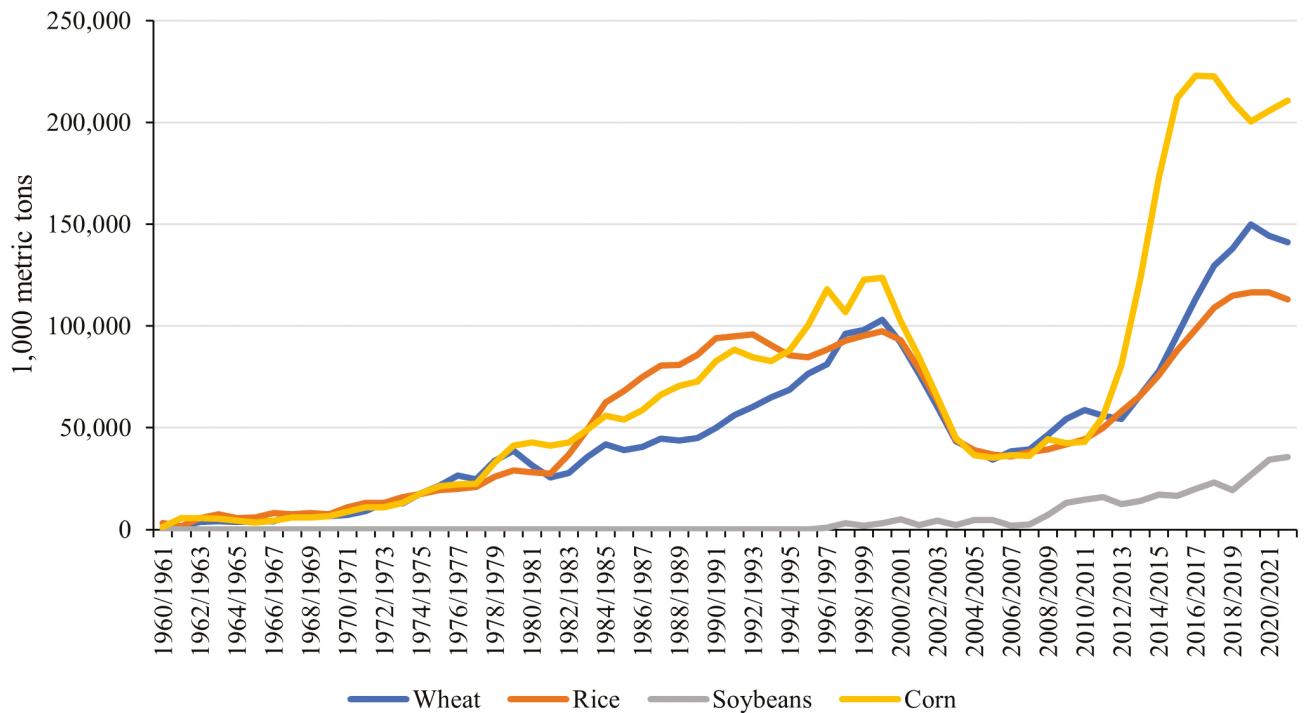
(Figure courtesy of the Foreign Agricultural Service, U.S. Department of Agriculture)

Figure 6. China's Ending Stocks of Wheat, Rice, Soybeans, and Corn (in Metric Tons), from 1964 to 2022

predict is how the Chinese government would be able to enforce temporary changes in the diets of over 1.4 billion people and have them surviving on basic food staples from China state food reserves.

Lastly, it is important to recognize that a trade embargo might only have a limited impact as China would seek to import needed food products through alternative routes and suppliers. This could be achieved in large part due to massive investments in transportation infrastructure that China has been making as part of its Belt and Road Initiative. The vast network of new railways, highways, and border crossings could give China new options to circumvent a naval blockade and bring needed food products from Russia, former Soviet republics, Pakistan, India, or other Southeast Asian countries. In addition, the United States would have to form a coalition and convince countries such as Brazil, Argentina, and Ukraine to join and to help enforce the trade embargo. This would be a tall order for U.S. diplomacy as China is a major and very lucrative export market for all these nations.

Metrics and Indicators to be Monitored

This section presents selected economic indicators that should be closely monitored by U.S. military and intelligence communities. These metrics could reveal China's efforts to make its food supply chain more resilient to a military conflict.

Food imports, national food and strategic reserves, and commodity stocks. The United States should monitor China's state purchases of key food imports aimed at building up the nation's food strategic reserves and overall stock levels. The authority overseeing such purchases is the National Food and Strategic Reserves Administration. Nevertheless, such assessments remain difficult because of incomplete data, secrecy surrounding policies and regulations, and market-distorting interventions by Chinese authorities.

Indicator. The U.S. Department of Agriculture Production, Supply and Distribution (PSD) datasets include estimates of annual commodity stock levels for many commodities and countries. Since 2010, China has increased its stocks of major commodities to record

Honghe Hani rice terraces in the Honghe Prefecture, Yuanyang County, Yunnan, China, 16 September 2016. It is a world heritage site, and the crops are mainly cultivated by the Hani and Yi ethnic minorities. (Photo by Dan Yeger, Alamy Stock Photo)

levels (see figure 6, page 93). Going forward, it is important to evaluate the true motivations behind future increases in wheat, rice, soybeans, and corn stocks. These are some important questions that U.S. observers should consider: Are larger stocks driven by market considerations or government policies to support domestic prices? Or are they signaling a food reserve build up for a military conflict?

Because Chinese authorities limit imports to a supplementary role in the food supply, there are certain trade patterns that may warrant a closer analysis. These include things such as continuous increases and large deviations from historical trends, trade flows going against market signals, and sudden changes in agricultural imports and exports. For example, a 2014 U.S. Department of Agriculture report showed that China imported 100 million metric tons of corn in 2013/14, which represented approximately 50 percent of its annual corn consumption.[51] Hence, China must produce and import a combined total of 200 million metric tons of corn to meet its annual needs. While this number has likely increased since 2013 because of Chinese growing demand for feed grains, it represents an example of a reference point for those monitoring food security in China.

Indicator. China's population is no longer growing and will soon start to decline, but as more families move up to the middle class, demand for meat and dairy products will likely continue to increase in coming years. To meet that demand, China will have to increase its livestock and dairy production or resort to more imports. In that context, increases in imports of oilseeds (for poultry and hogs) and feed grains (for beef and dairy operations) must be explained by proportional increases in livestock production. Hence, above average growth in grain imports that are not matched by increases in livestock production could point to an expansion of strategic grain reserves beyond their current levels.

Indicator. China is also a global large exporter of certain agri-food commodities such as fish and seafood, vegetables, fruits, nuts, vegetable oils, among others. Food products account for near 7 percent of the total volume of Chinese exports and 2.5 percent of their value. The United States should look for sudden decreases in China's traditional agricultural exports that are not

explained by market factors. These could indicate a redirection of exports toward stockpiling the national strategic food reserves.

The United States and its allies should also watch for unusual surges in China's imports of food products having longer shelf lives.

Indicator. Chinese imports of dairy products have grown dramatically in recent years, and milk powder accounts for half of those imports, mostly originating from New Zealand. It must be noted that milk powder is widely used to produce infant formula and other milk products. Chinese consumers became increasingly suspicious of domestic milk products after a series of deadly food contamination scandals involving infant formula. If China anticipates a war that will disrupt its dairy imports, it could try expanding its domestic production. However, this would only increase the need for imported animal feed. The other alternative would be to build up its reserves of powder milk by importing more of it instead of purchasing other necessary but more perishable dairy imports (e.g., whey, cheese, butter, etc.).

In the past, China resorted to imports when domestic commodity prices for specific grains were high relative to global prices. For instance, after adverse weather conditions impacted the 2021 Chinese corn crop, domestic prices soared, and China imported record levels of corn from the United States.

Indicator. At times a commodity produced in China is more expensive and less competitive than imports. Hence, noticeable increases in commodity imports in a context of low domestic prices would go against economic logic and should warrant close monitoring, as they could be motivated by nonmarket reasons.

Another thing to look for are significant and counterintuitive shifts in China's food imports portfolio. Bulk commodities and grains continue to account for the largest share of China's agricultural imports. However, rising income levels of Chinese households has transformed their tastes and sparked a demand for higher value imported foods such as wine, coffee, and tea.

Indicator. A sudden decrease in imports of luxury and value-added food products coupled with unusual surges of staple food imports could represent an effort to build reserves that cover basic nutritional needs during a war. Another example would be an increase in imports of specific types of wheat that are used in certain breads and processed goods that may not be typically grown in China.

Conclusions

China will continue to build up its conventional military, nuclear stockpile, and cyber capabilities to close the gap with the United States. While these are areas in where the two countries will soon become near-peer or peer competitors, the United States will likely retain its competitive edge over China in terms of food production and self-sufficiency.

As China establishes itself as a global economic powerhouse, food consumption there will continue to rise in volume and quality. Consequently, the CCP will have to decide if it is willing to increase food imports to free up limited resources and allow farmers to focus on more profitable and productive crops. Chinese leaders will have to walk a fine line between managing food self-sufficiency and feeding their 1.4 billion people. A possible weaponization of food imports by the United States and its allies could pose a serious threat to China's future policies and diplomatic actions. Nevertheless, under well-orchestrated propaganda campaigns and coercion, the CCP could galvanize the Chinese population in the event of a war and trade blockades imposed by Western nations. Under such a scenario, the CCP could instate strict diet restriction and rationing while averting social unrest and popular revolt.

This scenario is likely part of Beijing's calculus, but it remains unclear whether Chinese leaders view disruptions in food imports and food security as an inhibitor to entering a full-scale military conflict. This is because China could have already incorporated the build-up of food reserves and other policies to its planning process for a hypothetical war. Thus, the U.S. military and intelligence communities must remain vigilant and look for signs of such efforts.

Nevertheless, if the United States is to effectively exploit this weakness as part of broader economic statecraft, it will need to work closely with other countries to forge a coalition against China. For example, if the United States wants to truly disrupt Chinese imports of critical food commodities such as animal feeds, a simple naval blockade may not suffice. This effort must also involve compensation mechanisms that would incentivize Brazil, Argentina, or Ukraine to temporarily forego their agricultural exports to China. This is particularly important because China is a major export market for all those countries. The implementation of such policies would

involve the participation of a broad set of stakeholders such as the State Department, U.S. Department of Agriculture, the Office of U.S. Trade Representative, academic experts, and industry groups. ∎

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Staff Sgt. Jean M. Whaley, the suicide prevention program manager for the Mississippi Army National Guard, fistbumps a soldier after a conversation 6 June 2016 at Fort Hood, Texas, during a multiechelon integrated brigade training exercise (MiBT). Whaley is a member of a behavioral health team composed of a nurse practitioner, a behavioral health specialist, a medic, and a chaplain from the Mississippi National Guard, whose mission is to take care of the soldiers during the 155th Armored Brigade Combat Team's MiBT. The stigma associated with mental health counseling in the military has decreased greatly, but leader involvment can also be an effective way to help poorly adjusting soldiers. (Photo by Sgt. Connie Jones, 102nd Public Affairs Detachment)

Rediscovering Leadership as an Antidote to Adjustment Problems in the Army

Maj. Karl Umbrasas, PsyD, ABPP, U.S. Army

Leaders must reclaim their role as mentors who teach soldiers how to adapt to the Army. Seamless access to behavioral health resources may inadvertently reduce leader involvement with poorly adjusting soldiers. Diversion of these soldiers to behavioral health deprives leaders of the opportunity for deeper involvement with them and ultimately from creating a cohesive unit culture. Displaced leader presence may perpetuate soldier adjustment problems and ingrain a leader practice ill-disposed to the future battlefield. The anticipated rigors of large-scale war will stifle routine access to behavioral health, suggesting the need for leader-driven methods of maintaining mental readiness and unit integrity without strict reliance on behavioral health.

Army leadership doctrine explicitly states that leaders work to integrate new members rapidly and effectively into the unit and use unit activities to build esprit de corps.[1] Army leaders are coaches and mentors who develop cohesive teams and who lead by example. According to doctrine, Army leadership is an engaged and dynamic social adhesive constantly at work with subordinates; in practice, however, Army leadership is a corporate process focused on deliverables and outputs to higher levels of the rank structure.[2] The effects of the corporate process are clearly seen at the company level where leadership is overworked often due to excessive tasking from higher echelons.[3] The focus on providing support for installation functions, noncombat-related training, and any number of details and working parties keeps units fragmented and preoccupies company-level leaders with ensuring that deliverables are met. There is little time for the vast array of individual and team-building practices prescribed by doctrine.

Insufficiently cohesive and overly stressed units become social groups that suffer anomie. Anomie occurs when the norms of a group are unclear.[4] People feel less tied to their group during anomie and individual goals become confused. Anomie contributes to a feeling of meaninglessness, and in the extreme, it is a driver of suicide.[5] Units that are bogged down with tasks unrelated to their functional mission will not be able to create the organic solidarity needed for cohesion. Soldiers tasked to beautify the installation, check identification cards, and complete online trainings, in addition to their other duties, may question their purpose. With their soldiers completing stove-piped tasks, often in disparate locations, leaders will not have the opportunity to instill the institutional, or moral, regulation needed for cohesion. Leadership becomes an impersonal series of task directives, and soldiers are soldiers insofar as they complete their tasks. Anomie may occur in such a situation and contribute to a source of distress that propels soldiers to behavioral health.

Perception of behavioral health utilization is greatly improved from the recent past. The decrease in stigma across the military can be seen in the long wait getting an appointment with a behavioral health provider.[6] So many service members are using behavioral health that the system is backlogged. One estimate of Army behavioral health utilization found that 21 percent of soldiers used mental health services in a twelve-month period.[7] Soldiers seek behavioral health treatment for several reasons. Some soldiers may have had an undiagnosed mental disorder upon entry to the Army, and the distress related to that disorder only became apparent during their time in service. Soldiers may have also had a predisposition to a mental disorder that manifested in conjunction with the stress of the Army. Furthermore, soldiers may have acquired a condition, such as posttraumatic stress disorder or adjustment disorder, during their time in the Army. Yet, soldiers commonly seek behavioral health services for reasons less emergent. High-functioning soldiers may believe they have attention-deficit/hyperactivity disorder and seek pharmacologic treatment for their disorder when they perceive they are not performing to their standard. Soldiers in training status may have difficulty with the military lifestyle and seek behavioral health

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Adjustment disorder accounts for over one quarter of the soldiers receiving behavior health treatment. (Photo taken 8 September 2016 by Erin Bolling, USAMMDA PAO)

peers, missing life back home, facing the reality of adulthood, or just wanting to be away from the workplace. Soldiers with these complaints, and their attendant anxiety and depression, may be diagnosed with adjustment disorder if their distress is great or if their symptoms impair their ability to function. If so, they are provided psychological and pharmacologic therapies with the expectation that they will adjust to their perceived stress and return to full functionality. Many of the psychosocial problems that grow into an adjustment disorder are preventable, suggesting the need for more emphasis placed on prevention.

The Leader's Role in Preventing Adjustment Disorder

Adjustment disorder is a condition commonly treated by Army behavioral health. An adjustment disorder is the development of distressing and impairing symptoms that occur in response to a stressor.[8] Across the military, adjustment disorder accounts for 25 to 38 percent of service members receiving behavioral health treatment.[9] In a sample of Army aviation personnel who received a behavioral health diagnosis, 38 percent had an adjustment disorder.[10] Military suicides occur more frequently with adjustment disorder than many other psychiatric conditions.[11] The military environment may foster adjustment disorder through the nature of the military: strict discipline, loss of control, increased feelings of stress, and reliance upon others. Young people are also removed from their social support and stress-buffering systems when they join the Army, which may result in the magnification of feelings of stress if they do not acquire new methods of coping. It is important to recognize that an adjustment disorder is a psychiatric

counseling for the malaise brought on by the novelty of the military. Leaders may also send their soldiers to behavioral health when they see a range of problems, including soldiers having difficulty with others, soldiers not performing well at work, or soldiers exhibiting disciplinary problems.

Army behavioral health often serves as a venue for working with soldiers who have difficulty adjusting to the psychosocial circumstances of the military. Some of the psychosocial circumstances soldiers struggle with include dealing with a boss, interacting with

disorder that requires professional attention. Army leaders must leave treatment to the behavioral health professional. Leaders, however, play an integral role in preventing adjustment disorder.

Anomic situations at the unit level may be a driving force of individual soldier maladaptation. Units may lack solidarity because of a focus on tasks and deliverables that are disconnected from the unit's military mission. Esprit de corps is not established when

and "common objectives" were rated highly by study participants. Participants cited "sharing hardships," "sharing burdens," and "mutual respect" as important to morale and cohesion.[13]

The author of this article served as an organic behavioral health officer in an infantry brigade combat team for fifty-five consecutive months, during deployment and in garrison, and observed how leadership has a direct impact on mitigating or instigating adjustment

> " Soldiers from 'that unit' do not have unusual cases of mental illness; rather, they are exhausted, distrustful of leadership, dejected, and confused. They feel like they have no purpose. "

the unit is engaged in relatively uncooperative, seemingly irrelevant tasks. Soldiers may become understimulated, resentful of work or of others, and nihilistic in their outlook. In these situations, leaders do not guide their soldiers and foster a culture of solidarity beyond ensuring that tasks are complete. Soldiers become familiar to leaders when they exhibit behavior problems, such as avoiding work or not getting along with peers. These soldiers may eventually go to behavioral health because of feelings of anger, depression, or anxiety, or their leaders may recommend they go to behavioral health out of a good-faith concern about the soldier's well-being. Once at behavioral health, the soldier is assessed as appropriate, and if symptomatic, becomes a psychiatric patient.

The association between poor unit cohesion, leadership, and behavioral health disorder was noted in the Military Health Advisory Team 9 study.[12] Ratings of perceived unit cohesion and unit readiness were lower in Military Health Advisory Team 9 than previous studies. The study found a significant correlation between a poor perception of leaders and high behavioral health risk, while effective leadership was associated with improved behavioral health and organizational effectiveness. The study found that soldiers consistently complained about disengaged leadership, of "people sitting in the TOC [tactical operations center]" not having awareness of what was happening on the ground. The themes of "teamwork"

problems. One brigade commander had the effect of lowering suicidal behavior within the brigade by keeping the brigade focused on combat-related training. Although various battalions had different tasks—some overseas, some training other units in the continental United States, and others in the field—they all were focusing on missions that reinforced their military identity. The brigade commander attributed the decrease in behavioral health emergencies to an "idle hands" theory, but he tapped into something much deeper. By giving his unit a military mission and zealously executing that mission, his soldiers had shared meaning and purpose—the opposite of anomie.

The author's experience in Army clinics, Army community hospitals, and Army medical centers provided opportunity to notice a trend across installations pertaining to "that unit." "That unit" is familiar to any behavioral health provider who works for the Army. "That unit" denotes an organization with high behavioral health utilization due to organizational problems. The high utilization is more specifically related to the unit's leadership as evidenced by soldiers complaining about the unit, by specific names of leaders becoming familiar to behavioral health providers because so many of their soldiers complain about them in therapy, and by soldiers heavily relying on the emergency walk-in service. Soldiers from "that unit" do not have unusual cases of mental illness; rather, they are exhausted, distrustful of leadership, dejected, and confused. They feel

like they have no purpose. The unit cohesion is evidently poor, and at least from the perspectives of the unit's soldiers, it is due to leadership. Anomie is apparent in those units and contributes to adjustment problems. "That unit" could come from infantry, cavalry, aviation, transportation, medical, Advanced Individual Training, or any other units.

A unit's anomie and associated adjustment problems may become particularly manifest during red cycle taskings. Red cycle is the part of the Army's green-amber-red time management system where a unit executes higher-headquarters-directed taskings.[14] During red cycle, soldiers may be sent to disparate locations on post or elsewhere to accomplish tasks that oftentimes do not have a military character. Soldiers complain about understimulation and disconnectedness when on red cycle tasks. They may also experience feelings of meaninglessness and rage as they contemplate the futility of their work or the leave they feel was unjustly denied. They are away from their parent unit and social support during red cycle, so their stress management resources are often compromised. Red cycle taskings provide a clear example of how lack of meaning and purpose can lead to the feelings of stress that manifests as an adjustment disorder.

Army leaders should consider how their unit cohesion contributes to stress that eventually manifests as a behavioral health condition. It is necessary to recognize that many leaders, especially those at lower levels, are constrained by higher echelons on what they can do. Subordinate leaders must communicate to higher echelons the impact expected deliverables have on the health of their unit, while meeting the prescribed tasks. Despite their constraints, company-level leaders can work to provide a greater sense of belonging, fairness, and shared identity that may buffer the stress inherent to Army life and work against anomie. On an individual level, for example, leaders can proactively help soldiers who display problems integrating into the unit or help settle disputes between soldiers. This requires leader presence to identify potential problems before they become problems and willingness to become involved in soldier matters.

When they are more involved with their units, leaders reclaim an important leadership role that has been unintentionally usurped by behavioral health—mentoring. Leaders should be the ones teaching their soldiers about the realities of the military, about maintaining perspective, and about how to get along with their battle buddies. Yet, it is often a psychotherapist who helps the soldier problem solve out of their difficulties, or who helps them better understand their leaders and peers. These human problems are not psychiatric disorders in and of themselves; however, they are seeds of something more serious the longer they are misperceived. A leader who genuinely helps a new soldier understand the realities of the military may prevent a range of misinterpretations by the soldier if left to the soldier's own perception of the matter. For example, leaders can help soldiers understand that everyone gets chewed out in the Army, while at the same time helping soldiers see they are still part of the team afterward.

Leaders may potentially decrease some of the behavioral health conditions that interfere with future readiness by mentoring and fostering a cohesive unit culture. Leaders can help soldiers understand the meaning of their work, find enjoyment when living in the barracks, and solve any number of difficulties related to young adulthood and Army service. These military-specific, relatively common experiences can become the source of a soldier's private despondency, ill-advised decisions, and ultimately behavioral health condition, if soldiers are incapable of figuring them out on their own.

The solution to the adjustment problem in the military is more complicated than a simple "follow the doctrine" or "do what you are supposed to be doing" response. The current generation of soldiers may have a greater propensity to behavioral health dysfunction than previous generations. Soldiers who comprise "Generation Z" or the Network Generation ("NetGens") have higher levels of mental health complaints than other generations.[15] This might suggest that more soldiers entering the Army have mental health problems, or they may have a lower threshold for the stress that precipitates a mental health problem. Current leaders have also led in an era of pervasive behavioral health access and may have become accustomed to outsourcing soldier matters to behavioral health. Units often have uniformed behavioral health officers and may even have a whole team of embedded behavioral health providers serving the specific unit. Other behavioral health assets are found at the installation clinic, hospital, or medical center. These behavioral health providers become familiar to leaders who communicate with them on matters pertaining to fitness and rehabilitation. Behavioral health

Soldiers of the 1st Theater Sustainment Command (TSC) participate in a 1st TSC unit run at Fort Knox, Kentucky, 6 August 2021. The 1st TSC held the run to build esprit de corps and maximize the unit's physical readiness. Leaders can help minimize adjustment disorder by encouraging events that foster a sense of inclusion. (Photo by Sgt. Owen Thez, U.S. Army)

providers may even attend unit-led high-risk meetings and serve as an ongoing source of consultation for leaders. Overtasked leaders may see a ready-made solution to their soldier challenges in the form of behavioral health.

Leader-Driven Solutions

Current leaders might consult past Army leaders to see how they led before the era of behavioral health. This might offer insight into how unit cohesion and readiness was maintained without seamless recourse to a behavioral health provider. The military-related stress that propels soldiers to behavioral health today was undoubtedly present in the past. But, since behavioral health was much less prevalent, how did leaders keep soldiers in the fight? Consider the Army suicide rates from calendar year 2008 (20.2 per 100,000) and calendar year 2019 (29.8 per 100,000).[16] Army suicides were substantially lower in 2008 despite fewer behavioral health resources and greater stigma against behavioral health. One possible reason for the lower rate is the clear mission focus in 2008 on the wars in Iraq and Afghanistan, which offered an undeniable sense of purpose and cohesion. Leaders, nevertheless, had to

orchestrate this sense of shared purpose through things such as counseling, consoling, advising, and training.

A challenge for leaders is to be both an authority figure, who maintains the standard and delivers punishment if needed, and a trusted figure, who can be approached as appropriate and offer a good faith response to a soldier's issue. It may be difficult for leaders to reconcile these roles. Yet, it need not be one or the other; leaders can discipline when appropriate but also be a source of safety for soldiers. This situation challenges implicit understandings of relationships for both the soldier and leader. Soldiers may receive punishment from an authority figure and misinterpret, overinterpret, and magnify certain aspects of the situation that may be salient to their personal history. This could mean a rather benign correction, or a

correction that applies to several soldiers, is interpreted as something extremely personal to the soldier. The soldier may be prepared to see the leader a certain way, and the soldier's interpretation can significantly deviate from the facts at hand. In addition to soldiers, the leader's history also affects how he or she interacts with soldiers. Leaders may find it easy to be one or the other—authority or mentor. The Army might invest in an executive coaching paradigm for leaders at all

soldier. It is, but more can be done from a leader's perspective to understand the soldier's stress, particularly if the source of stress is the leader's unit. A behavioral health referral should not be a "fire and forget" experience for leaders. If a modicum of trust exists, the soldier may disclose how work or family life impacts the soldier's well-being. Leaders may be in a unique position to effect positive change for the soldier and alleviate a source of distress. Leaders may also proac-

> "Unfettered access to behavioral health should be normative in Army culture. The presence of behavioral health, however, should not displace the leader's role in concern for their soldiers and support of their well-being.

levels to develop leaders capable of understanding their strengths and weaknesses in the interpersonal domain and bolstering their skills in developing others.

All levels of Army leadership can contribute to the reduction of stress in the ranks. Although the emphasis of this article is on first-line, company-level leaders, leaders at higher echelons also have a role in reducing adjustment disorder. Budgeting priorities, for example, should consider securing funds for contractors to perform basic installation functions that company-level soldiers have been the bill-payer for. Higher echelons might also consider how their taskings interfere with activities that cultivate the type of unit environment prescribed in doctrine. The can-do attitude of lower-level leaders may obfuscate the impact taskings have on unit cohesion, necessitating higher-level leaders to see how their subordinate commanders are actually faring with tasks.[17]

The institution and leaders have accepted behavioral health as the answer for soldiers experiencing difficulties. This is good, and unfettered access to behavioral health should be normative in Army culture. The presence of behavioral health, however, should not displace the leader's role in concern for their soldiers and support of their well-being. Encouraging soldiers to visit behavioral health when they are experiencing stress may be seen by leaders as an act of caring for the

tively offer insight and ongoing support for dealing with stress commonly experienced by soldiers, and in this way, develop a mentoring relationship.

Large-Scale War and Behavioral Health Access

Access to medical resources, including behavioral health resources, will be significantly curtailed during large-scale combat operations (LSCO) when compared with Operations Iraqi Freedom and Enduring Freedom. The curtailed access may be attributed to emphasis on mobile, dynamic forces as opposed to static bases of operations, contested air dominance, and enemy antiaccess/area denial (A2/AD).[18] The access problem challenges the Army behavioral health paradigm of bringing the soldier to a behavioral health provider or bringing a behavioral health provider to the soldier. This problem suggests that leaders will have longer wait times to get their soldiers to a behavioral health professional, necessitating leader-driven, unit-level approaches to addressing behavioral health matters within units.

Leader-driven efforts at behavioral health stabilization will likely be informed by Army Techniques Publication (ATP) 6-22.5, *A Leader's Guide to Soldier Health and Fitness*.[19] ATP 6-22.5 lists some relaxation exercises leaders or soldiers could employ to stabilize combat stress reactions, but the recommendations

focus more on preventative measures or referring the soldier to a combat and operational stress control team for definitive care. The ATP acknowledges that cohesion and morale, confidence in leaders, and confidence in the unit are important for reducing combat stress reactions. Although of some utility, the relaxation techniques listed in ATP 6-22.5 by themselves would not satisfy the behavioral health demand in theater during Operations Iraqi Freedom and Enduring Freedom, so it stands to reason it will not suffice during a LSCO scenario. The ATP's focus on prevention, preparation, and resilience may be the leader's best option for anticipating behavioral health casualties.

Prevention begins with proper screening. Many behavioral health conditions and treatments are prima facie deployment limiting or service disqualifying.[20] Close contact with a behavioral health officer will help the leader determine who will not be good candidates for deployment. This would be no different than deployments during the Global War on Terrorism. Despite assiduous screening, however, combat stress casualties will occur in combat. The significant difference with the Global War on Terrorism in this regard would be the relative ease with which a leader could get a soldier access to behavioral health. A behavioral health provider was always a forward operating base (FOB) away or even on the same FOB or combat outpost as the soldier. Since LSCO will not be FOB-centric, leaders will have to travel farther for behavioral health support. Travel around the battlespace will not be permissive during LSCO due to lack of U.S. air superiority and adversary A2/AD capabilities; hence, the importance of prevention.

Leaders may begin preventative efforts by investing in cohesive teams that have clear meaning and purpose. Instilling meaning and purpose is an uphill battle for leaders who are accountable to corporate processes. Nevertheless, the author has observed how certain units could be tasked with some of the more arduous missions in theater, take casualties, and continue with their mission unabated. These units cultivated esprit de corps well before they were deployed into theater. This was evident by unit members proudly wearing their unit shirts, soldiers competing and winning in brigade and division competitions, and leaders accounting for their soldiers. Whereas behavioral health providers become indirectly familiar with leaders of "that unit"

described above, behavioral health providers become directly familiar with leaders of these units because of the swiftness with which they appear to absorb the soldier back into the unit with little-to-any continued adjustment problems. The pride, cohesion, and shared identity is evident in those units and serves as a buffer to combat stress in theater.

Leaders may benefit from continued innovation in group cohesion to buffer stress and facilitate positive mission outcomes. One novel approach to group cohesion is harnessing charismatic aspects of leadership.[21] Notable military leaders exhibited charismatic qualities, which likely influenced their success on the battlefield. Two such leaders were Chesty Puller and Douglas MacArthur. A leader's charisma may help facilitate group cohesion. Group cohesion is essential to safety and security on the battlefield.[22] Group cohesion will also work against anomie, which is a driver of adjustment problems. More research is needed to understand how the Army can best utilize charismatic leadership.

Conclusion

Leadership has a central role in preventing soldier maladjustment to the Army. Army leaders must work to create cohesive teams that have a sense of meaning and purpose. This requires a constant presence to know the soldiers, earn their trust, and teach them about the Army. Leaders do well in encouraging their soldiers to go to behavioral health when it appears that it would benefit the soldier, but the leader's work does not end there. Leaders may be uniquely positioned to alleviate soldier distress, particularly if the distress emanates from the leader's unit.

Engaged leadership that fosters cohesive teams begins to establish a social support network among the soldiers that may be an important buffer of stress in future combat. Future combat may not permit regular access to behavioral health assets. As such, greater cohesion and social support among soldiers will be important source of stress management in austere environments.

Adjustment to the stress of the Army does not mean that there must be no stress. It would be a grave disservice to soldiers if leaders shielded them from high levels of stress during training because doing so would leave them unprepared for the stress of combat. Leaders can, however, reduce the levels of perceived stress associated with non-mission-essential activities.

Oftentimes, perception of stress is idiosyncratic, so leaders must be proactively involved with their soldiers to provide a reality check for their soldiers if needed.

Limitations

This article does not assume a naïve monocausality about the source of soldier stress and mental health problems. Soldiers' perception of stress and associated mental health disorder are likely multiply determined. Several factors, such as genetic predisposition, personality disorder, or a desire to leave the Army, may fuel soldier adjustment problems. Notwithstanding this observation, leadership and unit dynamics play an integral role in soldiers stress levels and must be recognized as an important factor driving adjustment problems in the Army. ∎

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Army Medicine's Critical Role in Large-Scale Combat Operations

Enable the Force

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Recent corps-level Warfighter exercises focused on large-scale combat operations (LSCO) consistently produce fifty thousand to sixty thousand casualties per one hundred thousand personnel, of which ten thousand to fifteen thousand were injured but able to return to duty (RTD).[1] The impact on combat operations is clear—without effective medical support accomplished through lifesaving point-of-injury care, evacuation, treatment, and the maximized RTD of casualties, maneuver units will not maintain the initiative required to fight and win on the future multi-domain battlefield.

Army medicine represents a critical combat multiplier by applying health service support and force health protection functions. These enable the operational force through medical command and control (C2) designed to clear the battlefield of wounded and maximize RTD. Unencumbered and reconstituted maneuver units seize, retain, and exploit the operational initiative more effectively. As the Army continues its focus on multi-domain operations (MDO) against near-peer threats, Army medicine must continually refine its combat-enabling supporting functions.

Army medicine's immense success during recent limited contingency operations, a testament to the professional application of the art and science of operational medicine, will be tested in future highly contested MDO environments by the volume of casualties. The U.S. Army Surgeon General, Lt. Gen. Raymond Dingle, concurs: "LSCO may result in a significant increase in casualties from what [the] DoD experienced during our wars in Iraq and Afghanistan."[2] He continues to describe how medical and maneuver operations will have to change in LSCO "due to the sheer number of patients presented. In recent conflicts, when a unit sustained a casualty, the unit's mission became focused on evacuating that casualty. In LSCO, that may not be an option."[3]

Army medicine must continue to modernize in alignment with the needs of the operational force. LSCO against a near-peer adversary will undoubtedly create challenges unseen since World War II in terms of casualty volume and the corresponding stress on the Army health system as part of the globally integrated health system (GIHS). The Army health system requires biodefense capabilities (infrastructure, equipment, and procedures) able to protect, detect, diagnose, and treat soldiers affected by biological hazards including endemic and man-made biological threats. An effective health surveillance capability supports operational objectives and will enable risk analysis, inform protection decisions, and guide other hazard mitigation

An air evacuation unit of the 9th U.S. Air Force is shown in March 1944 loading a soldier patient aboard a troop carrier transport in Italy to fly him to a general hospital several hundred miles away. (Photo courtesy of the National Archives)

or containment activity. Ongoing medicine modernization efforts will enable successful cross-domain maneuver. Effective battlefield clearance, maximized RTD, unencumbered semi-independent operations, and optimized battlefield conditions enabled by effective medical C2 represent Army medicine's critical LSCO role on an MDO battlefield.

Enable the Operational Force— Clear the Battlefield

The December 1944 Battle of the Ardennes illustrates the challenges LSCO presents where the operational environment (OE) shifts, causing limitations in providing medical logistics (Class VIII), treatment, and medical evacuation (MEDEVAC) for many casualties. Early in the battle, U.S. Army medical battalions and their corresponding clearing companies struggled to clear the battle wounded and execute retrograde operations. Due to immediate threats, many units sacrificed equipment to evacuate the wounded, while other units cared for wounded in place while German forces overtook their positions.[4] As the German army converged on the northern edge of the Bulge, the 618th Clearing Company exemplified the use of nonstandard evacuation by effectively transporting nearly one hundred casualties using leveraged space on passing trucks as platforms of opportunity casualty evacuation (CASEVAC) assets.[5] Closer to the communication zone, large medical units such as the 4th Convalescent Hospital dispositioned over 1,400 patients in preparation for retrograde movement.[6] Later, as the battle focused on Bastogne, main supply and evacuation routes became unavailable to frontline medics and medical treatment companies, necessitating prolonged care within the unit-level Role 1 and the area support Role 2 medical treatment facilities (MTF).[7] Medical units,

augmented by small surgical teams, created makeshift field hospitals that provided minimal lifesaving care to conserve Class VIII medical supply and sustain lifesaving treatment. In all, the makeshift hospitals admitted over 960 patients and returned to duty numerous others during the eight-day siege of Bastogne, while the total personnel admitted to 1st and 3rd Army hospitals during the Battle of the Ardennes topped 148,000.[8]

As with the Battle of the Ardennes, the future LSCO environment will possess challenges to flexibility and mobility coupled with a large volume of casualties. Medical personnel will experience intermittent air and ground evacuation with medical logistics constraints. Due to contested domains, medical units at echelon will hold and care for casualties for extended periods. This inevitability requires a ground-up look at medical capabilities beginning with the combat medic who provides organic and area medical support to maneuver units. The combat medic is responsible for the immediate life-saving measures necessitated by combat trauma. Combat medics are responsible for the wealth of disease and nonbattle injury prevention measures, combat and operational stress preventive measures, casualty collection, and support of MEDEVAC

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to MTFs.[9] The medic, unaided or in support of the physician or physician assistant, represents the first medical person who provides tactical combat casualty care in the contested OE.

The last seventeen years of battlefield experience, empowered by U.S. multi-domain dominance, enabled a medical support concept where air and ground evacuation assets transport urgent and urgent-surgical casualties to MTFs that provided resuscitation, initial wound and damage control surgery, and postoperative treatment within one hour of injury, and in many occurrences, in far less time.[10] However, with contested air and ground movement along with increased lethality associated with emerging weapon systems, casualties in future LSCO will require critical care for more prolonged periods. The increase in medical complexity and volume will necessitate enhanced skills at the tactical combat-medic level to facilitate resuscitative care and monitoring as far forward as feasible and extended throughout the roles of care.

Combat medic knowledge, skills, and behaviors must address the additional performance measures required of prolonged care: (1) enhanced patient monitoring, (2) enhanced resuscitative measures such as whole blood administration, (3) manual and mechanical ventilation, (4) enhanced pharmacological pain treatment, (5) enhanced physical exam and diagnostic procedures, (6) enhanced wound care, (7) nursing measures, (8) life- and limb-saving surgical interventions, (9) proficiency with synchronous and asynchronous telemedicine capabilities, and (10) the ability to prepare casualties for evacuation.

The U.S. Army Medical Center of Excellence is creating an education and training program to address emerging requirements in the form of the Combat Medic Program of Instruction (POI) update. The future medic will graduate from the Advanced Individual Training course with validated baseline competence to provide additional far-forward medical capability to mitigate the lethality associated with LSCO. The influx of newly graduated enhanced medics into the operational force will create a knowledge and performance gap between new medics and those who graduated under the previous POI. The development of a Master Medic course with a corresponding additional skill identifier for graduates is underway to address this gap. Graduates of the Master Medic course will train legacy POI medics to

the enhanced standards to increase the combat effectiveness of the nearly thirty-five thousand combat medics throughout the Army. The master medic trainer will be responsible for the brigade combat medic training plan. As the skill-level-twenty tasks are currently a unit responsibility, the master medic trainer will leverage the most up-to-date performance measures to inform the unit training plan and drive the overall medical perfor-

report, *Preparing for Large-Scale Combat*, LSCO presents dilemmas for commanders and overwhelms organic ground and air ambulance MEDEVAC capabilities. As the volume of injured will stress these capabilities, commanders in preparations must build a robust casualty evacuation training plan that maximizes the use of non-standard vehicles for CASEVAC, along with Ambulance Exchange Points placed far enough

> Critical thinking and higher-level medical skills are vital to maintain high survivability rates, maximize RTD rates, and allow maneuver commanders to maintain the combat power necessary to win on the modern battlefield.

mance of his or her respective brigade. The medic of the near future will bring enhanced capabilities with "courage to conserve our fighting forces by providing medical care to all those in need."[11]

With air, land, and sea dominance no longer a foregone conclusion, temporary delays in MEDEVAC will significantly affect battlefield clearance and movement of casualties through the levels of medical care. Due to the lethality employed, high numbers of mass casualty events that overwhelm medical assets will extend evacuation times outside the one-hour standard, potentially increasing died-of-wound rates. Leaders will need innovation and agility, infusing historical strategies, to efficiently evacuate casualties off the battlefield. Critical thinking and higher-level medical skills are vital to maintain high survivability rates, maximize RTD rates, and allow maneuver commanders to maintain the combat power necessary to win on the modern battlefield.

In recent conflicts, rapid MEDEVAC has become a customary norm; however, during future LSCO, as with the Battle of the Ardennes, organic MEDEVAC platforms alone will not be able to support the anticipated casualty volume. Commanders will rely heavily on CASEVAC platforms to assist in clearing casualties from the battlefield. CASEVAC assets are essential to ensure a consistently available evacuation process that clears the battlefield and enables operational momentum. A significant observation from the combat training centers is a lack of adequate planning, coordination, training, and employment of unit CASEVAC. The January 2021 Center for Army Lessons Learned

forward to relieve the pressure on MEDEVAC and CASEVAC ground transport from unit-level Role 1 facilities. This training plan is essential to ensure reduced transportation times and maximized survivability rates.[12] Commanders must resource, plan, and routinely rehearse CASEVAC and MEDEVAC assets to expeditiously clear casualties.

Emerging technology will provide increased capacity for CASEVAC and MEDEVAC platforms. Expedient leader-follower technology will allow one soldier to lead a convoy of CASEVAC or MEDEVAC vehicles with up to nine autonomous vehicles following. This technology will substantially increase the medical team's treatment capacity by creating personnel efficiencies that allow up to eighteen trained medical personnel formerly used as vehicle drivers to shift to field MTF or line-medic duties, or to provide enhanced medic skills within a MEDEVAC or CASEVAC platform. Aeromedical evacuation formations will capitalize on favorable operational conditions by leveraging the enhanced range, speed, and airframe survivability of the future vertical lift platform, thus improving response times, increasing the coverage provided within a one-hour flight path, and ultimately increasing casualty survivability. Enhanced MEDEVAC and CASEVAC capabilities, coupled with enhanced prolonged care capability at echelon, will extend the "golden hour" paradigm into a "golden window."

Evacuation on the future battlefield requires a thorough understanding of a potentially diverse and complex OE. Joint and international forces must coordinate and distribute medical assets across the area

Soldiers evaluate and treat casualties during a training exercise in Kabul, Afghanistan, 24 October 2014. (Photo courtesy of the Department of Defense)

of operation, enabling evacuation coverage and access to expeditious medical treatment. In specific theaters of operation, the dominating terrain feature is water, complicating casualty movement and necessitating enhanced joint interoperability. Based on the *Interim National Security Strategic Guidance* and the continued threat within the Indo-Pacific theater, focused rehearsals of ship-to-shore and shore-to-ship casualty evacuation processes must ensure integration of joint and multinational partners.[13] The Army's watercraft fleet represents a current resource potentially available for the mission essential task of patient transport during joint operations.[14] If manned with appropriate medical personnel, the large casualty carrying capacity of these platforms is a substantial evacuation asset. When water is the dominant element preventing transport, the U.S. Air Force's aeromedical evacuation and joint forces strategic evacuation assets will be in high demand by the competing interests of logistics, personnel movement, and patient evacuation. Analysis of current joint CASEVAC platform capabilities and capacities along with joint training exercises to test the interoperability of these capabilities must continue. CASEVAC assets are essential to ensure a consistently available evacuation process that clears the battlefield and enables operational momentum.

Enable the Operational Force—Return to Duty

Due to the future LSCO environment's increased operational tempo, unit dispersion, and increased lethality, Army medicine's capabilities must provide essential support where the OE requires with a focus on rapid treatment, disposition, and the return to duty of casualties. Casualties will move along two evacuation pathways designed for maximized medical readiness and efficient use of resources. The first pathway focuses the application of resources toward RTD casualties, maximizing the speed they are reconstituted back into their units and combat operations. The second evacuation pathway prioritizes casualties that require evacuation from the theater of operations due to the severity of injuries. These resource-intensive casualties will be rapidly evacuated

to MTFs in the corps or higher areas, thus aligning the resourcing need of the casualty to the appropriate role of medical care without absorbing the medical capacity of forward units focused on damage control and RTD.

Medical support requires flexibility to augment capabilities at echelon as the operational conditions dictate. Area support assets such as the medical company (area support) and the brigade support medical company are 100 percent mobile and can support augmentation from forward resuscitative surgical detachments and the future prolonged care augmentation detachments to provide rapid casualty stabilization, extended care, critical enroute care, and RTD. The future division support hospital concept proposes 100 percent mobility to support mobile division operations and can move at the speed of a medical company but with enhanced surgical and critical care capabilities.[15] The future corps support hospital, with similar surgical and ancillary support capabilities to the current hospital center, will focus on care, treatment, and reconstitution for those casualties able to RTD within five to seven days.[16] The highest intertheater medical capability resides at the theater level. The theater support hospital, requiring less mobility, will prioritize medical capability and casualty volume to reconstitute forward units with soldiers ready to fight within 30 to 120 days.[17] Casualties on the non-RTD evacuation pathway will receive expedited transport to a GIHS definitive care facility. Since biological threats and hazards are a pervasive feature of the strategic environment for the foreseeable future, the Army must maintain and increase its biological defense capabilities to successfully prosecute MDO and LSCO.[18]

Enable the Operational Force— Support Semi-Independent Operations

Independent maneuver requires the capacity and capability to empower initiative within the confines of the OE.[19] Enabled by enhanced medical support, reduced visual and electromagnetic signatures, and reduced logistics demand, multi-domain formations sustain and protect themselves in isolated environments until additional support is available.[20] Future enhanced medical support will further empower semi-independent and independent operations through sustainment efficiencies that allow for the reallocation of resources toward forward supply chain requirements and systems

that provide rapid, risk-informed decision support. The reduction of sustainment demand coupled with enhanced capabilities yields improved casualty and unit survivability with extended operational reach.

The reduction in the size and weight of medical supply improves medical unit mobility at echelon and creates capacity to meet forward unit sustainment requirements. Future medical formations will leverage emerging technologies to reduce energy requirements for temperature-sensitive medical supplies and the heating, ventilation, and air conditioning of temporary shelters and MTFs utilizing power supply systems that optimize how and when energy is produced. The reduced footprint required by future energy generators lessens the transportation support requirement and the amount and frequency of refueling. Improved medical equipment set modularity will further reduce the space required for transport. These efficiencies increase the net logistical support available to maneuvering units. Significant efficiencies also lie in the method of medical resupply. Emerging medical supply processes will leverage Expedient Leader Follower (ExLF) technology to reduce the risks associated with supply transport and the total number of personnel required for Class VIII resupply. ExLF provides scalable autonomy technology "providing the capability to conduct a three- to ten-vehicle convoy with one manned vehicle leading," reducing human requirements to provide expedient resupply.[21] Artificial-intelligence-enabled supply systems will efficiently target resupply based on data provided by casualties' wearable medical sensors. During mass casualty and prolonged care events, the supply systems will automatically record supply usage rates and resupply based on operational conditions.

Medical personnel will leverage medical expertise from the division, corps, theater, and continental United States (CONUS)-based support through operational virtual health capabilities. Medics trained in telemedicine will have synchronous and asynchronous reach-back capability to higher echelon medical capabilities to include CONUS-based MTFs for preventative and occupational medicine, surgery, and other medical specialties and subspecialties. The AI-enabled clinical decision support system (CDSS) device will further assist in facilitating far-forward advanced medical care performed by organic medical personnel assisting with triage, diagnosis, treatment, and monitoring of

casualties. The CDSS will enable complex medical decision-making, improve casualty outcomes, improve RTD potential, and maximize the number of casualties the medical team can effectively treat. The CDSS and operational virtual health capabilities enable the enhanced combat medic to perform a broader range of public health, disease and nonbattle injury, and medical life-saving skills, maximizing the sustainment and protection functions across all formations.

The 2021 *Army Biological Defense Strategy* highlights the necessity for units to exercise and train operational decision-making against realistic scenarios for biological warfare attacks and outbreaks of contagious disease. Integration of research, development, test, and evaluation capabilities and subject-matter expertise is needed to enable rapid execution of responses, such as the deployment of new medical countermeasures.[22] This potential requirement requires medical units to develop or reinvigorate their current tactics, techniques, and procedures regarding safe and effective chemical, biological, radiological, nuclear, and explosives (CBRNE) patient management. Injuries caused by CBRNE events place a substantial demand on personnel and resources to minimize collateral exposure. This causes a temporary reduction of operational medical capabilities by extending casualty treatment times and increasing time to evacuation from the battlefield.
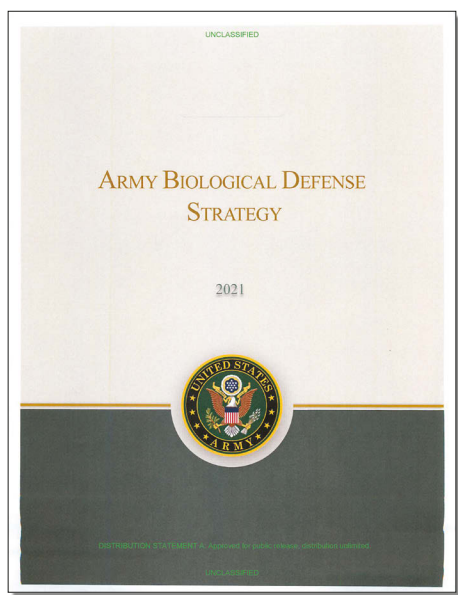
To view the 2021 *Army Biological Defense Strategy*, visit https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN32553-SD_04_STRATEGY_NOTE_2021-01-000-WEB-1.pdf.

Enable the Operational Force—Setting the Conditions for Battlefield Success

Army medicine experienced immense challenges during the mobilization period leading up to formal involvement in World War II. As competition transitioned to conflict and the size and scope of medical assets rapidly expanded, organizational structures required further development to support theater commanders. The future Army service component command medical C2 structure will require layered, agile, and responsive capabilities to synchronize subordinate medical command support needs with host nation, coalition, and CONUS-based civilian and Department of Defense medical resources. The medical C2 structure will support unity of effort, operational reach, freedom of action, and the endurance of the operational force through effective support of formations to clear the battlefield and enable cross-domain maneuver.

During periods of competition, the future Theater Medical Command will be responsible to the Army service component command to establish medical partnerships with joint, coalition, and host nation partners to set the conditions for effective medical support. These actions also provide an opportunity for medical capability building among strategic partners, thereby enhancing strategic messaging and the favorable view of the U.S. military among host nation and coalition partners. During conflict, the Theater Medical Command will synchronize and regulate medical operations throughout the theater. A corps-level subordinate medical C2 organizational concept, the Expeditionary Medical Command, will focus on the medical planning, coordination, and execution functions within the operational support to deep maneuver areas to include the joint reception, staging, onward movement, and integration while providing medical C2 of subordinate medical brigades providing support to their assigned division's scheme of maneuver. The medical C2 capacity at echelon provides the decisive advantage of decentralized, rapid decision-making that enable effective support to maneuver commanders.

Linked with sustainment and protection operations from the deep maneuver to the strategic support areas, the medical common operating picture (MEDCOP) will be part of the future AI-enabled, all-domain

battlefield concept of operations built upon a unified, secure, and robust communications network. The MEDCOP will allow leaders at echelon to rapidly receive, organize, analyze, interpret, and display battlefield information. Leveraging the next-generation electronic health record that provides near-real time medical information from point-of-injury through evacuation to a GIHS MTF, the MEDCOP will collate data from wearable medical sensors, medical logistic utilization rates, and real-time operational variables such as evacuation timelines and conditions and biodefense status. The MEDCOP will utilize this vast array of information to generate risk-informed commander recommendations that synchronize not only Army capabilities but also those of the total force.[23]

Conclusion

LSCO will present challenges to the operational force that Army medicine must rise to meet to maintain the initiative required to fight and win on the future multi-domain battlefield. Army medicine will leverage emerging technologies to maximize battlefield clearance, medical treatment, evacuation, hospitalization, and the rapid RTD of injured personnel to reconstitute combat strength. Through a marked support requirement reduction with a simultaneous increase in force protection and life-sustaining medical capabilities, maneuver commanders will possess more resources for semi-independent operations on the future dispersed multi-domain battlefield.

Army medicine will focus all its functions within the geographical combatant command theater of operations on the readiness of the fighting force. Effective medical C2 will create the conditions for effective multimodal medical support at echelon that will mitigate a LSCO environment marked by increased lethality. Army Medicine's continual refinement will keep pace with the OE and support the warfighter as we seize, retain, and exploit the initiative across multiple domains and defend vital U.S. interests. ■

Notes

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Situational Triage

Redefining Medical Decision-Making for Large-Scale Combat Operations

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For more than a century, battlefield triage has identified casualties whose likelihood of survival could be improved by timely surgical intervention. Throughout America's twenty-first-century armed conflicts, operational and medical priorities have conveniently aligned, and the resources necessary to optimize casualty survival were routinely made a theater priority. This consensus, however, cannot be guaranteed in future large-scale combat operations (LSCO) characterized by prolonged engagements, multidimensional threats, restricted movement, and competing demands for resources. In such an environment, it will be necessary to employ a new, multifaceted model of situational battlefield triage that incorporates commanders' priorities and logistical constraints with casualty requirements into medical decision-making.

Recalibrating Acceptable Medical Risk

Medical decision-making is heavily rooted in the idea of acceptable risk, a term that is fluid and difficult to define. Clinical practice guidelines in emergency medicine, for example, commonly invoke an acceptable risk margin of roughly 2 percent: before discharging a patient, an emergency room provider should have at least 98 percent certainty that the patient is not suffering from a time-sensitive, life-threatening medical condition. Though most clinical decision-making tools are designed to minimize uncertainty, as the margin of residual risk becomes smaller, greater resource investment is required for further risk mitigation. In resource-constrained environments, efficient use of resources demands a greater margin of acceptable risk.

In recent conflicts, where optimal casualty outcomes rank among the highest of operational priorities, the level of acceptable medical risk approximates that of civilian models. Such concordance, however, cannot be assumed in LSCO. As operational risk increases, medical providers must alter decision-making algorithms to tolerate higher degrees of uncertainty.

In current generation conflicts, medical units are employed to mitigate risk to force, and there are

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Previous page: A member of a joint force austere surgical team communicates triage information to the Joint Operations Center from a CH-47 in Iraq in January 2021. (Photo by Lt. Col. Brian C. Beldowicz, U.S. Army Reserve)

Figure 1. Traditional Triage Categories

(Figure by authors)

invariably operational and logistical costs of medical decisions that apportion risk to casualties, to commanders, to evacuation platforms, and to adjacent and remote medical units, shuttling patients forward and rearward based on individual and organizational risk tolerance. Medical providers must be accountable for how their decisions allocate risk across the spectrum of casualty care and operational authority. The model of situational triage proposed here provides both a shared vocabulary and preestablished mechanisms of communication between commanders and medical providers that will be imperative to balancing medical and operational risk.

The Need for Situational Triage

Prevalent triage models categorize patients into four groups, each designated by a universally recognized color that signals a casualty's priority for intervention and resources (see figure 1). These models generally subscribe to an egalitarian philosophy that assumes maximizing patient survival is the principal objective and consider only patient requirements and likelihood of survival in prescribing triage categories.

This article proposes a new model that utilizes familiar triage categories within the context of operational priorities. Such priorities are categorized into three variables: one determined expressly by the operational commander, one inferred by logistical priorities of support, and one assessed by the triaging medical provider. Rather than triaging casualties, this model triages interventions, leveraging the full spectrum of medical expertise across a breadth of providers to focus limited resources where they will most meaningfully influence outcomes.

Situational triage provides commanders flexibility in prioritizing resources in a complex battlespace,

nesting medical decision-making and logistics within the commander's intent to better facilitate the desired operational end state. It provides a framework to systematically assess and address the harsh reality that injuries and deaths in LSCO will outpace available resources, reframing risk to force into actionable decisions.

Casualty Outcome Priority

Army Techniques Publication 4-02.55, *Army Health System Support Planning*, lists saving lives and ensuring early return to duty as priorities of medical planning, and over the last twenty years of conflict, the military has been able to project sufficient combat power and resources to simultaneously prioritize casualty survival and sustainment of operational momentum.[1] LSCO, however, will not afford a similar luxury.

Recent Mission Command Training Program Warfighter exercises (WFX) quantify force-on-force casualty volumes at scale and demonstrate the need for clear prioritization of effort. In LSCO scenarios with approximately one hundred thousand friendly forces, fifty to fifty-five thousand casualties are routinely incurred over eight days of maneuver. These numbers break down further, with thirty to thirty-five thousand casualties requiring evacuation out of theater, ten to fifteen thousand casualties able to return to duty, and ten to fifteen thousand casualties dying in action.[2] Put differently, 50 percent of a corps-size element will be injured or killed during peak LSCO maneuver. The logistical demands of the evacuation scheme are obvious, and strain on available medical assets (typically four combat support hospitals and ten forward resuscitative surgical teams per corps) rapidly exceeds mass casualty thresholds.

Left to historic standards of practice, medical decision-making will continue to prioritize survival, but operational considerations may demand different prioritization. Commanders must therefore shape medical decision-making by stating a standardized casualty outcome priority as part of operations orders, clearly and concisely articulating their intent for medical support within the larger operation.

To guide commanders' decisions, we propose four categories of operationally relevant casualty outcomes, specifically tied to operational and tactical demands:
- immediate return to duty,
- delayed return to duty,

- highly functional survival, and
- survival with potentially profound dysfunction.

Immediate return to duty is defined as management of an injury or illness that allows a combat-effective soldier to return to his unit without onward evacuation. This outcome may be prioritized when sustained manpower for an immediate engagement is of paramount importance.

The second potential outcome, delayed return to duty, describes the soldier who may be combat-ineffective for a period but will be able to regain his effectiveness without evacuation from theater. Such an outcome may be prioritized when the immediate threat is low, but conflict intensity remains high.

The third potential outcome is highly functional survival. In such instances, an ill or injured soldier will require evacuation from theater but maintains the potential to function independently and contribute to the ongoing effort, either on active duty or in some civic capacity. Such an outcome may be a priority when the nation's full resources have been mobilized for the war effort but the immediate need for the soldier's return to duty is limited.

Finally, there is the outcome of survival with potentially profound dysfunction. Often such casualties will consume a high volume of resources both in-theater and beyond, while a high risk of mortality persists, and the chance of an independently functional survival is low. This outcome may be prioritized in low intensity, politically sensitive conflicts where popular support for the war effort is at risk of deterioration,

as has been the case for our most recent protracted conflicts in Iraq, Afghanistan, and elsewhere.

By clearly stating which casualty outcome priority applies by phase or subphase of an operation and defining conditions where it may be adjusted, commanders will provide specific guidance to all subordinate medical assets. Medical units can then guide decisions to either prioritize patient outcomes through aggressive treatment and evacuation or to steward resources to sustain forward combat power. This designation will adjust triage and treatment decisions at all roles of care and consequently attenuate demands on medical and logistics networks.

Medical Priority of Support

Priority of support is a command-driven designation, nested within each phase of an operation. It prioritizes various units, locations, and classifications of supply according to the evolving conditions of the battlespace. Logistical support of medical elements can be reduced to two major considerations: Class VIII resupply and medical evacuation of casualties (MEDEVAC) to the next echelon of care. Using these two core concepts, medical priority of support within an operation can be categorized as follows:

- Resupply and evacuation both available
- Resupply available; evacuation unavailable
- Resupply unavailable; evacuation available
- Resupply and evacuation both unavailable

In instances where timely resupply is available, low-density resources are less likely to impact medical mission capacity because it is expected that the

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limited resource can be replenished. These resources are then of lesser concern in triage decisions. In instances where timely evacuation is available, the total volume of a casualty's resource requirement is less of a consideration because a high consumer of resources can be evacuated to a more thoroughly equipped echelon of care.

Future LCSO will challenge the density of resources and freedom of movement that have come to characterize present operating environments; planners will need to ensure medical priority of support aligns with an operation's casualty outcome priority. To illustrate, when immediate or delayed return to duty are prioritized outcomes, Class VIII resupply of far-forward units should be a command priority. When casualty survival is of greater importance than sustaining manpower at the forward line of troops, MEDEVAC should be prioritized accordingly.

Similarly, assessing and defining medical priority of support will guide positioning of far-forward medical assets. A mission-capable medical element is a theater asset; a culminated medical unit is a command liability. While placing surgical assets in closer proximity to casualty-producing events has been credited with decreasing combat fatality rates to their lowest levels in recorded history, commanders will have to gauge the value of those assets in situations where they are at risk of reaching culmination before the desired operational end state is achieved.[3]

Casualty Resource Requirement

Patterns of injury and patient physiology at the time of triage inform an estimation of medical resources a casualty will acutely require. In a logistically unconstrained environment, egalitarian triage models seek to achieve the best possible outcome for the most possible patients with little concern for excess use of materials and resources. Considerable resources are committed to minimizing morbidity with only marginal influence on functional outcome or survival. In a constrained environment, however, the situational triage model requires utilitarian allocation of resources to best achieve the commander's prioritized outcomes for the most possible casualties.

A specific medical intervention should only be considered if it is likely to influence a casualty's outcome relative to the operationally relevant casualty

outcome priorities described earlier. For example, if a casualty is predetermined by his condition to suffer a delayed return to duty regardless of intervention at a resource-constrained echelon of care, the medical intervention should only be undertaken if the resource expenditure will not undermine the capability of the medical element to support ongoing operations. If, however, an intervention has the potential to alter the outcome's categorization, for example from mortality to survival with potentially profound dysfunction or from highly functional survival to delayed return to duty, the intervention should be considered at the triaging echelon of care.

Casualty resource requirement is classified based on the scarcity and the total volume of resources necessary to achieve the higher priority of two or more possible outcomes. Resource density and total consumption are relative to a medical element's supply and projected operational demand. Depending on the situation, a scarce, or low-density, resource could include blood products, surgical intervention (based on both surgeon and instrument availability), mechanical ventilation, pharmaceuticals, or simply specialized medical attention, whether provided by a medic, nurse, advanced practice provider, nonsurgical physician, or surgeon. A high consumer is a casualty that will require extensive resources of varying availability. Casualty resource requirement is categorized as

- requiring few if any scarce resources and little total volume,
- requiring some scarce resources but small volume of resources,
- requiring few if any scarce resources but large volume of total resources, or
- requiring both scarce and a large total volume of resources.

A historical example of a low-density, high-scarcity resource consumer was the soldier who required penicillin for treatment of venereal disease contracted during World War II. Penicillin was available only in limited quantities, but by providing this precious resource to afflicted soldiers, they could be quickly returned to duty with minimal consumption of additional resources.[4] A high-density, low-scarcity resource consumer would be a blast victim who sustained a significant burn of greater than 20 percent of his body's surface area. Such a patient located at a
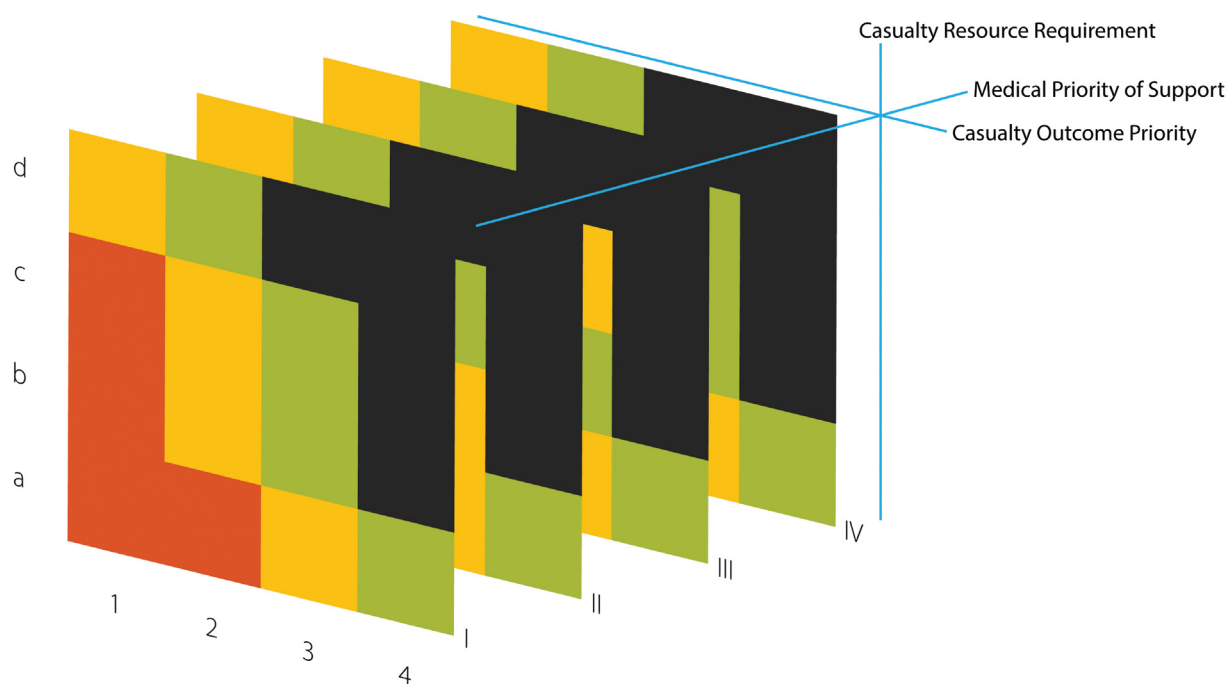
Colors indicate triage categories identified in figure 1. (Figure by authors)

Figure 2. Situational Triage Matrix

Role II medical facility may consume a mechanical ventilator, sedation, analgesia, and intravenous fluid in the first few days after the injury. If the medical unit is not inundated with additional casualties, all these resources are generally available in sufficient quantities. Similarly, disease nonbattle injury patients may consume hospital space, attention, and pharmaceuticals for multiple days, but not require any specific resource that is in low supply.

It is important to note that the overall casualty resource requirement is somewhat dependent on the skill and flexibility of the individual medical provider and the medical system. Not unlike the constraints placed on medical providers and facilities during the COVID-19 pandemic, medical providers in LSCO will be forced to make difficult decisions not only regarding who receives resources but also when to utilize secondary and tertiary treatment modalities in the interest of resource conservation. For example, sedation for patients connected to a mechanical ventilator is most commonly achieved with intravenous infusions, but in conditions where resupply and evacuation are unlikely and resources are scarce, sedation can be achieved with medications administered orally,

nasally, or even rectally, though most providers lack familiarity experience with such practices.

Casualty resource requirement is an estimation that incorporates immediate resource demand and availability with projected requirements both for the casualty and ongoing operations. Whenever resource consumption can impair a medical unit's mission capacity, the situational triage framework should be considered in allocating that resource.

Situational Triage Model

Incorporating operational, medical, and logistical considerations into a single model results in a 4x4x4 matrix in which the casualty outcome priority serves as the x-axis, the casualty resource requirement as the y-axis, and the medical priority of support as the z-axis (see figure 2). Interventions can then be ascribed a traditional, color-based triage category in a manner that is informed by the commander's intent and operational constraints, enabling more effective allocation of resources to achieve the commander's prioritized outcomes for the most possible casualties.

The rank order of the four categories of operationally relevant casualty outcomes is applied to the
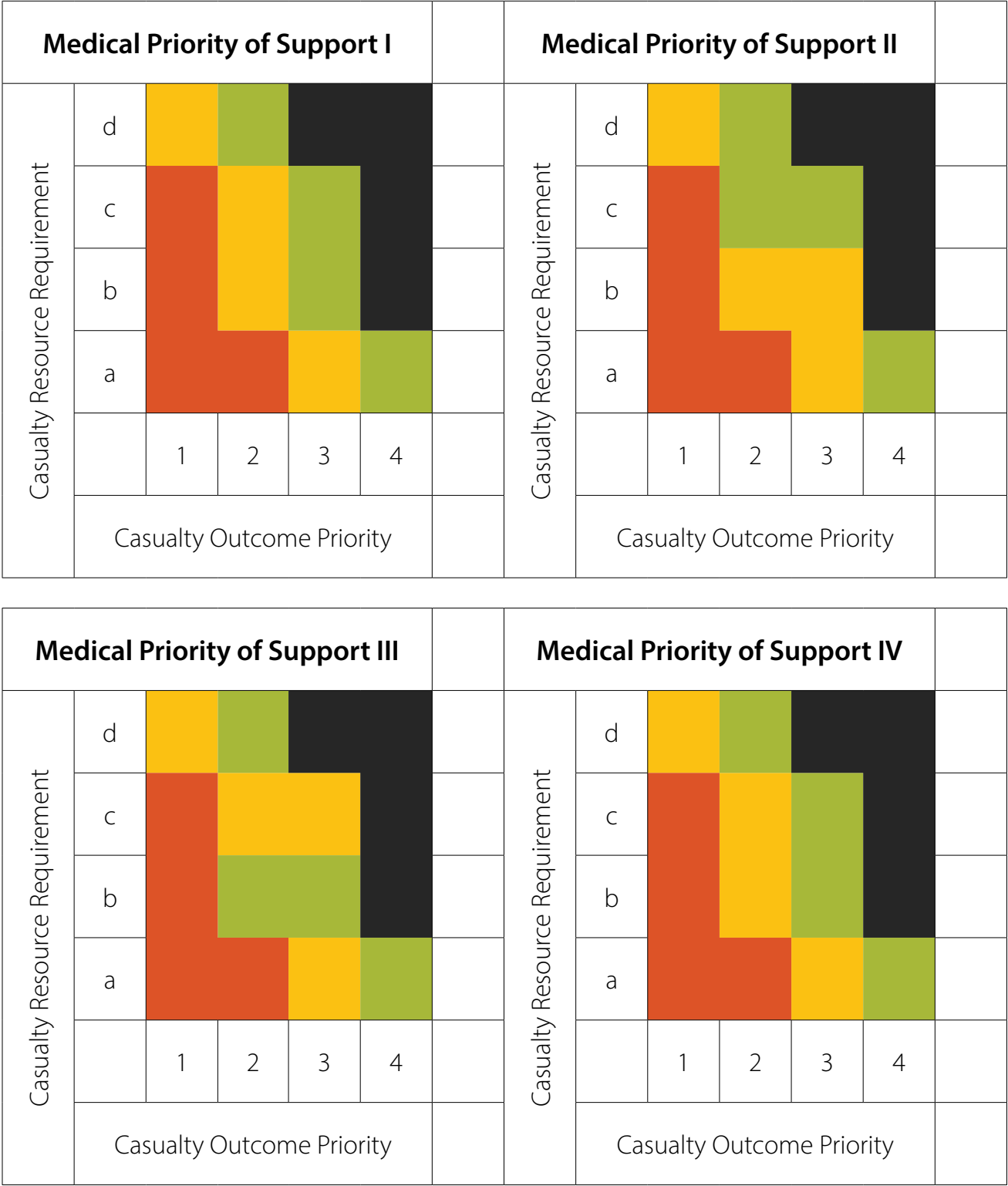
Colors indicate triage categories identified in figure 1. (Figure by authors)

Figure 3. Triage Categories Based on Medical Priority of Support

x-axis based on commander's guidance. The y-axis pertains to estimation of the resources required for a given intervention. Again, only interventions likely to influence both casualty outcome category and a unit's mission capability need to be subjected to triage categorization. The distribution of triage categories differs based on the medical priority of support (see figure 3, page 120).

Advantages of a New Understanding

Situational triage is an operations-centric, resource-conscious, outcome-specific decision framework that apportions resources to specific interventions most likely to have a meaningful effect on outcome. Left to its own biases, conventional medical triage is an exclusively medical decision that determines both treatment needs and logistical requirements. The realities of LSCO may, however, make it necessary to prioritize casualty outcomes other than survival.

Employed as a cognitive framework, situational triage ensures cohesiveness between operational and medical priorities, focusing resource investment on casualty outcomes and operational end states. Although the model may appear to create new demands on the operational commander and the planning process, it concentrates planning efforts on meaningful communication and prioritization in a way that will influence the execution of the support mission. Situational triage nests medical decisions within a commander's intent by clarifying necessary adjustments to medical risk tolerance, better aligning support priorities with operational priorities, and illustrating situations where modifications to standard treatment are both acceptable and necessary.

Though, like conventional triage, this model was developed for use in war, its principles are adaptable to any resource constrained environment or mass casualty situation.

Challenges of the Unfamiliar

Because of its requirement for multidisciplinary perspectives and its concentration on interventions

Members of an austere surgical team perform an initial assessment on a mannequin specially designed to simulate a combat casualty during a joint training exercise in October 2020. (Photo by Lt. Col. Brian C. Beldowicz, U.S. Army)

rather than generalized "treatment," situational triage is significantly more complex than conventional triage and employing it as an algorithmic process is cumbersome. At the tactical level, isolating the consideration of each specific resource-consuming intervention will increase the volume and frequency of medical decisions compared to the generalized treatment considerations of conventional triage. In addition to the cognitive strain of a greater number of deliberate considerations, the process increases the potential for interprovider disagreement.

This model also expands the influence of commanders and planners into ethically challenging medical decisions. Any decision to prioritize a utilitarian ethical framework based on mission success rather than an egalitarian framework to maximize survival needs to be carefully considered, which is why treatment priorities should be informed by both command and medical perspectives. Such decisions require coordination of the most knowledgeable and experienced

medical operations and medical officers available at both the strategic and tactical levels.

Conclusion

Large-scale combat operations will require novel interpretations of prioritized casualty outcomes, medical risk tolerance, and resource utilization that conventional triage models fail to provide. But nesting medical decisions within the commander's intent will be essential to optimizing the performance of medical support elements to meaningfully contribute to the desired operational end state in peer or near-peer conflict characterized by prolonged engagements, multidimensional threats, restricted movement, and competing demands for resources. Situational triage provides a framework for shared operational and medical understanding that ensures medical support is deployed with maximum effectiveness. ∎

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Army medics assigned to the South Carolina Army National Guard conduct combat medical training 16 August 2018 during a sensory deprivation exercise at McCrady Training Center, Eastover, South Carolina. The medics were finishing a twelve-day sustainment course to remain proficient in providing care to a casualty from the point of injury to the evacuation site in a combat area. (Photo by Sgt. Jorge Intriago, U.S. Army National Guard)

Rethinking Combat Medic Training

The Critical Changes Needed to Prevent Death in Future Conflicts

Lt. Col. Manuel Menendez, U.S. Army

There is no way to translate the incredibly high combat trauma survival rates we enjoyed during the Global War on Terrorism (GWOT) to large-scale combat operations (LSCO) without a change in how we currently do business forward of our deployed hospitals and small surgical teams. A 95 percent survivability rate (once the patient arrives at the hospital), as was the case during the GWOT, requires a system leveraging an incredible number of resources to treat and move a limited number of casualties to a required surgical capability as quickly as possible. The goal is to get the wounded off the battlefield and into a hospital within one hour while providing the highest level of enroute care possible. In this low-intensity environment, combat medics focus on critical interventions required during the first hour of care (e.g., stop the bleeding), flight paramedics focus on advanced interventions and basic resuscitation (e.g., put some blood back in), and far-forward surgical facilities focus on damage control resuscitation and surgery (e.g., give more blood and quickly stop the blood loss). Despite this well-thought-out system, there were 976 soldiers killed in action that might have survived given better prehospital care or faster surgical care (25 percent of the total prehospital deaths from 2001 to 2011).[1]

How do we improve on prehospital preventable deaths and sustain the gains in survivability we achieved in the past twenty-plus years without the ability to evacuate every patient to higher levels of medical care within an hour? To paraphrase retired Col. Russ Kotwal, MD, we need a way to extend the time to a required surgical capability; in other words, a way in which taking longer to get to surgical care does not necessarily lead to death, disability, or prolonged time to return to duty.[2]

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The most impactful solution is to improve the effectiveness of the combat medic by increasing prolonged care skills for all medics.

Currently our combat medics are trained to provide excellent care in the first hour after injury, but they lack the skills, knowledge, and tools required to hold/monitor/treat casualties afterward. This is not a novel problem. This requirement was identified in a medical capabilities-based assessment in 2017 that determined there is a gap in our combat medics' ability to provide prehospital care beyond that first hour (prolonged care). Despite this gap, there have been delays in adding it to training by constraints in available training time during advanced individual training. We need time added to the 68W Combat Medic Program in order to train medics on how to provide basic nursing care and how to provide critical resuscitation in the form of whole blood transfusions.[3] With limited modifications to the Combat Medic Specialist Training Program, medics would be introduced to some of the critical skills required to provide care far beyond the first hour, and limit the inevitable increases in morbidity and mortality our military will otherwise have when the operational environment forces casualties to stay forward of surgical teams for extended periods of time.

The Army currently has over thirty-three thousand combat medics. About 80 percent of these are stationed in support of brigade combat teams/divisional units. There is absolutely no other medical specialty in our force closer to the fight than combat medics, who are the only medical specialists to earn the Distinguished Service Cross (four times), and almost all Silver Stars in the Army Medical Regiment during the GWOT.[4] With this quantity of medics and their proximity to the point of injury, there is a real opportunity to impact survival in combat. The quantity of medics is also the reason that technical knowledge and quality management required for this military occupational specialty has grown steadily in the past thirty-plus years. For example, the combat medics of 1992 were taught ninety-two separate tasks in nine weeks, with the option to challenge the National Registry of Emergency Medical Technicians test. They were without any real requirements to prove their knowledge to anyone outside of their immediate chain of command once they were at their
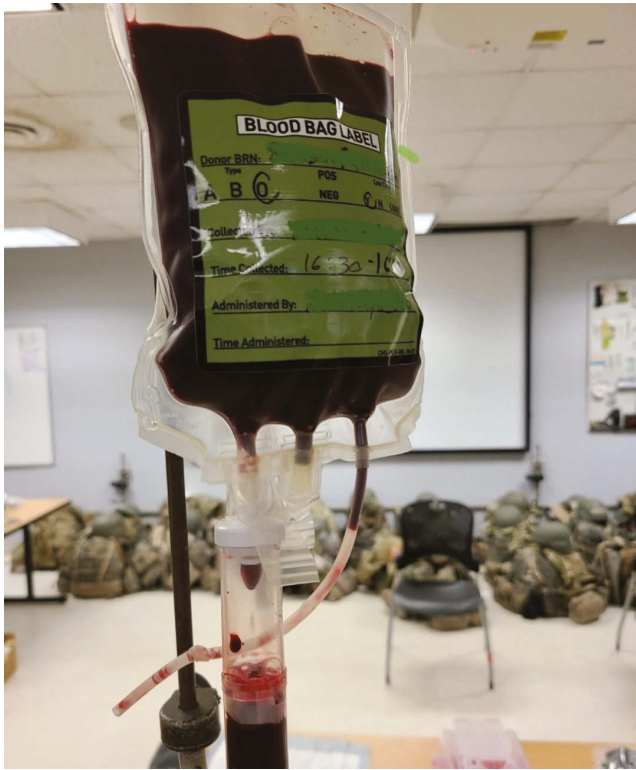
The first unit of blood taken and infused by a combat medic trainee in the history of the Combat Medic Specialist Training Program. On 19 April 2022, Pvt. Kaleb Setliff used a "walking blood bank" blood transfusion set to take one unit of blood from a fellow trainee and then gave the blood back to the same soldier using a different arm. This was the final validation of protocols needed to propose the permanent inclusion of this task into Combat Medic Training. Capt. John Maitha, officer in charge of Whiskey 3, Combat Medic Specialist Training Program, supervised as the trainees safely took and then transfused thirty-two units of blood. Whole blood will play an outsized role in improving prehospital mortality in large-scale combat operations. (Photo by Capt. Tony Eshoo, Fox Company 232nd Medical Battalion)

assigned units. Those same soldiers would return to the institutional environment as staff sergeants (E-6) for additional training to become paramedic-level providers, and they would again return to the force without a centralized system to guarantee the quality of these providers.[5] There were multiple issues with this system. The most critical was that the bulk of the needed knowledge was at the wrong level (with a staff sergeant at the battalion aid station or further to the rear as opposed to in the fighting unit farther forward). Today medics are trained on 146 separate tasks (over eighteen weeks of material) in sixteen weeks of available training time.[6] The combat medic has grown from a soldier trained in very basic skills

(and hopefully sustained through whatever system his or her individual unit devised), to soldiers trained as experts in prehospital trauma care and in everything required to save a life in the initial hour after a combat injury. They are validated every two years through a centralized system charged with quality control of our prehospital medical force.

Though there are far fewer flight paramedics in the Army (about one thousand), this is an area wherein change has been well studied and impactful. Flight paramedics have ten months of training in addition to combat medic training, and the impact of their higher training has been proven multiple times over. A 2013 study demonstrated a clear difference in survival for casualties transported by critical care flight paramedics from the National Guard versus active-duty combat medics.[7] Other studies demonstrated that providers with higher levels of knowledge would attempt and complete more life-saving interventions.[8] And thanks to the British medical response team, which was composed of emergency medicine doctors, nurses, anesthesia providers, and medics, we also know that within specific patient subcategories (casualties with severe but survivable injuries), the higher level of care available in those aircraft would actually improve survivability for that subset of patients.[9] Training to provide high-quality prehospital medical care centered on effective access to blood vessels, providing whole blood products, good airway management, and keeping patients warm makes a difference in combat. To improve our ability to provide something close to the flight paramedic level of care in the prehospital environment and mitigate the inevitable delays in required medical and surgical care of LSCO, all combat medics will require a broader breadth and depth of knowledge than the one currently provided in their initial training.

Knowing that the skills and abilities of our combat medics must increase, the Combat Medic Specialist Training Program is adding an additional nineteen skills and bits of knowledge (total of 165) that focus on prolonged care beyond the "Golden Hour."[10] Combat medics can achieve this training goal with a course expansion of as little as five to seven days to ensure they retain current critical tasks while adding basic level exposure to prolonged care concepts necessary in future battlefields. But the Combat Medic Specialist Training Program is at a crossroad where the quantity (over five thousand

A student in the Special Operations Combat Medic Course at the U.S. Army John F. Kennedy Special Warfare Center and School checks an intravenous bag during field training at Fort Bragg, North Carolina, 24 March 2020. Enlisted service members who completed the course specialize in trauma management, infectious diseases, cardiac life support, and surgical procedures. They qualify as highly trained combat medics with the skills necessary to provide initial medical and trauma care to sustain a casualty for up to seventy-two hours. (Photo by K. Kassens, U.S. Army)

medics a year), quality (academics, fitness, discipline), and consistency in skills and abilities of the medics they are producing is challenged by the volume of knowledge (nineteen-plus weeks of material) they try to impart and by the amount of time they must do the training mission (sixteen weeks). For context on how this compares to other clinicians in the brigade combat team area of operations, the combat paramedic receives ten months of training in addition to the four months as a combat medic; the practical nurse (MOS 68C) receives twelve months of training; and the physician associate (a commissioned officer) completes two years of undergraduate work, and two and a half years of graduate work (four and a half years total). As part of this small expansion, combat medics will receive a higher-level certification, such as Advanced Emergency Medical Technician, that encompasses all their training, which they can use when applying for positions in the military or as civilians. This contrasts with the current practice of certifying medics on the first six of their sixteen weeks of training.

The next higher level of care in forward resuscitative and surgical teams provides definitive care for the worst injuries. Most leaders understand that getting to this resuscitative and surgical capability within one hour matters. A 2015 retrospective analysis focused on the effects of the mandate by then Secretary of Defense Robert Gates on combat casualty survival, after he directed that all casualties must arrive to surgical care within one hour of injury.[11] The authors found that postmandate, there was a decrease in killed in action from 16 percent to 9.9 percent as well as an increase in return to duty rates from 33.5 percent to 47.3 percent pre- versus postmandate, respectively.[12] However, the relationship between time of injury to the chest and abdomen versus

survival actually goes beyond the "Golden Hour." Remick et al. queried the Pennsylvania Trauma Outcomes Study database, which includes 412,768 patients, for all patients that died within four hours of injury (27,679).[13] The study sorted the data to determine what the "time to death" was after either blunt or penetrative traumas to the body, with a goal of determining how much time a casualty has after an given set of injuries (chest, abdomen, pelvis) before they succumb to the trauma.

The findings are sobering and have huge implications to the way we provide care in combat. If our goal as a military medical system is to save 95 percent of penetrating trauma deaths in combat (those that usually die within four hours of a penetrating injury), we need to have those patients on an operating table within nineteen minutes from injury. If the goal is to save 50 percent of those same casualties, then the time only increases to thirty-nine minutes.[14] These findings are not based on grossly different populations as compared to our service members. The subpopulation in the study had a median age of thirty-three years and was made up of 90 percent males.

Given those facts, there is a temptation to add more surgical teams to the battlefield as a mitigating tool to the prehospital mortality problem in lieu of increasing the skills and equipment available to medics. Conceptually, this is a great idea. But there are plenty of limits that prevent this, including manning surgical teams and maintaining their critical trauma skills. However, detailed arguments on the subject are beyond the scope of this paper. At a minimum, it should be mentioned that the limited number of surgeons in the Army and the basis of allocation for these surgeons to brigade combat teams (roughly one per one thousand soldiers in LSCO) make it impractical if not impossible to put a surgical team within one hour of every soldier in a LSCO battlefield.

This brings us back to our combat medics, and how they can extend the minimum time required to that surgical capability for some patients. Patients that become immediately hypotensive and who are unlikely to survive in the absence of plentiful resuscitation resources (blood, warming capability, and surgical teams) will be lost within certain periods of combat maneuver in LSCO. These patients, previously salvageable during the GWOT, must be considered expectant. However, there is a second salvageable category of surgical patient, even if evacuation is delayed–given proper care is provided. These are patients that would never stay on the GWOT battlefield and includes those with penetrating wounds to the chest or abdomen who are not immediately hypotensive (not dying right now). They, by nature of untreated infection or prolonged metabolic imbalance or dehydration, will die in days to weeks, or for whom recovery will be seriously delayed by the lack of prompt care in the absence of a hospital. This category did not exist during the GWOT (again, everyone was promptly evacuated), and will fall squarely in the hands of the brigade medical companies, the battalion aid station, and battalion assigned combat medics. Their ability to provide basic nursing care, keep patients warm, and give whole blood transfusions to casualties in LSCO is the only feasible way to save them from certain death and disability at rates not seen in recent history.

Efforts to improve on the required knowledge, skills, and abilities of combat medics will undoubtedly make a positive impact on combat survival. In addition, near-future leveraging of technologies for continuing education by the U.S. Army Medical Center of Excellence holds incredible promise in knowledge sustainment and progression for all combat medics in the total force, toward the goal of eliminating preventable deaths in combat. This medical support, like all forms of support to fighting forces, will strive to never constrain the reach of maneuver elements, and improved combat medic training is the perfect way to achieve overmatch without sacrificing the survivability of our wounded. ■

Notes

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7. Seth R. Holland et al. "MEDEVAC: Survival and Physiological Parameters Improved with Higher Level of Flight Medic Training," *Military Medicine* 178, no. 5 (2013): 529–36, https://doi.org/10.7205/MILMED-D-12-00286.

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13. Kyle N. Remick et al., "Defining the Optimal Time to the Operating Room May Salvage Early Trauma Deaths," *Journal of Trauma and Acute Care Surgery* 76, no. 5 (2014): 1251–58, https://doi.org/10.1097/ta.0000000000000218.

14. Ibid.

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The 442nd as a Fighting Unit

David F. Bonner

Editor's note: This chapter from Nisei Spirit: The Cultural Identity of the 44nd RCT *tells the story of unparalleled fortitude in the face of adversity, ranging from prejudice in the rear to seemingly overwhelming odds on the front lines from the 442nd Regimental Combat Team during World War II. The 442nd RCT mainly consisted of second-generation Japanese Americans, or Nisei. Author David Bonner examines the strong cultural identity of the Nisei soldiers, paired with the task cohesion and the primary group cohesion theories, as it forms a framework for achieving a better understanding of small-unit effectiveness. To view a digital copy of* Nisei Spirit, *visit https://www. armyupress.army.mil/Portals/7/combat-studies-institute/ csi-books/NISEI-SPIRIT/Nisei%20Spirit%20(WEB).pdf.*

The best troops are called upon to do the hardest fighting. Whenever a general finds himself up against a tough proposition he sends for the best troops he has … A man who is being shot at daily has a hard time recognizing it as a compliment when, dead tired, bruised, and battered, he is called upon to make one more effort to risk his life another time—but it is a compliment nevertheless.

—Col. Sherwood Dixon, writing to Chaplain
Masao Yamada of the 442nd RCT

Background

The 442nd Regimental Combat Team was originally composed of the 442nd Infantry Regiment, the 232nd Combat Engineer Company, and the 522nd Field Artillery Battalion. After the arrival of an additional 2,686 Hawaiian *Nisei* at Camp Shelby, Mississippi on 13 April, the *Nisei* volunteers began their training on 10 May 1943.[1] At the conclusion of the war, the 442nd RCT had earned the distinction of being the most decorated combat unit in American military history for its

size and duration of service.[2] Some of their most noted achievements are listed in the appendix; however, this chapter will attempt to link the lessons learned by the *Nisei* from their time spent in the Japanese language schools, to their involvement in community organizations, and ultimately to their performance as a fighting unit. Analysis will be done using primary source materials from interviews conducted with the 442nd veterans by the Hanashi Oral History Project, and records from the Go for Broke National Education Center.

"Kotonks" and "Buddha-heads"

Despite their shared Japanese ancestry, *Nisei* soldiers from Hawaii did not initially warm to their fellow *Nisei* from the mainland United States. The Hawaiians derisively referred to the mainland *Nisei* as "Kotonks," because when a coconut with no meat inside falls to the ground, that is the sound it makes. The Hawaiians joked that if you were to hit a mainland *Nisei* on the side of the head, it would go "kotonk." The mainlanders, for their part, called the Hawaiians "Buddha-heads" because they thought the Hawaiians looked more Japanese than they did; and adding insult to injury, "Buddha" sounds like *buta*, which is the Japanese word for "pig."[3]

The Hawaiian *Nisei* had a reputation for being a carefree, gregarious group who loved to gamble. Their motto, "*Ganbare*," or "*Go for Broke*," a phrase commonly used in dice games meaning to "risk everything" would soon become the unit's official motto.[4] The mainland *Nisei* on the other hand were much more reserved. Many of them were preoccupied by thoughts of their family members who had been left behind in the internment camps, as well as the hope that serving with distinction in combat would secure early releases for all internees.

There were in fact many social and cultural differences that strained relations between Hawaiians and

mainlanders. While the Hawaiians spoke a somewhat pidgin dialect—an amalgam of English, Japanese, Chinese, Filipino, Spanish, and Hawaiian—the mainland *Nisei* spoke a more "proper" English.[5] The Hawaiians saw the mainland *Nisei* as somewhat aloof and arrogant. According to Hawaiian 442nd veteran Tadashi Tojo, "They talked too much. They were on the defensive too, because we outnumbered them. But we felt so damned insecure and intimidated because they spoke better than we did."[6] At Camp Shelby, fights between the Hawaiians and mainlanders became a common occurrence. So frequent and serious were the fights between soldiers that the Army leadership discussed the possibility of disbanding the unit altogether.

It is important to note that at this time, hardly any of the Hawaiian *Nisei* were aware of the internment camps on the mainland. They had no idea that most of the mainlanders who arrived at basic training were coming straight from the relocation centers and had left their families behind. And unlike the mainlanders, who received warm but reluctant support from their communities, the support that the Hawaiian *Nisei* soldiers received from their hometowns and local areas was tremendous. When the 100th Battalion left Honolulu on 28 March 1943, the Honolulu Chamber of Commerce held a farewell ceremony for the 2,686 volunteers in front of the Iolani Palace. The *Honolulu Star Bulletin* commented:

> No scene in Honolulu during World War II has been more striking, more significant, than that at the territorial capitol grounds on Sunday. It was not alone the size of the crowd, somewhere between 15,000 and 17,000, and said by oldtimers to be the largest that ever massed within the gateways to old Iolani Palace … It was, most significantly, the evident pride of the families and friends of these young Americans—their pride that the youths are entrusted with the patriotic mission of fighting for their country and the Allied nations.[7]

In an effort to improve relations among the soldiers, one of the unit's chaplains, Hiro Higuchi suggested to the regimental commander, Col. Charles Pence, a weekend visit for the Hawaiians to one of the internment camps. Colonel Pence agreed and sent a group of the Hawaiians to Rohwer Internment Camp in nearby Arkansas.[8] During the bus ride from Mississippi to Arkansas, many of the Hawaiian soldiers were singing and strumming their ukuleles, wearing aloha shirts and joking about how they were going to dance with the mainlander's "*wahini*" (Hawaiian slang for young girls). However, once they came into view of guard towers and barbed wire fences, their demeanor suddenly changed.[9]

Most of the Hawaiians, like Tadashi Tojo, were unaware of the internment camps until they arrived at Rohwer. "Even now I feel that twinge, all those barbed wire encampments."[10] During the social gatherings of their visit, Tojo could not believe how cheerful and lighthearted many of the young people seemed under such living conditions. Perhaps the most impactful part of this visit was when the Hawaiians saw the camp graveyard. The thought of how many people were uprooted from their homes, brought to a strange place and had died there, was overwhelming to the Hawaiians. "That's when I started

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to think a little—how these people were American citizens just like us, but they had been treated this way."[11] After the visit to Rohwer, fights between the Hawaiians and mainlanders ceased, and the regiment began functioning as a cohesive unit.

This shift in attitudes, however, should not suggest that tensions between the men suddenly disappeared or that personalities somehow changed overnight. Most of the soldiers still preferred to socialize with others from their own hometown or state. The Hawaiians remained as carefree and gregarious as before, and the mainlanders kept their typical reserved demeanor. Fundamentally, they were the same group of men as before, but instead of viewing each other with doubt or suspicion, they had finally established a sense of trust amongst themselves. They understood the task that lay before them, they identified a common purpose, and they also knew that in order to survive they would have to rely on each other.

Training

Unlike many frontline combat units that fought in World War II, the 442nd RCT went through an extended training period before its deployment to the European theater, which contributed greatly to its success on the battlefield. The first group of *Nisei* volunteers from Hawaii who formed the 100th Battalion, which was later incorporated into the 442nd, were activated in June 1942 but did not see their first combat engagement until August 1943. The mainland *Nisei* volunteers who formed the first group of the 442nd began basic training in February 1943, and likewise did not deploy until 1944. This crucial period gave them time to build their soldiering skills, gain proficiency as a combat unit, and gain confidence in their ability to work together as a team. Intensive training, however, was only part of the formula to their operational success.

Education and Vocational Skills

One of the greatest strengths of the 442nd was that it brought to its ranks individuals from all types of educational backgrounds. Among its members were men who were already practicing doctors, lawyers, engineers, priests, and schoolteachers. The unit also included many skilled laborers, such as mechanics, plumbers, carpenters, and welders, whose average aptitude test scores were much higher than what was required for acceptance to

the Army's Officer Training Program.[12] The 442nd was likely among the most highly educated US Army units of World War II, which undoubtedly helped them adapt to changing situations on the battlefield.

Personnel Stability

In World War II, the US Army utilized a different system of replenishing front-line divisions than the German and British Armies. In many of the protracted European wars of the nineteenth and early twentieth century, the ranks of most operational combat divisions would eventually be wiped out, but the practice was to keep the divisions on the roster even if their troop strength was only two or three companies. During World War II the German and British armies would at that point withdraw these depleted divisions from the front lines for rest, refitting, and reorganization. American troops on the other hand, once committed to combat, would remain on the line until the end of the war and would have their ranks filled by a steady stream of replacements.

Army Chief of Staff, Gen. George C. Marshall, made the decision to keep American infantry divisions at full troop strength levels by regularly augmenting them with replacements, not in groups of companies, platoons, or squads, but as individuals.[13] The system seemed very promising, as it would allow American divisions to stay on the line continuously while they brought in fresh soldiers. The idea was also that new troops would join veterans who would integrate them into the unit and teach them the tactics of survival in combat. Unfortunately, this did not always work out as hoped. Many of the Army units did not function properly after absorbing new recruits. Due to their inexperience and occasional lack of discipline, the veterans who were ordered to train them often saw new recruits as a liability.

One of the most notable examples of a unit that experienced this was the famed "Band of Brothers" E-Company of the 101st Airborne Division. "For one thing the new guys tended to draw fire, because they bunched up, talked too much, or lit cigarettes at night. For another, veterans just didn't want to make friends with guys whom they expected to die soon."[14]

The 442nd RCT however, as a segregated unit, was not subject to the same troop replacement policies as the rest of the US Army. The replacements who joined the ranks of the 442nd RCT were all *Nisei* who came

from the same stock and upbringing as the veteran soldiers, and most were coming directly from the same internment camps. When a *Nisei* soldier finished basic training, he already knew exactly to which unit he would be assigned, and very likely had friends or relatives who were already serving. Also, unlike other conventional US Army units, the replacements of the 442nd RCT trained together as a unit before they were deployed, rather than being shipped off on an individual basis. When they arrived and were assigned to their operational companies, fresh recruits were usually met warmly by the senior NCOs who took them under their wing.[15]

Rebuilding Trust and Combating Prejudice

By the time the men of the 100th and 442nd completed training and were preparing to deploy to the European Theater, they were rapidly developing a strong sense of confidence in themselves as individual soldiers, as well as a sense of trust in the group's own collective abilities. But no matter how much confidence they had in themselves, no combat unit can function properly if it does not trust its leadership and the legitimacy of its mission. The question therefore remained, could they trust their own Army leadership? Could they entrust their lives to a group of officers who may have viewed them with a sense of suspicion and racial prejudice, to say nothing of trusting a government that had fundamentally violated their civil liberties and was still holding many of their family members captive in internment camps without trial or due process? How could they be sure that they weren't simply viewed as expendable grunts whose lives would be wasted in this war? The two leaders who deserve the most credit in re-establishing trust between the *Nisei* Soldiers and the US military are Lieut. Col. Farrant Turner, Commander of the 100th Infantry Battalion, and Col. Charles Pence, Commander of the 442nd Regimental Combat Team. Their personal examples and combat leadership not only gained them the respect of their men, but also demonstrated to their superiors that the 442nd could be relied upon for any mission.

Farrant L. Turner was well into his forties when he took command of the 100th Battalion and was affectionately called the "Old Man" of the unit. A native of Hilo, Hawaii, Turner immediately joined the Army after graduating from Wesleyan University in 1917 and served nine months in France as part of the 66th Regiment during World War I. After his first discharge from active duty, Turner returned to Hawaii and found employment in supplies distribution, while continuing to serve in the Hawaii National Guard.[16] Following the attack on Pearl Harbor, Turner was assigned command of the Hawaiian Provisional Infantry Battalion, which consisted of Japanese Americans from the 298th and 299th Infantry Regiments before they were merged into the 100th Battalion. Upon taking command of the 100th Battalion, Turner made what would later become a fateful decision by appointing Maj. James Lovell as his executive officer. A Nebraska native, but a member of the Hawaii National Guard since 1931, Lovell had spent many years working with Japanese Americans, and like his commanding officer he was very protective of them and shared a dedication to their training needs.[17]

During the initial training phase, many of the men in the 100th Battalion noted that Turner's leadership was essential in building a climate of acceptance for his unit. Growing up in Hawaii, Turner had personally witnessed the unfair and sometimes harsh treatment that the *Nisei* endured in their daily lives.[18] He empathized greatly with his men and understood the enormous societal pressure they felt to prove their worthiness as loyal Americans. Knowing this, Turner consistently lobbied for the 100th Battalion to be given a combat role, rather than serving in support positions, as had originally been intended by

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the 34th Division commander.[19] Turner was also well known for supporting his men in public and would not tolerate any prejudicial language or any overt discrimination in their presence. In one instance, Turner even confronted a superior officer for referring to one of his men as a "Jap."[20] Turner also refused to join the officers club at Camp McCoy since it barred the entry of Japanese American officers. Realizing that Turner's actions not only put him at odds with certain senior officers, but also threatened his social standing, the men of the 100th Battalion knew that he had their best interests in mind with every decision.[21]

A native of Warren County, Pennsylvania, Col. Charles Pence was a burly, athletic individual and a star football player while studying at DePauw University. Pence volunteered for the Army during World War I, and because of his high academic class standing, was awarded his degree a year early in 1917. He gained a reputation as a quiet, steady, capable tactician and was well regarded by his fellow infantrymen.[22] Although Pence did not have the years of experience interacting with Japanese Americans that Turner had in Hawaii, he had been stationed in China during the Japanese occupation of Manchuria. The Army regarded him as an expert on both the Chinese and the Japanese, and for that reason seemed the obvious choice to command the 442nd Regiment.[23] He made great efforts to get to know his men, and before long he began to observe the growing tensions between the Hawaiians and the mainlanders. One of the many challenges that Pence faced as regimental commander was integrating the 100th and 442nd into a combined unit and managing the social differences between the Hawaiians and mainland Japanese. Pence could see that various subcultures were beginning to form within the unit, which threatened good order and discipline. One of the crucial ways he was able to bring his *Nisei* soldiers together and build on their commonalities was the example mentioned earlier when he arranged for members of the 100th Battalion to visit the internment camps at Rohwer and Jerome. This single act showed the men that they each shared a common purpose when they volunteered.

Pence was equally dedicated to his men on the battlefield, always taking the lead in dangerous missions. During the rescue mission of the "Lost Battalion," Pence maintained the morale of his men by forcing them to concentrate on re-establishing contact with the soldiers of the 1st Battalion (141st Texas Infantry), rather than dwelling on their mistrust for division commander, Maj. Gen. John Dahlquist, whose orders they viewed as reckless.[24] Tragically, Pence was seriously wounded during the Battle of the Lost Battalion and was forced to relinquish command of the 442nd to his deputy, Col. Virgil Miller. The absence of Pence was a major loss for the men of the 442nd, but for years after the war, veterans of the 442nd praised Pence's leadership and acknowledged that it was his influence that held the unit together during those critical early days.[25]

The 442nd Under Fire

Any assessment of the 442nd RCT's combat effectiveness or unit cohesion must include a brief overview of the role it played in the Vosges Mountains Campaign of 1944; specifically, the rescue of "The Lost Battalion." In September of 1944, after a grueling campaign in northern Italy, the 442nd was re-deployed to France, where it would be attached to the 36th Infantry Division. Upon arriving in Marseille on the 29th of September, the unit received 675 fresh replacements from the States and then traveled 500 miles by train through the Rhone Valley to the German held town of Bruyeres.[26] The German Army placed a heavily fortified garrison in the town because of its strategic location, only 50 miles from the German border. The mission of the 442nd was to retake Bruyeres and open up the railroad and highway hub for the Seventh Army on its way to St. Die.[27]

The assault on Bruyeres began on the 15th of October and lasted for nine unrelenting days. Once the firing stopped, the townspeople emerged from their homes and shelters to greet their liberators but were stunned by what they saw. Private Stanley Akita said, "They didn't believe we were American soldiers. I don't think they knew what a Japanese looked like!"[28] But the ceasefire did not last long. The Germans launched a counterattack from a hill overlooking the east side of the town. Company H charged up the hill and ended up in a brutal hand-to-hand confrontation that lasted nearly 30 minutes.[29]

The 442nd was then ordered to capture the town of Biffontaine, located six miles to the east of Bruyeres and protected by four steep hills. After another eight days of house-to-house fighting, the 442nd secured the town and was finally pulled off the line for a much-needed rest in the town of Belmont. However, after only two days,

the 442nd was called back for what would prove to be their most difficult mission yet. They were ordered to rescue the 1st Battalion of the Texas 141st Regiment; a unit that had been cut off behind enemy lines and whose position was in imminent danger of being overrun.

The 1st Battalion was situated on a hilltop east of Biffontaine. They were under constant enemy bombardment and quickly running low on supplies. The highest-ranking officer that remained in the unit, Lieut. Marty Higgins, made a desperate plea to the 36th HQ over the radio: "Send us medical supplies," "We need rations," "My wounded need plasma."[30] Major General Dahlquist ordered the 442nd to rescue the 1st Battalion at all costs.

On 29 October, the 3rd and 100th Battalions of the 442nd moved through the narrow ridge to the 1st Battalion's position, but there was no room to maneuver and the only option was a frontal assault. Heavy rain and slippery ground slowed their advance; the hill was also covered with booby-traps and hidden machine gun nests. After two days of fighting and almost no gains on the ground, Lt. Col. Alfred Pursall (3rd Battalion Commander) leaped out and shouted, "Okay boys, let's go!" Brandishing his .45-caliber pistol, Pursall charged up the hill directly into enemy fire. Eventually, every man in the 1st Platoon was following behind him.[31] This action later became known as the famous "Banzai Charge," but contrary to popular belief, the men of the 442nd did not actually yell the word *Banzai* as they charged. It was in fact a mix of screams and curse words until they reached the German lines.[32]

On the 30th of October, Company I of the 442nd finally reached the 1st Battalion and rescued its remaining 211 men. The rescue of the Lost Battalion was indeed an historic moment for the *Nisei* soldiers, but it came with a heavy price. The 442nd suffered

Bruyères Sector, France, 12 November 1944. The color guard of the 442nd RCT stands at attention while citations are read. This was the recognition ceremony ordered by Gen. John Dahlquist. (Photo courtesy of the author; United States Army Signal Corps)

nearly 800 casualties during this mission. When the 442nd began the Vosges Mountains Campaign a month earlier, its troop strength level was 2,943 men.[33] By the time they were taken off the line on 9 November they had suffered 161 killed in action (including 13 medics), 43 missing in action, and roughly 2,000 were seriously wounded. Their troop levels stood at less than one third of the unit's authorized strength.[34] Immediately following the Vosges Mountains Campaign, in light of the horrifying casualty rates suffered by the 442nd, accusations were made against Major General Dahlquist for negligence of command. Surprisingly, none of the protests came from the surviving *Nisei* soldiers, but rather from the non-Japanese American officers. The complaints reached the attention of Maj. Gen. Lucian Truscott, commander of the VI Corps, who considered relieving Dahlquist of his duties, but there is no official account as to why he ultimately decided against it.[35]

Although the *Nisei* soldiers pressed on for the duration of the war and continued to serve without

any protest, the grief felt by so many after the Lost Battalion mission did raise doubts in some of their minds as to why they were being pressed so hard, and for the first time, their stoic nature of *gaman* was shaken. On October 30th, Chaplain Masao Yamada wrote a long letter to his friend Col. Sherwood Dixon, who had commanded the 3rd Battalion while the 442nd was training at Camp Shelby, Mississippi:

> The major general is quite concerned and has commanded the 442nd to push. It is quite a strain to go forward, regardless of machine gun nests and their well-prepared defense … The cost has been high. I admire the courage and the discipline of our loyal men … But I am spiritually low for once. My heart weeps for our men, especially for those who gave all. Never had combat affected me so deeply as has this emergency mission. I am probably getting soft but the price is too costly for our men. I feel this way more because the burden is laid on the combat team when the rest of the 141st is not forced to take the same responsibility.[36]

Colonel Dixon was moved by the letter from his friend and was deeply concerned by the loss of so many men in his unit. In his response dated 22 November, Dixon tried to console Chaplain Yamada, and at the same time allay some of his suspicions as to why so much had been asked of his men:

> The best troops are called upon to do the hardest fighting. Whenever a general finds himself up against a tough proposition he sends for the best troops he has … A man who is being shot at daily has a hard time recognizing it as a compliment when, dead tired, bruised, and battered, he is called upon to make one more effort to risk his life another time—but it is a compliment nevertheless.[37]

Even though these words must have brought little comfort to Chaplain Yamada at the time, Dixon was indeed right in his observation and many senior officers regarded the 442nd as the "go to" unit for difficult missions. What greater testament to the combat effectiveness of the *Nisei* soldiers than the fact that while in Italy, both Gen. Charles Ryder (commander of the 34th Division) and Gen. Mark Clark (commander of the 5th Army) both specifically requested the 442nd for difficult combat missions, including the assault on the Gothic Line. The 442nd solidified its reputation there and General Clark acknowledged it, "They demonstrated conclusively the loyalty and valor of our American citizens of Japanese ancestry in combat."[38]

The Flaw of Primary-Group-Cohesion

There are many elements to the primary group cohesion thesis that would seem to lend it credibility and also make it a fitting description for the 442nd RCT. Since combat histories were first recorded, numerous firsthand accounts from soldiers on the battlefield have been passed down that echo the same sentiment; the idea that they fight primarily for their comrades. It is an intuitively satisfying notion and there is an undeniable emotional appeal to it, one that has been powerfully captured in many works of history and literature. In William Shakespeare's epic *Henry V*, the young king Henry is found in Act IV rallying his troops on the eve of battle and addresses them as a "band of brothers," who are united by their shared experiences in combat. The famed Civil War commander, Joshua Lawrence Chamberlain, even wrote in his memoirs that it was for "love, or bond of comradeship," that drove the men under his command in battle after battle.[39] Powerful testimonials such as these, along with the analytical structure given by historians such as S.L.A. Marshall and Samuel Stouffer would seem to reinforce the narrative.

Despite its pervasiveness, there are some questions that the primary group cohesion hypothesis cannot answer. For example, what factor or combination of factors has enabled soldiers to overcome their fears in combat, even in the face of sustaining overwhelming casualties within their units? In the case of the 442nd RCT, its casualty ratio during World War II was 250 percent. Its highest troop strength level ever was 4,000 men, and by the end of the war nearly 14,000 had passed through its ranks.[40] During the Battle of Bruyeres and the subsequent rescue of the "Lost Battalion," the 442nd suffered 800 casualties in a three day period in order to save 211 men of the Texas 1st Battalion. What kept the unit together and functional under such extreme conditions? And finally, how would soldiers with such strong emotional ties to their comrades maintain focus on military objectives if for example a friend suddenly suffers a combat wound? What is to keep overall unit cohesion from breaking down because of soldiers mourning for their fallen comrades?

Combat Motivations of the *Nisei* Soldiers

Trying to identify the specific reasons why any group of soldiers choose to fight is a daunting task. Even with detailed interviews, oral histories, letters and memoirs from the soldiers themselves, we are still only getting anecdotal answers from a relatively small sample of participants in each campaign. The reasons for fighting are often as varied as each man, and very situational, given the nature of the conflict. However, by utilizing historical methods to examine particular groups of soldiers within the social and cultural framework of their development, it is often possible to construct a reliable understanding of their motivations. In the case of the *Nisei* soldiers of the 442nd RCT, it is indeed possible to construct such a framework.

When listening to the oral histories of the *Nisei* soldiers, it is easy to recognize the vast social differences between some of the men from different parts of the country. If not for their shared ethnicity, one might begin to doubt that some of these men had much in common at all with each other. But after listening closely, a shared culture begins to emerge, as do several common themes about why they joined the army, and what motivated them to fight for their country. Each individual's life story is unique, but they all seem to draw their inspiration from the same place. Only a few reference it specifically, but all express ideas from the Meiji era values that were passed on to them by their *Issei* parents and schoolteachers. These values were the foundational strength that the men of the 442nd RCT relied on when they charged into battle.

The loyalty of Japanese Americans was certainly a concern for the US government from the outset of the war, but for the *Nisei* it was never even an issue. Yoshiaki Fujitani (442nd, MIS) said the following about an event that happened in his home state of Hawaii a year before the attack on Pearl Harbor:

> As a young man, I remember the visit of the Japanese plenipotentiary, Mr. Yosuke Yamamoto, Japan's delegate to the League of Nations prior to World War II. In his speech in Hawaii, he emphasized that the *Nisei* were Americans, they should be loyal to America. This sentiment was echoed repeatedly by our religious leaders, Japanese schoolteachers, and

our parents. A good *Nisei*, therefore, was first, a good, loyal American.[41]

Ted Tsukiyama (442nd RCT, 522nd Field Artillery) recalled the message that many *Issei* parents imparted to their sons as they left for induction into the army, "*Kuni no tame ni*" (for the sake of our country). "There was never any doubt what that meant to us. The only country we ever knew was America."[42] The *Nisei* soldiers all had unique ways of expressing their devotion to their country and to their home communities, but all can be traced back in some form to one of the "Twelve Virtues" of *Kyōiku Chokugo,* namely "*giyu*" (Should emergency arise, offer yourselves courageously to the State).

Another cultural value that was equally important in the minds of the *Nisei* soldiers was "*haji*" (shame). The *Issei* taught the generations of Japanese Americans that followed not only the importance of character and hard work in their daily lives, but also the concept of shame and protecting the family's honor. Most of the men in other army units came from different parts of the country, and once the war ended many of them would return home and never see their buddies again. But the *Nisei* soldiers, especially those from Hawaii, would return to the same tight knit communities as before. They, along with their parents, brothers, sisters, and close friends would return to the same towns, plantations, churches, and community centers. If they "shamed" themselves on the battlefield, it would mean "shame" for their families for the rest of their lives.

Most of the 442nd veterans who were asked to reflect on their battlefield experiences discussed this concept in one form or another. Lieutenant Daniel Inouye of the 100th Battalion (later US Senator from Hawaii) recalled the story of talking to his men on the morning of their first battle in Italy:

> I asked every one of them, "what were they thinking about, last night?" Everyone gave me the same answer in a different way: "I hope I don't dishonor my family," "I hope I don't bring shame," "I hope that my father is not ashamed of me." The thought of bringing shame to the family was unbearable![43]

Many of the *Issei* parents were terrified to watch their sons go off to war, but once their minds were made up, the parents often admonished them not to forget their traditions and values. Nelson Akagi

(442nd, 522nd Field Artillery) remembered his father's parting words … "*Shikari shinasai* (Be a man) and "*Kamei ni kizu tsukeru bekarazu*" (never bring dishonor to the family). I never thought I'd hear my father tell me that!"[44]

One of the most poignant stories of family obligation came from a letter to Hiromi Suehiro of the 100th Battalion while he was serving in Italy:

> I remembered a letter from my mother so I took the letter out. It doesn't get dark in Italy. At that time, I think it was around 8:00, I could still read it. You know, the letter started out with the usual salutations, everybody's fine, how are you. You know, so don't worry about us. She said, "soon you will be fighting the enemy. My son, do not be a coward. Be brave for your father and your family." And I think that my mother loved my father that much. She knew from the day I volunteered that some day she would have to say the words that she said to me in her letter. "Don't disgrace my husband and your family." And I said to myself, how can I hurt her by being a coward. So I made a silent vow to her.[45]

The *Nisei* were inculcated with the ethical values that their *Issei* parents brought with them from Japan. In a story for the Saturday Evening Post, reporter Magner White wrote that the *Issei* were "more Japanese than the Japanese themselves because they were anchored by the traditional mores without being aware of the transformations in modern Japan."[46] The rigorous nature of the Meiji education system enabled Japanese to maintain their unique cultural identity, even while living in other countries. Its cultural essence was passed on to the *Nisei* soldiers and provided them the necessary strength and sense of duty to accomplish their combat objectives.

Conclusion

The argument of primary group cohesion alone is not sufficient to explain the combat motivations of soldiers. This is not to say that it is either an unimportant or invalid element of overall unit cohesion. Indeed, social cohesion can contribute greatly to boosting morale within any unit, but to re-emphasize the key point from Siebold, "Mere friendship or comradeship is not the essence of cohesion." But when soldiers have confidence in each other, confidence in their leadership, and a firm understanding in their war fighting capabilities, they will invariably outperform groups that do not have the same commitment to one another.

The men of the 442nd RCT shared a common sense of purpose in their mission, which was also reinforced by other social factors. The period of extended training they received before deploying to Europe gave them the opportunity to develop greater proficiency as a unit, and to establish a deep sense of confidence in each other's abilities. The leadership examples set by commanders, Colonel Turner and Colonel Pence, also instilled a deep sense of trust between the men and assured them of the validity of their mission. When they set foot on the battlefield, they embraced their duties with a sense of loyalty and obligation that was nearly unheard of within other army units. This, combined with their upbringing, rooted in the values of the Meiji era education system, and the deep sense of commitment to avoid bringing "shame" to their families and communities, is ultimately what motivated them to put themselves in harm's way in service to their country. ∎

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The Afghanistan Papers

A Secret History of the War

Craig Whitlock, Simon & Schuster, New York, 2021, 368 pages
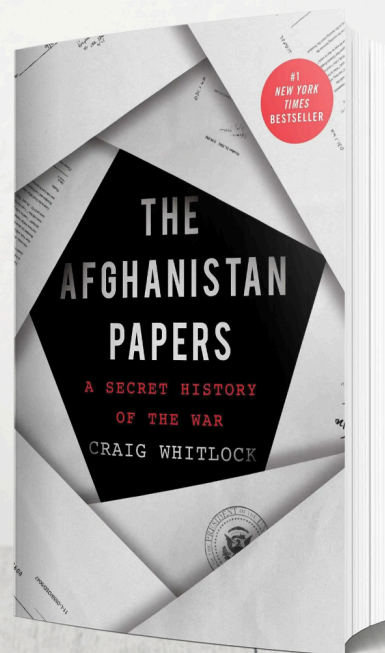
Lt. Col. John H. Modinger, PhD, U.S. Air Force, Retired

What really happened in Afghanistan? How did the government and the Afghan National Army collapse so rapidly despite years of promises by senior-ranking military officers that progress was made and those entities would eventually be able to defend the country?

The contention of Craig Whitlock's *The Afghanistan Papers: A Secret History of the War* is that senior military and political leaders routinely lied to the American public. If the title of the book has a familiar ring to it, that is no accident. It plays on the title of another dramatic release of information that revealed U.S. political and military leaders were lying about the state of affairs in Vietnam. With the release of *The Pentagon Papers,* Daniel Ellsberg provided a war-weary people a trove of documents that clearly showed the American government and its military had been complicit in a long-running attempt to deceive the American public about the true situation in the Vietnam War. The fact of the matter was the war was going poorly, but leaders offered up a steady diet of sunshine and rainbows detached from the reality on the ground to sidestep uncomfortable questions and prolong the war—up until then America's longest.

When America entered Afghanistan in the wake of the 9/11 attacks that had originated there, no one thought the war would end up lasting two decades. And with such a blatant attack against the United States, there was no need to lie or spin to justify the war at the outset. But eventually, the false assurances started, papering over setbacks. It seemed that no one was ready to acknowledge that the war started for a just cause had morphed into a lost cause. "From Washington to Kabul, an unspoken conspiracy to mask the truth took hold. Omissions inexorably led to deceptions and eventually to outright absurdities."[1] As the war continued, year after year, disillusionment set in with many. Many became outright dismissive of the military's statements that it was perpetually making progress and on the right track.

In 2016, the author received a tip. A massive collection of interviews

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existed, given by hundreds of people involved in the conflict who were unloading pent-up frustrations about the prosecution of the war. The interviews were conducted by the Office of the Special Inspector General for Afghanistan for a project called "Lessons Learned." The intent was to identify policy failures so the United States could avoid repetition of the mistakes in the future.[2] However, when Whitlock attempted to get his hands on the raw interviews, the Office of the Special Inspector General for Afghanistan delayed and resisted each attempt. Ultimately, the *Washington Post* had to file two lawsuits against the government to get the documents released under the Freedom of Information Act.

The interviews revealed that "many senior U.S. officials privately viewed the war as an unmitigated disaster, contradicting a chorus of rosy public statements from officials at the White House, the Pentagon and the State Department, who assured Americans year after year that they were making progress."[3]

The book chronicles how Washington and its executors in the field wasted over a trillion dollars in convoluted efforts to mitigate rampant corruption, build a reasonably competent Afghan military and police force, and snuff out the opium trade.[4] That's trillion with a "T!"

Lawmakers have expressed genuine fury when generals, diplomats, and other officials admitted the government had been dishonest with the public. Sen. Rand Paul has said he found the *Washington Post* exposé "extraordinarily troubling. It portrays a U.S. war effort severely impaired by mission creep and suffering from a complete absence of clear and achievable objectives."[5] Summing up this disheartening tale, Whitlock laments that "with their complicit silence, military and political leaders avoided accountability and dodged reappraisals that could have changed the outcome or shortened the conflict. Instead, they chose to bury their mistakes and let the war drift."[6]

Things started off well enough in Afghanistan, save for the escape of Osama bin Laden. U.S. forces had toppled the Taliban government in less than six weeks. But Afghanistan had a history of gobbling up invaders. It was routinely referred to as "The Graveyard of Empires."[7] Alluding to previous forays into the sinkhole by Britain and Russia, President George W. Bush assured his audience that the United States would avoid the fate of other great powers who had invaded the country. "We're not going to repeat that mistake."[8]

But Donald Rumsfeld, the secretary of defense, greatly feared the U.S. military could get stuck there in part because it lacked a clear exit strategy, and he was careful to keep his doubts and concerns private. In an interview he gave early on, he was pointedly asked "How often are you forced to shave the truth in that briefing room, because American lives are at stake?" Rumsfeld brusquely replied, "I just don't. I think our credibility is so much more important than shaving the truth."[9] The passage of time would utterly ravage that earlier pronouncement.

Richard Boucher, the State Department's chief spokesman at the start of the war, says the United States "foolishly tried to do too much and never settled on a realistic exit strategy." In effect, the United States set an impossible goal: to replicate U.S. practices in many ways. "[They were] trying to build a systematic government à la Washington, DC in a country that doesn't operate that way."[10]

The irony, though, is that the mushrooming objectives were far more circumscribed at the outset—eliminate al-Qaida; terminate Taliban rule. The initial plan did not anticipate U.S. troops staying long, since it was thought those same troops would be heavily engaged in antiterror operations worldwide. Having rapidly overthrown the Taliban, U.S. military commanders were unprepared for the aftermath and unsure what to do. In December 2001, only 2,500 American troops were on the ground in the country.

But swift and decisive military victories had heightened U.S. officials' confidence and they subsequently added more goals to the "to do" list. In short, hubris was infecting outlooks. And so, the war "shifted into an 'ideological phase' in which the United States decided to introduce freedom and democracy to Afghanistan as an alternative to terrorism."[11] But for that to happen and take hold, American troops would have to stay longer. Originally, Washington said, "We don't do nation-building." However, there was no way to ensure al-Qaida would not return. Once the Taliban had been decimated, many wanted to ensure the progress made was not lost.

In April 2002, Bush settled on a more ambitious set of objectives. He said the United States was obligated to help Afghanistan build a country free of terrorism, with a stable government, a new national army, and an education system that served both boys and girls. "True peace will only be achieved when we give the Afghan

people the means to achieve their own aspirations."[12] This was a dramatic ramp up in stated objectives. The goals were admirable, but the president offered no specifics or benchmarks for achieving them, nor did he mention a price tag or say how long it might all take. This was a huge blunder. But a new war in Iraq would soon overshadow Afghanistan and the tough questions associated with Bush's new goals.

In the ensuing years, U.S. troops struggled to discriminate between the bad actors and everyone else. "The reality is that on 9/11 we didn't know jack shit about al-Qaeda," said Robert Gates.[13] The Bush administration did not help matters when it began blurring the distinction between al-Qaida and the Taliban. Al-Qaida was mostly made up of Arabs, not Afghans, with a global presence and outlook; in contrast, the Taliban's focus was entirely local. By 2002, though, few al-Qaida fighters remained in Afghanistan, having been killed, captured, or dispersed. Only the Taliban remained. And for two decades, the war was waged primarily against a group that was only indirectly connected to the 9/11 attacks. And therein lay a big problem.

One reason the war dragged on so long was because the United States never really comprehended what motivated its enemies to battle with it. In the simplistic thinking that dominated a distressing number of discussions about the war, "anybody willing to help the U.S. fight al-Qaeda and the Taliban qualified as a good guy—morals notwithstanding. Dangling bags of cash as a lure, the CIA recruited war criminals, drug traffickers, smugglers and ex-communists. While such people could be useful, they often found the Americans easy to manipulate."[14] Unfortunately, many Afghans learned that if they wanted to eliminate a rival in any sort of dispute, all they needed to do was tell the Americans their opponent belonged to the Taliban. Even elite soldiers, possessing a more nuanced understanding of the battlefield, were unsure who to fight.

On 5 December 2001, the Bonn Agreement was signed, naming Hamid Karzai as the interim leader along with a process for drafting a constitution and holding national elections. It was touted as a diplomatic victory. However, the Bonn Agreement had a flaw that was ignored at the time: exclusion of the Taliban. The United States saw the Taliban as a defeated foe. It also viewed the Taliban as equivalent to al-Qaida. And in the moment, there was no desire expressed, by any

attendees, to bring the Taliban into the peace process. One experienced foreign service officer decried,

> One of the unfortunate errors that took place after 9/11 was in our eagerness to get revenge we violated the Afghan way of war. That is when one sides wins, the other side puts down their arms and reconciles with the side that won. And that is what the Taliban wanted to do. Our insistence on hunting them down as if they were all criminals, rather than just adversaries who had lost, was what provoked the rise of the insurgency more than anything else.[15]

In the "Lessons Learned" interviews, Zalmay Khalilzad, a former ambassador to Afghanistan, said America's longest war might have gone down as one of its shortest had the United States been willing to talk to the Taliban in December 2001.[16]

Frustrated officers coming home from the war often grumbled the U.S. war effort was akin to "just spinning our wheels" and "lacking any kind of strategy."[17] There was a sense that this war would continue to muddle along aimlessly for years. In part, the drift was because Iraq had become the big shiny object garnering American attention. Army Lt. Gen. Douglas Lute, the director of operations for the joint staff at the Pentagon, estimated he spent 85 percent of his time on Iraq and just 15 percent on Afghanistan.[18] Lute's candor was as surprising as it was depressing. "We were devoid of a fundamental understanding of Afghanistan—we didn't know what we were doing. We didn't have the foggiest notion of what we were undertaking. … It's really much worse than you think."[19]

Whitlock's book makes clear *one reason the generals failed: cowardice.* In some ways, the situation was akin to the one described by Lt. Gen. H. R. McMaster in his book *Dereliction of Duty*, in which he says the Joint Chiefs of Staff, during Vietnam, were derelict in their obligation to speak truth to the White House about the fiasco unfolding there. One British general, Peter Gilchrist, who served as deputy commander of U.S. and NATO forces in the early years of the Afghan war, described his American counterparts cowering during meetings with then Secretary of Defense Rumsfeld. "This was a real culture shock for me. You should see these guys—and they're great men, grown up, intelligent, sensible, but like the jellies when it came to going in front of the SecDef."[20]

Over time, "the contradictions between the generals' happy talk and the discouraging reality on the ground became harder to ignore."[21] But ignore it the generals did. It seemed no general wanted to admit he couldn't vanquish the Taliban.

However, there was one general that seemed to be willing to admit that things were not so rosy. Gen. David McKiernan surprisingly admitted "We don't see progress. I won't say that things are all on the right track."[22] While this candor, despite misfortunes on the ground, was encouraging, it apparently ruffled too many feathers; McKiernan would be pulled from command, inexplicably. And it is even more surprising given who dropped the axe on McKiernan.

Robert Gates, a former CIA director and later secretary of defense, had a reputation as an unemotional boss who held senior military leaders accountable. Dismissing a wartime commander had not really occurred since Douglas MacArthur was shown the door by President Harry S. Truman in 1951 for insubordination. Interestingly, Gates said the decision to replace McKiernan after eleven months in the position was not due to a refusal to follow an order, or for a particular misstep. He just said it was "time for new leadership and fresh eyes."[23] Gen. Stanley McChrystal would be brought in as the new commander. So, there was no clear rationale for the replacement, except to consider he was the only flag officer in Afghanistan to openly admit the war was going badly. And while the secretary has the discretion to replace the commander as he sees fit, the message sent was this: he was let go because he had told the truth. Such a move may seem out-of-character for a leader like Gates, but a look at the statements of the generals in charge of the war effort, both before and after McKiernan's firing, shows he was an outlier in terms of his candor with the press and public. Precisely why Gates felt the need to remove him remains a mystery, but the move certainly disinclined others to be truthful when briefing politicians and the American public.

McKiernan's replacement, McChrystal, had grown close to Gen. David Petraeus in Iraq where they had worked together. Now that Petraeus was the Central Command boss, he recommended McChrystal for the lead in Afghanistan. Leveraging their experiences in Iraq, the two sought to adopt a revised counterinsurgency strategy for Afghanistan. But others in Afghanistan felt a certain arrogance displayed by the two generals that seemed to ignore lessons learned by previous commanders there.

Eventually, McChrystal would convince the Obama administration to raise the troop level to one hundred thousand. With the additional forces in hand, McChrystal testified before Congress in December 2009 stating, "The next eighteen months will likely be decisive and ultimately enable success. In fact, we are going to win. We and the Afghan government are going to win."[24] Of course, that would turn out to be utter nonsense. Michelle Flournoy, Barack Obama's undersecretary of defense for policy, would offer similarly glowing statements. "The evidence suggests that our shift in approach is beginning to produce results."[25] She, too, would prove to be wrong in her assessment.

The overly optimistic reports would continue unabated from Kabul for another decade, one general after another, all grossly distorting the truth on the ground. All the while, rampant buffoonery went unchecked, resulting in pervasive waste. Some instances related in Whitlock's book parallel this writer's own disheartening experiences in Afghanistan. As Lute points out, "the U.S. lavished money on dams and highways just 'to show we could spend it,' fully aware that the Afghans, among the poorest and least educated people in the world, could not maintain the massive projects once they were completed."[26] In my own experience, working at the National Military Academy of Afghanistan during one deployment, I witnessed Afghan instructors outfitted with technology they had zero chance of maintaining after the U.S. gravy train ceased running. I recall saying to a colleague, "Why do we need to transport Afghans into the twenty-first century? The eighteenth or nineteenth will do just fine. Not computers and projectors, but paper and pencils, chalk and chalkboards."[27] The point of the statement was this: If the Afghans couldn't maintain it after the United States left, what was the point of it all? All the costs are lost—for good. Better we provide simple, but resilient solutions than ones that may ease our own proximate training headaches but do nothing to solidify long-term fixes. Undeniably, we have seen this numerous times when the United States goes into a place. We quickly begin to feel it is easier to give the recipient a fish than teach them how to fish. The latter process requires untold patience and time, luxuries the

U.S. soldier rarely has enough of; hence, the appeal of giving them a fish. Yet we also know how ineffective that option is in virtually all cases. It is really a simple case of "easy" versus "logical." The siren song of easy is tough to ignore, especially if someone is breathing down a soldier's neck for metrics to show some senior officer that "progress" is made on multiple fronts.

The U.S. military's counterinsurgency doctrine, of course, treated money as a powerful weapon of war. Thus, as Whitlock astutely puts it, "from a commander's perspective, it was better to spend that ammunition quickly than wisely."[28] One Afghan who worked for the U.S. Agency for International Development as a project manager decried "the Americans were so intent on building things that they paid little attention to who was benefitting."[29] Of course, of the numerous flaws with the nation-building campaign—the waste, the inefficiency, the half-baked ideas—nothing was more troubling than the fact the Americans could never discern whether any of it was actually helping them win the war! According to the author, "mammoth civic works projects contributed to the failure of the nation-building campaign."[30]

There are so many more anecdotes that could be captured here to underscore the irrationality of what was done, said, and lauded in that caustic backwater. Whitlock (and the *Washington Post*, which fought the lawsuits against the government on his behalf) deserve our respect and admiration for producing this searing investigative journalism. We have no hope of doing better in the future unless we first learn from our mistakes. Though we often choose not to learn from previous errors, we should still seek them out with the hope that we can—and must—do better tomorrow. ∎

Notes

1. Craig Whitlock, *The Afghanistan Papers: A Secret History of the War* (New York: Simon & Schuster, 2021), xii–xiii.

2. Ibid, xiv.

3. Ibid.

4. Ibid, xvi.

5. Sen. Rand Paul (R-Kentucky), as quoted in Whitlock, *The Afghanistan Papers*, xviii.

6. Whitlock, *The Afghanistan Papers*, xx.

7. While it may not have been "the" event to end an empire, it facilitated its demise.

8. President George W. Bush, as quoted in Whitlock, *The Afghanistan Papers*, 4.

9. Secretary of Defense Donald Rumsfeld, as quoted in Whitlock, *The Afghanistan Papers*, 5.

10. Richard Boucher, as quoted in Whitlock, *The Afghanistan Papers*, 7–8.

11. Stephen Hadley, deputy national security advisor, as quoted in Whitlock, *The Afghanistan Papers,* 14.

12. Ibid.

13. Robert Gates, as quoted in Whitlock, *The Afghanistan Papers*, 19.

14. Whitlock, *The Afghanistan Papers*, 21.

15. Todd Greentree, foreign service officer, as quoted in Whitlock, *The Afghanistan Papers*, 27.

16. Whitlock, *The Afghanistan Papers*, 28.

17. Ibid., 109.

18. Ibid., 110.

19. Lt. Gen. Douglas Lute, as quoted in Whitlock, *The Afghanistan Papers*, 110.

20. British Maj. Gen. Peter Gilchrist, as quoted in Whitlock, *The Afghanistan Papers*, 53.

21. Whitlock, *The Afghanistan Papers*, 113.

22. Gen. David McKiernan, as quoted in Whitlock, *The Afghanistan Papers*, 110.

23. Whitlock, *The Afghanistan Papers*, 146.

24. Gen. Stanley McChrystal, as quoted in Whitlock, *The Afghanistan Papers*, 153.

25. Michelle Flournoy, as quoted in Whitlock, *The Afghanistan Papers*, 154.

26. Lute, as quoted in Whitlock, *The Afghanistan Papers*, 159.

27. Dr. John H. Modinger—personal account.

28. Whitlock, *The Afghanistan Papers*, 163.

29. Safiullah Baran, as quoted in Whitlock, *The Afghanistan Papers*, 165.

30. Ibid., 166.

Suggested Themes and Topics

Large-Scale Combat Operations/ Multi-Domain Operations

- Division as a formation
- Air and antimissile defense
- Deep operations
- Information advantage/military deception
- Multi-domain task force
- Recon and security/cavalry operations
- Protection and security (air defense artillery, engineer, chemical, biological, radiological, nuclear, cavalry)

Joint Operations

- Air/sea/land integration
- Joint/long-range precision fires
- Air and antimissile defense
- Joint forcible entry

Europe/Central Command/ Indo-Pacific Command

- Contiguous and noncontiguous operations
- New operational environment: adversaries operating in their "near abroad" (close proximity to own borders)
- Peer and near-peer adversaries contesting U.S. joint force in all domains

Other Topics

- What is the role for the Army/Reserve components in homeland security operations? What must the Army be prepared to do in support of internal security? Along our borders?
- Role of security force assistance brigades (SFAB) in the gray-zone competition phase drawn from experience of an SFAB in Africa or Europe
- What must be done to adjust junior leader development to the modern operational environment?
- What logistical challenges does the U.S. military foresee due to infrastructure limitations in potential foreign areas of operation, and how can it mitigate them?
- Defending against biological warfare—examination of the war waged by other than conventional military weapons
- The role of UAS and robotics at the tactical level
- Early lessons learned from the Russian invasion of Ukraine

Stryker crews assigned to 3rd Battalion, 21st Infantry Regiment, stage vehicles in preparation to depart Delta Junction, Alaska, near the end of the Joint Pacific Multinational Readiness Center (JPMRC) 22-02 rotation on 22 March 2022. JPMRC is a home-station training rotation that tests and builds combat readiness in the Arctic. (Photo by Spc. Aaron Downing, U.S. Army)

Victory Soon

by Vyacheslav Konoval, May 2022
https://allpoetry.com/Fair_Man

Myrrh on the walls of the icon,
blood-soaked statuettes of Jesus,
a candle burns out, drops the piece of oin,
in the heart anxiety, as always, premonitions are
heavy, precarious.

Prayers drive away evil every second,
let the executioners stop the
atrocities against the Ukrainian people,
The mockery in Bucha was a message to the world
and an instructive lesson.
Rocket volleys will wake up the bell on the steeple.

Victory is here, wait a little longer,
On earth with weapons, the people are stronger.

A Ukrainian soldier stands against the background of an apartment house destroyed by Russian bombardment in Borodyanka, Ukraine, that is being searched by a rescue team for survivors, 6 April 2022. (Photo by Efrem Lukatsky, Associated Press)

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