THE ALLIANCE STRIKES BACK: USING MULTI DOMAIN OPERATIONS TO COUNTER RUSSIAN HYBRID WARFARE IN THE BALTICS

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This paper concludes that, while the Multi Domain Operations concept *could* counter, if not defeat, Russian hybrid warfare in the Baltics, that NATO *should not* adopt the concept because of low suitability. Of particular concern is the concept's lack of focus on preventing Russia using local populations as a tool of destabilization, the time it will likely take to penetrate Russian A2/AD systems using the 'stimulate-see-strike' process, and the detrimental effect that synchronizing actions across domains could have on one of NATO's key overmatch capabilities—the Mission Command philosophy.

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ABSTRACT

THE ALLIANCE STRIKES BACK: USING MULTI DOMAIN OPERATIONS TO COUNTER RUSSIAN HYBRID WARFARE IN THE BALTICS, by Major Nicholas J. Stafford, 139 pages.

As a result of the space age and the Information Revolution, warfare is extending to new domains and being fought with new emerging technologies. Meanwhile, a resurgent Russia has been using hybrid warfare—a combination of non-violent subversion, covert violent action, and conventional military forces—to pursue its national interests outside of its borders. NATO's most acute challenge is how best to innovate and adapt in order to deliver collective security to the Baltic States. This paper will explore whether or not NATO should adopt the new U.S. Multi Domain Operations concept.

This paper concludes that, while the Multi Domain Operations concept *could* counter, if not defeat, Russian hybrid warfare in the Baltics, that NATO *should not* adopt the concept because of low suitability. Of particular concern is the concept's lack of focus on preventing Russia using local populations as a tool of destabilization, the time it will likely take to penetrate Russian A2/AD systems using the 'stimulate-see-strike' process, and the detrimental effect that synchronizing actions across domains could have on one of NATO's key overmatch capabilities—the Mission Command philosophy.

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ACRONYMS

A2/AD	Anti Access Area Denial
ABN	Airborne
Bde	Brigade
BG	Battle Group
Bn	Battalion
C4	Command, Control, Computer, and Communication
COG	Center of Gravity
eFP	Enhanced Forward Presence
Hrs	Hours (military timing – i.e. 1000 hrs)
MDO	Multi Domain Operations
NATO	North Atlantic Treaty Organization
RAND	Research and Development Corporation
SOF	Special Operations Forces
TRADOC	United States Army Training and Doctrine Command
UK	United Kingdom of Great Britain and Northern Ireland
U.S.	United States of America
VJTF(L)	Very High Readiness Joint Task Force Land

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Figure 1. The Baltic States and Northeast Europe

Source: The University of Texas at Austin, "Baltic States Map," 2012, accessed 2 April 2019, http://legacy.lib.utexas.edu/maps/commonwealth/balticstates.jpg.

1750 hrs, 14 October 2021: Час Ч, D День (H Hour, D Day), Lithuania

The 25th Russian Special Purpose Regiment (Spetznaz) had, over several weeks, infiltrated its entire strength into Lithuania. It was a little before 1800 hrs, and these crack troops were changing from civilian clothes into combat uniforms and assault vests. In 10 minutes they would attack the Zokniai airfield and destroy the eight F-15Cs, from the southern half of the Baltic air policing mission, on the ground. The attack would clear the path for waves of Sukhoi SU-30 Flanker fighters to stream into Lithuanian airspace. Overhead, the 331st Guards Airborne (ABN) Regiment, hardened after years of fighting in Donetsk, was preparing to drop onto the airfield complete with their BMD-4 armored fighting vehicles (AFVs). As far as the North Atlantic Treaty Organization (NATO) was concerned, the group of transport aircraft was a routine supply shipment moving in the air corridor between Russia and Kaliningrad.

It had a been a busy few months for Sergi, the Colonel commanding the 25th Russian Special Purpose Regiment. His Battalion (Bn) had split into small teams operating all over Lithuania. He was long accustomed to using subversion and violence to create instability and had honed his methods to a fine art after multiple deployments in Georgia, Crimea, Ukraine, and Syria. Many of his techniques were not new but rather old Soviet ones, some which were now applied through new dimensions and in new domains. Sergi smiled – the West had become complacent. Its populations, living in comfort, had forgotten what it was to be hungry and how hunger feeds determination in the continuous struggle. Sergi thought back proudly on his work, some of his finest. His unit was supporting two much larger political subversion campaigns, the first aimed to break NATO's unity and the second to weaken the governments in the Baltic states.

Russia had over years used dirty money and moved covertly to fund disruptive political parties: the UK Independence Party, the National Front in France, Five Star in Italy, the Trump campaign in the United States of America (U.S.), the Latvian Harmony Party and the Center party in Estonia. It also weaponized online cyber bots to inflame public debate and opinion by posting enormous quantities of fake news and opinions on social media sites to cloud the political reality. Over the years these methods started to yield results. The UK voted to leave the European Union (EU), throwing the country into years of introspection. Five Star came to power in Italy and campaigned aggressively to leave the EU. Europe was distracted with political infighting. The election of President Donald Trump with his wrecking ball style of diplomacy and mercantile approach to trade started to widen the cracks within the NATO alliance.

In the second campaign, Russia used its 'Compatriots Policy' to precisely target the ethnic Russians and Russian speakers in the Baltic states. Russkii Mir, a Russian Non-Government Organization (NGO), encouraged the study of Russian language, lobbied governments and funded pro-Russian political parties. Rossiya and other state-owned media outlets offered Russian TV programs and films to commercial Baltic stations at cut-price rates. Russian comedians, actors, and musicians received lucrative payments if they toured the Baltics with a show supporting the anti-Western agenda. The Russian-speaking populations in the Baltics, most of whom got their news from Russian media outlets, were targeted with sustained information warfare. Russia carefully projected its 'version' of history and spread negative propaganda to breed resentment of Baltic politicians and the West.

With its soft power 'reach' established, Russia started to deliver fake news and misinformation campaigns. A false story about a group of German soldiers raping a teenage Lithuanian led to the NATO Battle Group (BG) confining itself to camp in the face of an increasingly hostile population. Russia caused economic and energy crises by leveraging its business assets in the Baltics, deepening the people's dissatisfaction with the Baltic states' governments.

Then Sergi and his teams began to go to work using covert violent action. Spetznaz soldiers conducted a terror attack against a group of ethnic Russians visiting a Soviet memorial and framed Baltic fascists. They carefully nurtured separatist movements in the Ida-Viru county of Estonia and the Latgale Region of Latvia. Sergi supported these groups with weapons, funds, and training. Luck had played its part along the way, Estonian forces reacting to rising violence in Narva blundered by arresting a well-respected law-abiding local politician, the result of faulty intelligence supplied by an agent who had been paid-off by Russia. Sergi had used this to inflame the local situation further—his men and their proxies started violent riots and attacked the police and military forces under the cover of a separatist movement. In Narva, the local Centre party declared independence and invited Russian forces into the town to help keep the peace. This gave President Putin the chance he had been fostering for many years. The 20th Guards Army legitimized their entrance into Estonia on the grounds of protecting the Russian minority.

This opening had accelerated the planning for the invasion of the Baltics, which Sergi and his men were about to commence. In a just a few hours a fabricated story, rich in detail, would emerge showing NATO forces attacking Russian units and Russian-

speaking Estonians. This would give Russia the justification it needed to seize the Baltics in order to protect the Russian minorities against NATO's ethnic cleansing. While this story would eventually be proven false, it provided the 'fog' Russia need to cloud NATO's decision making.

President Putin desired the Baltics but was under no illusions about the cost retaliatory Western sanctions and diplomatic efforts would have on Russia. However, he acted from a position of strength—the U.S. sanctions on Iran had forced up oil prices over several years and the Russian government had accumulated sufficient wealth to ride out the short term economic pain. The economic hit was worth it to achieve the President's ultimate goal—the shattering of NATO's collective security guarantees. NATO's effective defeat and its subsequent unraveling as an organization would leave Russia free to pursue its agenda in Europe. Not to mention as his domestic situation became harder and harder to sustain, he needed an external cause to unite the country—what better than the symbol of the West, NATO.

Sergi and his Bn were about to take part in a huge military operation. The 4th Guards Tank Division from Russia's 1st Guards Army was about to begin its race across the 64-mile-wide Suwalki gap from Belarus to linkup with Russian forces in Kaliningrad. This armored division would be the first of three whose task it was to cut the ground line of communication between Poland and Lithuania and complete the isolation of the Baltic states. A fourth division was also preparing to envelop Vilnius. These units had, until hours earlier, been taking part in Exercise Zapad 2021, a vast quadrennial exercise conducted in Belarus and Russia's Western Military District. Meanwhile, units from the

Russian 11th Guards Army in Kaliningrad were preparing to drive north to seize the key Lithuanian port of Klaipeda.

In Estonia and Latvia, Russian Naval Infantry units were preparing to conduct simultaneous attacks on Tallinn and Riga. The 61st Naval Infantry in Tallinn and the 200th Independent Motor Rifle Brigades in Riga would be the first amphibious assault echelon, using civilian ferries to conceal their approaches into the harbors. Both units would then move quickly to secure critical port infrastructure, government buildings, and media outlets. Each of these attacks, planned for dusk, had been synchronized with local cyber-attacks and electromagnetic spectrum (EMS) jamming to disrupt communications between the Baltic nations' defense ministries, their units, and the NATO Enhanced Forward Presence (eFP) BGs.

In four hours a Russian division would be ashore in each capital city. Following closely behind the combat troops would be multiple air defense systems including a Bn of SA-21s (S400 missiles). These batteries had one purpose—to prevent a rapid ABN or air assault counterattack from the U.S. 82nd ABN Division (82nd ABN Div), the U.S. 173rd ABN brigade (Bde) based in Italy, and the UK's 16 Air Assault Bde. Reserve systems would be hidden around the two capital cities in underground car-parks. In the hours following, SSC-5 (K-300P) anti-ship missiles would be sited along the shoreline completing the Anti Access Area Denial (A2/AD) matrix. This expanded the Russian area of denial, giving it the power to completely deny sea and air movement in the Gulf of Riga, the Gulf of Finland and much of the Baltic sea area.

Further inland, the lead elements of three Russian ABN divisions were preparing to parachute onto key terrain and vital transport links across the Baltic states. At Amari

air force base in Estonia, host to the other half of the NATO Baltic air mission, an attack similar to the one at Zokniai was due to commence.

The 20th Guards Army, already in the Estonian town of Narva, once it received word that the airfield attacks had achieved their objectives, would attack rapidly westwards. Its goal—the destruction of the 1st Estonian Bde and the British BG at Tapa. In Latvia, the Russian 6th Army would rapidly advance the 125 miles along the main route from Pskov to link up with the Naval Forces in Riga. Two Latvian Bns and the NATO eFP BG lead by Canada was all that stood in its way. Sukhoi SU-34 fighter bombers and Mi-28 attack helicopters, paired with Unmanned Aerial Vehicle (UAV) scouts, were poised to strike key defensive locations, exploiting the near total lack of NATO air defense capabilities.

In the Baltic Sea

Russian Military Main Intelligence Directorate (*Glavnoye razvedyvatel'noye upravleniye* – GRU) agents and naval special forces had already established observation posts at Helsinborg and Halsskov with full observation of the Kattegat straits that run either side of the Danish island of Zeeland. The special forces teams, using high-powered very low-frequency radios, had direct communications with the shallow running Russian attack submarines guarding the Danish Straits. Neither of the two NATO Standing Maritime Groups was currently in the Baltic Sea. Four minelayers stood by ready to seal the channels if required. The bulk of the Russian Northern submarine fleet was already at sea in the North Atlantic.

2000 hrs, 14 October 2021: Supreme Headquarters Allied Powers Europe (SHAPE), Mons, Belgium

The picture in the operations center was unclear, but General Saunders, the Deputy Supreme Allied Command Europe (DSACEUR), believed that the Baltics were under a huge, coordinated, Russian attack. U.S. Space Command (U.S. SPACECOM) lost all satellite coverage over the Baltics region at 1500 hrs. Earlier, two satellites had been irreparably damaged by a laser weapon, with a third disappearing at 1450 hrs after an assessed collision with a Russian satellite. A fourth missed its downlink when the base station at Thule air force base, Greenland was jammed during its pass.

The information space was exploding with data. If the Russians knew one thing, Saunders reflected, it was that too much information was significantly harder to deal with than none at all; the layered uncertainty it created was disorientating. The SHAPE Joint Staff Intelligence (J2) team were dealing with an overwhelming number competing reports.

Stories of NATO forces targeting Russian speakers in the Baltics flooded both social and conventional media outlets. Al Jazerra and RT were broadcasting multiple videos from Narva, Estonia that appeared to show British soldiers engaging unarmed Russian soldiers in the process of distributing food parcels. These videos were almost certainly fake, given the British BG's last reported position. However, that didn't stop every NATO politician, and the rest of the world for that matter, watching the footage and quickly developing an ill-informed opinion.

Saunders knew the situation was already perilous. The only NATO ground forces that could respond within 48 hours were the U.S. Armored Brigade Combat Team (ABCT) in Poland, the NATO Very High Readiness Joint Task Force Land (VJTF(L))

Bde and the U.S. and British ABN forces. The French ABN forces were unavailable; they had been committed to Paris after a marauding terrorist attack the day before. He knew that the two armored Bdes and an ABN Div at his disposal were insufficient to stop or defeat the Russians, but they might buy enough time for additional NATO units to mobilize. In order to be effective, they would need to be committed immediately.

Saunders sucked his teeth. NATO had been created to confront and prevent precisely this sort of threat. However, there was a real danger that NATO would fail to rise to the challenge and its fundamental frailty, the need for all members to approve a course of action, would be exposed with possible world-changing consequences. He collected his thoughts and set off to brief the council ministers.

0600 hrs, 16 October 2021: Supreme Headquarters Allied Powers Europe (SHAPE), Mons, Belgium

It was all over. The Russian *fait accompli* in the Baltics was complete. Fierce local resistance was taking place, but the Russians had occupied the Baltics with an Army group and held all of the capital cities, ports and airfields. The council had approved the activation and movement to Poland of the VJTF(L), but it had not sanctioned SHAPE to commit it or other NATO forces until the representatives had briefed their heads of government. The U.S. had, unilaterally, given the order for the 82nd ABN to deploy along with a U.S. Air Force (USAF) fighter wing and a carrier BG. However, by the time the council reconvened four hours later the window of opportunity had closed. The Russians had seized the Suwalki gap and set up an imposing A2/AD defense over the Baltics. The 82nd ABN diverted to the UK. NATO was now belatedly mobilizing all of its force.

It was unlikely to be used though. President Putin activated a strategy of nuclear de-escalation, threatening to retaliate with nuclear weapons to any NATO attempts to re-capture the Baltics. This had led to a third and momentous council meeting where it became clear that Washington, London, and Paris were not willing to risk nuclear war to re-capture the Baltics. Article 5 was effectively dead in the water. NATO was a moribund organization. “How did it come to this?” Saunders thought to himself.

CHAPTER 1

INTRODUCTION

The above is a fictional tale, but it is based on facts and describes a plausible future. It is a story of how Western nations disregarded the indicators and warnings from a resurgent Russia and through a failure to preserve the integrity of NATO, lost the guarantee of collective security which had allowed them to enjoy such great prosperity for so long. Hopefully it brings to life the very real threat that a resurgent Russia poses to the Baltics and to NATO.

This paper will explore whether or not NATO should adopt the new U.S. Multi Domain Operations (MDO) concept to counter Russian hybrid warfare and achieve real collective security in the Baltics. This paper will argue that, while the MDO concept *could* counter, if not defeat, Russian hybrid warfare in the Baltics, that NATO *should not* adopt the concept because of low suitability. Of particular concern is the concept's lack of focus on preventing Russia using local populations as a tool of destabilization, the time it will likely take to penetrate Russian A2/AD systems using the 'stimulate-see-strike' process, and the detrimental effect that synchronizing effects across domains could have on one of NATO's key overmatch capabilities—the Mission Command philosophy.

The Problem

How does NATO best adapt and innovate in the face of the Information revolution to provide collective security to the Baltic states, against the threat of Russian hybrid warfare, given the significant quantity of near-peer Russian forces operating in the

region, the Baltics' unique geography, culture, history, and Russia's willingness to use the ethnic Russian populations in the Baltic states as a tool of destabilization?

Russia's annexation of Crimea proved that President Putin is willing to use force to achieve foreign policy objectives, especially if events start to threaten Russia's national interests. Crimea was part of Russia for two centuries before it became a part of Ukraine. Kiev had been the original capital of Russia as far back as 882 (Sixsmith 2011, 7)–60 percent of Crimea's population are ethnic Russians, and Sevastopol is Russia's only true major warm-water port (Marshall 2015, 16).

The importance of the port of Sevastopol cannot be understated. The Russians do have a small naval presence in Tartus on Syria's Mediterranean coast, but it is only a small replenishment base, not a major port. The Russian navy in the Baltics could easily be contained in the Baltic Sea due to NATO's control of the narrow Skagerrak Strait which links the sea to the North Sea (Marshall 2015, 17). The remainder of Russia's western ports are, on average, frozen over for five months of the year. Even then, the route to the Atlantic passes through the Greenland/Iceland/UK (GIUK) gap—a feature that, in time of conflict, could be used to contain the Russian Navy.

In 2008 the pro-Western Ukrainian president Viktor Yushchenko announced that Ukraine would not extend the lease of the Sevastopol base beyond 2017 (UNIAN 2008). In response, Russia set about undermining the Ukrainian economy, exploiting the country's dependency on Russian oil and gas, imposing harsh price increases and even cutting off supply in 2006 and 2008. In the end, these measures imposed enough pain to turn the population against the government. In early 2010, the Orange Revolution in

Ukraine came to an end with pro-Russian Victor Yanukovych becoming president and almost immediately renewing Russia's lease of the Sevastopol base (Newman 2012, 1).

On 22 February 2014, after months of instability in Ukraine, anti-Russia factions (including some pro-Western elements) took over the government. President Putin, who consistently operates as a realist playing a zero-sum game, did not have much choice—he had to annex Crimea (Marshall 2015, 16). "Russia found itself in a position it could not retreat from. If you compress the spring all the way to its limit, it will snap back hard. You must always remember this" (Putin 2014).

Another area of extreme importance to Russia, as Sumner captures in several of his seven elements of Russian history (frontier, state, land, church, Slavs, sea, and the West), is their Western border (Sumner 1944). The best place to defend Russia remains at the western end of the vast Northern European Plain in Poland. Here, at the thin end of the wedge, the gap between the Carpathian Mountains and the Baltic Sea is only 300 miles wide. Thereafter, the further east you go the wider the gap becomes—a vast flat plain stretching east to the Ural Mountains. By the time you get to Russia's current borders, the gap is over 2,000 miles wide. Even with a colossal land force, this is an impossibly wide frontage to defend. As a result, Russia's instinct is to defend as far west as possible; firstly, to reduce the width of the gap they need to defend, and secondly to develop strategic depth (Marshall 2015, 5).

Figure 2. Northern Europe

Source: The University of Texas at Austin, "Europe Reference Map," 2012, accessed 2 April 2019, http://legacy.lib.utexas.edu/maps/europe/europe_ref_2012.pdf.

To a Western mind, any plan to invade Russia may seem incomprehensible; but that is not how the Russians see it. If you measure from Napoleon's invasion in 1812, including the Crimean War and two world wars up to 1945, then the Russians have fought on average in or around the North European Plain once every thirty-three years (Marshall 2015, 6). If you are a realist, like President Putin, then this geography and history matters. As Robert Kaplan argues, the flatness of Russia, extending from Europe

to the Far East, with few natural borders anywhere has, for extended periods made for a landscape of anarchy. Insecurity is, therefore, the quintessential Russian national emotion (Kaplan 2012, 159). When looking at Russia, any student of Thucydides might recognize the classic underlying causes of conflict: fear, honor, and interest.

Russia's recent aggression against Ukraine, and previous action against Georgia, has disrupted nearly a generation of comparative peace and stability between Moscow and its Western neighbors, raising concerns as to its broader intentions. The realist policies both Russia and China are pursing have caused a dramatic re-appraisal of priorities in the U.S. and NATO—"great power competition, not terrorism, is now the primary focus of U.S. national security" (Mattis 2018).

From NATO's perspective the threat to the three Baltic states of Estonia, Latvia, and Lithuania—former Soviet republics, now member states that border Russian territory—is the most concerning (Shlapak and Johnson 2016, 1).

The Baltic states are geographically isolated in Europe, with the exception of the Suwalki Gap (Lithuania's 65-mile border with Poland), they have borders with Russia, Belarus (an increasingly reluctant Russian ally), the Baltic Sea and Kaliningrad (a Russian enclave), and have little strategic depth or defendable terrain. This makes them extremely vulnerable to a *fait accompli* (a thing accomplished and presumably irreversible) campaign intended to rapidly achieve military and political objectives before an allied response can prevent it.

Between summer 2014 and spring 2015, the Research and Development Corporation (RAND) conducted multiple war games examining a potential Russian invasion of the Baltic states. The games' findings were unambiguous: NATO could not

successfully defend the Baltics. Even if NATO managed to reinforce the Baltics with three ABN Bns, a Stryker Bn and two attack aviation Bns before the conflict started, the longest it took Russian forces to reach the outskirts of the Estonian and Latvian capitals was 60 hours (Shlapak and Johnson 2016). Since these findings were published, NATO has reinforced each Baltic state with an Armored BG. However, this still falls well short of the 6-7 Bdes (including three heavy Bdes) which RAND war games suggest are required to prevent a *fait accompli* for at least 28 days.

As the tale above highlights, preventing a *fait accompli* is critical if NATO's key members do not want to become ensnared in a strategic predicament that threatens the Alliance's very survival. If Russia did employ a strategy of nuclear de-escalation, then would the U.S., UK or France be willing to risk starting a nuclear war to re-claim the Baltics (Shirreff 2017, xiv)?

While NATO was expending blood and treasure in the Middle East, Russia was building a range of A2/AD capabilities, including sophisticated Integrated Air Defense Systems (IADS) and Anti-Ship Missiles (ASM). These capabilities are deliberately designed to neutralize NATO's airpower and prevent the major military power, the U.S., from rapidly reinforcing the theatre of war. These A2/AD capabilities make it far harder to prevent a *fait accompli* and to recapture the Baltics with conventional forces.

Thanks to the GPV 2020 and 2027 (*gosudarstvennaia programma vooruzheniia*—state armament program), the Russian armed forces in 2027 should be considerably better equipped than they are today. The fact that Russia can achieve these programs without imposing an excessive burden on its wider economy is also significant. Those defense spending plans that are available suggest that military expenditure, as a

share of GDP, is likely to shrink over the next few years (Connolly and Boulègue 2018, 37).

This threat should not be overstated. Russia cannot afford to expand its VPK (*Voenyi Promyshleniy Kompleks*—military industrial complex) to a scale commensurate with heightened global ambition and, as a result, it will remain a long way from possessing the ability to overwhelm larger, better-equipped peer competitors. However, it will be able to pursue its interests near to its borders with confidence (Connolly and Boulègue 2018, 37). As General Scaparrotti, NATO's Supreme Allied Commander, has noted, any failure by Washington to continue to modernize U.S. forces could enable Russia to challenge the U.S. in almost every domain, in a military perspective, by 2025 (Seldin 2018).

Following Russia's covert actions in Crimea and its support for a separatist insurgency in eastern Ukraine, many policymakers and analysts have expressed concern about Russian use of 'hybrid warfare'—defined on page 22 (Radin 2015, 1). The Baltic countries, notably Estonia and Latvia with their sizeable Russian minorities, are very vulnerable to this threat. The fear is that Russia will use the Russian minority in the Baltics to gain influence, using covert action or conventional action supported subversion to seize territory and undermine NATO (Radin 2015, 1).

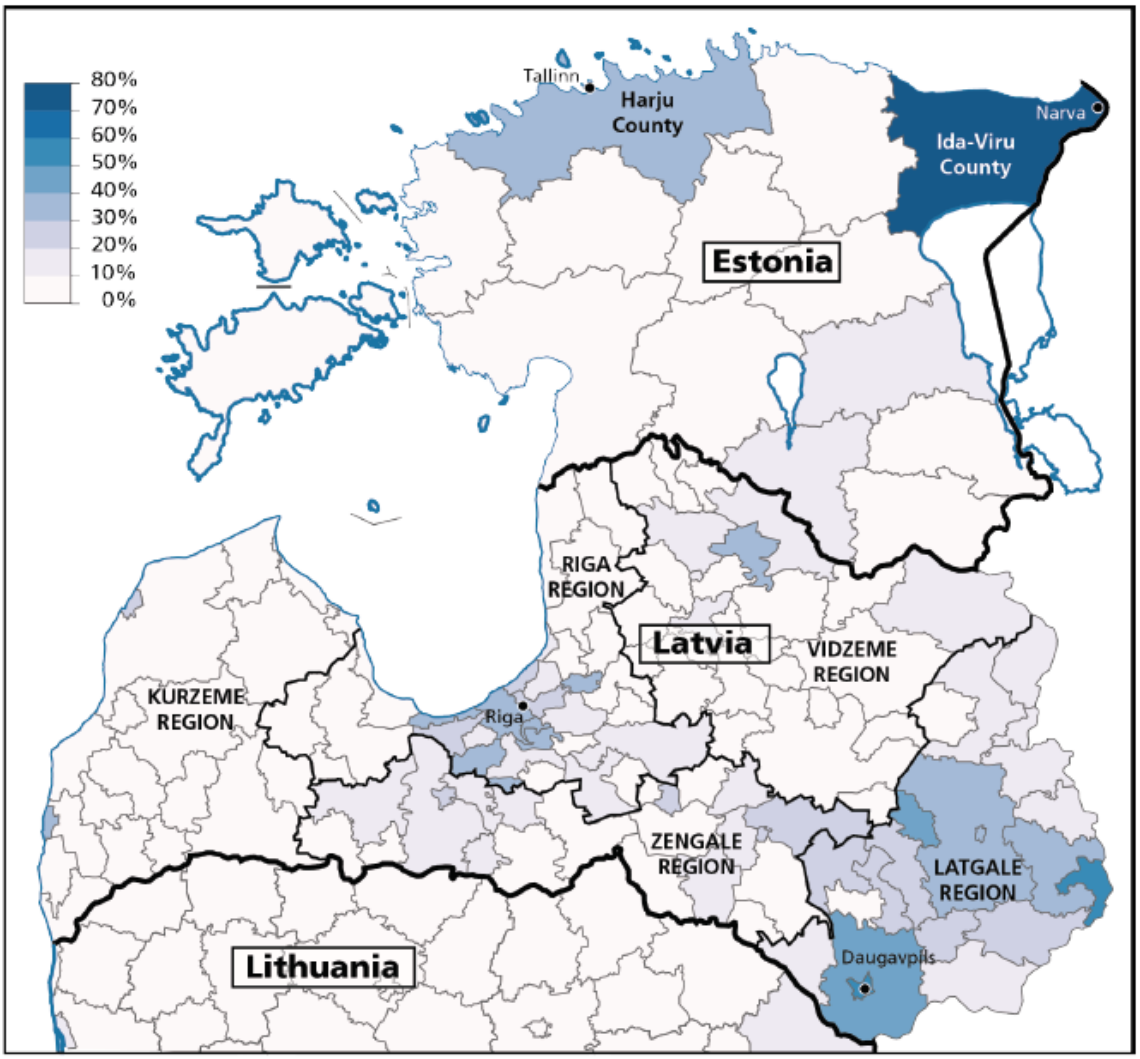

Figure 3. Concentrations of Russian Speakers in Estonia and Latvia

Source: Andrew Radin, *Hybrid Warfare in the Baltics – Threats and Potential Responses* (Santa Monica, CA: RAND Corporation, 19 October 2015), figure 3.1.

Recently, the discussion has been centered on the fear that Russian actions are designed to operate below the threshold of armed conflict, including NATO's Article 5 clause, and appear ambiguous in order to introduce uncertainty into NATO decision making—a severe impediment, given the organization's requirement for consensus. As

General Sir Richard Shirreff observed on seeing the 'little green men' in Crimea, "[we] all knew who those vehicles belonged to and who was operating them. But proving it was another thing" (Shirreff 2017, vii).

The sum of these challenges—the return of great power competition, a more assertive Russia, local conventional force overmatch, A2/AD capabilities, and competition below the threshold of armed conflict in multiple domains—are some of the many reasons the U.S. Army has striven to create the new MDO concept.

The idea that military revolutions result in massive social and political changes that fundamentally alter how military organizations prepare for and conduct war is popular with senior Western politicians and military figures. In particular, the World War I 'military revolution' which fused the technological advancements and ideology of the industrial revolution to give birth to the modern style of warfare, seems to have struck a chord. In the four-year war, Western forces completed multiple Revolutions in Military Affairs (RMAs) as they perfected combined arms battle using tanks, aircraft, modern artillery, radios, and advanced infantry tactics. They also began operating in a new domain—the air (Bailey 2001, 134-153). Today many senior politicians, military officials, scholars, and analysts draw a parallel with the first half of the 21st century. The advances of the space age in the mid-20th century and the Information Revolution of the late-20th century are shaping future warfare. New technologies are emerging, such as Robotics and Autonomous Systems (RAS). Other technologies are maturing, such as Unmanned Aerial Systems (UAS). Warfare is also extending to new domains—space and cyberspace. Like the armies of the World War I battlefield, today's armed forces face the

challenge of adapting doctrine and tactics with the rapid transformations of the near future (Brito and Boring 2018, 233).

The U.S. is searching for a 'third offset' strategy which can harness these new developments to counter a resurgent Russia and a rising China. The first 'offset' strategy (1OS) was developed during the 1950s and saw America's nuclear deterrent as a means of countering the Soviet Union's conventional superiority in Europe (Keck 2014). The 1OS worked and forced the Soviets to develop their strategy—a reinvigorated 'deep battle'. They planned to conduct conventional attacks in powerful successive echelons to achieve a penetration of the NATO front lines. Once a breach was made, an Operational Maneuver Group (OMG) would drive deep into NATO's rear, making it impossible for NATO to effectively employ nuclear weapons without causing mass fratricide (Work 2018).

In response, the U.S. began developing technology for its second offset strategy: AirLand Battle, which developed extended-range precision-guided munitions, stealth aircraft, and new intelligence, surveillance, and reconnaissance platforms to 'look deep and shoot deep', to strike the advancing Soviet echelons long before they reached NATO front lines (Keck 2014). As General Perkins describes, AirLand Battle gave NATO a battlefield framework of deep, close, and rear to frame the problem of how the U.S. military would fight outnumbered and win. The MDO framework must allow victory in an even more complex world. MDO is developing an expanded battlefield framework to fight across the breadth and depth of enemy capabilities (Perkins 2017).

U.S. and allied forces are under pressure to expand the concept of combined arms maneuver to include capabilities operating in all five domains (space, cyberspace, air,

land and maritime). Cross-domain maneuver, the employment of mutually supporting lethal and non-lethal capabilities in multiple domains, has the potential to create a synergistic effect that increases relative combat power and provides maneuver forces with a decisive overmatch capability (Brito and Boring 2018, 237).

The Research Question

This paper will seek to answer the following question: should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics? At the moment the MDO concept is just that—a concept. However, it may offer NATO a viable operational framework to counter Russia in the Baltics. NATO members will need to choose between investing heavily to create Multi Domain Formations or adopting another operational approach.

In order to help answer this question, this paper will consider three secondary questions. First, could the MDO concept counter Russian non-violent subversion in the Baltics? If implemented, could the concept allow NATO to compete with Russia below the level of armed conflict? Or is this best achieved by bolstering NATO conventional forces in Baltics? Second, could the MDO concept counter Russian covert violent action in the Baltics? The concept may offer NATO some solutions to Russian attempts to use irregular warfare to destabilize the region. Finally, could the MDO concept counter Russian conventional forces supported by subversion in the Baltics?

Key Definitions

Hybrid Warfare

The term 'hybrid warfare' is much disputed among Western officials and analysts who are generally seeking to describe the activities that Russia has conducted in Ukraine, Georgia, and other neighboring countries. It is often used to depict what is just irregular warfare. Others have used the term to describe a range of irregular and conventional methods and tactics used in the same battlespace (Radin 2015, 5). Some use the term to describe the New Generation Warfare doctrine associated with General Gerasimov (Adamsky 2015, 21-23).

The content of Gerasimov's writings are themselves a source of disagreement, with many scholars arguing that he is merely outlining the operational environment in which Russia finds itself (including the threat from U.S. unconventional warfare), rather than offering a new doctrinal way of war (Bartles 2016, 37). Some argue that hybrid warfare is nothing new and is merely a new term used for a combination of political warfare and unconventional warfare (Hoffman 2014).

This paper will adopt the RAND definition of hybrid warfare best understood as: *"*covert or deniable activities, supported by conventional or nuclear forces, to influence the domestic politics of target countries*."* It will also adopt Andrew Radin's categories of Russian hybrid aggression: "nonviolent subversion, covert violent actions, and conventional warfare supported by subversion*"* (Radin 2015, vii). The categories of hybrid warfare can be further defined (Radin 2015, 13) as:

1. Nonviolent subversion; seeks to use propaganda, covert action, and other nonviolent means to undermine or influence the governments of the Baltic states.

2. Covert violent action; armed force in a non-attributable or deniable manner.
3. Conventional warfare supported by subversion*;* conventional aggression supported and legitimized by a range of propaganda, covert action, and other forms of irregular warfare.

Multi Domain Operations

This paper will use the central idea of the MDO concept as the best available definition: "The rapid and continuous integration of all domains of warfare to deter and prevail as we compete short of armed conflict. If deterrence fails, Army formations, operating as part of the Joint Force, penetrate and dis-integrate enemy A2/AD systems; exploit the resulting freedom of maneuver to defeat enemy systems, formations, and objectives and to achieve our strategic objectives; and consolidate gains to force a return to competition on terms more favorable to the U.S., our allies and partners" (TRADOC 2018, iii). This paper will consider five domains: space, cyberspace, air, land and maritime as well as the information environment and Electro Magnetic Spectrum (EMS).

NATO

This paper will define NATO as all 29 members of the Alliance. However, this discussion will primarily focus on the U.S., Canada, the major European military powers (UK, France, Germany, Italy, Spain, Poland, Czech Republic, Norway, Holland, and Denmark) and the Baltic states (Estonia, Latvia, and Lithuania). Of note, this list does not include Turkey which, at the time of writing, has formed a close relationship with Russia and may choose not to commit forces to a conflict against Russia (Lake, 2018).

The Baltics

This paper will define the Baltic states as Estonia, Latvia, and Lithuania. This paper will also refer to north-east Europe as: the Baltic states, Russia and the Kaliningrad enclave, Poland, Belarus, Finland, and Sweden.

Assumptions

This paper will make the following assumptions:

1. NATO's strategic objective and end state is maintaining the territorial integrity, political independence, and security of the Baltic states.
2. Russian A2/AD systems can effectively deny NATO air access to the Baltic states from a combination of locations in Russia, Kaliningrad, and Belarus.
3. The MDO concept would keep forward presence forces at a similar level to those already deployed under NATO's current eFP operation.
4. Military force, as an element of national power, is most likely to play a supporting role in countering Russian non-violent subversion.
5. Military force, as an element of national power, is likely to be the primary means used to counter Russian convert violent action and conventional forces.

Scope and Limitations

In recent years, there has been much discussion about conducting operations in multiple domains. This paper will focus its analysis on the U.S. Army Training and Doctrine Command (TRADOC) *The U.S. Army in Multi Domain Operations 2028* pamphlet, which outlines what this paper will refer to as the MDO concept. The MDO concept envisages five phases: compete, penetrate, dis-integrate, exploit, and re-compete.

In competition, the Joint Force aims to counter coercion, unconventional warfare, and information warfare (TRADOC 2018, v). These phases do not match, by design, this paper's categories of Russian hybrid aggression: non-violent subversion, covert violent actions, and conventional warfare supported by subversion. Where possible, this paper will limit its examination to the first, compete, phase of the MDO concept. However, in order to assess whether the MDO concept could counter Russian conventional warfare supported by subversion, some discussion of the penetrate and dis-integrate phases will be necessary. The purpose is to examine whether or not the 'seam' between the phases represents a weakness of the MDO concept, as there is little-to-no 'seam' in Russian hybrid aggression.

This paper will limit its scope to whether or not NATO should adopt the MDO concept before it becomes U.S. doctrine in 2028. The scope of this paper will also be limited to considering the military instrument of national power. Discussion and analysis of the diplomatic, information and economic instruments will be considered out of scope, although they may enter the examination to help explain why, under certain conditions, the military instrument would not be the preferred tool for the job or by virtue of being related to or affected by a military function. The primary research question aims to examine if NATO 'should' adopt the MDO concept rather than finding the best operational approach. However, in order to make a firm recommendation this paper will, briefly, consider alternative approaches—particularly a return to 'flexible response' or what this paper will term 'conventional deterrence', a combination of forward-positioned conventional forces supported by credible nuclear escalation (Gerson 2009, 34).

Chapter Conclusion

Russia's resurgence (and with it the return of great power competition to Europe) presents a serious challenge for NATO and its future. The stakes are high, and many of the essential elements at play do favor NATO's current situation: the Baltic states' position, due to geography and local force ratios, is a perilous one. Russia has used the time that NATO has spent fighting in the Middle East to develop a range of capabilities to target the Alliance's traditional strengths. As a result, it is no longer certain that U.S. forces, the dominant force within NATO, would be able to intervene with sufficient strength to prevent a *fait accompli* in the Baltics.

The MDO concept may offer a way for the Alliance, despite the odds, to regain the initiative in the Baltics and preserve the West's dominance in the new era. Chapter 2 will consider the broader context for the primary and secondary research questions.

CHAPTER 2

LITERATURE REVIEW

Chapter Introduction

The paper assumes that its readership has a working knowledge of the historical relationship between the Baltic states and Russia, and NATO's expansion into Eastern Europe. As such, and in order to dedicate more space to the primary and secondary questions, this paper will not review the substantial body of literature which provides the historical context for Russia's current relations with the West, NATO and the nations in the former Soviet sphere of influence. Some of this broader context has already been touched on in chapter 1.

This paper seeks to answer the question: should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics? This chapter will consider the existing literature thematically in three sections. Section one will examine the operational environment in the Baltics and the threat of Russian hybrid warfare; it will be organized around the secondary research questions and aims to explore 'the problem.' The second section will consider NATO's policy, objectives and desired end state in the Baltics. The third section will examine the current MDO concept. Finally, this chapter will identify any gaps in the existing literature and the implications for this paper.

Russian Hybrid Warfare

In the wake of Russia's annexation of Crimea and war in Georgia, many analysts, military services and intellectuals, including the former Secretary of Defense Robert

Gates and former National Security Advisor Lieutenant General H.R. McMaster, used the term 'hybrid warfare' to help describe the complex and evolving crisis in Ukraine. As Frank Hoffman explains in *On Not So New Warfare,* the crisis, pitting the national government against separatists, Russian ultra-nationalists, proxy fighters, and Russian GRU personnel, did not fit neat Western categories of war (Hoffman 2015). General Barno referred to this crisis in *Fighting and Winning in the 'Gray Zone'* as an example of a 'shadow war' which can threaten U.S. interests through 'strategic disruption' and where ambiguity is the defining characteristic (Barno and Behsahel 2015). Nadia Schadlow adds to this in *The Problem with Hybrid Warfare,* by concluding that hybrid threats provide the 'perfect' conundrum: the injection of so much uncertainty that NATO collapses under its principle of allied consensus (Schadlow 2015).

However, in *Getting Gerasimov Right* where Charles Bartles discusses the published article by Gen. Valery Gerasimov (the Russian Chief of the General Staff) titled *The Value of Science is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations* (which many in the West have described as 'Gerasimov doctrine' for hybrid warfare), Bartles points out that, despite having a similar view to the U.S. on the future of the operational environment, Gerasimov is approaching the problem in a very different way. Russia is experimenting with unconventional means to counter hostile indirect and asymmetric attacks, but Russia also sees conventional military forces as being of the utmost importance in its hybrid strategy (Bartles 2016, 36).

Christopher Chivvis summaries the threat well in *Understanding Russian 'Hybrid Warfare*' *And What Can Be Done About It,* when he advocates that despite subtle

differences, all the terms around hybrid warfare point to the same thing: Russia is using multiple instruments of power and influence, with an emphasis on nonmilitary tools, to pursue its national interests outside its borders. Chivvis goes on to outline three objectives of Russian hybrid warfare: first, capturing territory without resorting to overt or conventional military force; second, creating a pretext for overt, conventional military action; third, using hybrid measures to influence the politics and policies of countries in the West and elsewhere (Chivvis 2017, 1).

The MDO concept identifies the operational center of gravity (COG) for Russian actions in competition as "the close integration of information warfare, unconventional warfare, and conventional forces" (TRADOC 2018, 11). The three elements identified are interesting as, not only do they mirror this paper's three selected elements of Russian hybrid warfare, but they also mirror very closely the three phases often associated with Mao's Revolutionary Warfare. First the political phase (organization, consolidation, and preservation), second the unconventional warfare phase (progressive expansion), and third the conventional phase (decision, or destruction of the enemy) (Griffith 1989, 20-21). Unlike Mao, who saw these phases following one another in a linear progression, Russian hybrid warfare can combine these elements, at any stage, to achieve objectives. It is not unreasonable to suggest then, especially after events in Eastern Ukraine, that Russian actions in competition may share many characteristics with an insurgency. This paper will now consider the non-violent subversion elements of the Russian hybrid warfare threat.

Non-Violent Subversion

A Total Defense Research Institute (FOI, Sweden) report, *Tools of Destabilization,* edited by Mike Winnerstig, provided an extensive examination of Russian influence techniques in the Baltics, especially those used to target the Russian speaking populations, that stem from Russia's Compatriots Policy and including the Russkii Mir NGO, the Russian Orthodox church and Russian TV and media outlets.

Azhar Unwala and Shaheen Gori in *Brandishing the Cybered Bear*, study the state-led covert cyber offensives that removed Ukraine's ability to strategically communicate with its citizens and allies during the annexation of Crimea in 2014. The problem of identifying Russia's unmarked soldiers in Crimea mirrored the difficulties in attributing cyber operations. In both cases, concealment of identity lowered the costs of Russia's actions and meant that there was little-to-no response (Unwala and Gori 2015).

Multiple authors discuss the re-emergence of tactics known as *aktivnyye meropriyatiya*, or 'active measures.' Steve Abrams explains in *Beyond Propaganda: Soviet Active Measures in Putin's Russia* that 'active measures' have roots in Leninist thinking and over generations, the Soviets mastered a range of techniques from simple propaganda and forgery to assassination, terrorism, and everything in between (Abrams 2016, 7). President Putin (a former KGB officer) has consolidated his grip on power by employing active measures and although the 'ends' and 'ways' are broadly the same as the Soviet measures, many of the 'means' have been updated for the contemporary environment (Abrams 2016, 18). Abrams was a particularly valuable source as he introduced the works of Pomerantsev and Weiss (*The Menace of Unreality),* Witold Waszczykowski's NATO report, and the Active Measures Working Group (AMWG).

Bob Seely supports Abrams in *A Definition of Contemporary Russian Conflict: How Does the Kremlin Wage War*? and observes that Gerasimov's six phases (see Bartles) share significant similarities with the four phases of Soviet 'active measures.' He describes Russia's current tactics as building on the KGB framework of 'active measures' political warfare. "Russia uses psychologically-based information operations as both a prelude to war, an alternative to war, and a handmaiden in war" (Seely 2018, 14).

In *Inside the KGB,* KGB Major General (Retd) Oleg Kalugin also describes subversion as "the heart and soul of Soviet intelligence." These are "not intelligence collection, but subversion: active measures to weaken the West, to drive wedges in the Western community alliances of all sorts, particularly NATO, to sow discord among allies, to weaken the United States in the eyes of the people of Europe, Asia, Africa, Latin America, and thus to prepare ground in case the war really occurs." (Kalugin 1998).

John Sipher in *Russian 'Active Measures,'* agrees that while Russia is unlikely to go after the same targets, they will most certainly approach the task with the same mindset and philosophy. Future Russian active measures campaigns will likely follow the established pattern of looking for new weaknesses to exploit and striking areas that are not well defended (Sipher 2018, 9). As former CIA and NSA Director Michael Hayden is attributed as saying, "covert influence campaigns don't create divisions on the ground, they amplify them."

These operations are often delivered using the 'firehose of falsehood', where Russia rapidly, continuously and repetitively floods the information space with partial truths or outright fiction disseminated by paid internet "trolls" or automated "bots," which is often then spread further by unwitting civilians on social media and elsewhere

(Paul and Matthews 2016, 1-6). This outsourcing of the misinformation activities to non-state actors is another way for Russia to increase its 'plausible deniability' and disrupt its adversaries' 'OODA (Observe, Orientate, Decide, Act) loop cycle' which serves to make retaliatory political and military action less decisive.

Covert Violent Action

In *Hybrid Warfare in the Baltics,* Andrew Radin identifies three scenarios for the use of covert or denied violence by Russian forces. The first foresees significant numbers of unmarked Russian SPETSNAZ seizing control of a town or city dominated by Russian speakers, such as Narva in Estonia or Daugavpils in Latvia. The second envisages Russian covert support and encouragement for a separatist movement. The third explores the possibility of Russia instigating a terrorist campaign against the Baltic governments. He goes on to argue that the success of Russia's efforts depends on two factors: the ability of the Baltic countries to attribute Russian aggression and gain support from its fellow NATO members and the ability of the separatist/Russian forces to hold off the Baltic security forces (Radin 2015, 23-27).

Anton Shekhovtsov in *Who is Afraid of the 'Little Green Men'* agrees that several conditions are necessary for Russian hybrid operations. The first condition is that hybrid forces can only deploy in Russian-speaking regions, where they are ethnically and culturally transparent and cannot be easily detected. The second is that hybrid forces must arrive covertly, a condition that favors Russia's near-abroad. The third condition is that covert deployment presumes border controls are inadequate and state power is weak in the target country (Shekhovtsov 2015). Shekhovtsov and Radin both agree that while the Baltic states are vulnerable to Russian covert violence, especially in the Ida-Viru County,

Estonia or Daugavpils, Latvia, they will be far harder to destabilize than Ukraine as they have greater control over their territory, stronger internal security forces and, crucially, support from NATO.

Alexander Lanoszka adds to this in *Russian Hybrid Warfare and Extending Deterrence in Eastern Europe* by exposing a vulnerability of hybrid warfare—it requires local escalation-dominance. War is 'hybrid' in the sense that it combines aspects of insurgency-type irregular warfare and conventional force, where the threat of escalation, and use of conventional forces, deters forceful retaliation (Lanoszka 2016, 189). Russia has been able to exploit Western fear of direct military confrontation in Ukraine, Georgia, and Syria, but it may not be able to achieve the same effect in the Baltics where NATO's resolve is stronger.

The U.S. Special Operations Command (U.S. SOCOM) and John Hopkins University produced '*Little Green Men': A Primer on Modern Russian Unconventional Warfare – Ukraine 2013-2014,* which provides a detailed report on Russia's hybrid warfare activity in Ukraine. The report outlines several Russian tactics, techniques, and procedures (TTPs) for covert violent action. Persistent, rather than plausible, denial of Russian operations, even in the face of photographic evidence and firsthand testimonials, support these TTPs. Of interest is the use of unidentified Russian agents, usually SPETSNAZ, to organize and lead protests and paramilitary operations as well as the use of armed civilian proxies (Night Wolves motorcycle club), self-defense militias, and Russian paramilitary 'volunteers' (Cossack, Chechen, Serbian and Russian Bns) instead of, or in advance of, regular troops (U.S. SOCOM 2016, 3). We will now examine the use of conventional forces in hybrid warfare.

Conventional Forces Supported by Subversion

The U.S. SOCOM report goes on to describe the use of regular army 'relief columns' which import weapons, soldiers, equipment, and supplies to pro-Russian forces fighting in Ukraine. The report also identifies another critical TTP: the use of conventional Battalion Tactical Groups (BTGs), often deploying from within Russian territory, to conduct small-scale raids and precision operations (U.S. SOCOM 2016, 4).

Frank Hoffman supports this observation in *On Not So New Warfare*, explaining that when irregular warfare ran into too much resistance from Ukraine's volunteer Bns and armed forces, we began to see Russia introducing high-end conventional capabilities and the intermixing of Russian units along with individual Russian soldiers among the separatist force (Hoffman 2015).

Benjamin Tallis and Michal Šimečka in *Collective Defense in the Age of Hybrid Warfare* describe how the active involvement of regular Russian units and equipment in the Donbas theatre (Ukraine), combined with the credible threat of large-scale invasion, proved integral to Russia's 'hybrid' campaign. They also describe how the conventional military aspect of hybrid aggression appears just as plausible in the Baltic theatre, given NATO's lack of strategic depth along the Eastern flank and Russia's superior military presence and A2/AD capabilities (Tallis and Šimečka 2016, 7). As Jeffrey Rathke explains in *Can NATO Deter Russia in View of the Conventional Military Imbalance in the East,* the situation is particularly dangerous given Russia's ability to rapidly deploy over 100,000 troops to NATO's border with practically no warning (Rathke 2015).

Andrew Radin (*Hybrid Warfare in the Baltics)* agrees that Russian conventional forces might attempt to seize the Baltics and threaten the use of nuclear weapons to deter

a response whilst using its A2/AD capabilities to inhibit NATO deployments in the region. He also identifies that Russia might limit their offensive to a small 'bite' of the Baltic countries, capturing a Russian-dominated city near the border, such as Narva, or an area of strategic importance, such as a land bridge between Belarus and Kaliningrad (Radin 2015, 28).

Finally, David Shlapak and Michael Johnson's report *Reinforcing Deterrence on NATO's Eastern Flank* contains the key findings from RAND's influential war games, that examined a Russian invasion of the Baltic states. As explained in chapter 1 these war games highlight the scale of the challenge NATO would face from a conventional Russian attack in the Baltics.

NATO

> The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.
>
> —NATO, *North Atlantic Treaty, Article 5*

NATO's Article 5, above, is a cornerstone of the Alliance and an essential piece of policy. As the NATO website makes clear, Article 5 assistance is taken forward in concert with other allies. It is not necessarily military and depends on the material resources of each country. It is therefore left to the judgment of each member country to determine how it will contribute. Each country will consult with the other members, bearing in mind that the ultimate aim is "to restore and maintain the security of the North Atlantic area" (NATO 2018a).

Less well known is Article 4: *"*The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened*."* Poland invoked Article 4 on 3 March 2014 following increasing tensions in neighboring Ukraine (NATO 2018a).

While NATO does not explicitly state it, this paper will take the NATO strategic objective and desired end state to be maintaining the territorial integrity, political independence, and security of the Baltic states. A measure of NATO's commitment to the Baltic states is found in a speech President Barack Obama gave in the Estonian capital of Tallinn:

> We will defend our NATO Allies, and that means every ally . . . And we will defend the territorial integrity of every single ally . . . Because the defense of Tallinn and Riga and Vilnius is just as important as the defense of Berlin and Paris and London . . . Article 5 is crystal clear: An attack on one is an attack on all . . . We'll be here for Estonia. We will be here for Latvia. We will be here for Lithuania. You lost your independence once before. With NATO, you will never lose it again. (Obama 2014)

Since 2015, NATO has had a strategy to counter hybrid warfare: "NATO will ensure that the Alliance and Allies are sufficiently prepared to counter hybrid attacks in whatever form they may materialize. It will deter hybrid attacks on the Alliance and, if necessary, will defend Allies concerned" (NATO 2018c).

In a recent speech, the NATO Secretary General Jens Stoltenberg described how NATO would deter hybrid attacks and what it was doing to counter the threat. He highlighted three areas: first, improving situational awareness, "because one of the main challenges with hybrid threats is that you don't understand that you are attacked before it is too late." Second, significantly increasing the readiness of NATO's forces. This includes tripling the NATO Response Force to 30,000 troops, establishing a new Very

High Readiness Joint Task Force (VJTF) and deploying four BGs to the three Baltic countries and Poland (known as Enhanced Forward Presence – eFP), "[to] increase our ability to react quickly if we see small, green men showing up somewhere where they should not show up." Third, improving NATO's resilience by focusing on infrastructure, energy security and, in particular, cyber security (NATO 2017).

Julian Ubriaco agrees in *Baltic Problem: How Populism, Russia, and the Baltic can Fracture NATO,* that the best way for NATO to deter Putin's belligerence against the Baltic states is to display the Alliance's strength in what has otherwise been a sea of political weakness. Unified rhetoric, collaborative defensive maneuvers, and the improvement of existing distribution channels for supplies and arms will show Moscow that NATO is still a capable alliance that will react to Russia's provocations (Ubriaco 2017). Uwe Hatmann is more cautious in *The Evolution of the Hybrid Threat and Resilience as a Countermeasure,* arguing that with the evolution of hybrid threats, NATO's core business of strategy-making is at stake and that NATO must again adapt to survive. However, he agrees that resilience should become NATO's core theme (Hatmann 2017, 7).

Ulrich Kuhn in *Preventing Escalation in the Baltics: A NATO Playbook* identifies three means NATO is pursuing, to varying extents and with varying success, to achieve the discrete objectives of calibrating deterrence, maintaining Alliance unity, and preventing inadvertent or accidental escalation with Russia. First, deterrence and assurance, which is under-resourced. Kuhn argues that if NATO wants to deny Russia the ability to attack one or more Baltic states successfully, it has little choice but to deploy forces on a much larger scale than it currently does (Kuhn 2018, 55-66), which aligns

with the recommendations made by Shlapak and Johnson (*Reinforcing Deterrence on NATO's Eastern Flank)*. Second, resilience; according to Kuhn, increasing the resilience of ethnic Russians in the Baltic states to Russian propaganda should become a key feature of NATO policy (Kuhn 2018, 55-66), a point that is supported by Andrew Radin (*Hybrid Warfare in the Baltics – Threats and Potential Responses).* Third, re-engaging with Russia through multiple channels is essential, according to Kuhn, to reduce the risk of accidental escalation (Kuhn 2018, 55-66).

Multi Domain Operations

The TRADOC *The U.S. Army in Multi Domain Operations 2028* pamphlet describes how U.S. ground forces, as part of the Joint Force and with partners, will operate, fight, and campaign successfully across all domains—space, cyberspace, air, land, maritime—against peer adversaries in the 2028-2040 timeframe (TRADOC 2018, 1). The document accounts for both Chinese and Russian approaches but uses Russia as the present pacing threat for technical and tactical purposes. The concept uses three main phases to lay out its operational and strategic objectives: competition, armed conflict (which has three sub-phases: penetrate, dis-integrate and exploit), and return to competition.

1. In competition, the Joint Force expands the competitive space through active engagement to counter coercion, unconventional warfare, and information warfare directed against partners. These actions simultaneously deter escalation, defeat attempts by adversaries to "win without fighting," and set conditions for a rapid transition to armed conflict. (TRADOC 2018, vii)

2. In armed conflict, the Joint Force defeats aggression by optimizing effects from across multiple domains at decisive spaces to penetrate the enemy's strategic and operational anti-access and area denial systems, dis-integrate the components of the enemy's military system, and exploit freedom of maneuver

necessary to achieve strategic and operational objectives that create conditions favorable to a political outcome. (TRADOC 2018, viii)

3. In the return to competition, the Joint Force consolidates gains and deters further conflict to allow the regeneration of forces and the re-establishment of a regional security order aligned with U.S. strategic objectives. (TRADOC 2018, viii)

The MDO concept intends for the U.S. Army to solve the problems presented by Chinese and Russian action in competition and conflict by applying three interrelated tenets: calibrated force posture, multi domain formations, and convergence.

1. Calibrated force posture is the combination of position and the ability to maneuver across strategic distances. Calibrated force posture involves elements of forward presence forces, expeditionary forces, national-level capabilities and authorities (TRADOC 2018, vii, 18).
2. Multi domain formations contest near-peer adversaries by conducting independent maneuver, employing cross-domain fires, and maximizing human potential (TRADOC 2018, vii, 18-19).
3. Convergence is rapid and continuous integration of capabilities in all domains, the EMS, and information environment that optimizes effects to overmatch the enemy through cross-domain synergy and multiple forms of attack (TRADOC 2018, vii).

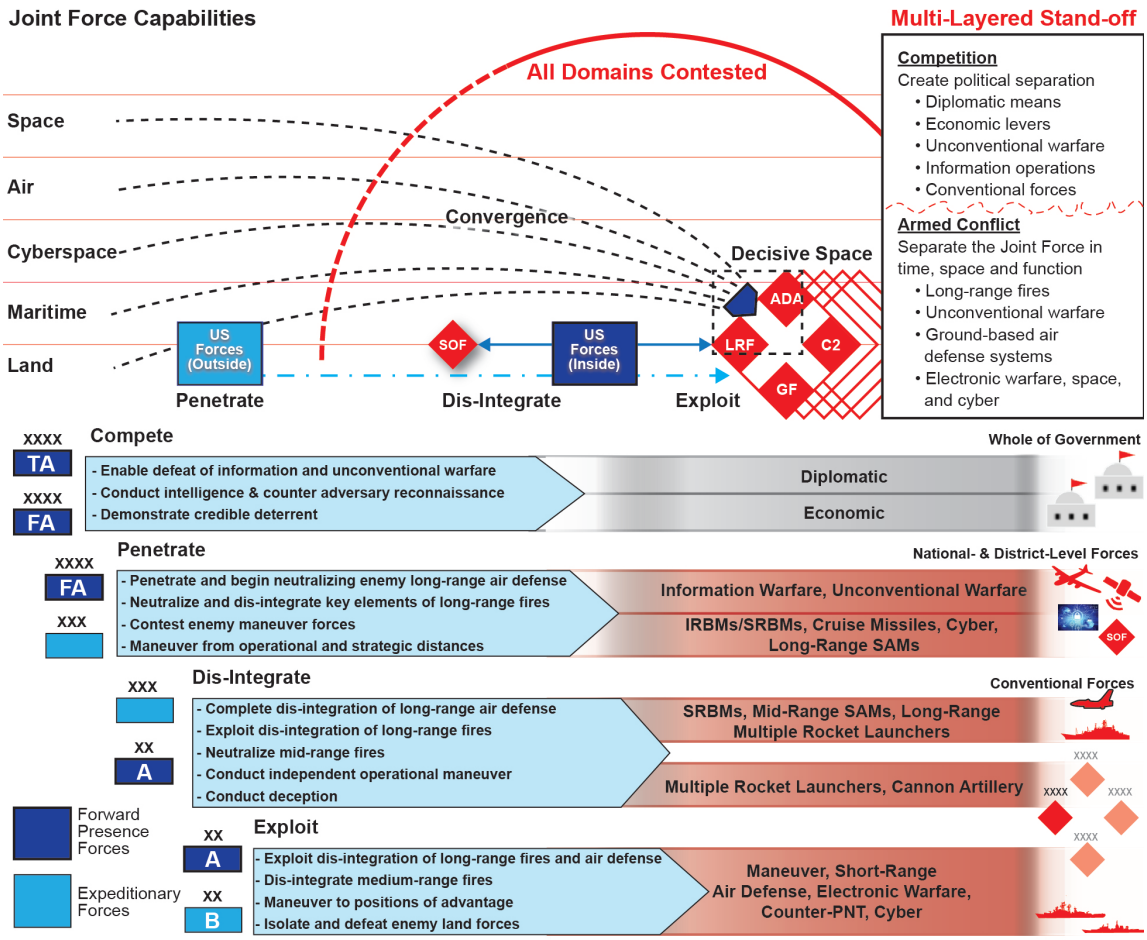

Figure 4. MDO Solutions

Source: United States Army Training and Doctrine Command (TRADOC), TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi Domain Operations* (Fort Eustis, VA: TRADOC, 6 December 2018), figure 3.3.

The MDO concept explains that a multi domain capable Joint Force can achieve friendly strategic objectives (win) and defeat the adversary in three different ways. The preferred method of attaining strategic objectives is effective competition that deters escalation and defeats adversaries' destabilization efforts. If deterrence fails, the second method is to employ a combination of forward presence and expeditionary forces to deny enemy objectives within days and achieve an operational position of relative advantage

within weeks that leads to an acceptable, sustainable political outcome. If neither side can achieve its objectives in a short conflict, the third method is to defeat the enemy in a protracted war before rapidly returning to a renewed competition on favorable terms (TRADOC 2018, 24).

Chapter Conclusion

This chapter has explored the threat from Russian hybrid warfare and has examined its three sub-divisions to help frame the challenge that NATO must defend against in the Baltics. It has also briefly explored NATO objectives and strategy in the region and the MDO concept. This should lay the foundation for answering the primary and secondary research questions in chapter 4. Chapter 3 will now outline the methodology used by this study.

CHAPTER 3

RESEARCH METHODOLOGY

Chapter Introduction

In order to allow a clear and logical analysis of the topic, this paper used a step-by-step methodology, with a progression similar to the Army Design Methodology (ADM), to examine the primary research question: Should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics?

The ADM is a methodology for applying critical and creative thinking to understand, visualize, and describe unfamiliar problems and approaches to solving them. The ADM is an iterative process of understanding and problem framing that uses elements of operational art to conceive and construct an operational approach to solve identified problems (HQDA 2012a, 7).

The literature review, chapter 2, helps to frame the problem by exploring, through the professional writings of analysts and policymakers, the Russian hybrid warfare threat, the emerging MDO concept and the desired/assumed NATO end state. Chapter 2 provides an understanding of the current situation, desired end state, and the context for the primary research question. This paper identifies three elements of the Russian hybrid threat in the Baltics which become the focus of the secondary research questions.

Chapter 4 seeks to examine whether or not the MDO concept could provide a viable 'operational approach' to counter the hybrid threat element selected in each secondary question. This paper analyzes viability by using NATO's three evaluation criteria (feasible, suitable, and acceptable). The chapter then aggregates the analysis of

the three secondary questions to answer the primary question. Finally, in chapter 5, the paper offers conclusions and recommendations.

Operational Approach

"The operational approach is broad—and focuses on what needs to be done rather than how to accomplish the mission" (Kem 2012, 52). As a part of the step-by-step methodology, this paper will assess whether or not the MDO concept could be used as an Operational Approach to counter hybrid warfare.

> The operational approach is a commander's initial description of the broad actions the force must take to achieve objectives and accomplish the mission. It is the commander's visualization of how the operation should transform current conditions into the desired conditions—the way the commander wants the operational environment to look at the conclusion of operations. The operational approach is based largely on an understanding of the operational environment and the problem facing the Joint Force Commander. (DOD 2017, II-6)

As the quote above illustrates, in order to answer the secondary research questions this paper needs to understand the operational environment, the problem facing NATO and NATO's 'desired' conditions or end state. Only once this paper has assessed whether or not the MDO concept 'could' counter Russian hybrid warfare, by determining if the concept is a viable operational approach, can it make a recommendation on whether or not NATO 'should' adopt the concept. In order to assess whether or not the MDO concept is viable, this paper will use the evaluation criteria of feasible, suitable, and acceptable.

Evaluation Criteria

As part of the NATO operational planning process, the Joint Operations Planning Group (JOPG) review the military response options for dealing with a threat to the

Alliance. Each option will be evaluated to ensure that it is operationally viable using the below criteria (NATO 2013, 3-18). These criteria are:

1. Feasibility—is the option feasible within the strategic means likely to be made available by nations? (Noting the ADJP includes feasible in its definition, this paper will define feasible as: possible, practical, reasonable).
2. Suitability—for the achievement of strategic objectives and the desired end state, for coping with operational conditions, opposition, and resistance by enemies or adversaries without creating undesired effects.
3. Acceptability—do the benefits to be achieved outweigh the costs and risks associated with the option? The review should identify potential risks, commitments, and costs that might be politically unacceptable.

This paper will adopt these evaluation criteria and definitions. The evaluation criteria, as shown in table 1, will be used to score each secondary question: low, moderate, or high as part of the analysis conducted in chapter 4. Low is defined as having multiple areas that are unsuitable, unacceptable or unfeasible or that would require significant re-organization and change to NATO's current operating practices. Moderate defines an approach that is largely suitable, acceptable or feasible for NATO implementation. High defines an approach that is very suitable, acceptable or feasible for NATO implementation. The analysis of each secondary question will then be aggregated to answer the primary research question and generate recommendations for chapter 5.

Table 1. Example of Evaluation Criteria Table			
Example question: Could the MDO concept counter Russian non-violent subversion in the Baltics?	Low	Moderate	High
Feasibility			
Suitability			
Acceptability			

Source: Developed by the author.

As part of the U.S. joint planning process, the validity of a course of action (COA) is tested against five criteria. The test asks if a COA is adequate, feasible, acceptable, distinguishable and complete (DOD 2017b, V-28/29). The U.S. joint doctrine also uses two of these criteria (feasible and acceptable) again as questions during the war game as screening criteria (DOD 2017b, V-31).

Screening criteria determine if the COA is *good* enough to accomplish the mission; evaluation criteria determine if the course of action is the *best* COA available to accomplish the mission (Kem 2012, 223).

The secondary research questions aim to examine if the MDO concept 'could' counter Russian hybrid warfare, effectively assessing if the MDO concept is good enough. The primary research question aims to examine if NATO 'should' adopt the MDO concept—the implication is that the MDO concept if adopted, will improve NATO's operations and be better than the immediate alternatives rather than being 'the best COA available.'

This paper will, by answering the primary research question, evaluate whether or not the MDO concept is good enough to become NATO's operational approach. The

criteria are effectively screening criteria. However, the NATO doctrine refers to these criteria as evaluation criteria. As a result, this paper will use the term 'evaluation criteria.'

Research Methodology

The step-by-step methodology used by this thesis is:

1. Understand the operational environment in the Baltics, the threat from Russian hybrid warfare, and frame the problem faced by NATO. Understand NATO's desired conditions in the Baltics and define the desired end state. These requirements are covered in the introduction (chapter 1), and the literature review (chapter 2).
2. Determine whether or not the MDO concept could provide a viable operational approach to counter Russian non-violent subversion in the Baltics by analyzing the first secondary question against the evaluation criteria. This is conducted in chapter 4.
3. Determine whether or not the MDO concept could provide a viable operational approach to counter Russian covert violence in the Baltics by analyzing the second secondary question against the evaluation criteria. This is conducted in chapter 4.
4. Determine whether or not the MDO concept could provide a viable operational approach to counter Russian conventional forces supported by subversion in the Baltics by analyzing the third secondary question against the evaluation criteria. This is conducted in chapter 4.
5. Aggregate the findings from steps 2-4 to answer the primary research question: Should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics? This is conducted in chapter 4.

6. Present conclusions and recommendations in chapter 5.

Threats to Validity and Biases

Several areas could potentially introduce bias into this paper's research and pose a threat to the validity of the research. Research validity measures the completeness of the information gathered and whether or not the determination is attributable to answering the proposed question (Garson 2016, 11). A study is valid if it actually measures what it claims to and if there are no logical errors in drawing data from the conclusions (Garson 2016, 1). There are several threats to validity that this paper should acknowledge and remain aware of, including internal validity, external validity, and confirmation bias.

Internal validity requires defending against sources of bias arising from research design flaws. Flaws are typically caused by introducing covert variables. When there is a lack of internal validity, variables other than the independent variables being studied may be responsible for part or all of the observed effect on the dependent variables (Garson 2016, 15).

In particular, this paper must guard against specification bias – the omission of important variables or the inclusion of variables which are spuriously correlated with the dependent variable (Garson 2016, 16). This paper seeks to understand what effect the introduction of the MDO concept (the independent variable) might have on NATO's ability (dependent variable) to counter Russia hybrid warfare. MDOs are predominately a military function; however, some operations take place in the informational environment. In order to try and reduce specification bias, this paper will limit its analysis to the military element of national power, as noted in chapter 1.

External validity has to do with possible bias in the process of generalizing conclusions from other settings and to other periods (Garson 2016, 17). Contextual external validity is a threat to this paper, as the research question is trying to analyze the threat from Russian hybrid warfare to the Baltics. However, most of the evidence of how Russia conducts hybrid warfare has come from Ukraine and Georgia. This paper must remember that the differences in the operational environment may mean that conclusions about Russian hybrid actions in the Ukraine and Georgia are not valid in the Baltics.

Confirmation bias involves seeking or interpreting evidence in a way that is partial to existing beliefs, expectations, or a hypothesis in hand (Nickerson 1998, 175). In order to overcome the natural tendency to look for evidence that is directly supporting of hypotheses that we favor (Nickerson 1998, 211) this paper has sought to consult multiple sources in order to generate a broad perspective on the topic. Confirmation biases are difficult to guard against, but awareness of the threat of confirmation biases, and remaining open to alternative hypotheses, can reduce its effects upon the researcher (Nickerson 1998, 211).

Cultural bias is also a threat to this paper. The author is a British Army officer, studying at a U.S. Army Staff College, conducting analysis mainly based on Western sources. There is, in the case in question, an underlying cultural assumption that Russia is the aggressor in the Baltics. The Russian view is that they are merely defending their people, terrain, and sphere of influence against NATO (Western) expansion. It is impossible to remove this source of bias completely, so rather than trying and failing to remove it the author instead asks that the reader remains conscious of its presence.

Chapter Conclusion

As explained above, this paper will use a step-by-step research methodology to answer the primary research question: Should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics? It will use the NATO military response options evaluation criteria to evaluate if the MDO concept could provide an operational approach capable of countering the three identified elements of Russian hybrid warfare. It will do this by analyzing each of the secondary research questions using the evaluation criteria, aggregating the results to answer the primary research question and presenting recommendations and conclusions. Chapter 4 will conduct this analysis.

CHAPTER 4

ANALYSIS

Chapter Introduction

This chapter will analyze each of the secondary research questions to determine whether or not the MDO concept could provide an operational approach capable of countering the three identified elements of Russian hybrid warfare. The chapter will then aggregate the results to answer the primary research question: Should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics?

Step 1 of the methodology is conducted in the introduction (chapter 1), and the literature review (chapter 2). This chapter contains Steps 2-5:

1. Step 2: Could the MDO concept counter Russian non-violent subversion in the Baltics?
2. Step 3: Could the MDO concept counter Russian covert violent action in the Baltics?
3. Step 4: Could the MDO concept counter Russian conventional forces supported by subversion in the Baltics?
4. Step 5: Aggregated Analysis. Should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics?

Steps 2, 3 and 4 will consider what the MDO concept aims to achieve against each of the identified elements of Russian hybrid warfare.

Step 2: Could the MDO concept counter Russian non-violent subversion in the Baltics?

> In Sun Tzu's view, the army was the instrument which delivered the *coup de grace* to an enemy previously made vulnerable. Prior to hostilities, secret agents separated the enemy's allies from him and conducted a variety of clandestine subversive activities. Among their missions were to spread false rumors and misleading information, to corrupt and subvert officials, to create and exacerbate internal discord, and to nurture Fifth Columns. Meanwhile, spies, active at all levels, ascertained the enemy situation. On their reports, 'victorious' plans were based.
>
> —Samuel B. Griffith, *Sun Tzu: The Art of War*

As the above quotation demonstrates, the utility of subversion in military strategy is almost as old as warfare itself. Marshal Shaposhnikov, the Chief of the General Staff of the Red Army (1928-1931), later noted the prerequisite to victory is "to make proper preparations in the enemy's camp so that the result is decided beforehand." He went on to paraphrase Sun Tzu, "the victorious army attacks a demoralized and defeated enemy" (Griffith 1963, xi). This thinking is evident in Russia's hybrid warfare campaigns today where information and cyber operations are routinely used to shape the battlefield before the use of unconventional or conventional military force.

This step will answer the first secondary research question: could the MDO concept counter Russian non-violent subversion in the Baltics? First, it will consider the context, including the role that military power is likely to play in countering the threat, and examine what the MDO concept considers as success against non-violent subversion. Second, it will use the evaluation criteria to assess the ability of MDO to achieve the military objectives in countering non-violent subversion.

This paper will not attempt to explain the full range of actions that NATO could take to counter Russian non-violent subversion, which is well covered by Abrams (*Beyond Propaganda: Soviet Active Measures in Putin's Russia)*, Pomerantsev and Weiss

(*The Menace of Unreality),* Witold Waszczykowski's NATO report, and the Active Measures Working Group. Instead, it will focus on how the MDO concept might perform if it was required to deliver the most likely military tasks of countering Russian information operations in the information environment (including the EMS and cyberspace), competing for the support of local populations, and countering Russia's conventional force presence and posture through deterrence.

The MDO Concept in Competition

The MDO concept defines success in competition as, "defeating the adversary's efforts to achieve their strategic goals and deterring military escalation" (TRADOC 2018, 24-25). The concept describes three tasks for the Army in the competition phase (TRADOC 2018, 27-31):

1. Conduct intelligence gathering, deception, and counter-reconnaissance (to be examined in step 3).
2. Enable the defeat of the adversary's information and unconventional warfare (unconventional warfare is examined in step 3).
3. Demonstrate credible deterrence.

Below we will evaluate the MDO concept's ability to counter Russian information warfare and to demonstrate credible deterrence in the Baltics.

Feasibility

This section will examine if it is feasible that MDO concept could counter Russian information operations. Then, it will examine if, within the means likely to be made available by nations, a multi domain force could deter Russian escalation. The

discussion on NATO's ability to prevent a *fait accompli,* penetrate A2/AD systems, conduct strategic and operational maneuver and support MDO, while touched on in this section, will be covered in step 4.

Countering Russian Information Operations

The MDO concept seeks to seize the initiative in competition by actively engaging in the information space, across domains, to converge Army actions and messaging to counter and expose inconsistencies in the adversary's information warfare operations. The military's primary contribution to the strategic narrative, however, is reinforcing resolve and commitment and demonstrating its capabilities as a credible deterrent to conflict (TRADOC 2018, 29).

This paper assesses that in order to feasibly counter Russian information operations in the Baltics three elements are required: first, the ability to reach the right target audience. Second, countering Russian misinformation whilst broadcasting and disseminating NATO's message. Thirdly, reducing the Russian ability to broadcast or disseminate their propaganda.

First, NATO must compete for influence with the right audience. In the Baltics, one of the key audiences are the Russian-speaking populations. They represent the most fertile Russian recruiting demographic for separatist movements and covert violent action. Most of the Russian-speaking populations in Estonia and Latvia get their views on history and current events from Russian media outlets that are directly subordinate to the Kremlin and are used as a mechanism of propaganda. Russian speakers, therefore, exist in a 'separate information space' (Winnerstig 2014, 53).

Simply put, it will be hard for NATO to 'counter and expose inconsistencies in the adversary's information' when the target audience is not listening to what NATO is disseminating and is instead consuming Russian propaganda. This is one of the examples where MDO's focus on capability development and technological solutions means that it might be overlooking a more straightforward, subtler, local solution. Estonia has created ETV+, a Russian-language media station. Efforts to create a Russian-language station in Latvia ran into political opposition and suffered from a lack of funding (Baltic Review 2015; Luxmoore 2015).

In this regard, the feasibility of MDO is low, because at present it is simply unable to communicate strategically with its vital target audiences through a medium they trust. In the short term, additional funding for the Estonian and Latvian government-supported Russian-language media outlets could help provide a competitive alternative to the Moscow-controlled outlets (Radin 2015, 33) and a means for NATO to reach its key target audiences in the Baltics.

Psychology studies offer some best practice for countering Russian misinformation. Several factors can increase the effectiveness of refutations: (1) pre-warning the audience that they may be exposed to misinformation, (2) fostering a skepticism of certain sources, (3) repetition of a simple message rebutting misinformation, (4) avoiding repeating the original misinformation, (5) providing an alternative narrative that uses facts to replace the misinformation and fills in the audience's gaps in understanding, (6) framing evidence in a world-view affirming manner by endorsing pre-existing values of the audience (Lewandowsky, Ecker, Seifert, Schwarz, and Cook 2012, 106-131).

NATO information and human warfare teams, and psychological operations teams, working closely with inter-agency partners and the Baltic states, can help 'out' Russian propaganda sources by identifying them and their activities, as well as providing quick and accurate rebuttals on stories relating to the military and NATO. These same teams could help craft, broadcast and disseminate NATO's narrative. It is eminently feasible that MDO can deliver this.

However, the MDO concept will be most effective if its delivery teams intrinsically understand the unique history, culture, identity and world view of the target audience in each of Baltic states and crucially can work in Russian, Estonian, Latvian and Lithuanian languages. Being effective therefore requires expertise in the language and the region. According to a recent RAND report, Estonia's Russian speakers are unlikely to be receptive to Russian-language content developed for other countries. As one Estonian official explained, "no one in Estonia wants to watch Latvian television" (Helmus, Bodine-Baron, Radin, Magnuson, Mendelsohn, Marcellino, Bega, and Winkelman 2018, 69). While the MDO concept aspires to "active engagement" it is doubtful that this will lead to military teams developing this vital expertise and deep understanding of the human terrain. The feasibility of the MDO concept is therefore judged to be moderate in this area.

The Kremlin has built an elaborate production and dissemination apparatus to conduct large-scale active measures campaigns online by integrating actors at varying levels of attribution. Actors at the first and second levels of attribution produce or circulate exploitable content. The first level ('white') includes official Russian government agencies, such as the Ministry of Foreign Affairs (MFA) and a constellation

of Russian state-controlled, state-affiliated, and state-censored media and think tanks. The second level ('gray') is composed of outlets with uncertain attribution. This category covers conspiracy websites, far-right or far-left websites, news aggregators, and data dump websites (Helmus et al. 2018, 11-13).

The third level ('black') produces content on user-generated media, such as YouTube, but also adds fear-mongering commentary to amplify content produced by others and supply exploitable content to data dump websites. A network of trolls, bots, honeypots, and hackers conduct these activities. Meanwhile, hackers deface websites, execute denial of service attacks, and extract secrets to feed content production (Weisburd, Watts, and Berger, 2016). 'Black' active measures are now far easier to execute than ever before. Since 2015, the Kremlin's hacking efforts have become very sophisticated, coalescing into two distinct competing hacking collectives: Fancy Bear, possibly operated by Russian military intelligence (GRU)—and Cozy Bear, possibly operated by Russia's foreign intelligence service (FSB) (Weisburd, Watts, and Berger 2016).

NATO could use various technical means to prevent the 'black' layer from functioning. Actions ranging from aggressive enforcement of terms of service with internet providers and social media platforms to electronic warfare and cyberspace operations could all serve to lower the volume, and the impact, of Russian propaganda (Paul and Matthews 2016, 10-11). MDO's ability to access national-level capabilities make it highly feasible that it will be able to counter Russian information operations in this way.

Deterring Russian Escalation and Use of Conventional Forces

This paper will now examine if, within the means likely to be made available by nations, a multi domain force could deter Russian escalation. According to the MDO concept, credible deterrence is demonstrated by a force posture that reduces an adversary's local military superiority, employs multi domain formations to withstand a surprise attack, and demonstrates the ability to converge forward presence, joint, and national-level capabilities to disrupt any surprise attack. Military forces must demonstrate four capabilities in competition to deter the adversary (TRADOC 2018, 30):

1. Ability to immediately deny a *fait accompli* attack.
2. Ability to penetrate anti-access and area denial systems.
3. Ability to conduct strategic and operational maneuver.
4. Ability to support MDO by establishing command and control mechanisms, ensuring interoperability, and sustaining and protecting forward presence forces. (TRADOC 2018, 30).

> The importance of the local power balance in deterrence calculations suggests that . . . conventional superiority in and of itself is not as relevant as some analysts have suggested. In fact, the available evidence suggests that overall superiority may be insufficient to establish deterrence. Despite the apparent advantage of conventional superiority in the macro sense, deterrence may still fail if the opponent believes it has a local advantage. (Gerson 2009, 38-9)

The RAND war games found that NATO would need seven Bdes (including three heavy Bdes) to prevent a *fait accompli* in the Baltics for at least 28 days (Shlapak and Johnson 2016). It is moderately feasible that a small multi domain force positioned forwards in the Baltics, of comparable size to NATO's current eFP deployment (equivalent to one heavy Bde), with the Baltic states forces (three light Bdes) and

reinforced by rapid reaction elements including NATO's VJTF(L), a heavy Bde, and U.S., UK and French ABN units, could prevent a *fait accompli* for a limited period.

It is unlikely that NATO could prevent a *fait accompli* if the MDO concept were unable to penetrate the A2/AD systems quickly. To deliver credible deterrence in the Baltics then, based on current force ratios, NATO must be able to demonstrate its ability to penetrate Russia's A2/AD systems rapidly. As it stands, the MDO concept is relying on developments in technology to make it feasible.

In terms of demonstrating the ability to conduct strategic and operational maneuver, few European NATO countries, except for the UK and France, have strategic or operational airlift capabilities or significant forces held at high readiness. Strategically, therefore, in the initial phase of any major conflict, NATO would be reliant on U.S. combat forces supplemented by other allies to form the backbone of a rapid response (or 'expeditionary') force.

A NATO multi domain expeditionary force could strategically and operationally maneuver to the Baltics and be lethal enough to help prevent a *fait accompli,* but to be judged feasible this requires a significant improvement in NATO's readiness.

While it is possible for NATO's C4 (Command, Control, Computer, and Communication) systems to achieve interoperability, at present this integration is far from seamless. Only the U.S. and the UK, and France and the UK have rehearsed large-scale land operations together to achieve technological and procedural interoperability at scale. Also, with the exception of the U.S. and the UK, language often remains a stumbling block for seamless alliance operations. Worse still, in order to effectively 'converge capability across domains' NATO will need to reach new heights of

interoperability. Achieving interoperability between C4 systems is challenging enough when units are positioned forwards and have time to troubleshoot problems and rehearse procedural solutions. Rapidly achieving interoperability between NATO's various expeditionary forces, and those positioned forward, while they simultaneously deploy to the Baltics would be extremely challenging. Considerable investment is required if NATO ever wants to be able to execute MDO as envisioned by the concept paper. Based on the means currently made available by NATO members then, and assuming that the 'calibrated force posture' would remain unchanged, this paper assesses that the feasibility of the MDO concept for deterring Russian escalation is low.

In summary, the feasibility of the MDO concept to achieve successful deterrence is moderate. However, if combined with improvements in the ability to execute regional information operations, investment in readiness, a change in the 'calibrated force posture' that increased the quantity of forward presence forces, then it could be highly feasible that NATO could counter Russia non-violent subversion using the MDO concept.

Suitability

The MDO concept seeks to achieve strategic objectives through competition. However, is the MDO focus on competition with Russia's military forces enough to 'maintain the territorial integrity, political independence, and security of the Baltic states'? The MDO concept appears to be consistent with Dr Weigley's characterization of the *American Way of War* where he argues that most modern U.S. military strategies have preferred Delbrück wars of annihilation and closing with the enemy for the decisive battle to wars of attrition (Weigley 1973, 18-39, 124-163).

Echevarria II, when writing about America's wars in Afghanistan and Iraq (which, despite achieving remarkable military victories, have not yet culminated in strategic successes), observed that, "the new American way of war appears to have misidentified the center of gravity in each of these campaigns, placing more emphasis on destroying enemy forces than securing population centers and critical infrastructure and maintaining order" (Echevarria 2004, 13).

This sentiment emphasizes the need to develop those capabilities required during competition as well as those needed in armed conflict. To appropriately understand competition requirements, the U.S. military must critically analyze the competitive environment. Identifying a COG during competition allows the military to focus its efforts against that center. However, as Perez argues in *Addressing the Fog of the COG*, defining a COG can be tricky (Perez 2012). This paper argues that the MDO concept's characterization of the Russian operational COG overlooks the critical requirement of Russian-speaking populations within the target countries.

In regions where Russia conducts 'gray zone' strategies, such as Ukraine and the Baltics, one of the critical requirements of Russian power is the target nation's Russian-speaking population. Russian forces operate where they are ethnically and culturally transparent and cannot be easily detected. This provides Russia with a significant advantage in the conduct of non-violent subversion and covert violent action.

These populations, whom the Russians have historically avowed to protect and advance, constitute 'vital ground' that offers 'positions of relative advantage' to the competitors in the human terrain. Simply put, Russia cannot effectively execute its hybrid warfare approach without support from Russian-speaking populations in states close to its

borders. The Russian speaking populations are also, therefore, a critical vulnerability of the Russian operational COG.

In order to succeed in the competition phase, NATO and the U.S. must compete to win the support of these key demographics. Success in competition then, if viewed in business terms, is providing the best value proposition. The MDO concept must take steps to expand the competitive space and provide a greater value proposition to target populations than Russia. By avoiding focusing on competition in this light, the MDO concept risks ceding these 'positions of advantage' to Russia and failing to deny enemy actors key points of leverage.

In contrast, securing the key human terrain in competition can deny Russia access to those vital demographics. This denial reduces Russia's options for achieving objectives below the threshold of armed conflict. Therefore, winning over the local populations through unified action with partner nations and agencies is the most effective way to achieve one of the MDO aims in competition: "seize and sustain the initiative in competition by deterring conflict on terms favorable to the U.S. and defeating an adversary's efforts to expand the competitive space below the threshold of conflict" (TRADOC 2018, viii).

In many ways, the Russian threat below the threshold of armed conflict resembles a state-sponsored insurgency, meaning that the U.S. and its allies should conduct counterinsurgency stability operations during the competition phase lest it surrenders the initiative and influence to great power competitors. By doing so, the Joint Force can deny adversaries freedom of action and counter adversary's efforts to expand the competitive space below the threshold of armed conflict. Conducting stability operations represents a

logical approach in situations where the U.S. needs to rebalance power, expand the competitive space, and reduce the influence of competitors.

During the Cold War, the Soviet Union threw every manner of gray zone weapon at the West in the form of its active measures, and none did serious damage. This was not due to the lack of sophistication of those campaigns, or the resources or commitment invested in them. It was a product, quite simply, of the ultimate truth of the Cold War: the Western socioeconomic system was stronger, and long-term trends favored the West. (Mazarr 2015, 119).

George Kennan gave us a great insight when he wrote in his *Long Telegram*: "much depends on the health and vigor of our own society" (Kennan 1946). The West would win the Cold War, he believed, because of its social and economic, not military, superiority. The goal of its military and geostrategic efforts was merely to avoid defeat, by keeping the Communist world from gaining a false sense of momentum through conquest and waiting for history's persistent energies to do their work (Mazarr 2015, 120). The task of countering Russian hybrid warfare in the Baltics would appear to be the same today. Securing the Russian-speaking population in the Baltics and ensuring their prosperity and inclusion is, arguably, the key to defeating Russian hybrid warfare in the long run.

The MDO concept does not establish this link. It considers the threat from the Russian economic and diplomatic elements of national power (TRADOC 2018, iii, vi) but does not mention how the MDO concept will seek to leverage friendly forces' economic or diplomatic elements of national power. The MDO concept selectively frames the problem that the concept seeks to tackle. Notably, the MDO concept appears

to assume that other partners and agencies will deal with Russian and Chinese exploitation of social, ethnic, or nationalist tensions and places these outside, rather than inside, the realm of military responsibility. Instead, the concept prefers to focus on the conventional military problem. By doing so, this paper believes that the concept leaves a gap of responsibility between what the concept defines as its share of the task and what the EU, NATO and other U.S. agencies are actually delivering on the ground.

> The American way of war tends to shy away from thinking about the complicated process of turning military triumphs, whether on the scale of major campaigns or small-unit actions, into strategic successes. This tendency is symptomatic of a persistent bifurcation in American strategic thinking—though by no means unique to Americans—in which military professionals concentrate on winning battles and campaigns, while policymakers focus on the diplomatic struggles that precede and influence, or are influenced by, the actual fighting. (Echevarria 2004, vi)

The MDO concept could struggle to respond if Russia instigated a state-sponsored insurgency or guerilla warfare action campaign that built on the grievances of the Baltics' Russian-speaking populations. Guerrilla leaders traditionally spend a great deal more time in organization, instruction, agitation, and propaganda work than they do fighting, for their most important job is to win over the people. "We must patiently explain," says Mao Tse-tung, "explain," "persuade," "discuss," "convince". Mao has aptly compared guerrillas to fish, and the people to the water in which they swim. If the political temperature is right, the fish, however few in number, will thrive and proliferate. It is, therefore, the principal concern of all guerrilla leaders to get the water to the right temperature and to keep it there (Griffith 1989, 8).

Historical experience suggests that there is very little hope of destroying a revolutionary guerrilla movement which, as discussed could be very similar to a Russian-backed separatism movement, after it has survived the first phase and has acquired the

sympathetic support of a significant segment of the population (Griffith 1989, 27). The concept's tight focus on the operational level military problem means, therefore, that it is in danger of failing to help achieve the 'strategic ends' due to failure to recognize the importance of defending the key 'human terrain' from Russian action. This disconnection means that this paper assesses that the suitability of the MDO concept for NATO providing collective security to the Baltic states is low.

Acceptability

Do the benefits of the MDO concept outweigh the costs and risks? From a strategic perspective, this paper has selected the 'ends' as 'maintaining the territorial integrity, political independence, and security of the Baltic states.' However, this sets the MDO concept within the narrow geographic context of this examination. In reality, it is a broader approach with broader goals.

In a global strategic context, the MDO concept has two key benefits: flexibility and pace-setting. The potential of the MDO concept is that it allows NATO to commit less force forward in positional defense and retain larger 'expeditionary' and 'follow on' forces. Not only does this make it harder for Russia to pre-emptively target NATO forces, but it also gives NATO flexibility and the option to employ these forces elsewhere. The potential of the MDO concept is, therefore, that it will allow a single force to have a deterrent effect in multiple parts of the world simultaneously.

If the MDO concept does develop the means to penetrate Russia's A2/AD systems, then this might drive Russia to compete with the U.S. by acquiring even more sophisticated systems. This would increase the percentage of the Gross National Product (GNP) Russia would need to spend on its military, and combined with other economic

measures this could cause the Russian state to collapse under the pressure of sustained competition. The U.S. Office for Net Assessment is credited with helping to bring down the Soviet Union in this way by employing Andrew Marshall's strategy of *Long Term Competition with the Soviets* and 'steering' the development of military technologies into areas where the U.S. had a comparative advantage (Marshall 1972, 51).

The costs and risks of pursuing the MDO concept are potentially three-fold. First, the opportunity cost in a resource-constrained environment is that NATO may have to prioritize investment in multi domain capabilities over other local initiatives to counter the Russian non-violent subversion in the region. Long term investments in developing a trusted means to communicate strategically with the Baltics' Russian-speaking populations and teams of experts to tailor information operations to reach this audience is one example of a rival direction that could become the opportunity cost of pursuing MDO.

Second, because MDO is likely to favor small forward presence forces supported by larger 'expeditionary' and 'follow on' forces, there is a risk that it fails to deter (and possibly later prevent) a Russian surprise *fait accompli* attack. As deterrence theorists identify, the 'local' balance of military power plays a vital role in conventional deterrence, since it is local forces that an aggressor considers when they determine if a *fait accompli* style attack is feasible (Huth and Russett 1984, 39-41, 57-60, 74, 76).

Gerson argues that "if U.S. adversaries seek relatively short and inexpensive wars, and if the key to deterring conventional aggression is convincing those adversaries that they will not be able to achieve such an objective, then credible and effective deterrence requires that U.S. forces be in or near the region." He goes on to argue that when the

local balance favors the adversary, deterrence is more likely to fail because the regime will calculate that it can achieve rapid success. When the local balance favors the defender, deterrence is more likely to succeed (Gerson 2009, 38). Therefore, relying too heavily on MDO 'expeditionary forces' and their ability to penetrate A2/AD systems, at the expense of forward presence forces, may undermine effective deterrence.

Third, if the MDO concept does opt for smaller forward presence forces, then it is reliant upon NATO making the timely decision to reinforce the Baltics with expeditionary forces. From a strategic perspective, if the ends are 'maintaining the territorial integrity, political independence, and security of the Baltic states' then there is significant risk in spending years developing complex, expensive, exquisite capabilities and forces that might not make it to the fight on time due to a lack of timely decision making. The alternative is using less sophisticated, but heavier forces forward positioned in Eastern Europe. The decision to deploy these forces could be made in advance, thereby reducing some of the requirement for collective decision making on NATO's national leaders during a crisis and reduce the risk of Russian interdiction.

As Dr Bernard Brodie explained back in 1965, the first principle for a great nation which has forsworn preventive war must be to "devote much of its military energies to cutting down drastically the advantage that the enemy can derive from hitting first by surprise attack." The second basic principle he highlights is "to provide a real and substantial capability for coping with limited and local aggression by local application of force" to avoid "finding ourselves some day in a dilemma where we must either accept defeat on a local issue of great importance, or else resort to a kind of force which may be

intrinsically inappropriate and which may critically increase the risk of total war" (Brodie 1965, 394-396).

If NATO increased its eFP forces to a heavy Bde in each Baltic state, with a fourth stationed in Poland, supported by suitable air defense, long-range fires, and sustainment assets and a credible nuclear deterrent, then it would have a force capable of preventing the rapid overturn of the Baltic states (Shlapak and Johnson 2016, 1). It is highly feasible for NATO to provide such a force, especially if the U.S. withdraws forces from the Korean peninsula. Moscow, without feasibly being able to achieve a surprise *fait accompli* attack followed by nuclear de-escalation, would instead be faced with the prospect of triggering a prolonged and serious war between Russia and a materially far wealthier and more powerful coalition—a war Moscow must fear it would likely lose (Shlapak and Johnson 2016, 2).

Generating this deterrent posture would not be inexpensive, with annual costs perhaps running in the order of $2.7 billion, but in the context of an Alliance with an aggregate Gross Domestic Product (GDP) in excess of $35 trillion and combined yearly defense spending of more than $1 trillion, it hardly seems unaffordable, especially in comparison with developing some of the capabilities that would be required to actually deliver the MDO concept (Shlapak and Johnson 2016, 2). Another RAND report on priority investment areas for the U.S. military echoes this opinion. As well as recommending many of the capabilities required for the MDO concept, it also recommended that the U.S., "deploy or station two or three U.S. ACBT and an Army fires Bde in or near the Baltic states and stockpile munitions in theater adequate for 30 days of high-tempo land and air operations" (Ochmanek 2018, 11).

This paper assesses that it is only moderately acceptable for NATO to adopt the MDO concept. As it is local forces that an aggressor considers when they determine if a *fait accompli* style attack possible, the MDO concept, with its preference for small forward presence forces, could fail to deter Russian aggression effectively. The concept is also reliant upon NATO, collectively, making the timely decision to reinforce the Baltics. The MDO concept would be highly acceptable if its implementation was accompanied by a shift in the calibrated force posture, increasing the size of NATO's eFP forces.

Conclusions

The MDO concept's focus on competing with Russia below the level of armed conflict is a simple, transparent and unifying operational approach. What is less clear, however, is how the concept will develop and deliver against non-violent threats.

Table 2. Evaluation Criteria Table: Nov-Violent Subversion

Could the MDO concept counter Russian non-violent subversion in the Baltics?	Low	Moderate	High
Feasibility		X	
Suitability	X		
Acceptability		X	

Source: Developed by the author.

The initial analysis suggests that the concept draws heavily on the 'American Way of War' tradition that favors technological solutions and a focus on applying conventional force. This influence may make it less suitable for NATO's continental European members seeking to win the support of populations. This impetus and the MDO

concept's inability to address some of NATO's more fundamental issues is what led to a lack of 'high' scores above.

Step 3: Could the MDO concept counter Russian covert violent action in the Baltics?

This step will answer the second secondary research question: could the MDO concept counter Russian covert violent action in the Baltics? It will first consider the context by examining Russia's actions in Eastern Ukraine and how the MDO concept envisions defeating unconventional and irregular warfare. Second, it will use the evaluation criteria to assess the ability of MDO to counter Russian covert violent actions.

The military instrument is likely to be the primary instrument of national power used to counter covert violent Russian actions. However, as this paper will highlight later, the other instruments of national power play a vital role in the Baltics 'will' to resist Russian activity. Russia's success or failure in its various campaigns has mostly been a product of local social and political factors rather than the skill of its operations. Indeed, covert violent action is a tool to take advantage of pre-existing political, social, or economic vulnerabilities rather than a tool capable of achieving decisive results on its own (Mazarr 2015, 118).

Most of the literature agrees that whilst the Baltic states are vulnerable to Russian covert violence, especially in the Ida-Viru County, Estonia or Daugavpils, Latvia, they will be far harder to destabilize than Ukraine as they have greater control over their territory, stronger internal security forces and, crucially, support from NATO (Radin 2015; Shekhovtsov 2015).

There is significant evidence to suggest that Russia's covert violent action in Eastern Ukraine has been far from successful, a case study that highlights the importance of active resistance. When Ukraine's government arrested the self-declared governors and mayors of Donetsk and Luhansk People's Republics (and Kharkiv People's Republic, which never took off), Russia escalated to direct covert violent action in mid-April 2014. Russia was supporting irregular warfare with paramilitaries (some led by Igor Girkin from Crimea), local recruits, and a unit of mercenaries, along with defectors from Ukraine's security services. At the end of May, when irregular warfare had run into too much resistance from Ukraine's volunteer Bns and armed forces, Russia was forced to escalate again in an attempt to secure Donetsk Airport. Russia introduced high-end conventional capabilities and intermixed Russian units and individual Russian soldiers among the separatist force. By 24 August, the hybrid approach had demonstrably failed. Moscow traded it in for a conventional invasion by regular Russian units, which it had sought to avoid (Kofman 2016). Responding to and resisting Russian covert violent action can be useful. The costs of escalating to covert violent action for Russia in the Baltics are likely to be far higher than in Ukraine.

The MDO Concept in Competition—Unconventional Warfare

The MDO concept summarizes the threat from Russian unconventional warfare as:

> Russian SOF, local paramilitaries, and activists conduct unconventional warfare to destabilize targeted governments by separating their control of certain regions or populations. Russian unconventional warfare activities empower proxies and activist networks to conduct a range of operations, including terrorism, subversion, destabilizing criminal activities, reconnaissance, information warfare, and direct action strikes. These actions add physical support to their information narrative. Unconventional warfare capabilities support conventional forces with

> reconnaissance and the ability to exert influence or control over some elements of terrain and populations within . . . partner territory. (TRADOC 2018, 10)

The MDO concept intends firstly to conduct and coordinate counter-reconnaissance operations principally through partner security forces and interagency partners and sees the military's role as assisting partner security forces with counter-reconnaissance operations. The concept considers partner security forces to possess the authorities, capacity, and local expertise to best counter the enemy's covert intelligence efforts (TRADOC 2018, 29).

The concept also intends to principally defeat an adversary's employment of proxies through the indirect enabling of partners but can support directly through unilateral action. Special Operations Forces (SOF) and security force assistance Bdes would support partners' irregular warfare efforts both by building enduring partner capacity and by enabling them with advisors and capabilities (TRADOC 2018, 30). The concept also aims to ensure that the adversary's proxies receive little or no support from its conventional forces, which allows partners to counter attempts to destabilize their countries more easily (TRADOC 2018, 25).

Feasibility

This section will examine if the MDO concept could feasibly counter Russian covert violent action. This paper will examine this question in three phases: detecting and attributing Russian action, strengthening the capacity of the Baltic states to respond and resist, and formulating an effective and appropriate NATO response (Radin 2015, 33).

In conventional warfare, defenders learn to anticipate the likely 'avenues of approach' that an attacking army might use. The same is true of covert action; NATO can

learn to anticipate Moscow's next steps and its likely implications. NATO's knowledge of Russia's general capabilities (their use of agents, imported paramilitaries, deception, intimidation, bribery, infiltration of political groups and government services, and persistent denial) can help fortify vulnerable sectors of society, including the media, religious organizations, political parties, and government agencies against the threat (U.S. SOCOM 2016, 63) as well as narrow the military's detection focus. In this regard the MDO concept is well founded; it already understands from careful study of previous Russian campaigns what indicators and warnings to look for. However, in order to be highly effective the concept needs to be able to differentiate between everyday Russian operations and the start of a large-scale campaign to help inform when a change to the 'calibrated force posture' is justified and when it is not (Radin 2015, 33-34). Again, intelligence analysts with regional expertise are likely to make a critical difference in this area.

Assets, such as UAVs and ground-based radars, could usefully fill gaps in the Baltic states' existing intelligence, surveillance, and reconnaissance (ISR) capabilities (Radin 2015, 33-34) and emerging technology, such as artificial intelligence supported facial recognition, could enhance intelligence collection soon. There are also several areas, such as the space domain, where the Baltic states are unlikely ever to be able to generate their own capabilities, and where NATO could provide support. It is highly feasible that the MDO concept can deliver here.

The MDO concept's focus on interoperability with allies and partners could facilitate the rapid sharing of intelligence. However, although NATO has made progress in developing institutions for intelligence sharing, the Alliance's structures and processes

remain cumbersome, and there is often a reluctance among nations to share information (Radin 2015, 33). The MDO concept aspires to achieve greater unity of effort, but NATO may have to accept that, in order to operate effectively, it will have to limit the number of NATO allies included and focus on bilateral intelligence sharing between a select group of NATO members and the Baltic states.

The second area where MDO needs to be effective is in strengthening the capacity of the Baltic states to respond to Russian covert violent action. Estonia has a well-prepared security structure and has undertaken regular war games and exercises to learn how to respond to different forms of Russian aggression. The Hedgehog exercise in May 2015, for example, involved 13,000 Estonian personnel and revealed gaps in mobilization times that the government is currently addressing.

The readiness and preparation of the Latvian military is more questionable. Western-trained observers in Riga have expressed doubts about the force's readiness to counter either serious covert violent action or a conventional attack (Radin 2015, 26). This is an area where NATO assistance in planning, war-gaming and exercising contingency plans could quickly improve resilience. NATO special operations forces have conducted extensive engagement with their Baltic counterparts, to the point that there is a sense of saturation, especially given the small size of the Baltic special operations formations (Radin 2015, 34). Greater cooperation and training exercises with Finland and Sweden would also allow a coordinated response to Russian covert action across Northeastern Europe (Chivvis, Cohen, Frederick, Hamilton, Larrabee, and Lin 2016, 7). It is highly feasible that the MDO concept, with its focus on increased assistance and cross-domain operations, can deliver the improvements required.

The final consideration is whether the MDO concept could offer NATO a feasible and effective response to Russian covert violent action. There are two vital areas to consider: knowing when to respond and how to resource a response.

NATO's Article 5 is most appropriate for scenarios that involve overt and unambiguous forms of military attack against a NATO member. Subtler forms of attack that give the belligerent plausible deniability, such as those involving local ethnic tensions, might not even prompt consideration of Article 5 (Lanoszka 2016, 192). In practice then, the biggest challenge to NATO is in defining what is and what is not an attack. A staged emergency—such as a problem with Russia's railway traffic across Lithuania to Kaliningrad—might count locally as an intolerable assault on the Baltic states' sovereignty but may not be seen in Brussels as an 'armed attack' for Article 5 purposes. All the strength of the world's mightiest military alliance will not amount to much if its members cannot agree when an aggressor has stepped over the line (Economist 2015).

The solution to this is potentially a new NATO Article 5b that clearly defines a threshold or criteria that would outline when the Alliance should respond to cyber, covert violence, and other gray zone attacks. The MDO concept identifies that in order to operate effectively in competition, that "authorities to operate in the cyberspace domain and information environment must be granted earlier, faster and to lower echelons to enable MDO. Forward presence headquarters enable success in both competition and the transition to armed conflict by making necessary coordination and lowering the barriers to obtaining authorities before they are needed" (TRADOC 2018, 18). A further consideration, linked to authorities, will be Rules Of Engagement (ROE) for NATO

forces confronting a covert threat. The MDO concept, therefore, is moving in the right direction and if supported by improved authorities stemming from a NATO agreement of the appropriate use of force, could be moderately feasible.

The final area to consider is how NATO resources extend 'competition' against Russia in the Baltics. The implementation of the MDO concept may require NATO nations to increase their SOF, intelligence gathering and processing capacity. Growing SOF capacity is difficult; their distinct nature and highly selective screening process means that they will always remain smaller than conventional forces. In a world of burgeoning gray zone conflicts, some conventional military units may need to be both re-trained and re-organized to conduct military operations at the lower end of the conflict spectrum (Barno and Bensahel 2015). NATO may also need to create the ability to surge SOF into the Baltics to respond to Russian covert violent action campaigns. Given the size of the Alliance, this should be highly feasible.

Suitability

Could a multi domain force, with small elements positioned forward in the Baltics supported by 'expeditionary forces' and national capabilities, maintain the territorial integrity, political independence, and security of the Baltic states against Russian covert violent action? As the TRADOC concept paper lays out, the military's primary contribution in competition is demonstrating its capabilities as a credible deterrent to conflict (TRADOC 2018, 29). Credibility is, according to Sir Lawrence Freedman, the "magic ingredient" of deterrence (Freedman 1983, 96).

However, credibility in deterrence does not solely rest on military capability but rather on an adversary's combined assessment of military capabilities and political

resolve. For deterrence to be credible therefore, an adversary has to believe that NATO has both credible military capacities and, crucially, the political willpower necessary to use them (Kaufmann 1956, 12-38).

This requirement for political resolve raises an interesting question about the suitability of the MDO concept for NATO, because, assuming that only a small force (similar to NATO's current eFP deployment) is positioned forwards in the Baltics, NATO would need to bring significant national-level assets rapidly to bear and trigger the deployment of expeditionary forces if it is to prevent a *fait accompli* attack successfully. This would require resolute and swift decision making and in a NATO context this is problematic.

First, agreeing to unified action and setting aside national self-interests with only limited information on the situation, in the midst of Russian actions to actively cloud decision making, will be challenging. Achieving unanimous support for action may even be impossible, especially considering Turkey's growing ties to Russia. The most likely result could be U.S. led unilateral action. However, without knowing the exact circumstances it is hard to predict if countries would be willing to act, and how strongly they would be willing to act. Second, making these decisions quickly enough to get forces in position will be extremely difficult. The mere act of bringing the national leaders up to speed on the situation and presenting them with viable courses of action would consume many hours of critical time. Any hesitation in deploying forces, the natural urge to wait for more information or for the fog of war to clear a little, could be fatal.

As Gerson highlights, of all the concepts and theories associated with deterrence, the issue of how to demonstrate or signal credibility has been the dominant theme in academic and policy literature (Gerson 2009, 42). Forward positioning more conventional forces in the Baltic states would signal, unequivocally, NATO's commitment to protecting their territorial integrity, political independence, and security, especially if NATO also signaled its renewed resolve to use nuclear weapons to defend the Baltics. Developing MDO forces may not send such a powerful message—firstly, because the forces and capabilities themselves may lack credibility and secondly because Russia may perceive a lack of will within NATO to employ them forcefully and swiftly. As a result, this paper evaluates the MDO concept as only moderately suitable.

Acceptability

Do the benefits of the MDO concept outweigh the costs and risks? The MDO concept has several key benefits for countering Russian covert violent action: NATO has little choice but to compete and counter Russian violent action; it is extremely dangerous for Russia to escalate to conventional force if their covert violent action is unsuccessful. NATO is far better placed to sustain a 'gray zone' competition in the Baltics than Russia is. However, there are also several risks to competing using covert violent action below the threshold of armed conflict. Firstly, there is a risk of inadvertently triggering a larger conflict and undermining effective deterrence by not clearly signaling where the conflict begins and ends. Secondly, covert violent competition could trend to a cold war of attrition.

NATO has little choice but to confront Russian covert violent action in the Baltics and prevent Russia from executing a 'bite and hold' strategy, as in Eastern Ukraine. A

failure to do so would risk the collapse of the Alliance. In 2008 in Georgia, a pre-existing conflict partially excused Russia's actions. NATO's reaction was muted. In 2014 in Crimea, no such confusion existed, and overwhelming force was used to ram through the annexation of territory. NATO's reaction was less muted but not effective. In 2015 in Eastern Ukraine, Russia conducted another land grab. NATO responded with limited military assistance to Ukraine and economic sanctions. To misquote Oscar Wilde, to overlook one aggression may be regarded as a misfortune, to ignore two looks like carelessness, and not to respond appropriately to a third (or a fourth) would be stupidity (Buckley and Pascu 2015).

In Eastern Ukraine, Russia paid a clear price in casualties and severe Western sanctions for escalating to the use of conventional military force. The campaign went from the intended goal of a short, quick win to a 'bleeding wound' that is sapping Russian strength ((Mazarr 2015, 120; Galeotti 2015, 4-5). Escalating to the use of conventional military force in the Baltics could have an even more significant cost for Russia. Any actions that incited a full response from NATO would likely end with far higher casualties than Russia incurred in Ukraine and could potentially trigger regime change in Moscow. Effectively countering covert violent action while also providing a credible deterrence against conventional attack removes a lot of Russian options. In these circumstances, they would have to think very carefully before embarking on a covert violent action campaign.

Finally, NATO is far better placed to sustain a 'gray zone' competition in the Baltics than Russia is. Gray zone strategies allow states to capitalize on others' vulnerabilities, but they seldom, if ever, offer avenues to achieve decisive results on their

own. The Cold war gray zone harassment was destined to have a much greater effect on the Soviet Union because of the inherent vulnerabilities of its system and the relative robustness of liberal democracy (Mazarr 119-121).

One of the risks of competing below the level of armed conflict in the gray zone is that it increases the potential for inadvertent war. "In one sense, the greater reliance on gray zone strategies could be a hopeful trend in international security: states adopting gray zone approaches have chosen to avoid a major war. These strategies create a whole range of risks all their own…the most likely routes to war are through misperception, accident, or miscalculation. Gradualist strategies set the stage for all three" (Mazarr 2015, 109). The incremental U.S. commitment to the Vietnam War is one example of how individual choices can accumulate to the point where credibility is at stake.

Magnifying the risk of escalation is the widespread use of proxies in gray zone strategies. Because such campaigns often involve an integrated, but not fully coordinated, network of paramilitary forces, civilian government agencies, hackers, propagandists, allies and outright mercenaries, the initiator of gray zone campaigns will seldom have full control over the outcome (Mazarr 2015, 111-113). The risk of competition and the introduction of new or unprecedented military capabilities is that it sparks a spiral to full-blown conflict (Chang, FitzGerald, and Jackson 2015, 9-10). Operating in the gray zone may also undermine deterrence by not clearly signaling to an adversary when their actions have triggered a response and therefore where the 'red line' is. Gray zone strategies interrupt the process of accurately conveying intentions, making strategic interactions far more fluid and ambiguous (Mazarr 2015, 115-118).

Covert violent action and conflict in the gray zone also has the potential to develop into a war of attrition fought beneath the threshold of conventional conflict. At its heart, the MDO concept still envisions a decisive battle in a war of annihilation. However, the evidence from the last 15 years of conflict suggests that few adversaries are willing to meet the U.S. in a war of annihilation and instead adopt irregular tactics and turn the conflict into a war of attrition. Instead of competition, NATO could find itself in a protracted fight that both sides deny exists. As Sun Tzu observed, "No country has ever benefited from protracted war" (Griffiths 1964, xi).

While there are risks to competing below the level of armed conflict, NATO has little choice but to compete and counter Russian covert violent action. The costs of not doing so are potentially high. The MDO concept offers many benefits and despite the risks is highly acceptable.

Conclusions

The MDO concept's focus on working with partners to counter unconventional warfare means that it already offers a credible operational approach for countering Russian covert violent action and results in the relatively high scores below.

Table 3. Evaluation Criteria Table: Covert Violent Action

Could the MDO concept counter Russian covert violent action in the Baltics?	Low	Moderate	High
Feasibility			X
Suitability		X	
Acceptability			X

Source: Developed by the author.

Step 4: Could the MDO concept counter Russian conventional forces supported by subversion in the Baltics?

This step will answer the third secondary research question: could the MDO concept counter Russian conventional forces supported by subversion in the Baltics? It will first consider how the MDO concept intends to deny enemy objectives and achieve an operational position of relative advantage or defeat the enemy in a protracted war. Second, it will use the evaluation criteria to assess the ability of MDO to counter Russian conventional forces supported by subversion.

The MDO Concept in Armed Conflict

The MDO concept aims to achieve friendly strategic objectives and defeat the adversary in three different ways; the latter two are the focus of this step (TRADOC 2018, 24):

1. The preferred method is effective competition that deters escalation and defeats adversaries' destabilization efforts.
2. If deterrence fails, the second method is to employ a combination of forward presence and expeditionary forces to deny enemy objectives within days and achieve an operational position of relative advantage within weeks that leads to an acceptable, sustainable political outcome.
3. If neither side can achieve its objectives in a short conflict, the third method is to defeat the enemy in a protracted war.

The MDO concept envisions, in the event of armed conflict, Army forward presence and expeditionary forces enabling the rapid defeat of aggression in three phases: penetrate, dis-integrate, and exploit.

Army long-range fires converge with joint multi domain capabilities to penetrate and dis-integrate enemy anti-access and area denial systems to enable Joint Force freedom of strategic and operational maneuver. Within the theater, Army forces converge capabilities to optimize the employment of capabilities from across multiple domains against critical components of the enemy's anti-access and area denial systems, specifically long-range air defense and fires systems. Convergence against the enemy's long-range systems enables the initial penetration. This sets the conditions for a quick transition to joint air-ground operations in which maneuver enables strike and strike enables maneuver. MDO in the Close and Deep Areas combine fires, maneuver, and deception to dislocate the enemy defense by physically, virtually, and cognitively isolating its subordinate elements, thereby allowing friendly forces to achieve local superiority and favorable force ratios. Army forces, having penetrated and begun the dis-integration of the enemy's anti-access and area denial systems, exploit vulnerable enemy units and systems to defeat enemy forces and achieve friendly campaign objectives. As part of the Joint Force, Army forces rapidly achieve given strategic objectives (win) and consolidate gains. (TRADOC 2018, 25)

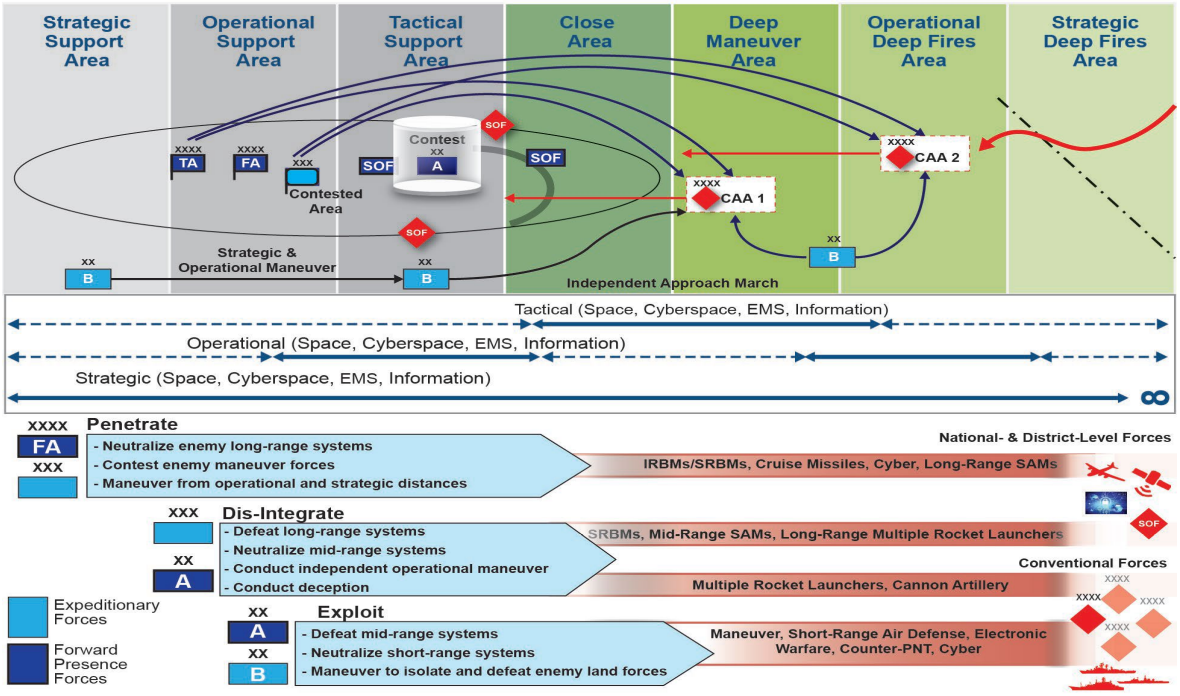

Figure 5. Multi Domain Operations: Penetrate And Dis-integrate A2/AD Systems; Exploit Freedom of Manoeuver

Source: United States Army Training and Doctrine Command (TRADOC), TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi Domain Operations* (Fort Eustis, VA: TRADOC, 6 December 2018), figure 3.5.

In order to examine the feasibility of the MDO concept to achieve the strategic objectives, this paper will examine three elements that are required in each of the penetrate, dis-integrate and exploit phases. First, neutralizing and defeating long, medium and short-range A2/AD systems. Second, contesting enemy manoeuver forces and preventing a *fait accompli*. Third, conducting strategic and operational maneuver.

This paper will then examine the suitability of the MDO concept in armed conflict for coping with the operational conditions. In particular, this step will examine the MDO tenet of convergence and its relationship to Mission Command and the time imperative of preventing a *fait accompli* in the Baltics. Finally, this step will consider acceptability—whether the benefits of adopting the MDO concept outweigh the associated costs and risks.

This step will argue that even if the MDO concept does develop the technical ability to penetrate the Russian A2/AD systems, this penetration will still take a substantial amount of time to achieve. This is time that NATO just does not have when it is fighting to prevent a *fait accompli* and as a result, if NATO adopts the MDO concept it will struggle to achieve its aims without either increasing its forward presence forces or making substantial improvements to its 'hard readiness.' It will also highlight how focusing on converging effects across domains, which requires close synchronization to achieve simultaneity, risks undermining one of the West's key overmatch capabilities—lower level initiative—by reducing decentralized execution and the possibilities for employing Mission Command.

Feasibility

In assessing the feasibility of the MDO concept to counter Russian conventional forces supported by subversion, this paper will start by examining if the MDO concept could neutralize and defeat Russia's long, medium and short-range A2/AD systems in the Baltics. According to the MDO concept:

> The neutralization of enemy long-range systems enables strategic and operational maneuver by reducing the threat to friendly lines of communications. Simultaneously, forward presence forces begin the defeat of enemy stand-off "from the inside" by operating within the range of enemy long- and mid-range systems. Together, these efforts effectively contest the enemy's attack; enable greater freedom to maneuver elements of the Joint Force from strategic and operational distances into the area of operations; and enable the dis-integration of the enemy's long- and mid-range systems in decisive spaces. (TRADOC 2018, 32)

The MDO concept intends to use a stimulate-see-strike process to defeat enemy A2/AD systems. It aims to 'stimulate' enemy fires and air defense systems through deception and cyber-attacks to enable them to be 'seen', primarily by wide-area, persistent, space-based or high-altitude surveillance assets, which enables Long Range Precision Fires (LRPF) to 'strike' and defeat the A2/AD network. The alternate method of 'seeing' is with fifth-generation fighters, cyber capabilities, SOF and HUMINT teams, or artillery or air-delivered UAS sensors tipped to a location identified by another intelligence source that provided a reliable but low-fidelity location (TRADOC 2018, 39-40).

Once the enemy's long-range A2/AD systems have been 'penetrated', using the stimulate-see-strike process, a crack in the A2/AD shield will have been created. The concept then foresees using a shorter and quicker see-strike process. More capabilities can be brought to bear to 'dis-integrate' the enemy A2/AD network by neutralizing and

defeating the enemy's medium and short-range A2/AD systems, widening the crack. With the A2/AD systems 'dis-integrated' the Joint Force can then 'exploit' the opening and defeat ground forces.

NATO, and the U.S. military in particular, already possess significant LRPF capabilities and are developing even more sophisticated capabilities. It is highly feasible that NATO will possess the capabilities necessary to 'strike' Russian systems by 2028. The U.S. fleet of 96 combat-coded bombers (B-1s, B-2s, and B-52s) supplemented by inflight refueling capabilities could operate from bases beyond the range of conventional Russian missiles and could bring accurate firepower to bear against naval vessels, airfields, C2 nodes, logistics and support facilities, and mechanized ground forces (Ochmanek 2018, 9). U.S., British and French submarines, could evade detection and launch standoff weapons as well, although their weapons-carrying capacity is limited. Future generations of large, unmanned underwater vehicles have the potential to expand the attack capacity of NATO's submersible fleet (Ochmanek 2018, 9). Long range land-based missile systems, and surface naval assets, based in Europe could also be used to neutralize enemy targets.

What is less certain is if NATO will be able to feasibly achieve the 'stimulate' element of the approach. The MDO concept relies on achieving some of the 'stimulation' during the competition phase by continually assessing enemy forces' dispositions. However, even with these efforts, the approach contains several weaknesses.

The first weakness is the difficulty in finding some of these assets using the stimulate-see-strike process. Russia is no stranger to the stimulate-see-strike methodology; it is essentially NATO's counter-battery fire technique scaled up to MDO.

Russian assets may be hard to stimulate, especially if they know that they need to survive long enough to complete a *fait accompli*. Russia will, more than likely, use a range of techniques to keep a number of its long-range A2/AD systems concealed until NATO commits to a meaningful attack by air or sea.

For example, an entire A2/AD network (sensors and missile systems) could merely be kept concealed, inactive, and dispersed undercover in civilian locations throughout urban areas. It is one example of how a low-tech but high-cunning approach could foil the MDO concept. It also provides an excellent example of where a sympathetic local population, thus far relatively neglected by the MDO concept, could contribute with crowd-sourced intelligence. Local populations could act as a wide area detection mechanism and help to narrow the focus for NATO's finite technical and SOF assets.

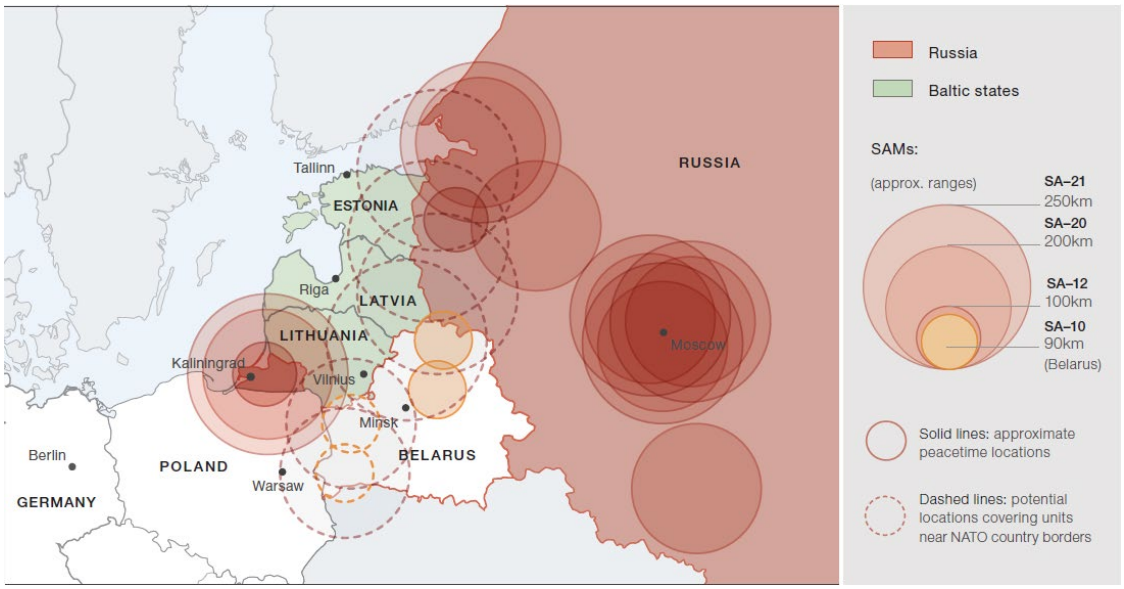

Figure 6. Russian National Air Defenses in Peacetime and Alternate Baltic-Focused Locations

Source: Scott Boston, Michael W Johnson, Nathan Beauchamp-Mustafaga, Yvonne K. Crane, *Assessing the Conventional Force Imbalance in Europe: Implications for Countering Russian Local Superiority* (Santa Monica, CA: RAND Corporation, 2018), figure 7.

The second weakness is time. Even if NATO did manage to detect all the locations of Russia's A2/AD systems, it would take a long time to neutralize them all. In Operation Desert Storm, against a less capable enemy, with the luxury of significant time for reconnaissance, planning and preparation and armed with a substantial pre-positioned air force (the coalition flew 812 combat sorties in the first 24 hrs), it still took 36 hrs to destroy the heart of the Iraqi IADS and weeks to remove all of their medium- and short-range systems (Lambert 1993, 1-12). In the Baltics, if a conventional attack were to unfold, then the forward presence forces may not survive long enough for NATO to complete a systematic defeat of Russia's long-range A2/AD systems, especially as operational conditions are likely to be significantly more challenging than in Operation

Desert Storm. As a result, the forward presence forces might have to fight without the significant combat multiplier of airpower, dramatically reducing their chances of survival and avoiding a *fait accompli*.

This has significant implications for the second element of our evaluation—contesting enemy maneuver forces and preventing a *fait accompli*. The MDO concept aims to deny enemy objectives. Forward presence maneuver forces and partner nation conventional forces use the advantages of the defense, particularly in dense urban terrain, to attrit and slow enemy forces and enable the arrival of friendly expeditionary forces (TRADOC 2018, 34).

As a recent RAND report observes, an essential counter to Russian strength on the ground would be the early employment of NATO member air forces, in which NATO holds a numerical and qualitative advantage, to disrupt and destroy Russian maneuver and artillery systems. The relatively limited number of stealthy 'fifth-generation' combat aircraft—most of which would be arriving from the continental U.S. during the first days of the conflict—would be thinly spread right as the need for them to degrade Russian air defenses and defend ground forces against Russian combat aircraft was at its peak. In short, Russia has an advantage in a highly capable IADS that renders NATO's numerical advantage only usable at high risk to all of its fourth-generation aircraft. (Boston, Johnson, Beauchamp-Mustafaga, and Crane, 2018, 7-8).

On the ground, NATO usually has three heavy NATO BGs in the Baltics states, along with a light infantry Bde from each of the Baltic states, and another U.S. BG in Poland. The U.S. 82nd ABN DIV can deploy its lead Bde in 48 hrs, and it is likely that large elements of the UK's 16th Air Assault Bde, the French 11th ABN Bde, and the U.S.

173rd ABN Bde in Vicenza, Italy could be deployed to the Baltics within a matter of days along with small elements from other NATO allies. The NATO VJTF(L)—one heavy/medium Bde)—could also be deployed if the Suwalki Gap remained open. Elements of the U.S. ABCT in Germany may also follow slightly later.

Generously then, NATO could have three heavy BGs and three light Bdes (one heavy Bde and three light Bdes), three ABN Bdes (light), the and VJTF(L) (one heavy Bde) positioned in the Baltics, supported by air and attack aviation within a matter of days. Therefore, in the best case scenario, NATO could assemble two heavy, three light, and three ABN Bdes. This force would be short of air defense, long-range artillery, and sustainment assets, and is still short a heavy Bde. In the worst case scenario, a surprise Russian attack could seal the Suwalki Gap, and A2/AD capabilities could prevent further land, ABN, air or aviation reinforcement of the Baltics. If, therefore, Russia launched a surprise attack, rapidly isolating the Baltics and, using A2/AD systems, prevented the VJTF(L) and ABN elements from reinforcing, this would leave one heavy Bde and three light Bdes to defend the Baltics against Russia with little in the way of supporting assets.

As the MDO concept identifies, by operating on its borders Russia has an escalation advantage (TRADOC 2018, 9). Russia would be able to rapidly reinforce the Western Military District (WMD) with nine more army headquarters and more than 60 maneuver Bdes—over 150,000 troops. Meanwhile, the U.S. and NATO's major European members would require months to deploy a comparable force (Persson 2016, 92). By 2020 Russia will have a starting force of 26 maneuver Bdes or regiments in the WMD; if achieved, this is 44 percent more than the current level, even before considering the potential for reinforcement from Russia's other military districts (Boston et al. 2018,

11). Would multi domain capabilities make up for the lack of NATO combat power? Will increased lethality and technological innovation compensate for the lack of heavy capabilities? In the best case scenario—possibly. In the worst case scenario—almost certainly not. Even with the advantages of the defense and making good used of dense urban terrain, the current forward presence forces may prove insufficient to prevent a *fait accompli* for 28 days.

In summary then, given NATO's current posture, including the eFP BGs and rotational U.S. ABCT, Russia still enjoys a substantial time-distance advantage in the initial days and weeks of a conventional ground campaign against the Baltic states (Boston et al. 2018, 11). The ability to operate across domains will likely make NATO's force more formidable but not invincible. This paper assesses that two factors will likely prove decisive in defense of the Baltic states from conventional attack. First, the time it takes to bring significant NATO air power to bear on the conflict, which as explored above, depends on how long it takes NATO to neutralize Russia's A2/AD capability effectively. Second, the time it takes to reinforce the Baltic states with additional ground forces, especially heavy armor. Here the ability to maintain (by avoiding a *fait accompli*) and reinforcing a lodgment along with the ability to swiftly activate Army Prepositioned Stocks (APS) will be critical. Another critical factor will the ability of NATO to strategically and operationally maneuver forces to reinforce the Baltics.

This paper will now examine the feasibility of the MDO concept conducting strategic and operational maneuver. While the U.S. has unparalleled strategic air and sealift capabilities, 90 percent of U.S. equipment and supplies travel by sea (Vörös 2016, 9). As a result, it would take time for U.S. forces (particularly heavy armor not in APS) to

reach the Baltic states, which is why preventing a *fait accompli* for at least 28 days is vitally important. Most rapidly deployable expeditionary forces that could assist the forward presence force in the Baltic states arriving from outside of North East Europe would need to strategically deploy by air, predominantly in the U.S., UK, and Canadian airframes, and this would necessarily limit the amount of heavy weapons and resulting lethality that land forces could bring to bear. This is where the ability to converge effects across domains, the central plank of the MDO concept, would have to function to allow NATO to level the playing field by bringing national-level assets to bear.

Once U.S., Canadian and UK forces arrive, and European NATO forces mobilize, their heavy land equipment and supplies would still have to travel across Europe, a journey that would be complicated by European transport infrastructure. Most European NATO members utilize a standard European rail gauge while the Baltic states still operate on Russian-gauge railroad track. A single line from Poland to the Lithuanian city of Kaunas is the sole exception (Maisel and Keturakis 2018).

This incompatibility means that trains carrying military equipment and supplies from larger NATO bases in Germany or Poland, or Western European ports, would have to transfer their cargo to Russian-gauge trains or proceed via ground convoys to their destinations. Not only are both options time-consuming, but they also require trained personnel and significant military resources (e.g., heavy equipment transporter systems, military police and security elements), as well as proficiency and familiarity in conducting such operations. A north-south rail axis across the three Baltic countries is currently non-existent, although plans exist to create one (Maisel and Keturakis 2018).

A NATO multi domain expeditionary force could strategically and operationally maneuver to the Baltics and be lethal enough to help prevent a *fait accompli*, but to be judged feasible this requires a significant improvement in NATO's 'hard readiness' in three areas: an increase in the amount of strategic air and sea lift assets, a reduction in the notice to move time (mobilization time) of NATO forces, especially among continental European members, and a significant investment in transport infrastructure.

Sustainment and protection are two other areas that present challenges for operational maneuver. NATO's lack of standardized equipment poses challenges for interoperability. For example, NATO has 18 types of main battle tank and 178 separate types of weapon system—the U.S. military, by comparison, has one main battle tank and 30 types of weapon system (Detrixhe 2017). This frustrates interoperability as, for example, a German repair section does not know how to fix a French tank, nor do they use the same spare parts. Many of the problems, with C4 systems, sustainment, and protection, trace back to NATO nations retaining their own defense industries and therefore remaining reluctant to spend money abroad purchasing common platforms. It is possible that NATO could address these problems in the next ten years before the MDO concept becomes operational. However, a quick look at a RAND report from 1976 shows how little progress the Alliance has made in this area in the last 42 years:

> The aim of standardization and rationalization of NATO equipment, forces, and operational practices is to increase the economic efficiency and military effectiveness of the Alliance. However, efforts to further these objectives encounter serious resistance within the Alliance because of conflicting political and economic concerns in the member countries. These concerns relate, for example, to employment and output in domestic defense industries, excessive 'dependence' on U.S. equipment, a desire for broader technological 'participation,' and balance of payments pressures resulting from possible standardized procurement from U.S. suppliers. (Wolf 1976, v)

Few of these concerns have changed or have been addressed to date, which gives little hope for progress in the future.

Suitability

This paper will now examine the suitability of the MDO concept for countering Russian conventional forces supported by subversion in the Baltics given the time imperative highlighted above. This section will also highlight how focusing on converging effects across domains, which requires close synchronization to achieve simultaneity, risks undermining one of the West's key overmatch capabilities—lower level initiative—by reducing decentralized execution and the possibilities for employing Mission Command.

The MDO concept, despite focusing on two named threats (Russia and China) still suffers from a slightly generic approach synonymous with capability-based planning. The danger of capability-based planning is that it is focused on generic threats and capability. "We also decided to move away from the old 'threat-based' strategy that had dominated our country's defense planning for nearly half a century and adopt a new 'capability-based' approach—one that focuses less on who might threaten us, or where, and more on how we might be threatened and what we need to do to deter and defend against such threats" (Rumsfeld 2002). However, in the Baltics, the combination of geography (limited strategic depth, an easily isolated location, and proximity to Russia) and the scale of conventional Russian forces present a unique problem. The severity of the Russian threat in the Baltics may put it beyond the capabilities of the MDO concept.

This neglect of where the MDO concept will confront the Russian threat, and under what circumstances, could mean that it has underestimated how much time will be

available to respond. The MDO concept states that "if deterrence fails, the second method is to employ a combination of forward presence and expeditionary forces to deny enemy objectives within days and achieve an operational position of relative advantage within weeks that leads to an acceptable, sustainable political outcome" (TRADOC 2018, 24).

As the feasibilities section highlights, NATO is unlikely to have days to deny enemy objectives; it will likely only have hours to set the conditions to prevent a *fait accompli*. As this paper will cover below in the acceptability section, NATO has a choice. It could, instead of adopting the MDO concept which relies on reinforcing forward presence troops with expeditionary ones (blunt and surge forces), position more conventional forces in the Baltics. This would not only increase NATO's deterrence effect but would remove the risks associated with failing to penetrate Russian A2/AD systems and failing to reinforce the Baltics in sufficient time to prevent a *fait accompli*. In short, choosing to increase conventional forces positioned forward could be a more suitable operational approach for NATO than the MDO concept.

The second area this section will examine is the suitability of using an operational approach, centered around converging effects in multiple domains, to fight Russia. The Russian way of war still incorporates many of the ideas envisioned by Mikhail Tukachevskii, which proved so successful in the closing months of World War II. Tukachevskii envisioned the Russian Army fighting on a 'broad front', maximizing contact area with the enemy and ensuring that they were simultaneously in contact in as many places as possible. Once a breach was created the 'shock army', so far held in reserve, would then exploit the enemy in depth. 'Deep operations theory' called for aviation, ABN, armored, mechanized and motorized formations to penetrate the enemy's

operational depth and maximize the exploitation. This way of war called for a force of substantial mass supported by artillery (Simpkin 1987, 33-52).

The creation of new domains has done little to alter the way Russia fights with conventional forces at the operational level; it still masses effects on a broad front until it achieves penetration and then seeks to exploit the opening. As the 'firehose of falsehood' and Russia cyber operations in Crimea demonstrate, Russia applies the same tactics, techniques, and procedures in new domains. Russia also can mass effects in multiple domains simultaneously.

The MDO concept defines convergence as: "the rapid and continuous integration of capabilities in all domains, the EMS, and the information environment that optimizes effects to overmatch the enemy through cross-domain synergy and multiple forms of attack all enabled by Mission Command and disciplined initiative. The Joint Force currently converges capabilities through episodic synchronization of domain-federated solutions" (TRADOC 2018, 20).

The concern for the MDO concept is that the principle of converging effects is very similar to the Russian principle of massing effects. In a hugely simplified analysis, if the MDO concept cannot achieve rapid tempo and enable lower-level initiative, it runs the risk of entering into a battle of 'mass' with Russia, which would almost certainly end in a war of attrition. As the concept highlights, at present, converging effects across domains requires significant synchronization and pre-planning. This presents three issues.

First, the requirement for synchronization and efficiency in the delivery of effects reduces the resilience of operational and tactical plans—they are reliant on each domain

delivering its effects in order and on time. A single disruption can, at present, de-rail an operation.

Second, there is a tension between heavily synchronized plans and lower level initiative—one area where NATO does have an overmatch over Russian forces. Subordinates, with superior training and discipline, who can take the initiative and exploit opportunities (or in the MDO concept 'windows of opportunity') are one of the great strengths of the Western way of war. However, if the plan they are executing requires excessive synchronization, then they will simply be unable to exploit these opportunities when they arise for fear of de-railing the operation and preventing the convergence of effects.

Third, at present, converging effects across domains is slow, in part because of the different delivery speed of each domain (a cyber-attack (if pre-planned) can be executed with a single click, whereas a SOF team might have to walk into position over several days). It is hard to generate tempo and overwhelm an enemy cognitively with the current tempo of MDO.

Therefore, in order to be genuinely effective, multi domain formations will need the ability for lower level commanders to seize fleeting windows of opportunities and rapidly converge multi domain effects dynamically ('on the fly') to generate sufficient tempo to defeat capable enemies like Russia. For example, the destruction of a nearby long range A2/AD system may suddenly open a 'window of opportunity' for an F-35 pilot to pass through a gap in the A2/AD matrix if another launcher could be neutralized for 5 minutes with a cyber or EMS attack. This may buy the pilot enough time to prosecute an attack against an IADS C2 node. However, these events are more likely to

succeed if the pilot can take the initiative as opportunities arise, rather than relying on a fragile plan that may not survive contact with the enemy.

Militaries need an overmatch capability to achieve a decisive victory and to win a war of annihilation. If you do not have an overmatch capability, history suggests that you are instead heading for a war of attrition. Almost every state entering World War I was aiming to win a war of annihilation by decisive battle. Instead, a war of attrition emerged. Today, both Russia (in conventional conflict) and the MDO concept are aiming to achieve decisive battle but are arguably also heading for a war of attrition.

In order to win a decisive victory NATO must capitalize on its 'overmatch' in Mission Command, and lower-level initiative, to generate essential tempo. However, significant improvements in C4 and interoperability are required to achieve the ability to converge effects across domains, allies, and partners dynamically. Delivering the necessary improvements may just be unobtainable for many NATO members, especially if European NATO members continue to spend only, on average, 1.4% of their GDP on defense (NATO 2018b). If the MDO concept cannot realize its potential due to these challenges, then the approach would be unsuitable for NATO.

Acceptability

This section will consider if the benefits of adopting the MDO concept outweigh the costs and risks for NATO when attempting to counter Russian conventional forces supported by subversion in the Baltics.

There are many benefits for NATO in adopting the MDO concept. The first is that it offers an operational approach that could be used in other regions threatened by Russian aggression, not just the Baltics, and by the U.S. to fight China. By only

committing small forward presence forces NATO would retain and be able to dynamically deploy a far larger expeditionary force reserve to where it was needed, generating greater flexibility for the Alliance.

The second benefit of smaller forward presence forces, supported by larger expeditionary ones, is that pre-conflict it reduces the risk of unnecessary escalation with Russia.

Third, the MDO concept plays to the traditional strengths of the Western way of war. It relies on superior technology, discipline, and training, elite units and innovation to compensate for lack of numbers.

Finally, the world is currently going through a technological and scientific revolution that rivals in every respect the great 'military-social revolutions' of the past. Unlike the period from 1914 through 1990, where the military organizations were the primary drivers behind revolutionary changes in technology, the current period looks quite similar to the period before 1914, when factors outside the military were mostly responsible for the technological revolution (Murray 2017, 173). The MDO concept offers one of the few credible frameworks for harnessing and integrating emerging technologies into an operational approach that can help deliver strategic objectives.

However, committing to the MDO concept also has many potential costs. As highlighted in step 3 and above, committing expeditionary forces so that they arrive in time to decisively influence events requires timely decision making. One of the advantages of merely enhancing conventional forces forwards is that the decision to commit them to the theater has already been made.

Another disadvantage is the reliance on technology. “Capabilities create dependencies, and dependencies create vulnerabilities” (Murray 2017, 177). A good example is space, as Todd Harrison (Director Aerospace Security Project, CSIS) recently said, “[o]ur (U.S.) military now is completely dependent on space” (Berman 2017). Almost all elements of U.S. military operations are now space-enabled, and Russia could exploit this vulnerability. A low yield nuclear Anti Satellite (ASAT) weapon exploded in lower orbit would render many of NATO’s satellites useless, and the resulting space debris could make space unusable for a generation. This would have profound effects on the U.S. military.

The West has been captured by the logic, perpetuated by the U.S. so-called ‘Revolution in Military Affairs’ technophilia of the 1990s and 2000s, that the shrinkage of Western defenses can be offset by fielding even more technologically advanced weapons. The history of the F-22 Raptor is an excellent example of this logic. Originally intended to replace 650 aircraft, the production line closed after only 196 F-22s were made. The cost per aircraft, including through-life costs, had increased to an enormous $670 million per plane (Urban 2015, 19-22). The F-22, in part due to its complexity, suffers from a lower availability rate (typically 60 percent, compared to 70-80 percent of the F-15).

In one sense, the F-22 represents the technological supremacy of the U.S., but it is also hard to escape the conclusion that, however good an individual F-22 might be on a given day, the project as a whole represents a significant loss of capability for the USAF. Replacing dozens of fighter squadrons with just seven of the F-22s reduces the USAF’s net capacity. If involved in a conventional fight with a peer enemy the F-22 could hit

every target it engaged but, once it ran out of missiles, the skies would belong to the numerically superior enemy force (Urban 2015, 19-22). It demonstrates how even the U.S. can have its defense budget consumed by producing a small number of exquisite but fragile platforms. As a result, Russia would not have to destroy many to start to seriously degrade NATO capabilities. This paper would argue that the F-22 is an example of how the much vaunted NATO 'force multipliers' often represents a force reduction.

There are also limits to what technology can achieve by itself. In 2006, the Israeli Defense Force (IDF), which has heavily bought into the U.S. technophilia, invaded Lebanon with the aim of destroying Hezbollah. Despite the IDF's technological and conventional military superiority, Hezbollah's hybrid warfare campaign inflicted heavy casualties on the IDF. In no sense did the Shi'a militia come close to defeating the Israelis militarily, however, their performance was more than good enough to inflict tactical stalemate and a political defeat (Murray and Mansoor 2012, 289-290).

There are several risks associated with the MDO concept. The requirement to leverage national capabilities to achieve effects may increase the risk of a limited war between NATO and Russia growing into a total war. This paper accepts that nuclear weapons make it substantially less likely that Russia and NATO will risk fighting even a limited war. However, it is possible that conventional forces could fight a limited, non-nuclear war, in Europe. In this scenario then, the use of capabilities deploying from the continental U.S. to converge on the conflict zone could, as a natural progression, trigger retaliation against their home bases. This would widen the conflict, and it could potentially trend towards a total war with obvious ramifications.

The next significant risk of the MDO concept is that it just might not work. NATO may be unable to penetrate the Russian A2/AD network due to low-tech, high-cunning Russian tactics preventing the stimulate-see-strike process from having a timely effect. Just as in the 1900 to 1917 period, the defense may currently have primacy over the offense. The shortage of strategic lift assets combined with poor European transport infrastructure may also prevent NATO forces strategically and operationally maneuvering to the Baltics in time to prevent a *fait accompli*. NATO may be unable to bring its air power and expeditionary forces to bear and could suffer a comprehensive defeat in the Baltics, followed by Russia employing a 'nuclear de-escalation' strategy. This risk is significant and is notably one that NATO would avoid if it instead opted to increase the quantity of forward presence troops in the Baltics and Northeast Europe.

Conclusions

In conclusion, the MDO concept offers one of the few credible frameworks for harnessing and integrating emerging technologies into an operational approach that can help deliver strategic objectives. However, despite this promise, when considering if it could counter Russian conventional forces supported by subversion in the Baltics it fails to score highly. The absence of high scores is due to the time it will likely take to penetrate Russian A2/AD systems using the stimulate-see-strike process, and the detrimental effect that synchronizing actions across domains, with suitable investment in interoperable C4 systems, could have on one of NATO's key overmatch capabilities—the Mission Command philosophy.

Table 4. Evaluation Criteria Table: Conventional Forces Supported by Subversion			
Could the MDO concept counter Russian conventional forces supported by subversion in the Baltics?	Low	Moderate	High
Feasibility		X	
Suitability	X		
Acceptability		X	

Source: Developed by the author.

Step 5: Aggregated Analysis: Should NATO adopt the MDO concept to counter Russian Hybrid Warfare in the Baltics?

The fifth step in the research methodology is to aggregate the findings of Steps 2, 3 and 4 to answer the primary research question: "Should NATO adopt the MDO concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics?" Table 5 aggregates the findings from the analysis against the secondary research questions.

Table 5. Aggregated Analysis: Should NATO adopt the Multi Domain Operations concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics?			
	Low	Moderate	High
Could the MDO concept counter Russian non-violent subversion in the Baltics?			
Feasibility		X	
Suitability	X		
Acceptability		X	
Could the MDO concept counter Russian covert violent action in the Baltics?			
Feasibility			X
Suitability		X	
Acceptability			X
Could the MDO concept counter Russian conventional forces supported by subversion in the Baltics?			
Feasibility		X	
Suitability	X		
Acceptability		X	
Totals			
Feasibility	Moderate		
Suitability	Low		
Acceptability	Moderate		

Source: Developed by the author.

The analysis finds that the MDO concept represents a moderately feasible operational approach for NATO to counter Russian hybrid warfare. The Alliance has most of the necessary capabilities and required troops to use the MDO concept. What is less certain is if NATO countries could afford to modernize their forces, within the means made available by

nations, to achieve the interoperability and level of C4 required to operate MDO at a high tempo.

This paper assesses that the suitability of the MDO concept as an operational approach for NATO is low. This result is perhaps not surprising given that MDO is a U.S. concept designed for the needs of the U.S. military rather than the wide-ranging requirements of NATO's European members. The analysis has highlighted some issues with the MDO concept. Of particular concern is the concept's lack of focus on preventing Russia using local populations as a tool of destabilization, the time it will likely take to penetrate Russian A2/AD systems using the 'stimulate-see-strike' process, and the detrimental effect that synchronizing actions across domains could have on one of NATO's key overmatch capabilities—the Mission Command philosophy

The findings show that the MDO concept is a moderately acceptable operational approach for NATO. The concept has many benefits and could counter Russian hybrid warfare. However, should NATO members adopt the concept? The main argument against adopting the concept is the significant opportunity cost of investing in the capabilities required to deliver the MDO concept. The finite nature of NATO members' finances means that adopting the MDO concept and investing in the required capabilities will doubtless lead to even smaller and more technologically dependent forces.

The alternatives to the MDO concept should be given serious consideration. First, because the information revolution may yet generate more technological and societal change which makes a new, as of yet unforeseen, approach possible. Second, because NATO could reduce vulnerability in the Baltics by increasing the quantity of forward presence forces, and by investing in strategic communications with the Baltics' Russian-

speaking populations and teams of experts to tailor information operations to reach this audience. Investing in new armored divisions and permanently stationing them in Northeastern Europe and the Baltics would also improve NATO's ability to fight and win a limited conventional war with Russia. These capabilities also have a proven track record in battle and signal intent to Russia. Many NATO members, particularly continental European ones, may see a greater return by investing in conventional deterrence capabilities, optimized for countering Russia in the Baltic region.

Chapter Conclusion

The aggregated findings from analysis against the secondary research questions show that the MDO concept *could* counter, but probably not defeat, Russian hybrid warfare in the Baltics. However, the finding also provides substance to the recommendation that NATO *should not* adopt the MDO concept due to low suitability. Step 6 (Chapter 5) will conclude and provide recommendations for policymakers and future research.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Step 6: Conclusions

In the competition phase, the MDO concept focuses on gaining intelligence, countering adversary reconnaissance, information operations, and unconventional warfare, and deterring conventional military aggression. NATO is already conducting many of these activities, and a capable multi domain formation could feasibly deliver these objectives. However, improvements in intelligence sharing and authorizing a collective NATO response, potentially by formalizing what constitutes a gray space attack in a new Article '5b', are required.

The Baltic states are relatively resilient to Russian information operations and covert violent action. Their societies, in the long run, are likely to be far more prosperous than Russia's and, if NATO has the will to defend them, the costs of further escalation or continued competition are high for Russia. The benefits of the MDO concept's focus on competition and countering unconventional warfare, despite the potential risk of inadvertently triggering a broader conflict, make it acceptable.

Where the MDO concept scores less well is suitability. This paper argues that the MDO concept's assessment of the Russian operational COG in competition neglects the role of the Baltics' Russian-speaking populations as a critical requirement and critical vulnerability of that COG. Without the support of these populations, it will be hard for Russia to achieve its objectives with non-violent subversion and very difficult to escalate to covert violent action by mobilizing these populations against the Baltic states. Without

local popular support, there is also significantly more risk involved for Russia if it chooses to employ conventional forces.

The MDO concept in competition is therefore in danger of ceding several key 'positions of relative advantage' in the 'human terrain' to Russia due to its fixation on the threat from Russia's A2/AD systems and conventional forces. Ensuring the prosperity and inclusion of the Baltics' Russian-speaking population is one of the keys to defeating Russian hybrid warfare. Does the MDO concept do enough to prevent Russia from creating a receptive population that may later allow it to escalate to the next level of hybrid warfare? Does the MDO concept envision how it should work with and support the other elements of national power in competition to secure these populations? Not really.

This paper believes that the U.S. and its allies will need to conduct COIN and stability operations during the competition phase. It could be argued that Western military forces, in particular the U.S. military, are as uncomfortable and unwilling to get involved with political activities before conflicts as they are after conflicts (Dr Nadia Schadlow outlines the possible causes of the U.S. military's post-conflict problems in her 'American Denial Syndrome' theory (Schadlow 2017)). The Russian military has no hang-ups about influencing politics to help achieve its strategic goals. Therefore, NATO and U.S. military force need to broaden their perspectives and be prepared to do what is required to win in competition, rather than self-defining their role so that it avoids these challenges. If historical experience teaches us anything about countering insurgencies, and therefore about what might be required to win in competition, it is that military measures alone will not suffice (Griffiths 1989, 34).

Developing the capabilities to penetrate Russia's A2/AD systems is the crux to NATO achieving credible deterrence without forward positioning an ever greater quantity of conventional forces. The concept may be able to develop the ability to neutralize and defeat Russian long, medium, and short range systems and penetrate, dis-integrate and exploit their A2/AD coverage, but it is unlikely it will be able to achieve rapid penetration. The technology that will deliver the 'stimulate-see-strike' process may be groundbreaking, but the method is not. Russia will defend against the 'stimulate-see-strike' process. This paper predicts that it will take a substantial period of time to penetrate Russian A2/AD capabilities, and time will be in short supply if Russia does launch a significant conventional attack in the Baltics.

Preventing a *fait accompli* is essential for NATO to avoid defeat. However, NATO will struggle to prevent a *fait accompli* without either increasing its forward presence forces or improving its ability to strategically and operationally maneuver by making substantial enhancements to its 'hard readiness' and the quantity of APS in Europe. The advantages that Russia has through sheer weight of numbers, heavy armor, an established A2/AD network, and in time-distance make denying enemy objectives a challenging proposition.

This paper judges that the MDO concept's suitability for countering Russian conventional forces supported by subversion in the Baltics is low, despite its significant potential. First, the MDO concept may be able to effectively penetrate, dis-integrate and exploit Russia's A2/AD network in the future, but it is unlikely to be able to execute the 'stimulate-see-strike' process fast enough to deny Russia from achieving its initial objectives. Second, the time-distance disadvantage that NATO, and particularly the U.S.,

needs to overcome to deny Russian objectives and prevent a *fait accompli* is significant. Third, the technology, C4 systems, and level of interoperability required to converge effects across multi domains, and allies rapidly may be unobtainable for many NATO members. As a result, NATO members may have to reduce the emphasis they currently place on the Mission Command philosophy in order to synchronize effects in multiple domains effectively.

Should NATO adopt the Multi Domain Operations concept to counter Russian hybrid warfare so that it can achieve real collective security in the Baltics?

This paper concludes that, while the MDO concept could counter, if not defeat, Russian hybrid warfare in the Baltics, that NATO should not adopt the concept because of low suitability. Of particular concern is the concept's lack of focus on preventing Russia using local populations as a tool of destabilization, the time it will likely take to penetrate Russian A2/AD systems using the 'stimulate-see-strike' process, and the detrimental effect that synchronizing actions across domains could have on one of NATO's key overmatch capabilities—the Mission Command philosophy.

There is a danger that the MDO concept has unassumingly interpreted a return to great power competition as a natural return to wars of annihilation and decisive battle. U.S. military culture, steeped in American Way of War thinking, may be in danger of foreseeing the kind of war it wants to fight rather than the kind of war it is likely to get. A similar faith in the decisive battle and a failure to appreciate that the tactics of the defense were in the ascendancy meant that all of the Great Powers entered World War I with the belief that they were embarking on a short war of annihilation rather than a long war of attrition. The parallels with today's thinking are striking.

However, there is no guarantee that the U.S. will get the war it wants. Far more likely is that other powers echo Sun Tzu and Mao and avoid the U.S.'s strengths and instead attack its weaknesses by continuing to conduct their hybrid warfare operations below the level of armed conflict. As Mao wrote: "In guerrilla warfare, there is no such thing as a decisive battle" (Griffiths 1989, 52).

The costs and risks for NATO of adopting the concept are significant. It requires substantial investment over the next decade, and its dependence on technology creates several vulnerabilities. It requires trust that militaries will be able to integrate these new technologies and develop interoperability solutions successfully. However, the concept also has many advantages. It offers a flexible approach which draws on the traditional strengths of the Western way of war that the Alliance can unite behind. The costs of failing to adapt and innovate in the face of the information revolution may be even higher than the costs and risks of adopting the MDO concept.

The MDO concept could prove suitable for some NATO members, particularly the U.S., UK, and Canada, who face the challenge of projecting force to continental Europe in an A2/AD environment. However, the concept is unlikely to be suitable for most NATO members simply because they face a different set of security challenges to the U.S., and most, for example, are already within operational reach of the Baltic states.

NATO members, particularly its continental European ones, could arguably achieve better results by investing in capabilities within the Baltics rather than the MDO concept and its technologically dependent solutions. Investment in strategic communication with the Baltics' Russian-speaking populations, regional expertise for intelligence, information warfare, and human warfare teams, NATO's collective decision

making processes, 'hard readiness,' standardization and enhancing forward presence forces could bring better results than developing MDO forces and the ability to penetrate Russian A2/AD systems.

This is where the different goals of the Alliance's members become apparent. NATO's European members have a vested interest in countering Russian non-violent subversion and investing in regional capabilities, standardization, and the forward presence measures mentioned above—these are European problems. The U.S. is a lot less interested in solving these problems and developing subtle regional approaches than it is in being ready to fight and win the next war against a peer enemy and competing to protect U.S. global interests. The MDO concept makes more sense if the reader considers it in a global view dominated by a zero-sum competition mentality, and influenced by the thinking of Andrew Marshall's *Long Term Competition with the Soviets*.

The best solution, therefore, would seem to be for NATO's European members, perhaps led by the EU, to develop and fund the regionally appropriate capabilities to counter Russian non-violent subversion, while relying on the U.S. to develop MDO capabilities that will 'overmatch' Russian ones. This would achieve the dual goals of countering much of Russia's non-violent subversion and forcing President Putin to choose between increasing the burden his military puts on the Russian economy, risking its collapse, or to scale back his regional ambitions.

The implication for the U.S. and those NATO members that do adopt the MDO concept, or something similar to it, is there will be an enduring requirement to integrate and achieve interoperability with allies who have been unable to commit the same level of resources to attaining MDO capabilities. This requirement, to bridge the gap in

capabilities between allies, is not new. However, the size of the gap is likely to grow as the scale of the U.S. investment means that it moves further ahead of its NATO allies. The U.S. Department of Defense (U.S. DoD) budget request for the fiscal year 2020 was $750 billion, with $104.3 billion earmarked for Research, Development, Testing, and Evaluation (DOD 2019). For comparison, the entire UK defense budget, the second largest in NATO, was only $61.5 billion in 2018 (NATO 2018b, 7), which goes some way to highlight the difficulty many NATO allies may have in merely keeping up with U.S. capabilities in the future.

Recommendations

Recommendations for Decision Makers

NATO

1. Establish Russian language and local language media outlets in each Baltic state to enable future strategic communication and to counter Russian information operations.
2. Identify the 'black' layer of Russia's online Active Measures campaign and be prepared to 'turn off' these sources with technical means.
3. Develop regional expertise in the Baltics, especially language skills, with a particular focus on intelligence, information, and human warfare teams.
4. Develop an article '5b' clause to shape the Alliance's response to Russian action beneath the level of armed conflict.
5. Run scenario-based training and war-gaming with senior political figures to improve the speed of collective decision making for threats both above and below the level of armed conflict.

6. Continue to develop multi domain interoperability across allies.
7. Invest heavily in infrastructure to enable strategic and operational maneuver in and to the Baltic states.
8. Invest in additional strategic and operational lift assets.
9. Renew efforts to standardize NATO equipment, C4 infrastructure, and sustainment. This may require the U.S. to increase its purchases from European defense industries.
10. In the short-term, increase the scale of eFP deployments to match growing Russian strength in the WMD.

U.S.

1. Amend the MDO concept:
    a. Update the Russian operational COG to reflect the importance of Russian-speaking populations, within target countries, as a critical requirement and critical vulnerability.
    b. Add a fourth task to what the Joint Force seeks to achieve during the competition phase: conduct stability operations to gain and maintain support from vital local populations and counter adversaries' efforts to expand the competitive space below the threshold of armed conflict.
    c. Reflect the potential for competition and conflict to become attritional.
2. Develop additional measures to find Russian A2/AD systems, including robust local human intelligence networks, to improve the speed at which the MDO concept will be able to strike and penetrate enemy systems.

3. Conduct additional war-games that address how an attritional conflict, fought in the Baltics, might be fought and won.
4. Update U.S. Army stability operations doctrine, particularly the Primary Stability Tasks, to include pre-conflict stability tasks.
5. As a contingency plan, develop alternative strategies and operational approaches, for defeating near-peers in key regions, that are not dependent on technological overmatch.

Recommendations for Future Research

1. Research to discern the effect that synchronization and convergence of effects across multi domains will have on formations' ability to employ the Mission Command philosophy effectively.
2. Research to identify additional means to 'stimulate', or locate, enemy A2/AD systems.
3. Cost-benefits analysis of fielding fewer, more capable, high-tech platforms versus more, marginally less capable, lower-tech platforms.
4. Research to explore the historical effectiveness of pre-emptive stability and COIN operations.
5. Research to map the full range of capability-based dependencies NATO has in each domain.

Final Thoughts

> In discerning operational requirements, the real conceptual difficulties of military science occur. If there is not rigorous thinking at this level, neither technology nor money can help. With inadequate thinking about operational requirements, the best technology and the biggest budget in the world will only produce vast

> quantities of obsolete equipment; bigger and better resources for the wrong war. Indeed, it can sometimes be suggested . . . that ample resources can be positively bad for the military because this enables them to shelve the really vital question: what do we *really* need and why?
>
> —Sir Michael Howard, *Military Science in an Age of Peace*

There is little doubt that the U.S. military has the best technology and the biggest budget in the world, but how rigorous has the thinking behind the MDO concept been? Has the U.S. military really thought deeply about its strategy for the next decade, what it *really* needs and why? The threat from Russia has increased not because the Russian military has gained significant new capabilities but because they have become better at achieving their strategic objectives with what they already have.

The MDO concept delivers a compelling operational level vision for how to win the next major conflict. One of the hardest aspects of senior military leadership is converting military success into strategic success. This paper remains unconvinced that the U.S. MDO concept is the best way for the U.S. to achieve strategic success. A cynic might ask, what does all of the treasure due to be spent on developing the MDO concept get the U.S. that it does not already have or can realistically hope to achieve? A cynical answer might be, that without the political will to use such a force, precious little apart from a boom for the military-industrial complex. As Rupert Smith has argued, confrontations and conflicts must be understood as intertwined political and military events. Only then can they be resolved (Smith 2006, 371-372).

The current contrast between the U.S. and Russian approaches to achieving their strategic objectives brings to mind the myth of the Fisher Space Pen. The myth goes that during the height of the space race in the 1960s, NASA scientists realized that pens could

not function in space. So they spent years and millions of taxpayer dollars developing a pen that could put ink to paper without gravity. By contrast, their crafty Soviet counterparts simply handed their cosmonauts pencils (Curtin 2006).

Like all good myths, this one has elements of truth. Russian cosmonauts did use pencils, but so did NASA's astronauts. Millions of dollars were spent on developing the Space Pen, but by a private investor called Paul C. Fischer, not by NASA. What the myth does not cover is that there were some good reasons for not taking pencils to space. Pencil tips flaked and broke off, drifting in microgravity where they could potentially harm an astronaut or equipment, and pencils are flammable—a quality NASA wanted to avoid in onboard objects after the *Apollo 1* fire. In 1968 both NASA and the Soviet Space Agency ordered the pen, and paid $2.39 a unit, and are still using it to this day (Curtin 2006).

The moral of the story is that while the MDO concept might seem like an elaborate and expensive way, especially compared to Russian methods, of achieving strategic objectives, it will still achieve them. What is more, the thinking, innovation, and adaptation behind the concept will inform the future direction of warfare and likely inform how militaries evolve around the world. This paper suspects that in 50 years Russian soldiers will take for granted the tenet of convergence.

In the same article as the quote that introduced this section, Sir Michael Howard is famous for stating that whatever doctrine armies are working on in peacetime, they will inevitably get it wrong. The key, he suggests, is to develop the intellectual capacity to develop faster than the other side once conflict breaks out (Howard 1973). The MDO concept's vision of how the U.S. military may fight in the future has much to offer.

What made World War II so devastating was the tactical improvements that enlarged operational possibilities well beyond anything that had taken place in the last conflict. Improved technology certainly had a role, but intellectual conceptualizations that combined many tactical pieces into complicated operational capabilities were the key element in successful innovation. (Murray and Millet 2001, 21)

GLOSSARY

Battalion. “a unit consisting of two or more company-, battery-, or troop-size units and a headquarters” (HQDA 2018, 1-10).

Brigade. “a unit consisting of two or more battalions and a headquarters company or detachment” (HQDA 2018, 1-12).

Center of Gravity (COG). “a source of power that provides moral or physical strength, freedom of action, or will to act” (DOD 2017b, xxii).

Command and control. “The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission” (HQDA 2018, 1-20).

Concept. “Concepts are ideas for a significant change based on proposed new approaches to the conduct of operations or technology. These ideas propose how the force might do something significantly different in the future, usually 5 to 15 years hence” (HQDA 2014, 2-6).

Division. “an Army echelon of command above brigade and below corps. It is a tactical headquarters which employs a combination of brigade combat teams, multifunctional brigades, and functional brigades in land operations” (HQDA 2018, 1-33).

Doctrine. Fundamental principles that guide the employment of military forces in coordinated action toward a common objective. “Doctrine is validated principles, tactics, techniques, procedures, and terms and symbols that the force can apply” (HQDA 2014, 2-6).

Instruments of national power. **“**All of the means available to the government in its pursuit of national objectives. They are expressed as diplomatic, economic, informational, and military” (DOD 2017a, GL-8).

Mission Command. “is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander’s intent to empower agile and adaptive leaders in the conduct of unified land operations (HQDA 2012b, 1).

Objective. “The clearly defined, decisive, and attainable goal toward which every operation is directed” (DOD 2017b, xxii).

Operation. “is a sequence of tactical actions with a common purpose or unifying theme. An operation may entail the process of carrying on combat, including movement, supply, attack, defense, and maneuvers needed to achieve the objective of any battle or campaign” (DOD 2017a, x).

Operational Approach. “A commander’s initial description of the broad actions the force must take to achieve objectives and accomplish the mission. It is the commander’s visualization of how the operation should transform current conditions into the desired conditions—the way the commander wants the operational environment to look at the conclusion of operations. The operational approach is based largely on an understanding of the operational environment and the problem facing the Joint Force Commander (DOD 2017b, II-6).

Operational Level (of warfare). **“**The operational level links strategy and tactics by establishing operational objectives needed to achieve the military end states and strategic objectives. It sequences tactical actions to achieve objectives” (DOD 2017a, I-9).

Positions of relative advantage. “is a location or the establishment of a favorable condition within the area of operations that provides the commander with temporary freedom of action to enhance combat power over an enemy or influence the enemy to accept risk and move to a position of disadvantage. Positions of relative advantage occur in all domains, providing opportunities for units to exploit” (HQDA 2017, 4-7).

Strategic Level (of warfare). “Strategy is a prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater and multinational objectives. At the strategic level, a nation often determines the national (or multinational in the case of an alliance or coalition) guidance that addresses strategic objectives in support of strategic end states and develops and uses national resources to achieve them” (DOD 2017a, I-8).

Synchronization. “The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time” (HQDA 2018, 1-93).

Revolution in Military Affairs. “A Revolution in Military Affairs (RMA) is a major change in the nature of warfare brought about by the innovative application of new technologies which, combined with dramatic changes in military doctrine and operational and organizational concepts, fundamentally alters the character and conduct of military operations” (Marshall 1993).

Tactical Level (of warfare). “Tactics is the employment and ordered arrangement of forces in relation to each other. The tactical level of war is where battles and engagements are planned and executed to achieve military objectives assigned to tactical units or joint task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and enemy to achieve combat objectives” (DOD 2017a, I-9).

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