



LAND POWER



A BI-ANNUAL PUBLICATION OF ALLIED LAND COMMAND



MAGAZINE

SPRING 2021

EXCLUSIVE

- + **COM ARRC**
Talks Warfighting Corps Role

LEARN

- + **enhanced Forward Presence**
A Regional Perspective

DEVELOP

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- + **COM LANDCOM Visits**
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- + **Russian & Chinese Influence**
In Key Strategic Areas

+ **NATO Combat**
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through
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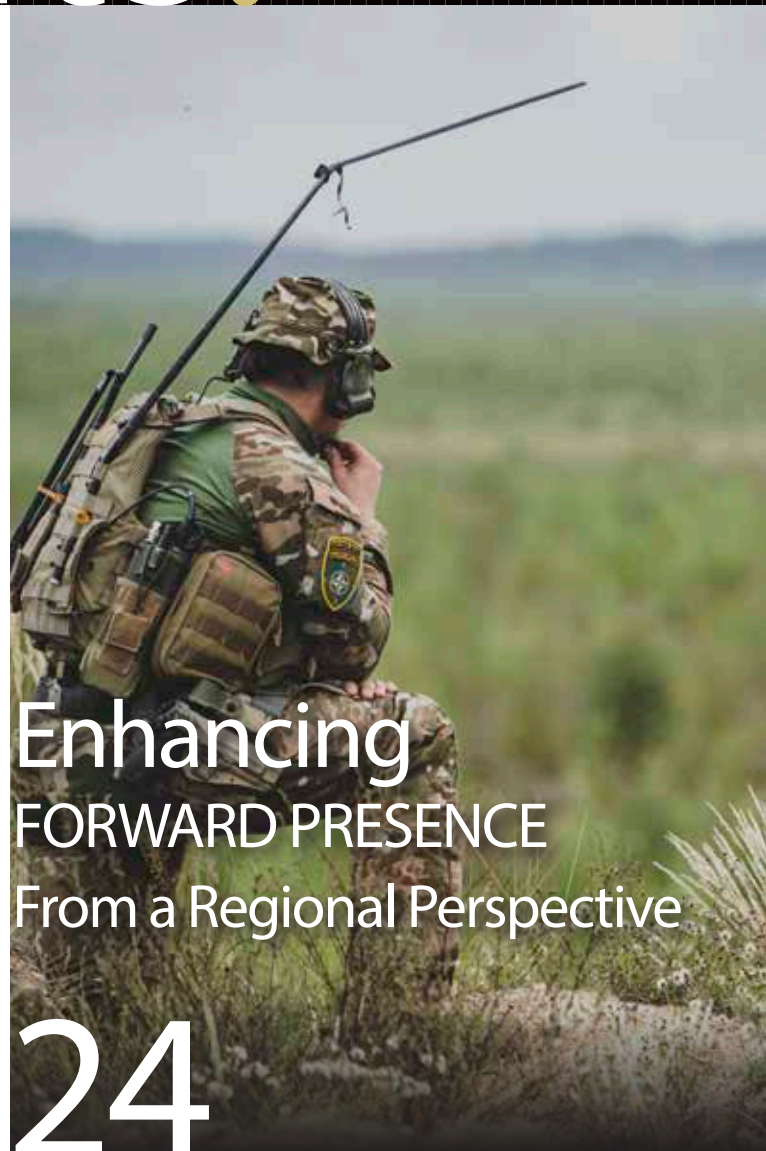
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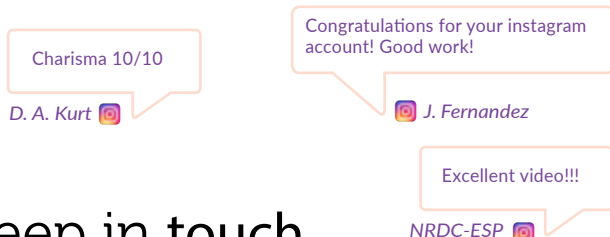
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WELCOME



Front Cover:

Credit: Eriks Kukutis, Latvian Ministry of Defence

LATVIA – Soldiers of the Land Forces Mechanized Infantry Brigade, Latvian National Guard, Special Operations Command, NATO enhanced Forward Presence Battlegroup Latvia, the Baltic Battalion and the U.S. Special Operations Forces Command in Europe participate in the military exercise "Winter Shield".

Rear Cover:

Credit: U.S. Army photo by Sgt. Ruth Pagan, 2nd BCT, 4th Inf. Div., PAO

The LANDPOWER magazine is a bi-annual publication produced by Allied Land Command (LANDCOM) dedicated to the promotion of actions and ideas, contributing to the improvement of the NATO Force Structure (NFS) efficiency and effectiveness. The views expressed in this publication do not necessarily reflect those of the LANDCOM Commander, SACEUR, NATO or its member nations and cannot be quoted as an official statement of those entities. An electronic version that includes additional links to in-depth articles, supplementary articles and an ability to provide online comments is available from the LANDCOM website (www.lc.nato.int).

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from the

COMMANDER



“An organization's ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage.”

- Jack Welch

By the time this is published I will be almost nine months into my time as Commander of Allied Land Command. While the months flew by, they were incredibly productive. With two successful Combat Readiness Evaluation (CREVAL) experiences under my belt – one with Allied Rapid Reaction Corps (ARRC) for their role as NATO's Warfighting Corps, and the other for NATO Rapid Deployable Corps (NRDC-T) as the NATO Response Force (NRF) 2021 Land Component

(LC) – I can say I'm excited with the direction we are going. In my short time here we've accomplished a lot, and refined LANDCOM's mission to serve NATO and the Land Forces that defend this great Alliance. I can see the hallmarks of LANDCOM as a learning organization, an important characteristic to have as NATO's leader in the Land Domain.

In February I held a week-long session of academics called Loyal Vision with my senior staff members. This was our annual internal event designed to refine the plan we set for 2021 and establish a common benchmark-level understanding of specific topics in preparation for our major tasks. In addition to confirming the way ahead for exercises like our battle staff training Loyal Bonus in April, a big focus was on the conduct of the three CREVALs we are responsible for this year. In October we will evaluate NATO Rapid Deployable Corps-Spain (NRDC-SP) to assume the role of NATO Warfighting Corps (WFC) and Multinational Corps North East (MNC-NE) as a regional LC. In December we will evaluate Rapid Reaction Corps France (RRC-FR) for their role as the NRF 2022 LC. Based on my own CREVAL observations I've directed my staff to implement additional changes to the tailored, commander-driven CREVAL process LANDCOM first implemented in late 2019. Now, in addition to this more focused regimen, we'll be evaluating with a mindset to also train, advise, assist, mentor, teach, and support our evaluated counterparts. I think this will instill and support an organisational culture of a learning.

Beyond CREVAL, my top priority for LANDCOM is preparing for a permanent role as Multi-Corps Land Component Command (MC-LCC) to extend beyond our current MC-LCC commitment through 2024. As our

number one task, we need to be ready. We'll do this through Exercise Loyal Bonus, by leveraging every training opportunity to inject ourselves as MC-LCC (or as a response cell), soaking up Lessons Identified from across the NATO Force Structure (NFS), and establishing tighter collaborative relationships with sister commands within the Alliance to include U.S. Army Europe and Africa. And above all, to grow our capacity and capability to fulfill the MC-LCC mission on a permanent basis will require creativity, adaptability and initiative to navigate the changes this transformation will require.

Change is inevitable and necessary in what we do. Learning organisations adapt to stay relevant. LANDCOM is learning, growing, and adapting to meet the needs of Alliance. We recognize what is required and we are doing it to accomplish our mission: Readiness in the Land Domain for credible deterrence and defence, and the ability to achieve lethality and decisiveness through overwhelming combat power and effects when needed for the Alliance. **LC**

For the Soldier!

ROGER L. CLOUTIER JR.
LANDCOM Commander

from the

CSEL

Ground truth



As we head down the road in pursuit of modernization, we must always remember to look in the rearview mirror to be sure we aren't losing track of where we came from. Our own LANDCOM history seems just as applicable today as it did back in 2014 when we declared Full Operational Capacity (FOC) in Izmir.

"For the Soldier!"

This, the first official motto of Allied Land Command (LANDCOM), was established by its first commander, U.S. Army Lieutenant General Frederick "Ben" Hodges. His emphasis was for every leader in LANDCOM to be imbued with the ethos that all plans, initiatives, key decisions, and actions developed by this headquarters were ultimately for the accomplishment of the mission by the most basic element of any Army unit: The Soldier. A soldier is therefore the lynchpin for the successful execution of any given mission. "For the Soldier!"

serves as a reminder to the countries that enjoy the protection of the Alliance's collective defence and collaboration that it is essential to train, equip, and prepare Soldiers to conduct the missions they are called upon to do.

NATO Land Forces, comprised of thousands of multinational soldiers from 30 contributing nations, are spread across the totality of Supreme Allied Commander Europe's (SACEUR) AOR. Each of our contributing nations bring their own standard operating procedures, equipment and expertise to our operations and activities. The job of providing coherence and unity across Land forces is the privileged responsibility of the Commander, Allied Land Command, as directed by SACEUR. In turn, as the Command Sergeant Major representing NATO Land Forces, I am tasked with advising the commander on the state of the soldiers that make up the ground forces assigned to NATO posts, with a particular focus on the NATO Forces Structure (NFS) and partner nation soldiers. A key component to the NFS' effectiveness is the empowerment and professionalism of our Alliance NCOs.

In my opinion, in order to support a maximum level of effort, there is an implied task of acceptance and understanding of each of the domains and country norms which, in turn operationalizes the need for what we call, "Cultural Intelligence or CQ." This means, in order to advocate for change and modernization there is a vital requirement to find the common bonds between all the inherent cultural differences of troops from 30 NATO nations. Qualities like humility and patience are key characteristics that enable leaders to be open to concepts and

approaches to problem solving. A humble and open-minded soldier provides for inclusion and respect on the ground, and arguably makes him or her a formidable weapon in the pursuit of excellence and professionalism. Interoperability does not need us to abandon tradition and or national pride. In fact, that tapestry of talents makes us stronger.

Peter Drauker says "our mission in life should be to make a positive difference, not to prove how right or smart we are." Command Sergeants Major and the CSEL community are asked to make people their mission and, as such, we are expected to lead the institution in culture awareness, and strive for a heightened emotional and cultural intelligence for our subordinate warriors. By understanding and educating each other, we are then able to ensure our force is ready to contribute to the defence and deterrence of the Euro Atlantic. **LC**

For The Soldier!

KEVIN J. MATHERS
LANDCOM Command Senior Enlisted Leader



LANDCOM CSEL presents the Warrior of the Month award

from the

Chief of Staff



For the past two years, I have had the honor and privilege of working as the Chief of Staff for Allied Land Command, a headquarters that I believe is defined by its professionalism, team work, honesty and morale. With all the recent challenges in the world and facing NATO, I can say this HQ is on the right path.

As Secretary General Stoltenberg once said, "NATO is changing as the world is changing." LANDCOM has come a long way in this regard; making significant progress in the implementation of the NATO Command Structure-Adaptation (NCS-A). It is a fact that change is almost always a challenge, which was clearly evident over the past year with the pandemic restrictions. On one hand we had to achieve our mission, especially in terms of readiness, and on the other we had a responsibility for the safety and security of all personnel in LANDCOM. Yes, COVID-19 seemed to wreak havoc with our 2020 plans. But, refusing to accept defeat and – seizing upon the guidance of the commander – we focused immediately on assessing new ways to achieve our mission. In the end, we completed two Combat Readiness Evaluations (CREVAL) under the circumstances. Not only was this a major test for us as the evaluator, but also for the evaluatees. We found a way because *I have long believed that the ones who walks down*

WALKING DOWN THE RIGHT PATH

the right path, and are willing to keep walking, are the ones who will eventually make progress and never get lost. This is how I define LANDCOM.

I have always believed that physical, mental, social and spiritual well-being is a prerequisite for a soldier and a good performance. The pandemic reminded me of a philosophical, unchanging truth commonly understood in my culture. If all characteristics of a good soldier such as bravery, professionalism, loyalty etc, are defined by zeros, health is the one that makes sense of all those features. You can add as much zero as you like, but without health, all will be meaningless. Naturally, LANDCOM has learned a lot during the pandemic. We have learned some important lessons that we shouldn't forget in the name of normalization. We define readiness as the ability of military forces to fight and meet the demands of assigned missions. Last year showed us that we need to be prepared and willing to try new ways and methods to maintain a healthy environment in the HQ to keep staff ready to serve.

As one of the core values of NATO, professionalism is important in all jobs, including the military, due to the high levels of respect, commitment and discipline that are required. We have overcome the challenges of the pandemic thanks to the professionalism of our staff. When we needed to decrease the manning in HQ, activities supporting the essence of our tasks carried on. People worked on call, ready to come when needed. Remaining staff put more effort in our work. People knew what to do and when to do it with their expertise. Our mission did not suffer.

We define teamwork as group member's interactions/interdependent acts that convert inputs to outcomes through cognitive, verbal and behavioral activities directed toward achieving a common goal. Last year when we faced the pandemic, we created a working group based on national

representatives and medical experts. Every action LANDCOM took was discussed twice weekly in this working group. Above all, thanks to these meetings, everybody understood what we should do and why. That common understanding was the key to success. That common perception was that a team should have to move toward a common goal. One of the most basic core values is honesty. From the beginning, LANDCOM created an environment that was open and transparent about the pandemic. I believe this led to building a stronger sense of teamwork and cooperation. Decisions were made with complete transparency, thus reinforcing mutual trust and facilitating the implementation of these decisions.

It's a known fact that war is not only a matter of equipment, artillery, troops or air forces; it is a matter of spirit and morale. Things that LANDCOM did to raise the morale during the pandemic made people feel that LANDCOM cared about them and their families' well being. Naturally, all precautions taken in the HQ influenced the morale. This helped people accept our goals more easily and enhanced cohesion within LANDCOM.

It was a great experience for me to be a part of this success story. Because, it is the values I have long believed and advised my subordinates to carry out that were the main actors in this story. I am proud to be the Chief of Staff of all the personnel who, once again, embodied these everlasting values. **LC**

For The Soldier!

METIN TOKEL
LANDCOM Chief of Staff

“

*I have long believed that the ones who
walks down the right path, and are
willing to keep walking, are the ones
who will eventually make progress and
never get lost.*

”





ROAD TO BECOMING

**NATO
WAR FIGHTING CORPS
HEADQUARTERS**

A WARFIGHTING CORPS

READINESS AND BEYOND



By British Army Lieutenant General Sir Edward SMYTH-OSBOURNE, COM ARRC

Late last November Commander LANDCOM presented ARRC with the Warfighting Corps 'guidon', a totemic recognition of our role as the NATO Warfighting Corps at Readiness. We are the first NATO Corps since the Cold War to occupy such a role. Consequently, we were asked to provide LANDPOWER with a short think-piece on the journey to readiness. I set out below some of our more pertinent observations.

Warfighting is the core of the Corps

From its origin, ARRC has been a multinational warfighting corps. Our forebearers in Wellington's Army fought at Waterloo under the command of King William II of Holland – the 'Prince of Orange' – as part of a force comprised of British, Dutch, Belgian and Hanoverian troops. At one stage during the Second World War the Corps commanded divisions from the UK, US, Canada and Poland. By our nature, therefore, warfighting and multi-nationality is in our DNA. Our character, however, shaped by the course history and the demands of the day has morphed several roles.

Recalibration

When ARRC commenced its recalibration under my predecessor, General Tim Radford, it was an organization optimized for counter insurgency operations (COIN). Given their experiences and those of this Headquarters, our people,

processes and structures were imbued with the lessons and practices of Afghanistan. In short, we had specialized for high-intensity counter insurgency, at cost to the basics of corps-level warfighting.

A return to the basics is not a pejorative statement on the simplicity of warfighting. Rather, it is a comment on the need for a solid foundation of standard operating procedures that are fit for the modern age. The challenge for NATO forces therein is to vector evolution onto the path of emerging technology, this being a period of profound and exponential technological change. At the tactical-operational seam there are number of significant issues that we will need to address in the land domain. For simplicity, one might group these issues: factors (common to all), threats (emanating from our adversaries) and opportunities (via concept development and experimentation).

Rescaling

We shall need to address the advent of extended range munitions and the impact that these have on how we synchronize and deconflict across the geographic framework. We have seen in recent years the influx of a new lexicon around the 'deep-deep' and 'close-deep' battle. Such terminology is as ill-fitting as it is clunky in adapting old models to new capabilities, given the need to develop a higher-tactical doctrine that accounts for multi-directional battle; one

that can sustain an advance and, 360 defence (to physical and virtual threats) in perpetuity. Therefore, we need to broaden our geographic concept of Deep, Close and Rear. The terminology remains a useful delineation of responsibilities but needs to account for a new sense of scale and direction. Our belief, here in ARRC, is that our enduring function as a Corps Headquarters is to enable the synthesis of multi-domain capability in the Land environment across time, space and function, the specifics of which will adapt in line with emerging technology.

Spanning the spectrum

It is also clear that land forces must offer utility across the spectrum of competition, through crisis, and into conflict. In the NATO vernacular, they must make as much a contribution to deterrence as they do to the functions of defence. This being a relationship between the hard capabilities of physical manoeuvre at war and, through their latent threat, their utility in cognitive manoeuvre during crisis – i.e.: the power to compel. As David Kilcullen sets out in his 2020 book *The Dragons and the Snakes*, we face a form of competition that involves clandestine, covert and ambiguous activity below the *jus ad bellum* threshold of attribution; a 'liminal model' designed to deliver fait accompli operations in advance of our collective ability to both detect and respond, thereby transferring the responsibility to re-escalation onto the shoulders of the Alliance. Addressing this issue will demand of us the ability to support an insight-based approach to deterrence – identifying indicators and warnings below the current thresholds of attribution – with the agility to respond, as a land force, in order to deter.

Opportunity to adapt

These are exciting times for the land domain. Addressing the tactical complexity of contemporary warfare is also an invitation, if not an opportunity, to adapt. ARRC's approach to these issues is to place a premium on experimentation through 2022, adopting a methodology of trial, adapt, inculcate, improve. Through collaboration across the NATO force structure we assess that we can make some significant steps forward under the 'fight tonight' agenda – perhaps not the full panacea of tomorrow's technology, but a decent march along that bearing and one that enhances our readiness for today's challenges.

We are incredibly well-equipped within the Alliance to face down these challenges. Amongst its many virtues NATO is also an unrivalled knowledge-exchange. Even at the tactical level, we bare daily witness in ARRC to the benefits of multinationalism given the breadth of perspective across a diverse corps headquarters. So too in our relationships with our sister Corps across NATO, all of whom have directly or indirectly contributed towards our path to readiness as the Warfighting Corps. In this coming year alone, ARRC shall routinely engage with five other corps headquarters on the issue of exercising or role, will dock into the operational planning of another, and the force development initiatives of a further two. One senses, however, that as the Alliance progresses towards the objectives of NATO's warfighting capstone concept

(NWCC) and the principle of Multi-Domain Operations, these types of interactions will need to extend routinely beyond the confines of land forces and out into the other domains of sea, air, space and cyber as well as the special operations component and the information environment.

Readiness as a mindset

However, in our estimation, 'readiness' is ultimately an issue of mindset. There is a fable that the Legate of a Roman Legion asked his soldiers to slap their breast plates during inspections so that the accompanying sound would betray those who had failed to polish both sides of their equipment – a dull thud not in the interests of the Legionary! Readiness is a bit like that fable. It is not purely about the outward facing aspects of one's business. In fact, it is the inward facing aspects that matter most.

We cannot guarantee the geography into which we might deploy – although we might make some assumptions. We cannot guarantee the true nature of the task – although we might make some assumptions. Therefore, we need our people to be comfortable with both the rigour of preparation as well as to possess the mentality to adapt, improvise and overcome. In the words of the first Supreme Commander Allied Forces Europe, "The plan is nothing, planning is everything." We must therefore embrace the opportunity that change itself presents. COVID, therefore, for all its ills, has tested our ability to adapt and improvise. Through necessity and the expedience of health protection measures, it has naturally affected our access to training. We have not allowed it to be an excuse to do nothing. In fact, it has been an opportunity to find new ways of working, new efficiencies and alternative approaches that may endure long after the pandemic. It also shines a light on what we miss, what is worth keeping and what we must return to.

As we look ahead, we must address the issue of variety in our training. By that token it is the sustenance of a good staff officer. Variety is the spice of life. It enriches our ability to adapt. Warfighting is a perishable skill – honed through exercise and on operations. Our agility to wield it as both a tool of deterrence and as a function of defence will demand that we look across the full breadth of the Land environment (as it pertains to the SACEUR Area of Responsibility) and across the dimension of time, bringing landpower to bare across spectrum of deterrence and into defence. **LC**

“These are exciting times for the land domain. Addressing the tactical complexity of contemporary warfare is also an invitation, if not an opportunity, to adapt.”

THE IMPORTANCE OF NETWORKING

By British Army Warrant Officer Class 1 Stuart DAVISON, CSM ARRC



NCO for Headquarters Allied Rapid Reaction Corps (ARRC).

Initial impressions

In May, 2019 I had the privilege of assuming the appointment of Command Sergeant Major of ARRC, right in the middle of the planning and not long before the execution phases of Exercise ARRCAD FUSION 19. This exercise and LOYAL LEDA 20, both Combat Readiness Evaluations (CREVAL), served as short-term and long-term training opportunities on the road

This article is a testament to LANDCOM's continued recognition of the non-commissioned officer (NCO) Corps, reinforcing the value placed on the cohort. As an alliance, we continue to influence a culture that recognises the talent that lies within these NCOs. These are my thoughts after almost two years as the senior

to ARRC assuming the role as the first NATO Warfighting Corps HQ to be held at readiness since the Cold War.

As NCOs serving in NATO, we are already part of the largest corps network in the world. If knowledge is power, then shared knowledge is lethal. To quote U.S. Army General Curtis M. Scaparrotti, Supreme Allied Commander Europe (SACEUR) from May 2016 – May 2019, "Time and time again, the professional Non-Commissioned Officer (NCO) Corps has proven to be the unwavering force in the execution of NATO's mission across the Alliance and beyond. Our present environment requires it, and our future environment demands it, therefore, the need to constantly re-evaluate and advance the skills, knowledge and abilities of the NCO Corps could not be more critical."

Having been advised by my Commander to conduct an estimate for ensuring success during my assignment, it became apparent that establishing relationships with my international, national and, ARRC group teammates was vital ground to everything that I aspired to achieve. I was very fortunate that, having only just gained full situational awareness of who was who and where they all were based, I was invited to attend the annual CSEL conference, hosted by the NRDC-Turkey CSEL, Mevlut Klose. "It is not necessarily what you learn but more importantly who you



learn it with," he said during this conference. For me, it was one of his most important take-aways from the meeting.

The work begins

Having a plethora of great ideas, initiatives, and examples of what had worked across the other GRF(L) HQs, I returned to Innsworth. With a new network of friends the vital ground I identified affirmed, I quickly established communications with my fellow national and ARRC Group Sergeant Majors. Opportunities to further develop my international network have continued to present themselves and shouldn't be dismissed. Visiting organisations such as the Swiss Armed Forces College that delivers both advanced and intermediate leadership courses to NCOs from across NATO was one such opportunity. Abseiling from a cable car with your life in the hands of an NCO that you had only met that morning certainly develops an abundance of trust and respect very quickly. Having looked up, left, and right I then focused on those that matter, the men and women that this and other GRF(L) HQs have the privilege to command in a time of war.

HQ ARRC, like the other GRF(L) HQs, have affiliated Divisions and Brigades that in a time of war can expect to fight alongside of. Training and learning together builds a cohesive 'team of teams' that will be resilient and lethal in war. I took the opportunity to meet with Sergeants Major in person where possible, but when not possible, an email, letter or phone call had to suffice until we could meet personally. A pleasing by-product of NATO's recognition of the NCO cohort has been member states individually placing greater emphasis on NCOs and what they bring to the table. Rank does not equate to knowledge, skills, and experience (KSE). The result were more activities and training opportunities across the Alliance – in the past reserved for commanders only – opened to allow their Sergeants Major to attend to represent "the soldier's voice." As a result, mutual training support (MTS), personal development (PD), and opportunities to nurture relationships have been exploited by all the units within the ARRC group. The latter is an area that I think has room for further improvement and therefore warrants my time. The different communication mediums offer opportunities that can contribute to the strengthening of the network. Again, many of these are yet to be exploited to their full potential.

We can't ignore COVID-19

The current COVID-19 pandemic has caused HQ ARRC to think differently when it comes to MTS, PD, and networking. The fact that we have a myriad of restrictions has forced us all in the GRF(L) community to deliver and network remotely. Arguably in many ways, I'm more connected to my NATO teammates now than before the pandemic struck. The use of various social media platforms (Zoom, Microsoft Teams, etc.) have allowed our various networks to communicate much faster and flatter than previously experienced. All the methods I've described are over unclassified means. The shortfall of a classified means of communications, aside from that available in barracks or the limited numbers of us that can use it remotely, is a significant capability gap. Still, the ingenuity of NCOs has allowed us all to work through this issue and deliver meaningful MTS, and PD, whilst maintaining the network safely and sustainably. My only fear is that post COVID-19 we forget the valuable lessons and revert to the old ways of working.

Parting thoughts

As I near the end of my time as the Command Sergeant Major here in HQ ARRC, I'm immensely proud of how far we have come as a team. With everybody recognising that NCOs are subject matter experts within their own right, thus ensuring that COM ARRC's intent is met at every opportunity, this constant pursuit of excellence should be instilled into every undertaking across the Alliance. We as NCOs must continue to influence change for the good and benefit of everybody by creating a faster, flatter structure with open dialogue where everybody's opinion is valued. The chain of command doesn't have the answers to all the questions. And that's the value we bring to our organisations. That, and our dedication to professionalism and progress. For, when you leave your respective HQs at the end of your assignment, the best NCOs leave the jersey in a better place than when they arrived. **LC**

***FORTUNE FAVOURS
THE BOLD***



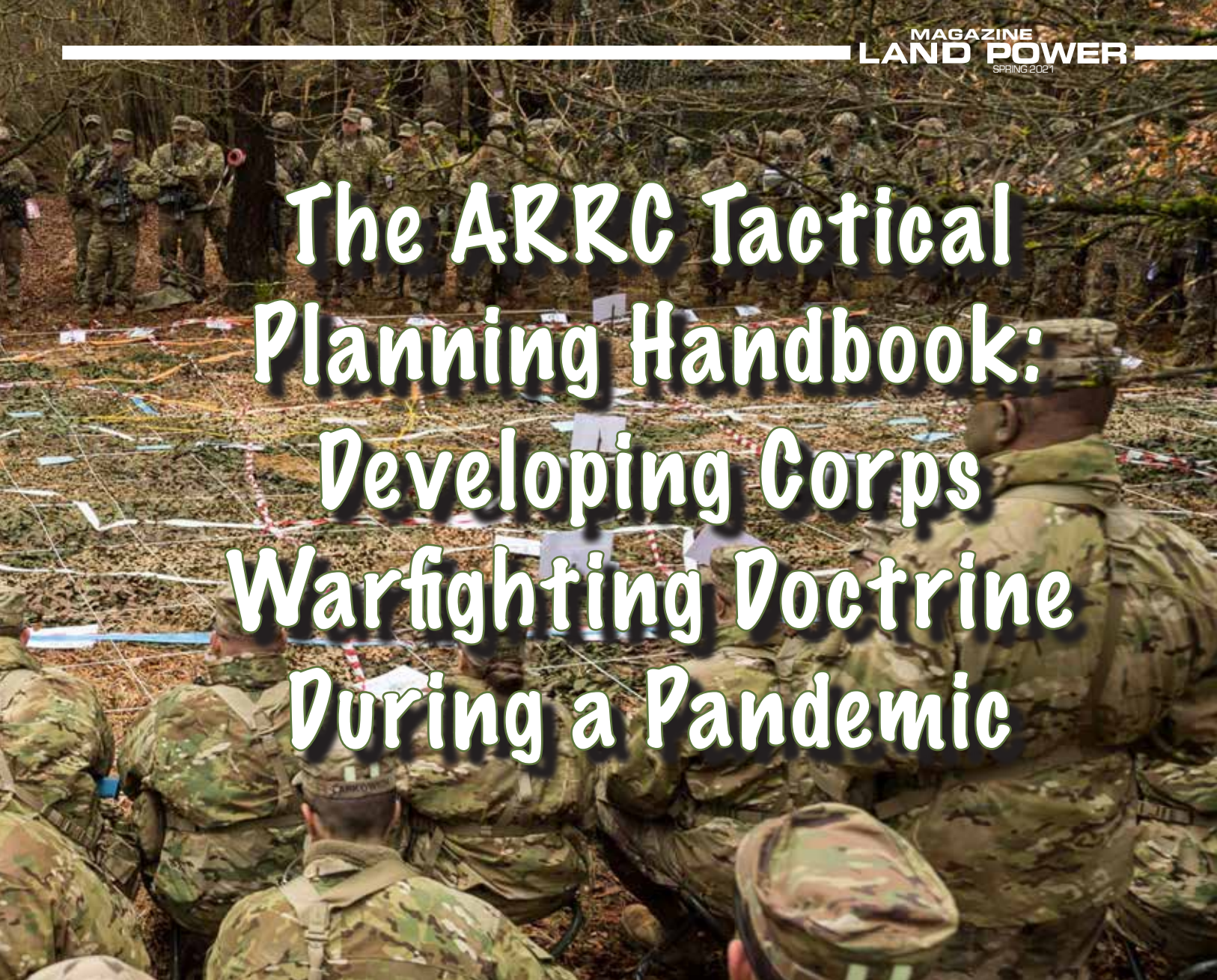
By British Army Majors C. JACKSON and R. JONES, ARRC G5 SO2 Planners

Headquarters Allied Rapid Reaction Corps (HQ ARRC) is the first NATO High Readiness Corps HQ to have completed the warfighting corps headquarters Combat Readiness Evaluation (CREVAL) process since the end of the Cold War. The CREVAL process assesses every facet of a high readiness HQ's ability to plan, deploy and operate against NATO training standards and is led by Allied Land Command (LANDCOM). This article focuses on how the G5 Plans Team at HQ ARRC adapted and developed Allied Procedural Publication 28 – 'Tactical Planning for Land Forces' into the Tactical Planning Handbook and how the team experimented with the planning process during the COVID-19 pandemic.

A proud history

The ARRC is a rapidly deployable, flexible NATO HQ that can act as a joint, land or corps HQ for operations and crisis response. The HQ celebrated its 25th anniversary in 2017 and the 200th anniversary of its antecedent, 1st (British) Corps. Throughout its history, the Corps has played a key role in international events. It began its journey fighting under Wellington at Waterloo. In the First World War it fought in France and Belgium and, in the Second World War, it was responsible for two of the D-Day beachheads and several airborne assaults as part of the Allied re-entry into Europe. Throughout the Cold War, 1 (BR) Corps was the UK's

contribution to NATO's defence against the Soviet Union. ARRC commanded the land element of NATO's first ever deployment as part of the Implementation Force (IFOR) operation in Bosnia in 1995. It deployed again as the headquarters commanding land forces during the Kosovo War in 1999. Other operations have included the formation of the International Security Assistance Force (ISAF) in Afghanistan in 2006 and as ISAF Joint Command in 2011. Today, the ARRC remains the UK's contribution to NATO's High Readiness Forces (Land) structure and is unique amongst all other HRF(L)s by falling under the direct operational command of Supreme Allied Commander, Europe (SACEUR) during peacetime.



The ARRC Tactical Planning Handbook: Developing Corps Warfighting Doctrine During a Pandemic

Designation: NATO Warfighting Corps

Although HQ ARRC's 'framework nation' is the United Kingdom, comprising approximately sixty percent of the overall staff, the ARRC is fully multinational in nature and organisation, with twenty-one NATO contributing nations and has in the past had representation from Sweden and New Zealand. The headquarters was selected to become the first HQ since the end of the Cold War to be certified as a warfighting headquarters. In and amongst the process of achieving NATO validation, the requirement to re-examine and develop a tactical planning process was identified and outlined.

Pandemic planning doctrine

Like the majority of its participant countries, there are defined delineations between the different levels of planning and as such, NATO adopts several complementary planning methodologies dependent on the sphere of the response. At the strategic

level, the North Atlantic Council (NAC) uses the NATO Defence Planning Process (NDPP)¹ and NATO Crisis Management Process (NCMP). Figure 1 shows how the various NATO planning methods align horizontally and vertically during the planning of a crisis response. The military strategic level seeks to translate political-strategic guidance into military-strategic direction for the operational commander, and to establish at the strategic level the conditions necessary for the operational commander to plan and execute the mission. Operations planning is oriented towards a NATO end state and strategic objectives (military and non-military) established by NATO's political-military authorities and carried out within the political limitations and resource constraints set by these authorities. At the operational level, planning seeks to transform strategic direction into a scheduled series of integrated military actions, carried out by joint forces, to achieve operational objectives efficiently and with acceptable risks². Planning at the operational level is undertaken using the Comprehensive Operational Planning Doctrine (COPD).

1 - NATO. 2018. Defence Planning Process. [online] Available at: <https://www.nato.int/cps/en/natolive/topics_49202.htm> [Accessed 8 December 2020].

2 - ALLIED COMMAND OPERATIONS COMPREHENSIVE OPERATIONS PLANNING DIRECTIVE (COPD) INTERIM V2.0 [online] Available at: https://www.act.nato.int/images/stories/events/2015/sfpdpe/copd_v20.pdf [Accessed 8 December 2020].

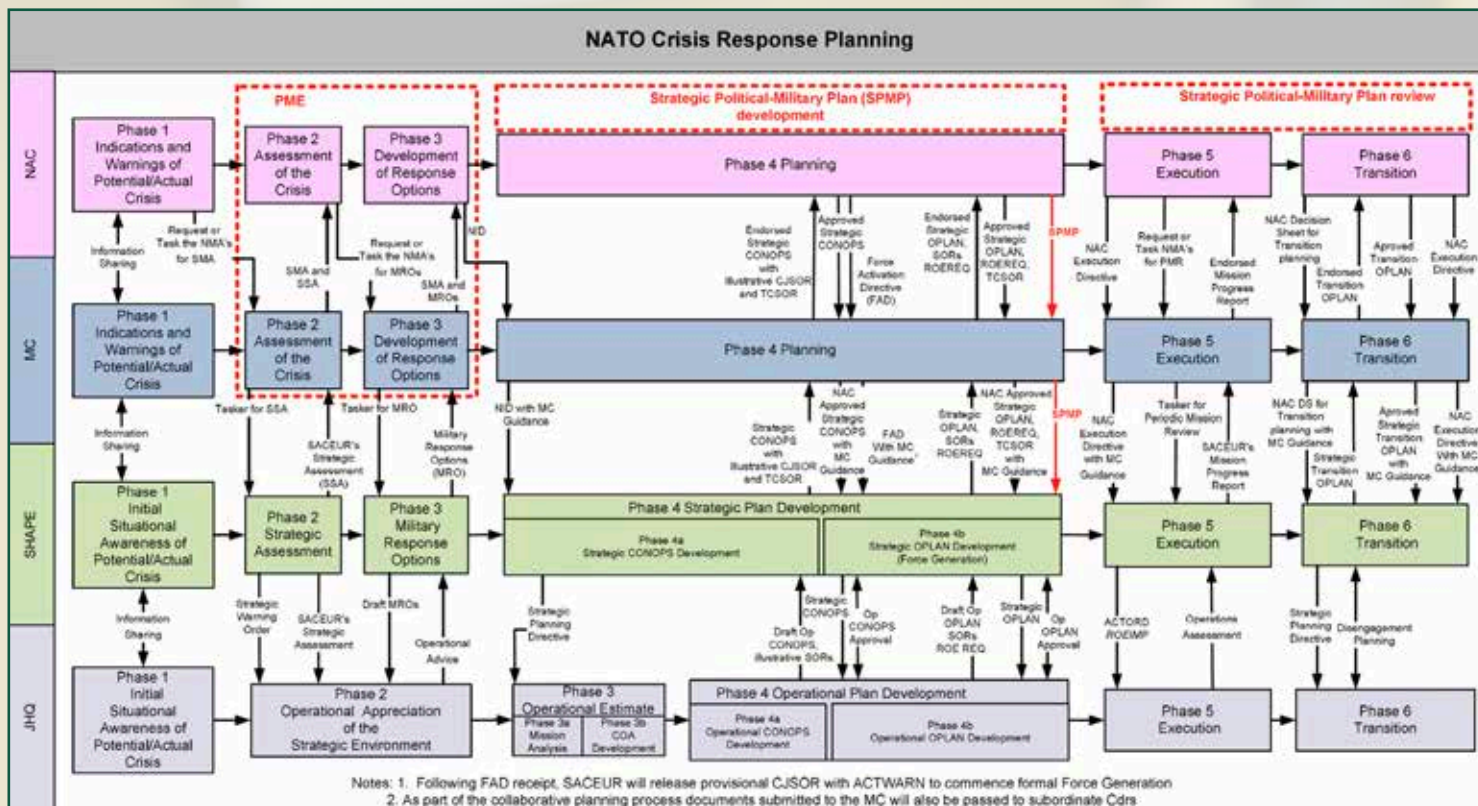
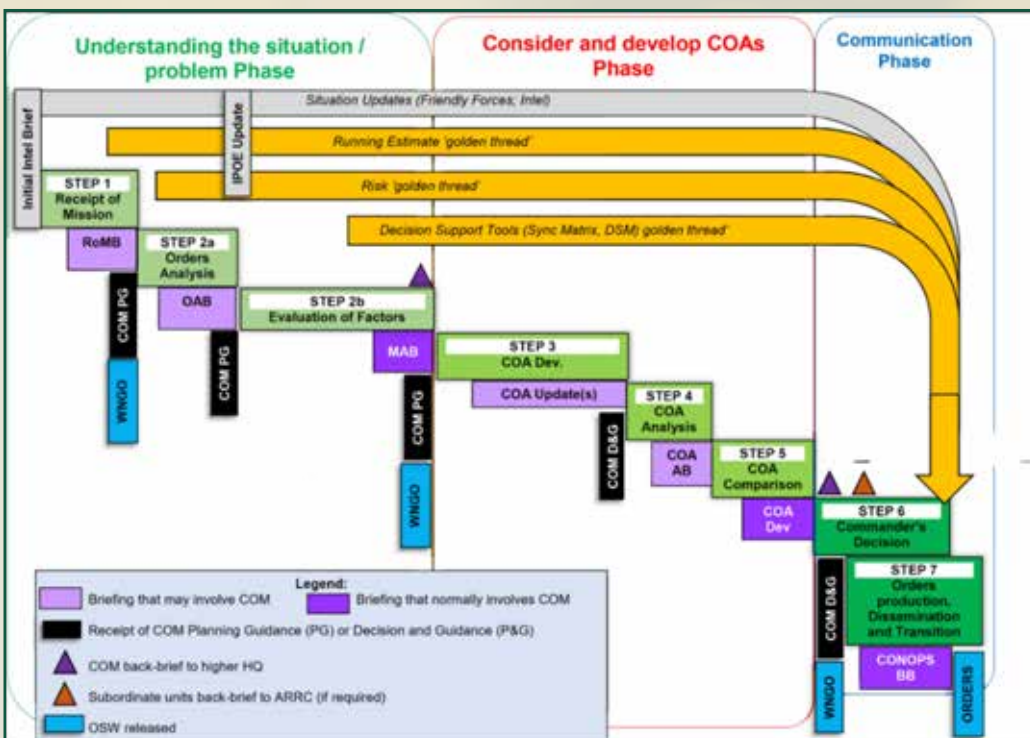


Figure 1 - NATO Crisis Response Planning³

A tactical planning handbook

HQ ARRC, as a NATO warfighting HQ, is wholly concerned with activities in the tactical space and until relatively recently, NATO corps HQs had used locally abridged versions of the COPD for planning in the tactical space. A series of LANDCOM initiatives led to the development of bespoke tactical level doctrine, the key output being Allied Procedural Publication 28 - 'Tactical Planning for Land Forces' (APP-28). The process was developed from U.S. Corps War Fighting doctrine and integration into NATO's planning processes in 2018.

Figure 2 - Tactical Planning for Land Forces



In 2018, the G5 Plans team led the integration of the new planning methodology into the HQ. Although grounded in a solid doctrinal base, APP-28 was only a framework with the bare minimum to inform the development of internal processes. The decision was made to expand the APP to include best practices from U.S. Corps HQs, incorporate the nuances of the HQ ("ARRCisms") and merge (where possible) UK planning and execution doctrine into one document. Following experimentation, this tactical handbook would form the baseline for HQ ARRC's tactical planning process. The guiding intent was twofold: provide clear direction and expand on the framework laid out in APP-28, and create a document that introduces a new level of standardisation and applicability

3 - Reference: Allied Command Operations Comprehensive Operations Planning Directive Interim V2.0 Dated 4 Oct 13.

that aimed to increase the efficacy and interoperability of tactical level planning.

The output of the work was version 1 of the Tactical Planning Handbook, compiled by three planners within the G5 team from New Zealand, Turkey and the Netherlands. Their work was built upon to produce a series of internal training events that inculcated the new planning process into the staff and the battle rhythm.

Proof of concept, virtually

After several internal verification processes and training events for the IPG, the team produced a document that would be used during the HQ's first Corps Planning Process (CPP) of 2019, Exercise ARCADE FUSION 2019 (AF19). The key output of a CPP is the baseline operation order and is as demanding an environment as any to experiment. Throughout the AF19 CPP, the team captured lessons learned and began the update process, culminating in an updated version of the ARRC Tactical Planning Handbook being used on Exercise TRIDENT JUPITER (TRJU) in November 2019. All the ARRC's draft publications supported LANDCOM's final ratification of APP-28 in Jan 2019.

Arguably one of the most successful periods of experimentation with how to conduct the planning process, regardless of the guiding doctrine, came after the initial experimentation and doctrine ratification had been conducted. As the COVID-19 pandemic closed most of the western world, HQ ARRC was still expected to conduct a CPP for the warfighting CREVAL Exercise LOYAL LEDA 2020 (LOLE20). The planning teams were supported by the G6 enablers to create a virtual collaborative working environment with the HQ's existing IT infrastructure. Using virtual conferencing, whereby any member of staff could passively observe, collaborative working on the operational web and the recording/filming of key events, these restrictions on face-to-face contact created a much more transparent planning process for the staff. As a sign of things to come, this is a huge leap in the efficacy of a planning process, but there are limitations to its utility and there was still a requirement for face-to-face working throughout.

Since ratification, the ARRC Tactical Planning Handbook has had two shakeouts: a deliberate two-week cold start planning period culminating in the initial operation order for LOLE20, followed by the execution phase, which saw the plans team conduct four hasty planning cycles decreasing in time from four days to 14 hours throughout the exercise.

The challenges associated with conducting the LOLE20 CPP within recent COVID-19 restrictions further highlighted the utility of the handbook. With all IPG meetings and briefs conducted virtually, the ability to align the staff and cohere planning efforts was a significant challenge. However, the handbook served as a common handrail to navigate from and communicate output. These unforeseen restrictions forced the staff to be innovative with the lessons learned directly applicable to a post-COVID world. However, the requirements for dispersed working will endure given the plethora of threats to large, static command posts.

CIS Lessons Identified

Dispersed planning and execution also highlighted the fragility of the CIS systems and therefore the fragility of NATO C2. Merely operating in an exercise environment without the interference of enemy action, the frictions of intermittent CIS greatly disrupted the passage of information and therefore the planning effort. This highlighted the necessity for a simple and clear handbook to cohere the IPG when communication was difficult. This included: recording meetings and formal briefs for the staff to replay should their comms fail, and enforcing strict timings during meetings to avoid stressing the fragile and limited bandwidth. These more recent lessons learned will be captured in the next edition of APP-28 and illustrate the iterative approach to ensure that the handbook remains relevant and useful.

The handbook: a successful guide

Overall, this has been a successful change project. The key enablers of its success were: early circulation, constant experimentation, testing, and a user-led refinement process. The story of the Tactical Planning Handbook is a good demonstration that doctrine, if read, understood and practised by all, is the most effective force multiplier. It enables decentralisation, pursuit of the initiative and generates tempo. But given the inherent challenges of operating in a large multinational headquarters with significant personnel churn, the handbook had to strike the right note for it to be considered useful. Only then would it be read, understood, and practised by the staff to create the force multiplying effect we desire. In this regard, to see the IPG members actively using the document as a handrail is perhaps the greatest testament to its success.

There are still areas for development. As with any change in methodology, work needs to be done to align the HQ's procedures and systems so that they enhance the planning process and do not slow it down with well-meaning bureaucracy. An example of a process area under review is the traditional G35/G5 functions and if they could be changed to create teams that work in parallel, creating plans and then maturing them for handover to the Ops team for execution. Additional analysis also needs to be undertaken on the effect the process had on the HQ's battle rhythm events, their relevance and, where efficiencies can be made.

Validation through emulation

The development of the Tactical Planning Process won't stop with ARRC. NATO Rapid Deployable Corps Spain (NRDC-ESP) are rostered to transition to Corps Warfighting in 2022 and have begun to develop their version of a Tactical Planning Handbook based on HQ ARRC's experiences of CREVAL and through attendance on the HQ's internal planning courses. As Multinational Corps South East (MNC-SE) work towards initial operating capability, the ARRC are conducting mentoring and augmentation to support their participation in the DEFENDER series. The ARRC is also supporting the development and piloting of the Swedish International Centre's NATO Land Tactical Planning Course in early 2021 and working with 1st Panzer Division (Germany). **LC**

COMBAT READINESS EVALUATION OF THE FIRST WARFIGHTING HEADQUARTERS DURING A GLOBAL PANDEMIC

BY ROMANIAN ARMY MAJOR GEORGE-ADRIAN LESAN, SO LANDCOM G7 EVAL G ARRC CREVAL OPR

Throughout 2020, Allied Land Command (LANDCOM), with support from NATO Rapid Deployable Corp Spain (NRDC-ESP) conducted a Combat Readiness Evaluation (CREVAL) of Allied Rapid Reaction Corps (ARRC), certifying the UK-based Corps headquarters during Exercise LOYAL LEDA 2020 (LOLE20) at Full Operating Capability (FOC) as NATO's first designated warfighting headquarters since the Cold War.

First completed CREVAL under the 'New Approach'

ARRC's CREVAL was the first evaluation fully conducted based on the recently improved NATO evaluation system for Land Forces, which is key to the readiness of the Alliance. The new CREVAL became a comprehensive and structured process that focuses on assessing performance, procedures, and capabilities against defined NATO standards, as well as readiness and interoperability requirements.

The CREVAL system was redesigned to provide more assurance to Supreme Allied Commander Europe (SACEUR) that declared forces and capabilities are ready and prepared to meet current and contingent NATO operational priorities in accordance with NATO standards. It also serves to better support land forces headquarters and units in their preparation for planning and execution of operations and their certification process. The combat readiness evaluation system uses the talents and expertise of LANDCOM to enhance the evaluated headquarters capabilities through engaged partnerships. CREVAL aims to evaluate the readiness and capabilities of land forces to perform their assigned missions, ensuring they are adhering to NATO standards, and to identify potential deficiencies that limit the capability to meet the requirements.

CREVAL is key to ensuring high-readiness HQs and forces are available for the full range of Alliance missions. Whilst the evaluation process aims to verify combat readiness of land forces declared to NATO with their role, nature, or readiness category, its outcomes also provide solid feedback and recommendations to improve forces, further supporting the certification process.

The process

Evaluating the combat readiness of ARRC as the first Warfighting Corps Headquarters took roughly 12 months, considering the headquarters comprehensive preparations initiated in early 2019. Most of the evaluation phases were conducted during the COVID-19 global virus pandemic, which triggered all CREVAL and exercise stakeholders to search for creative ideas and feasible options to achieve the desired goals despite unprecedented restrictions and limitations. COVID-19 represented a catalyst for exploring a remote and distributed approach that proved to mitigate risk and successfully enable mission completion.

All teams involved in Exercise LOYAL LEDA 2020 (LOLE20) and the ARRC CREVAL worked together to identify the best options to carry out the mission, despite the many challenges imposed by emerging restrictions and limitations.

The collective effort and mission mindset demonstrated that NATO continues to train and build readiness even under COVID conditions. LANDCOM successfully proved its critical work continues in support of NATO missions. Proactive coordination efforts between all NATO HQs involved in LOLE20 and mutual support were key to a successful CREVAL and to achieving the desired outcomes during the emerging global pandemic. Moreover, this was the first CREVAL ever conducted mostly

remotely via NATO CIS assets from different distributed locations across Europe and North America. NATO CIS systems demonstrated once again their extreme reliability and flexibility to support all teams in achieving the desired end state.

By the phases

The evaluation started with the Evaluation Team Chief to Commander (ETC2COM) dialogue in November 2019. LANDCOM's commander at the time, U.S. Army Lieutenant General J.T. Thomson served as ETC and ARRC Commander, Lieutenant General Edward Smythe-Osbourne held a meeting while ARRC was conducting Exercise ARRCAD FUSION 2019 (AF19) at RAF St. Mawgan in UK. They discussed evaluation objectives, specific areas for the upcoming CREVAL with respect to SACEUR's priorities and ARRC's training objectives. The two commanders also discussed options to get more readiness value from the exercise and evaluation.

Later in February 2020, the staff of both HQs conducted the CREVAL Initial Coordination Meeting (ICM) based on the ETC2COM Dialogue outcomes to further develop and refine specific CREVAL requirements. The teams identified how ARRC could be better supported to achieve the desired outcome. The applicable and feasible evaluation criteria were selected with an emphasis on readiness and interoperability requirements.

The first phase of the evaluation, the Corps Planning Phase (CPP), was conducted in June 2020. In this phase, LANDCOM's mission was to assess ARRC's planning capabilities and the overall process. The evaluation team worked together with their ARRC counterparts and thoroughly analyzed all procedures and documents. LANDCOM conducted a Staff Assisted Visit (SAV) in the UK and by remote means in late September for final coordination and evaluation requirements for the exercise execution. The final assessment phase (Field Evaluation) was conducted during LOLE20, which was a complex, multi-domain training event designed by LANDCOM together with NATO's Joint

Force Training Center (JFTC) in Bydgoszcz, Poland to test the warfighting capability of the ARRC and support their certification as NATO's Warfighting Corps at readiness. The exercise was conducted in South Cerney at RAF Fairford, and Imjin Barracks, UK. It involved more than 1,000 ARRC personnel and key enablers from 21 nations.

Success from the start

JFTC Bydgoszcz was key to the success of LOLE20 from the early stages of exercise planning and ensured an excellent exercise control function during the field evaluation phase, supported by NRDC Italy (NRDC-IT) and NRDC Greece (NRDC-GR), most of them operating remotely over NATO CIS systems.

The evaluation body consisted of more than 60 personnel which operated with a tailored team deployed to the exercise locations in UK and led by COM LANDCOM with two more teams supporting remotely from HQ LANDCOM and HQ NRDC-ESP.

The ARRC conducted a thorough Risk Management process to identify, analyze and manage all risks, including COVID-19 related risks, and ensure smooth execution of the exercise. The ARRC developed an effective force health protection plan, provided rapid COVID tests to all exercise personnel, and built safe "bubble" environments in all locations to mitigate risk related to the COVID-19 pandemic.

Despite all the limitations imposed by the global pandemic, HQ ARRC leveraged the opportunity provided by the training events to implement and further experiment with new concepts which were developed recently.

Combat ready

HQARRC demonstrated readiness as the designated Warfighting Corps Headquarters and proved its ability to plan and conduct combat operations according to NATO standards in the context of multidomain operations. At the end of the exercise, COM LANDCOM declared ARRC as combat-ready to respond to any NATO contingency, from crisis response to major joint operations.

With the certification, ARRC becomes NATO's first designated Warfighting Headquarters in decades. COM LANDCOM concluded the ARRC is ready to deploy at short-notice on large-scale operations up to and including high-intensity warfare and, at the same time, a flexible organisation that can act as a joint, land, or corps HQ. Until 2022 ARRC will be held at high-readiness until January 2022 when they will hand over the War Fighting Corps guidon and readiness responsibility to NATO Rapid Deployable Corps Spain (NRDC-ESP).

Although the teams involved in LOLE20 and the ARRC CREVAL faced some challenges, the training event proved to be a valuable venue to identify important best practices which are currently being distributed throughout the NATO community. **LC**



LANDCOM CREVAL leaders celebrate during LOLE20



LANDCOM Commander Builds AWARENESS in:

By U.S. Army Major Brian ANDRIES, LANDCOM PAO Production Chief

LATVIA

Warsaw - NATO Allied Land Command commander U.S. Army Lieutenant General Roger Cloutier traveled to the Baltics for the first time from February 24 – March 4, 2021 to meet with military leaders of Latvian, Lithuanian and Polish Armed Forces in order to build relationships with key leaders and understanding of training missions in the region.

While it was the first visit for the commander to the Baltics, it was also the first visit for any LANDCOM leader to Multinational Division North, a NATO command formally created in Latvia on March 8, 2019 and activated October 21, 2020.

The eight-day battlefield circulation kicked off in Latvia at the Latvian Armed Forces Joint Headquarters near Riga with a formal briefing of friendly capabilities and challenges within and outside of the country. The discussion set the tone for rest of the trip that concluded with a meeting at Polish Ministry of National Defense in Warsaw, Poland with Chief of the General Staff of the Polish Armed Forces General Raimund T. Andrzejczak.

Lieutenant General Cloutier observed and walked key terrain with leaders of all three nations to visualize the unique challenges each country faces in regards to deterrence objectives. "I think this is critical because I now see the difference in terrain," Lieutenant General Cloutier said to the commander of Lithuania Land Forces Brigadier General Raimundas Vaikšnoras during a meeting. "I appreciate where you come from and your focus on readiness every day."

and LITHUANIA





"This headquarters is still under development, so it is a huge honor to brief the commander," General Lennie Fredskov, MND-Staff. "We hope to give the commander an impression of where we are trying to head, not only as a headquarters, but as a division across the borders of two nations."

development, so it is a said Brigadier North's Chief of an impression of as a headquarters, two nations."

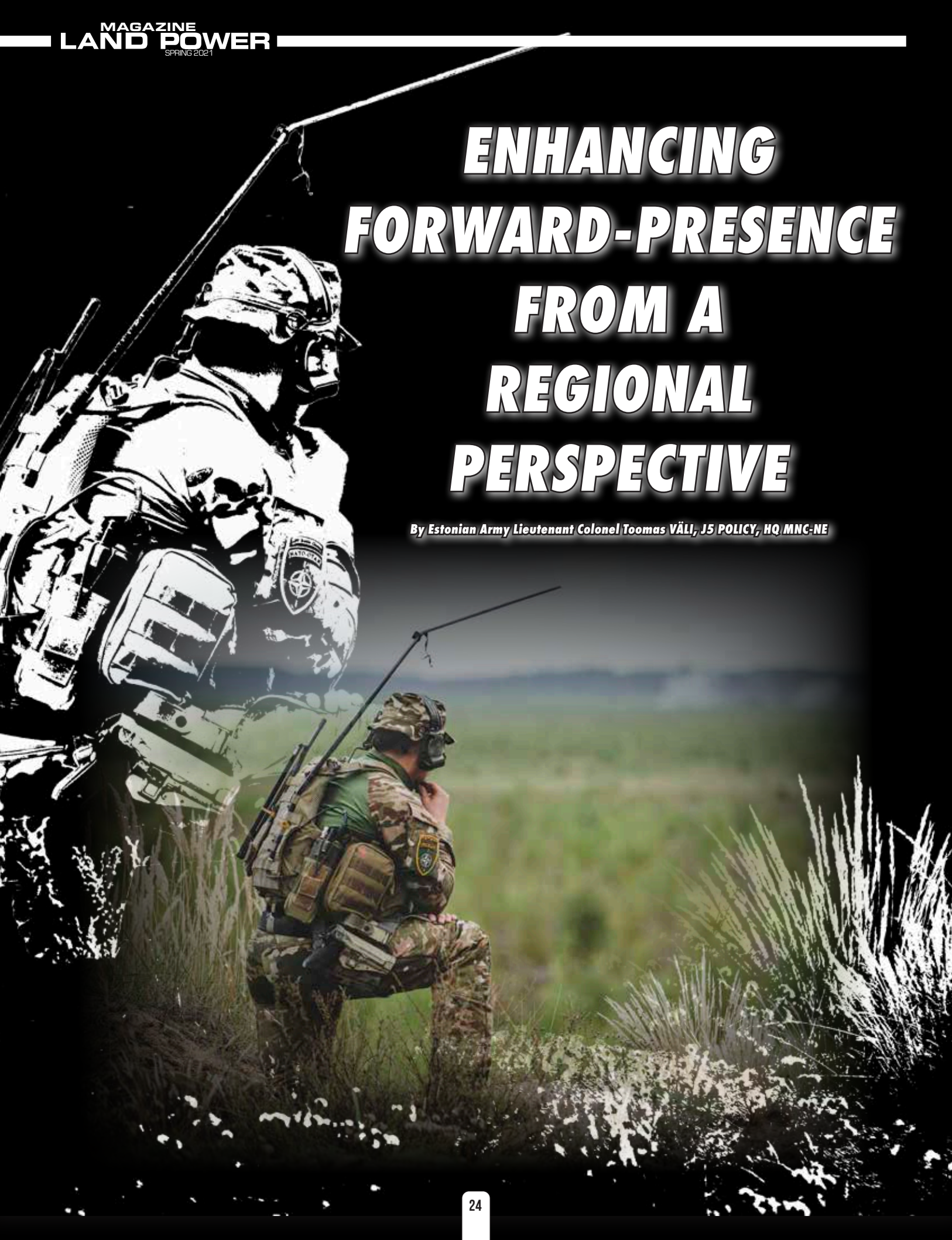
"We discussed the current issues of our cooperation, common training, exercises, and the nearest plans for the future," said Polish Army Brigadier General Bogdan Rycerski, commander of 15th Mechanised Brigade in reference to his meeting with Lieutenant General Cloutier. "Interoperability is a never ending story."

The trip also offered Lieutenant General Cloutier the opportunity to meet the soldiers within NATO and host nation units, and get familiarized with their capabilities and to connect on a personal level.

"Your leadership and I have been in the Army a long time," Lieutenant General Cloutier said to four Polish soldiers while presenting them commander's coins. "And the higher up you go, unfortunately, the further away you get from soldiers. We have to remember: at the end of the plans and the arrows we draw on our maps are young soldiers like you who are going to execute those plans."

The effects of the tour will be felt for years to come through greater inclusion of forces during exercises, further development of relationships, and pursuit for optimal combat readiness and deterrence within the region. **LC**





ENHANCING FORWARD-PRESENCE FROM A REGIONAL PERSPECTIVE

By Estonian Army Lieutenant Colonel Toomas VÄLI, J5 POLICY, HQ MNC-NE

The catalyst

The creation of the enhanced Forward Presence Battle Groups is related to larger changes in the European security environment. Despite the fact that the Soviet Union and its successor, the Russian Federation, have each expressed their wish for a NATO membership at one time (1954 and 1991)¹, the last decade in NATO-Russia relations has been tense. In 2014, internal tensions in Ukraine resulted in covert operations by the Russian Federation and the subsequent annexation of Ukrainian territories. The Allied reaction was resolute. At the Wales Summit that year, the Allies adopted the Readiness Action Plan, significantly reinforcing NATO's collective defence. This was when the NATO Response Force (NRF) was enhanced by establishing the Very High Readiness Joint Task Force (VJTF), also referred to as the "spearhead". The VJTF is a force ready for full-spectrum operations within a 10,000 kilometre radius from Brussels. In other words, NRF does not have a specifically designated deployment area.

The creation

At the next NATO Summit in Warsaw in July 2016, NATO took another historical step forward. The NATO Assurance Measures

included the increase of fighter jets on air policing missions as well as bolstering NATO AWACS missions across the eastern flank, multinational maritime forces patrolling the Baltic Sea, and training and exercise efforts². The enhanced Forward Presence (eFP) was announced in the form of four battalion-sized Battle Groups (with a total of approx. 4,500 troops) to be deployed on a rotational basis in Estonia, Latvia, Lithuania and Poland, with the United Kingdom, Canada, Germany and the United States being the respective Battle Groups' lead nations. As of February 2021, a total of 25 NATO members are involved (including the Baltic states and Poland). This has been and remains a unique display of NATO solidarity.

The eFP advantage

Compared to the NRF, the enhanced Forward Presence brings new value to the table. While the NRF is a highly mobile force under SACEUR's command exercising at their home bases, the Battle Groups are already deployed in their area of operations³, where they conduct their training activities in close cooperation with the respective national defence forces and societies as a whole. This is a huge benefit, especially when it comes to defence planning. First-hand knowledge of local terrain, procedures and



IRON STORM

1 - <https://www.wilsoncenter.org/publication/molotovs-proposal-the-ussr-join-nato-march-1954>

<https://www.nytimes.com/1991/12/21/world/soviet-disarray-yeltsin-says-russia-seeks-to-join-nato.html>

2 - https://www.nato.int/cps/en/natohq/topics_119353.htm

3 - https://www.nato.int/cps/en/natolive/topics_49755.htm

legislation as well as direct interaction with the local population are considerable advantages of eFP compared to other NATO land component entities.

From a strategic perspective, the eFP Battle Groups are still viewed as a political symbol. One might ask: What can a relatively small tactical unit achieve in the case of a full-scale invasion by adversary forces? Even though they were set up this way, the tactical level has been constantly evolving during the last years; and thus the Battle Groups have been adapting to the situation on the ground. It is worthwhile to note that every host nation is different. For instance, when a local partner is lacking some brigade-level support (in artillery, air defence or joint fires), the eFP contributors add such capabilities to the Battle Group and – by these means – bolster the brigades they are integrated with. Sound examples are exercises where eFP Joint Terminal Attack Controllers (JTAC) conduct air-to-ground support missions with NATO Air Policing assets⁴. It often happens that additional troops (brigade- and even division-level assets) are sent by a lead nation to support evaluation exercises (as Germany does in Lithuania on a regular basis⁵). It is a valuable training experience, especially from a logistical point of view, and a great rehearsal for future deployments. All in all, eFP participants and national defence forces both gain additional combat power they would not have had on their own. And even more: the Battle Groups are part of local defence plans. They are already familiarized with

the environment in their areas of responsibility⁶. Therefore, plans which are coordinated with national brigades, Multinational Divisions North-East and North and, ultimately, Multinational Corps Northeast (MNC-NE) reflect planning for the real situation on the ground.

MNC-NE's unique status

It is certainly a unique feature, also from the NATO Force Structure (NFS) perspective. MNC-NE as NATO's first Regional Land Component Command (LCC) is currently the only tactical-level NFS headquarters with real land force units under its command at all times. The Battle Groups deal with real issues in the field. They report according to set NATO standards and get tasks from the Corps HQ through divisions and brigades. As MNC-NE is responsible for collective defence planning in the Baltic region, the land-oriented perspective is conveyed to the joint and strategic levels through all means available – be it routine reports and assessments, integrating operational challenges into staff and tabletop exercises or key leader engagements.

The eFP in the Baltic states offers national defence forces a possibility to operate and train with heavy forces and vice versa. It does not apply to Poland to the same degree as it has a well-established and capable defence industry as well as strong and fully professionalized armed forces. In Estonia, for example, until the arrival of the eFP, the heaviest equipment used in exercises were armoured personnel

carriers. The ability to operate in the same battlespace with Allied main battle tanks (MBTs) cannot be obtained theoretically. It has to be practised. In such cases, the Estonian Defence League volunteers actively participate as opposing forces against the Battle Group. This is a good chance to “seek and destroy” not ordinary trucks with yellow insignia but to experience real combat fighting vehicles and MBTs. In turn, the Baltics' infantry brigades benefit from it by enhancing their planning capabilities, especially with regard to the logistical challenges of how to supply heavy units. This is also true for solving the tactical questions of how to properly use a heavy armour battalion. All these are the new skills honed within national brigades' exercise and training activities.



IRON WOLF

4 - https://www.nato.int/cps/en/natohq/news_175881.htm
<https://jfcbs.nato.int/page5964943/2020/week-20-northern-europe-operational-update.aspx>

5 - *Lessons from the Enhanced Forward Presence, 2017-2020*; NATO Defence College, 2020; page 65

6 - *Lessons from the Enhanced Forward Presence, 2017-2020*; NATO Defence College, 2020; pages 28, 31.

REASSURANCE**Knowing the battlespace**

Now, what does the deployment give to the eFP troops? Let us focus on Estonia again and the UK-led Battle Group. The most valuable aspect is familiarization with the battlespace, which is much different from, for instance, southern England. Fighting in woods and forests (FIWAF) is something that the British Army has not done in the last 20 years. There are some Tactics, Techniques and Procedures (TTPs) which have been modernized as a result and even influenced the new UK doctrine⁷. It also is worth mentioning that the exercises focus predominantly on conventional warfare. In the Estonian case, where “hybrid scenarios” are tackled by

police and local territorial defence units, the armed forces' main responsibility is conventional warfare. This shapes the Battle Group's training program.

Tangible assurance

The NATO assurance for the Baltic states and Poland is real. The enhanced Forward Presence's influence is certainly larger than the approximately 4,500 soldiers

Battle Groups as NATO forces deployed to their area of operations are the key to ensure further development of land forces in the Alliance as such. The regional approach is pure realism. There are more and more regionally focused NATO entities being developed along the Alliance's eastern borders, such as Multinational Corps Southeast and Multinational Division Centre, to name but a few. Last but not least, the enhanced Forward Presence is an important reminder of the need to develop, equip, maintain and train conventional warfighting capabilities. The “Suwalki Gap” is the same headache for planners as the “Fulda Gap” was 40 years ago. **LC**

JTAC

ENHANCING FORWARD-PRESENCE COMBAT READINESS

By U.S. Army First Lieutenant Baxter HODGE, Assistant S4, eFP Battle Group Poland / 2nd Squadron, 2nd Cavalry Regiment

NATO eFP Battle Groups: Unique Challenges and Opportunities

Unlike any other standing NATO military formation, enhanced Forward Presence Battle Groups (eFPs) must overcome a unique set of challenges that are inherent to their multinational task organization in order to achieve full potential on the battlefield. Although all NATO members share some commonalities that assist in their ability to rapidly integrate into a unified fighting force, differences still exist between the allied forces in equipment, doctrine, and training. Despite these challenges, Battle Group Poland continues to build notable combat readiness in interoperability and integration between the multinational partners. In a recent interview, Lieutenant Colonel Jeffery Higgins, Battle Group Poland Commander at the time, credited members from across the Battle Group formation with this success.

"Each of Battle Group Poland's contributing nations send their best," he said. "I have found that the Soldiers and leaders from these formations are well-trained and eager to contribute. It's this commitment to the mission that drives creative thinking and motivation to overcome our interoperability challenges."

During his rotation, Lieutenant Colonel Higgins focused collective training at the Battle Group level on facing these challenges head-on, creating lessons learned and enabling partner nations to identify and adapt to the technical and doctrinal differences between their forces.

As with any organization, change can be disruptive. Not immune to this universal maxim, the Battle Group's relatively short rotations (generally six months) create challenges in achieving sustained readiness. That is why, throughout its rotation, Battle



Group Poland strengthened its readiness and lethality through multinational training exercises including Wojtek Fire, Mercury Rising, and Bull Run. Each of these challenged the Battle Group's interoperability and catalyzed the development of unified standards and procedures to enable closer integration across the formation. Furthermore, recognizing the challenges posed by the constant rotation of units, the Battle Group staff consolidated this progress into the eFP Standard Operating Procedure (SOP) in order to generate sustained Battle Group readiness to be passed on from unit to unit during future rotations. Codifying these lessons into the eFP SOP will enable future rotations to be able to more rapidly navigate the challenges inherent to change, integrate into the Battle Group and build upon tried and tested best practices.

Building readiness in enhanced Forward Presence

During its training progression throughout the rotation, Battle Group Poland emphasized collective training events designed to confront inherent challenges caused by national differences in order to encourage integration across the multinational force. Through these challenging training events, the Battle Group validated its ability to accomplish its ultimate mission – to deter and if necessary, rapidly respond to acts of aggression against the Alliance. On the human level, these events also enabled Battle Group Poland to build rapport and trust across its allied force as Soldiers shared hardship during tough, realistic training.

Wojtek Fire

In September, Battle Group Poland teamed up with the U.S. 1-101st Combat Aviation Brigade to refine the Battle Group's Air to Ground integration during Operation Wojtek Fire. The

training was designed to build and sustain the Battle Group's ability to plan for and employ its extensive fires capability. In addition to synchronizing the Battle Group's organic Croatian Multiple Launch Rocket Systems (MLRS) and U.S. M777s Howitzers, five US AH-64 Apache Helicopters from Task Force No Mercy provided the Battle Group's integrated staff and team of multinational Forward Observers and Joint Terminal Attack Controllers (JTAC) the opportunity to employ this OPERATION ATLANTIC RESOLVE asset. Beyond the standard Call for Fire, the Battle Group Poland's organic UK, Croatian and U.S. sensors had the opportunity to employ Apaches under day and night live fire conditions. Moreover, the Apaches had the opportunity to call for and observe fires from both Croatian and U.S. artillery. This training exercise demonstrated the Battle Group's extensive fires capabilities and allowed it to exercise and refine its fires SOPs. From this exercise, Battle Group Poland gained a greater understanding of how to plan for and execute fire missions using observers and fires elements across the allied nations.

MERCURY RISING



WOJTEK FIRE



Mercury Rising

For the first time in its four-year history, Battle Group Poland conducted an Alert-Marshall-Deploy exercise that tested the ability to rapidly move the entire Battle Group from the Bemowo Piskie Training Area in response to a potential threat. OPERATION MERCURY RISING, a Deployment Readiness Exercise, began on the morning of November 21st when the Battle Group received a simulated alert from its higher headquarters and immediately began conducting the necessary planning and preparation to

capabilities and demonstrated its ability to employ its PACE plan (primary, alternate, contingency, and emergency) to communicate both within the Battle Group and with host nation forces from the Polish Army's 15th Mechanized Infantry Brigade (15MIB). Along with validating the Battle Group's capabilities, the exercise provided the Battle Group an opportunity to develop and exercise a unified standard for conducting tactical road march and passage of lines.

eFP integration with host nation forces

The Battle Group also trained extensively during the rotation on its ability to integrate with and fight alongside host nation forces from the 15MIB. In reflection, Lieutenant Colonel Higgins emphasized the importance of training alongside host nation forces.

"Similar to the required rapport and trust that the Battle Group must share in order to be successful, we must also have the same relationship with 15MIB. We have trained alongside them just as we would fight alongside them," he said.

Part of this integration included participation in host nation

BULL RUN 14



deploy into an exercise. During this training event, the Battle Group emphasized refining its ammunition distribution procedures and ability to exercise command and control as the Battle Group quickly built combat power. Mercury Rising challenged the interoperability and readiness of the Battle Group in a way not tested before.

Bull Run 14

Following Mercury Rising, elements of Battle group Poland deployed into OPERATION BULL RUN 14. During the operation, two Stryker Infantry Troops from Task Force Cougar, augmented by reconnaissance forces from Cassino Troop (UK) conducted a Tactical Road March into battle positions in the Suwalki region. This training exercise

provided the Battle Group an opportunity to operate in the region's unique terrain and challenged their ability to integrate across the multinational elements. During the operation, the Battle Group validated its communications

eFP SOP to preserve interoperability & sustain gains

After the completion of these critical training events and throughout the rotation, Battle Group Poland staff made a concerted effort to consolidate lessons-learned and best practices into the eFP Standard Operating Procedure (SOP) in preparation for handing off responsibility of the mission to their successors. To enable sustained readiness, the Battle Group executed After Action Reviews (AARs) where the staff collected and preserved experiences and lessons-learned from partner nations, troop commanders, and staff sections. These AARs served to not only identify unresolved challenges for improvement in future training iterations, but also helped to illuminate best-practices for incorporation into the SOP. Incorporating these valuable experiences and lessons-learned into the eFP SOP provides the Battle Group with an enduring



**TUMAK 20**

median to build upon experience from rotation to rotation, enabling sustained progress over time. This eFP SOP is an invaluable resource for subordinate units of the Battle Group as well for referencing the unified standard for tasks such as Call for Fire and conducting a Passage of Lines. By serving as the common standard across the Battle Group, the eFP SOP provides continuity and predictability within a non-doctrinal, multinational tactical fighting formation.

Future rotations in Battle Group Poland will continue to enhance and refine the eFP SOP as they develop more effective procedures through their own training. Moreover, as future editions of the eFP SOP become more detailed and robust, rotational units will be able to rapidly integrate into the Battle Group at a higher degree of interoperability than that of their predecessors. Units that integrate within the Battle Group at higher levels of interoperability from the beginning of their rotation will be able to focus a greater portion of their training cycle on executing complex Battle Group level training exercises which will enhance the Battle Group's readiness to operate and fight as a multinational force. In this way, the

eFP SOP will not only preserve gains in readiness from previous rotations, but also help future rotations to exponentially expand the Battle Group's interoperability and capabilities.

Final thoughts

During the most recent six month rotation, Battle Group Poland has expanded its readiness and capabilities through building interoperability and strong relationships between the multinational partner units. Developing this cooperation and shared trust between the contributing nations is critical to the success of Battle Group Poland as an effective unit and reflects NATO's strength as an alliance. The Battle Group has made exceptional improvements in its interoperability and demonstrated the ability to fulfill its mission as a rapid response force through exercises such as Wojtek Fire, Mercury Rising, and Bull Run. Sustaining this progress through the eFP SOP will pave the way for future rotations to make eFP BG Poland an even stronger and more effective fighting force. **LC**

WHAT IS THE eFP? NATO has enhanced its presence in the eastern part of the Alliance, with four multinational battlegroups in Estonia, Latvia, Lithuania and Poland. These battlegroups, led by the United Kingdom, Canada, Germany and the United States respectively, are multinational, and combat-ready, demonstrating the strength of the transatlantic bond. Their presence makes clear that an attack on one Ally will be considered an attack on the whole Alliance.

NATO's battlegroups form part of the biggest reinforcement of NATO's collective defence in a generation.

-For more information on NATO enhanced Forward Presence (eFP), please visit the following link: <https://shape.nato.int/efp>



ACHIEVING MISSION READINESS: THE JOINT TASK FORCE STANDBY PHASE AND STEADFAST JUPITER JACKAL 20

A PERSPECTIVE OF 1 GERMAN/NETHERLANDS CORPS

BY 1GNC STAFF

2020 certainly was a year without precedence. While the pandemic influenced every corner of society, NATO had to continue to plan and execute major exercises. STEADFAST JUPITER JACKAL 2020 (STJUJA20) was NATO's largest Joint computer-assisted/command post exercise (CAX/CPX) that year and trained audiences in Italy, Germany and Turkey. At once, Allied Joint Force Command Naples, Composite Special Operations Component Command, Maritime and Air Component Command (MCC/ACC), NATO Rapid Deployable Corps Turkey and 1 German/Netherlands Corps (1GNC) faced a scenario that required planning and performing in a Non-Article 5 Crisis Response Operation at a regional scale.

The STJUJA20 scenario

First and foremost, 1GNC used the exercise to train and achieve mission readiness for its Joint Task Force commitment in 2021. It did, however, also serve as a template for possible deployments during the standby phase and trained the staff in such a way that they are able to fulfil their task in any given scenario.

In a fictional but fairly realistic scenario set in the North and West African region, STJUJA20 had the NATO HQs practice and plan the deployment and execution of two interconnected but different smaller operations, all on a regional scale. In the exercise, United Nations (UN) already operated in the regions, which provided ample opportunities for coordination.

Stretching onto strategic, operational and tactical levels are the topics of both the exercise and the task that lies ahead of the headquarters in their standby phase.

Inherent to crisis response operations is the focus on regional problems, some of which may derive from real-life challenges, NATO or UN operations faced during the last decade. A prerequisite to successful action therefore is the implementation of communication and engagement tools, among them Civil-Military Cooperation (CIMIC), Psychological Operations (PSYOPS), Information Operations (InfoOps) and Strategic Communication, the latter creating the link between strategic guidance and its implementation on an either operational or tactical level.



Another tone-setting training objective was the implementation of cross-cutting topics such as Protection of Civilians; Children and Armed Conflict; Cultural Property Protection; Women, Peace and Security; and Building Integrity, as well as challenges related to the comprehensive approach, crisis management, migration and handling dis- or misinformation campaigns.

Road to Joint Task Force: challenges

A thorough preparation along with due diligence was key to the sustainable success of the learning process involved in STJUJA20. Tailored to the restrictions of COVID, 1GNC began its training early. A crisis response planning and a pre-exercise battle staff training completed the process, among other additional training.

In late autumn the pressure of the increasing COVID circumstances led to the decision that rather than exercising at the training area of Bergen/Germany, the HQ setup was relocated to 1GNC's main headquarters in Münster. In a very short time, the supporting battalions set up an already existing high mobile command post infrastructure right at Münster Schloßplatz HQ area.

In a united effort of the various branches and supported via Joint



information bypass traditional channels and made its way into the system via Social Media, but it also proposed a new challenge to each segment: dissecting fake news. Intelligence already played a major role in previous exercises but the very high requirements this exercise has placed on them was astounding. It turned out to be useful to integrate CEMA (Cyber Electro Magnetic Activities) experts and augmentees, professionals in their fields. Enhancing intelligence and adding an agile, inter-connected analysis cell could be a successful option. In the near future, the ability to adapt and react to new cyber threats will be a crucial test for all exercises and deployments.

It is not sufficient to merely up the number of involved intelligence and analysts. Rather, the metric of commitment to common purpose must be focused on programmes within NATO or its ally countries that produce useful capabilities against commonly perceived threats.

Mission readiness

The overall aim of a stand-by phase is to establish mission readiness, i.e. fulfil all military and personal requirements that enable a military entity to execute its mission in case of activation.

The well-adjusted and experienced forces of 1GNC were already serving as part of the NATO Response Force (NRF) multiple times. Yet, continuous training and new personnel required extra thorough preparation. Despite COVID pressure, this had been done continuously in the months preceding the exercise. This was predominantly visible by the performance of the Joint Operation Centre (JOC) but also by the well-functioning relationships with other components, especially the ones not on site and the ad hoc planning teams. Having COVID implemented in the scenario was, among other novel threats, another upping of the challenge which was well mastered by all participating components.

Their initial intensive training and willingness to adapt and overcome IT-related or situational challenges helped the overall workflow and led to a visible cohesion within the branches. Having achieved mission readiness, however, does not mean to take a step back and rest. For the good part of 2021, 1GNC will continue to maintain the momentum and improve despite the challenges imposed by COVID. **LC**



Warfare Centre, it was possible to adapt, redraft and amend where necessary.

While the pandemic certainly presented challenges to execute large exercises, 1GNC and involved components of STJUJA20 found a way to achieve the training objective within the pandemic restrictions. It also proved that it would be possible to deploy and operate under pandemic conditions, as long as protections measures are put into place.

And it was not all sweat and tears: a series of identified lessons were worked out that will be of value for 2021 and any future situation that may challenge to be unpredictable. It will also greatly benefit the further development of the Corps Warfighting Concept and the adjustment of procedures.

Information environment

The ever-changing Information Environment (IE) was of high importance during the exercise and sufficiently matched the challenges of information we face in real life. Not only did



THE ROAD TO NATO RESPONSE FORCE

By Turkish Army Sergeant Major Mevlüt KÖSE, CSEL NRDC-T



COM LANDCOM transfers the NRF Guidon from COM Eurocorps to COM NRDC-T

The NATO Response Force (NRF) is a highly capable and technologically advanced multinational force made up of land, air, maritime and Special Forces components that the Alliance can deploy quickly to wherever it is needed. NATO Rapid Deployable Corps-Turkey (NRDC-T) assumed the responsibility for the NRF Land Component Command (LCC) for 2021 from Eurocorps in a ceremony in Istanbul, Turkey, presided over by the Commander, Allied Land Command (LANDCOM), Lieutenant General Roger L. Cloutier on January 12, 2021.

18 months of preparation

NRDC-T's preparation for the NRF LCC responsibility began in mid-2018 after the completion of two-year long stand-by period as a Joint Task Force (JTF) Headquarters (HQ). Transformation from JTF HQ to NRF LCC role was achieved

through an internally developed transformation plan which focused on the new requirements for the NRF LCC role. A major steppingstone in the transformation process was in December 2019 when the HQ conducted the Exercise



STJU-JA20 was an excellent opportunity for NRDC-T to increase overall flexibility, agility and readiness ...





CSEs from Eurocorps, LANDCOM and NRDC-T

EURASIAN STAR 2019 (EAST-19). EAST-19 was an excellent opportunity for the HQ to test its processes, functions and procedures as well as a new structure. This was also used as an opportunity to experiment with new structures and initiatives in the HQ. These included the STRATCOM Coordination Center (SCC), NATO Engagement Center (NEC) and the Joint Air Cell (JAC), all of which were found to significantly improve the operational effectiveness of NRDC-T.

HQ LANDCOM also took part in Exercise EAST-19 as the Higher Command (HICON) role, as well as simultaneously providing Land domain coaching and mentoring to NRDC-T staff. The lessons learned from EAST-19 allowed HQ NRDC-T to realign and refine its transformation plan and shaped on-going preparations for the NRF LCC role. The process continued with various staff and branch level events, and then the communications and information systems interoperability evaluation which was successfully tested on Exercise STEADFAST COBALT 2020 (STCO20) between September 14 and October 9, 2020.

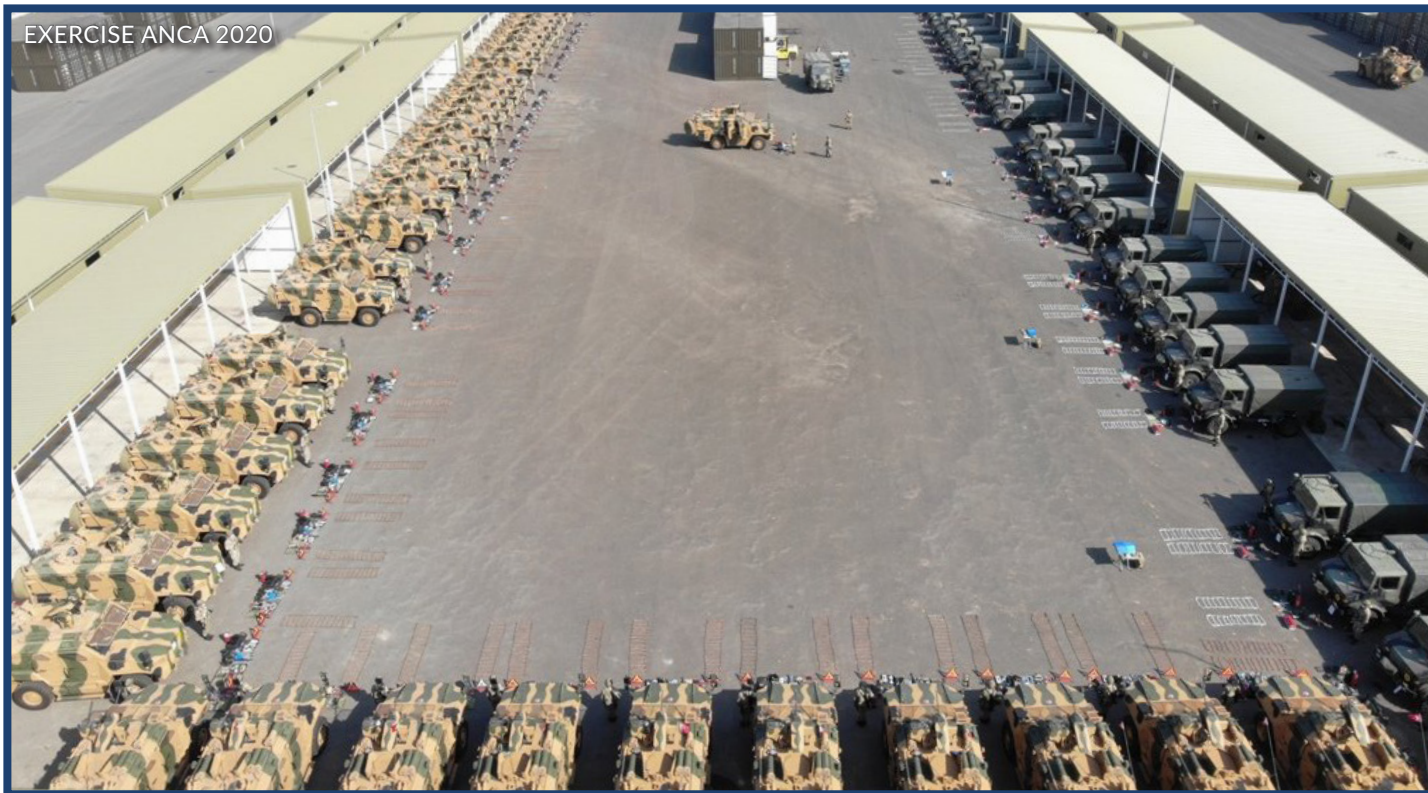
Combat Readiness Evaluation

The transformation and preparation processes culminated with the Combat Readiness Evaluation (CREVAL) which was conducted by LANDCOM during Exercise STEADFAST JUPITER-JACKAL 2020 (STJU-JA20). NRDC-T's CREVAL was one of the first CREVALs executed in accordance with the new evaluation system outlined in the latest version of the Allied Forces Standards (AFS) Volume VII. It created an opportunity to test and assess the effectiveness of the new methodology. STJU-JA20 aimed to train, evaluate and certify units in NRF force package for the 2021 rotation. STJU-JA20 was an excellent opportunity for NRDC-T to increase overall flexibility, agility and readiness and challenged our team by a realistic and challenging exercise scenario, coupled with the complexity of the COVID-19 environment.

In order to reduce the risk and protect the personnel, HQ NRDC-T successfully implemented several preventive measures in line with the NATO and national regulations during the STJU-JA 20. We were able to manage to reduce the physical contact by providing virtual platforms for the meetings. Physically distanced tent layouts, increased ventilation in the tents, hygiene points, separate entry and exit points, and regular temperature checks were some examples of the other preventive measures implemented during the exercise. Broadcasting meetings over the closed channel TV system was assessed as a best practise during the exercise. This system was helpful for avoiding crowds and providing situational awareness among the staff.



EXERCISE ANCA 2020



At the end of Exercise STJU-JA 20, Lieutenant General Roger Cloutier, Commander LANDCOM, declared NRDC-T combat ready and capable of commanding and controlling activities, missions, and operations throughout peace, crisis, and conflict for the NRF LCC mission.

The new CREVAL system proved to be extremely useful for NRDC-T. It was much more than an evaluation. The overall process and interaction with the Evaluation Team helped us to identify lessons and to demonstrate possible best practice. If required, corrective actions to refine procedures and processes could be immediately taken and the new procedures practiced by the staff. The Lessons Learned and best practises from this evaluation will help LANDCOM and other Graduated Readiness Force (Land) (GRF(L)) HQs to improve their internal process as well. It no doubt contributed to a continual process of learning and improvement for all the GRF(L)s subject to the land domain guidance of HQ LANDCOM.

Transformation

As part of its Transformation Plan, NRDC-T also provided support to transformation process of the 66th Mechanized Infantry Bde to become Very High Readiness Joint Task Force (VJTF) Land Brigade in 2021. The Brigade has also followed a similar transformation and evaluated by the Turkish Land Forces Command on Exercise ANATOLIAN CARACAL 2020 (ANCA20) and Exercise EURASIAN BRIDGE 2020 (EUBR20). HQ LANDCOM also provided observers for both exercises.

A priority for HQ NRDC-T has been the Logistic preparations for the NRF 21 readiness period to ensure that any deployment can be facilitated and supported. The HQ created the 'NRF21 LCC Concept of Logistic Support and Service Support Matrix'

which provides guidance, templates and processes on how the LCC and supporting organisations will provide the operational reach and endurance to rapidly achieve objectives. NRDC-T's concept of logistics is based on worst case scenario planning and requires the Land Component to be self-sufficient for the critical services. Therefore, NRDC-T and the VJTF Bde have pre-arranged assured access contracts with national providers through the Turkish Ministry of National Defence (MOD). All other supplies have already been identified and reserved in national depots and ready for issue immediately upon activation of the NRF. Preparation of bi-lateral logistic support arrangements, with troop contributing nations to provide logistic support for the units below battalion-level is ongoing. Requirements have been identified and coordinated with the respected host nations. This preparation and pre-positioning of stocks or contractor support has resulted in a genuinely capable and credible force package, that is immediately supportable.

Further preparation for the LCC task identified the requirement for a mission preparation deployment plan (MPDP). This was developed to specifically identify the individual processes and procedures that HQ NRDC-T would need to conduct throughout the phases of deployment, starting with readiness. In accordance with the MPDP, generic movement plans have been developed and coordinated with the respected nations accordingly. This also improves our readiness and deployment timeline.

In summary

2020 was a challenging year for everyone. It has affected the way we live and work. But it also reinforced how resilient, flexible, adaptive and creative we are in the face of uncertainty. NRDC-T developed new procedures, and hybrid ways of working

to ensure training continued, and that we continued to be an effective, trained fighting force; capable and credible as the NRF LCC HQ. That we completed all our tasks without major incidents or concerns is testament to the professionalism, capability and capacity of our staff and our ability to deploy in a COVID-19 environment. HQ NRDC-T and TUR VJTF (L) BDE are mission ready; able to rapidly deploy anywhere in the world that our NATO Alliance needs them. **LC**



*Peace at home, Peace in the world.
Yurtta sulh, cihanda sulh.*



The Changing Face of NATO: Cognitive Diversity Impact on the Air & Land Domains

By British Royal Air Force Warrant Officer Sara CATTERALL, CSM AIRCOM



Globally, we have some challenges ahead. In just the 40 years between 1959-1999 the human population doubled from 3 billion to 6 billion. The global population may grow to 8.5 billion by 2030, and up to 10 billion by 2050. So what does that mean for us in NATO? It means the world is changing and it is changing at an exponential rate, and is replete with complex challenges. For example:

- This is an age of anger, of great power competition, and of digitisation of technology. Across defence, industrial capabilities are giving way to an information age.
- We have complex challenges to live the way we want to live. Climate change, mass migration, urbanisation, economic growth and recovery, food and water insecurity, and not least of these the current health crisis.
- Warfare and conflict is evolving and it is evolving rapidly. It is becoming more technologically driven, with new ways required to counter competition across all domains.

So why does cognitive diversity matter in all of this?

Change is more than simply acknowledging it. It is complex and multi-faceted process, and we need to effect it. Part of the way we do this is by growing our understanding of our cognitive diversity. More specifically, gaining better understanding of the difference between land and air, not just the physical domain itself but our people's expertise and experience within each domain. Our domain awareness in this case, is our diversity.

Pared back, diversity itself is essentially about differences, while cognitive diversity embraces several dimensions of the differences we see around us. In every corner of NATO differences exists. It is what makes us stronger. The labels we give ourselves define us. Black, white, man, woman, British, French, introvert, extrovert or even Air Force, Army, Navy. Our culture shapes us. It shapes our identity and it makes us who we are. It influences how we think and what we prioritise. This includes the domain awareness we are exposed to throughout our military careers. I am a Royal Air Force air-focused intelligence specialist and a NATO HQ Air Command Senior Enlisted member. I live and breathe air as a domain and only, very occasionally, consider land and usually only when close air support is involved.

If you want to identify someone's character, examine the company they keep.

Human nature encourages us to migrate towards those who think like us, who we can identify with, because similarity drives most connection and friendships. Psychology calls it an affinity bias, and we have all the conditions to fulfil this as we sit stove-piped in our domain expertise. Do we therefore need to break out of our old ways of thinking? How do we engender the freedom of thought and generate fluidity of ideas between us?

Warfare has changed fundamentally. Clausewitz said, "Whilst the nature of war remains constant, the character of war is changing." The conception of national security has broadened beyond 'old way's and traditional boundaries of how we use defence have broken down. The threat has changed. As a threat focused organisation we need to change with it and understand each other much more deeply. Regimes already believe they are engaged in conflict and their goal is to win without going to war. Our adversaries seek to achieve that through sub-threshold attacks and undermine our solidarity and confidence. To compete, it is recognised that we need to not just modernise our ways of thinking to deter the adversary, but transform them. We need to better understand the interdependency across domain boundaries. We need to become collectively more intelligent as an organisation, and an easy way to become more collectively intelligent is to seek out differences in people. To learn, to rely on and to trust that difference. In doing so have access to a wider range of information, ideas, perceptions, and innovation.

Our diversity is our strength.

Sun Tzu said, "The art of war teaches us not to rely on the likelihood of the enemy's not coming, but on our own readiness to receive him. Not on the chance of his not attacking, but rather on the fact that we have made our position unassailable." As an organisation we need to encourage creativity and innovation. The only way we do that is through greater connectivity and respect of difference. Knowledge is the means, not the ends. Our strength is our standards, values and ethos. Our strength is our people, and as we grow an inclusive culture that encourages cognitive diversity of domain awareness, it is our unity that will create success. U.S. Army General Eric Shinkseki said, "If you dislike change, you are going to dislike irrelevance even more." The ability to effect change is in all of our hands as we embrace transformation for a future NATO. Now forgive me, I'm off to read more about Air-Land Integration and ask LANDCOM CSEL some VERY stupid questions.... **LC**

HISTORY OF THE AWARD

Since the inception of Allied Land Command (LANDCOM) in 2012, the commander of LANDCOM has presented the Sergeant Yahya Award annually to the Non-Commissioned Officer whose has made an outstanding individual contribution to the success of Allied Land Command through their exceptional commitment, dedication and duty.



What did you feel when you received this award?

I feel great! This accomplishment was thanks to me by my incredible NCO team. They always support me, and I couldn't have done it without them.

What was the reaction of your friends and family?

My family is very proud, but they were not surprised because they believe I always maintain a positive attitude and excellent work ethic. My friends were excited and happy I was recognized for my hard work and dedication.

Why did you decide to be a soldier?

I saw it as an opportunity to pay back to the country (United States) that gave me so much. I was not planning on making it a career, however, the mentors I had throughout my military time, whether in U.S. or NATO forces, showed me a clear picture on how important is to lead by example in the military.

What are some of the most impactful things you've done and learned while serving at LANDCOM?

I have learned so much from all of the military cultures in the command. I pride myself on getting things done, whether it is coordinating transportation for missions, or simply maintaining my fitness. I've learned to be a proud representative for the United States through my actions, and to be a student to other cultures as well.

How do you see yourself in the future? What are your career aspirations from here? Has your career plan changed since you first joined the Army?

I like to take things day-by-day; it helps me maintain focus. I try to be professional today and meet challenges today to shape my future. My career will be good as long as I represent the USA the best I can.

From your perspective, what is the secret to being a great soldier?

Well, It won't be a secret anymore, but I'll tell you (and promise to tell no one else, okay?): live The Warrior Ethos. They are the core fundamentals for all soldiers, young and old. If you let those guide you, you will go far, and you will be a positive force wherever you go. For The Soldier!

SERGEANT YAHYA AWARD 2020

SFC RONALDO NOGUERA





NATO ALLIED



LANDCOM MISSION

LANDCOM is the Theatre Land Component and Land Advocate responsible for coordinating and synchronizing NATO and Partner Land Forces by enabling land domain **READINESS, INTEROPERABILITY, STANDARDIZATION, and COMPETENCY**; stands ready to deploy headquarters elements to provide planning, coordination, and C2 capabilities to Allied forces. **LANDCOM** will retain the capability to perform the role of MC-LCC as long as it is required, even on a permanent basis if the decision is made.



MND-N

ADAZI, LVA
MARCH - 2019



MGEN FLEMMING MATHIASEN



MND-NE

ELBLAG, POL
JULY - 2017



MGEN KRZYSZTOF MOTACKI



XXX

MNC-NE

SZCZECIN, POL
SEPTEMBER - 2018



LGEN SŁAWOMIR WOJCIECHOWSKI



XXX

ARRC

INNsworth, GBR
JULY - 2019



LGEN EDWARD SMYTH-OSBOURNE



XXX

1 GNC

MUNSTER, GER
FEBRUARY - 2020



LGEN ANDREAS MARLOW



XXX

RRC-FR

LILLE, FRA
AUGUST - 2019



LGEN PIERRE GILLET



XXX

EUROCORPS

STRASBOURG, FRA
SEPTEMBER - 2019



LGEN LAURENT KOLODZIEJ



XXX

NRDC-ITA

SOLBIATE, ITA
DECEMBER - 2019



LGEN GUGLIELMO L. MIGLIETTA



XXX

NRDC-SP

VALENCIA, ESP
JANUARY - 2020



LGEN FERNANDO GARCÍA-VAQUERO



LAND COMMAND



STRATEGIC, JOINT & SINGLE SERVICE COMMANDS



SHAPE

GEN WOLTERS
MAY - 2019



JFCBS

GEN VOLLMER
APR - 2020



JFCNP

ADM BURKE
JUL - 2020



JFCNF

VADM LEWIS
DEC - 2018



LANDCOM

LGEN CLOUTIER
AUG - 2020



AIRCOM

GEN HARRIGIAN
MAY - 2019



MARCOM

VADM BLOUNT
MAY - 2019



NSHQ

BGEN STEPHENSON
JAN - 2021



XXX



MNC-SE

BUCHAREST, ROU
FEBRUARY - 2020

MGEN TOMITA-CATALIN TOMESCU

NATO Force Integration Units



CENTERS OF EXCELLENCE, SCHOOLS, TRAINING, SIMULATIONS



XX



MND-SE

BUCHAREST, ROU
JUNE - 2020



BGEN CRISTIAN DAN



XXX



NRDC-TUR

ISTANBUL, TUR
AUGUST - 2018



LGEN KEMAL YENI



XXX



NRDC-GR

THESSALONIKI, GRE
MARCH - 2021



LGEN ANASTASIOS SPANOS



XXX



LANDCOM

IZMIR, TUR
AUGUST - 2020



LGEN ROGER L. CLOUTIER JR.

1325

WOMEN | PEACE | SECURITY

By NIC A-2 Ayşegül BINALI, Humanitarian Affairs Officer/GENAD, LANDCOM G9





In October 2000, the United Nations Security Council issued a landmark resolution recognising that all people have a role to play in preventing war, building peace and conflict resolution, regardless of their gender. The United Nations Security Council Resolution (UNSCR) 1325 stated that women, men, girls, and boys are affected by war differently and influence war in different ways. In particular, women's participation in peace processes can significantly contribute to the maintenance and promotion of international peace and security, protection of women and prevention of armed conflict. Statistically, women are often excluded from the formal peace negotiations where conflict resolution, peacekeeping, peace building and conflict prevention strategies are negotiated. Women make up 50 percent of the population, thus by excluding that 50 percent of the population we cannot achieve sustainable peace and security.

The Women, Peace and Security (WPS) mandate is comprised of four pillars: participation and representation, prevention, protection, relief and recovery for men, women, girls and boys. It is fundamental to NATO's common values of individual liberty, democracy, human rights and obligations under the Charter of the United Nations. This is in addition to UNSCR 1325 and its related resolutions, which are grounded in international human rights and international humanitarian law legal framework.

NATO's Role. Throughout the last 20 years, the WPS agenda has continued to gain recognition and shape policy and procedures across the alliance. NATO took on the challenge of advancing the agenda at the political level through policies and work with allies and partners, throughout the NATO Command Structure, NATO Force Structure and in NATO missions and operations. Advisors and focal point personnel were included within the structure with the purpose of integrating and mainstreaming gender perspectives across NATO.

The Alliance works to address gender inequality by integrating gender perspectives through its three core tasks of Collective Defence, Crisis Management and Cooperative Security. NATO's measurable progress, its initiatives and principles, go back almost 15 years. Notable milestones include:

2007 - NATO's first policy on Women, Peace and Security (WPS) was developed by allies and partners in the Euro-Atlantic Partnership Council (EAPC).

2010 - The first action plan was issued with Lisbon Summit on the occasion of the 10th anniversary of UNSCR 1325.

2018 - NATO heads of state and government endorsed the revised WPS policy that introduced the principles of integration, inclusiveness and integrity.

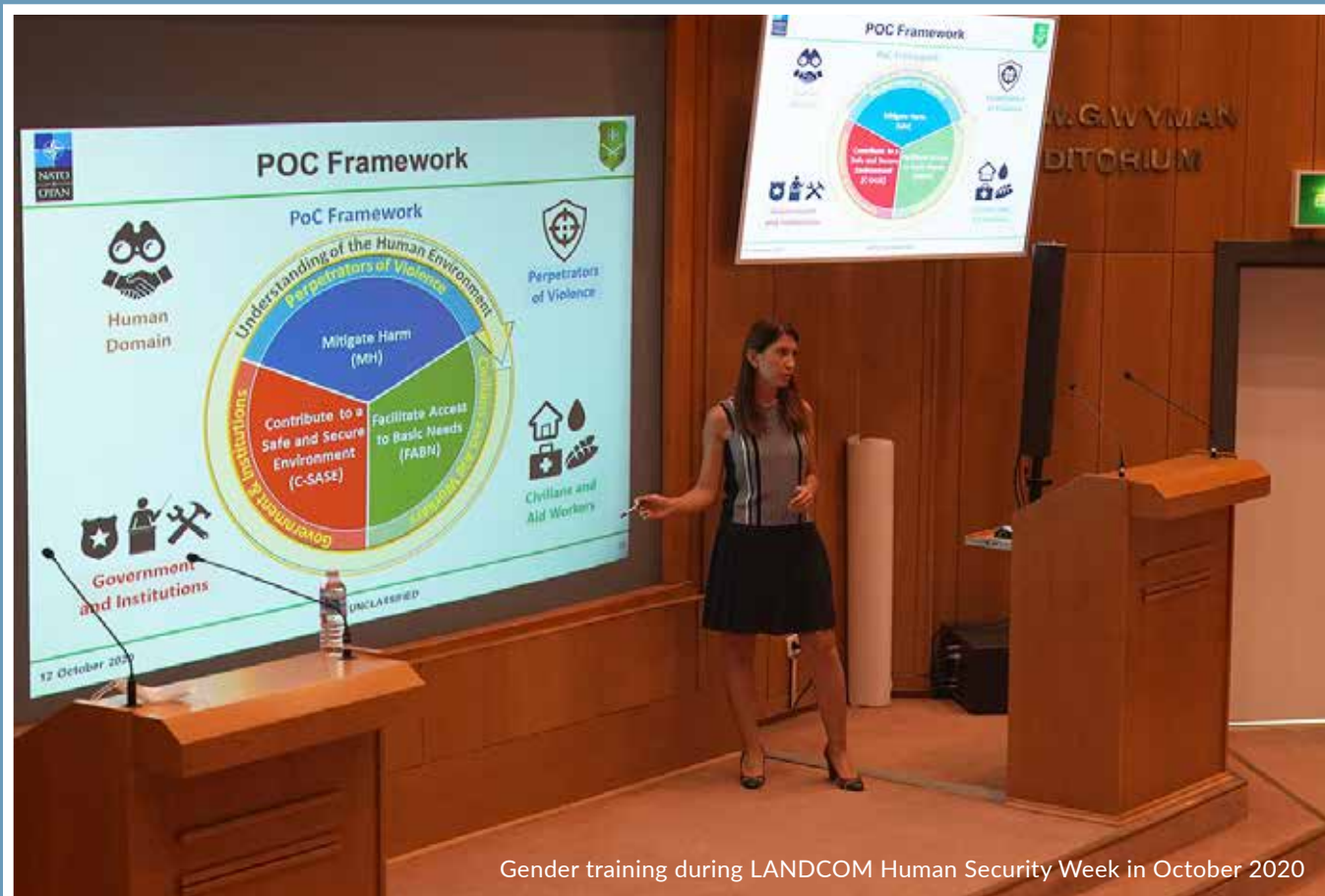
2019 - NATO adopted its first policy on preventing and responding to sexual exploitation and abuse (SEA) in support of its work on WPS.

Furthermore, NATO uses three guiding principles that underpin all WPS activity:

- **Integration.** Gender equality is an integral part of NATO policies, programmes and projects guided by effective gender mainstreaming practices.
- **Inclusiveness.** Representation of women across NATO and in national forces is necessary to enhance operational effectiveness and success.
- **Integrity:** Systemic inequalities are addressed to ensure fair and equal treatment of women and men, Alliance-wide.

It is important to note there are different definitions for the term gender within international organizations like UN, NATO, EU, etc. Within NATO, "gender refers to the social attributes associated with being male and female learned through socialisation and determines a person's position and value in a given context. This means also the relationships between women and men and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialisation processes. Notably, gender does not equate to woman."¹

Gender equality is an important focus of NATO's cooperation with other international organisations such as African Union (AU), the European Union (EU), the Organization for Security and Cooperation in Europe (OSCE), the United Nations (UN) and the civil society.



Gender training during LANDCOM Human Security Week in October 2020



The Gender Perspective in Allied Land Command

For LANDCOM, gender equality is a consistent factor in everything the command does, from exercises to planning operations. Using the three principles of integration, inclusiveness and integrity, as well as monitoring and reporting, not only does LANDCOM adhere to NATO policy, it helps set the standard. With active support from leadership, this translates to gender perspectives integrated into the allocation of resources, awareness, events and training, the planning and execution of operations, combat readiness evaluation and the lessons learned processes. To achieve this, LANDCOM engages across the Alliance and across to non-NATO entities such as United Nations, International Committee of the Red Cross and other international organizations for coordination of information and education.

20th Anniversary Observance

October 2020 was the 20th Anniversary of UNSCR 1325. To recognise this, NATO hosted a series of activities across the alliance and its partner nations and encouraged the NCS and NFS to do the same. To this end, LANDCOM planned a gender-focused Human Security week that included a WPS town hall meeting and a variety of training activities. LANDCOM personnel also participated in NATO sponsored events like the NATO Gender Committee on Gender Perspectives and NATO Digital Dialogues. The week culminated in a "We Run for Peace and Security" socially distanced team exercise competition comprised

of multiple fitness events totalling 13 minutes and 25 seconds. LANDCOM's commemoration of the 20th Anniversary of UNSCR 1325 drew significant social media attention and saw a shift in age balance from older followers to a younger cohort (18-44), and saw increased number of females, a wider spectrum of occupations and regional diversity.

Women Peace and Security Agenda integrated into "NATO 2030: United for a New Era"

The WPS agenda offers a vision grounded in human rights: equality between women and men, protection of all people from violence and overcoming discrimination of all types. NATO's launch of NATO 2030 is a vision for its own transformation and strategic orientation for the next decade, and a powerful analysis of the challenges it faces. Three points of focus stand out. First, that NATO is not only military but also a political alliance. Second, that NATO should take a more global approach, looking beyond the North Atlantic context. Third, that NATO is not only an alliance for collective security, but a wider international impact on human security.

The importance of women's full and equal participation is strongly communicated by NATO. Thus, the WPS agenda will be utilized for the 2030 agenda for peace, stability, and NATO's democratic legitimacy through collaboration, interdependence and community. **LC**



#ChooseToChallenge campaign during International Women's Day 2021

OPERATIONALISING HUMAN SECURITY

By LANDCOM G9 Human Security Section



Origins of Human Security

At the end of the Cold War, a broader concept of security under the term “Human Security” emerged to address the new and highly dynamic security environment. Referring to the security of people and communities, Human Security challenges the classic concept of a state-centered approach to security. The United Nations spearheaded key milestones leading to the development of this approach. They include:

- The 1992 report *An Agenda for Peace* introducing an “integrated approach to Human Security.”¹
- The 1994, United Nations development program (UNDP) *Human Development Report* that argued for ensuring “freedom from want” and “freedom from fear” for all persons as the best path to tackle the problem of global insecurity. The report approaches human security through seven dimensions of threats: economic, hunger, disease, environmental, community, personal, and political, as well as the two implementing approaches of protection and empowerment.²
- The 2012, UN General Assembly Resolution 66/290 in which UN member states agreed for the first time on defining human security as “the right of people to live in freedom and dignity, free from poverty and despair. All individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential.”³

While not neglecting a state-centered approach to security or

explicitly using the term Human Security, NATO responded to the changing security environment after the end of the cold war by addressing concerns related to people and communities in its deliberations. In 1998, NATO Secretary General Javier Solana argued, “...a security policy which is not constructed around the needs of people and humanity will risk the worst fate - being ineffectual.”⁴ NATO’s 2010 Strategic Concept underlines that “the modern security environment contains a broad and evolving set of challenges to the security of NATO’s territory and populations.”⁵

Implementing Human Security at LANDCOM and NFS

Today, LANDCOM is operationalising Human Security as an umbrella term for a number of cross-cutting topics (CCTs) such as Women Peace & Security (WPS), Children and Armed Conflict (CAAC), Protection of Civilians (POC), Cultural Property Protection (CPP), and Building Integrity (BI). LANDCOM’s G9 division was restructured under NATO’s command structure adaptation, and a Human Security section within the Stability and Outreach branch was established, determined to lead the implementation of Human Security at LANDCOM.

While the section acts as a repository of expertise for the CCTs, it also supports the continued development and application of NATO policies on the CCTs, ensuring dissemination throughout LANDCOM and the NATO Force Structure (NFS).

1 - UN. Boutros-Gali. *An Agenda for Peace*, 1992 Chapter 1, para 16.

2 - UNDP. *Human Development Report*, 1994

3 - UN GA Resolution 66/290, 2012

4 - Solana. *Securing Peace in Europe*, 1998

5 - NATO. *Strategic Concept*, 2010, para 4



It is important to highlight that each of the CCTs represents a pivotal, normative framework that requires distinct responses by dedicated subject matter experts. This distinct response is essential not only to ensure that equal weight is provided to all agendas under NATO's Human Security umbrella but also to echo the international architecture built around each of the CCTs. As a multi-stakeholder approach to Human Security should include institutions dealing with human rights and humanitarian concerns, hard security and development, the Human Security section engages regularly with International Governmental (IGOs) and Non-Governmental Organization (NGOs), and attends a variety of courses, seminars, workshops, and international conferences.

In line with NATO's three core tasks (Crisis Management, Cooperative Security and Collective Defense), the Human Security section can provide training events on the implementation of policies and directives on the CCTs to the NATO Force Structure as well as lectures on Human Security during the deployment of CMI/CIMIC mobile training teams (MTTs) for partner nations. The section has already provided such training for Morocco, Tunisia, Kyrgyzstan, Ukraine and the United Arab Emirates in 2018 and 2019 while training activities scheduled for 2020 had to be postponed due COVID. By participating in the Combat Readiness Evaluation (CREVAL) of the NFC, the Human Security section ensures that the respected headquarters and units meet the Alliance's standards and requirements concerning Human Security and are ready for combat operations. The section contributes to the planning process of Graduated Response Planning (GRP) and supports the creation of exercise scenarios by developing Human Security themed main events list and main incidents list (MEL/MIL). Furthermore, the section is developing SOPs and SOLs,

including detailed instructions, processes, and procedures to standardize LANDCOM's approach to Human Security.

Building More Resilient Societies

Today's increasingly complex and unpredictable security environment can have a severe impact on societies and critical infrastructure. To adjust to this environment, at the 2016 North Atlantic Council meeting in Warsaw, NATO member states committed to enhancing resilience as essential basis for credible deterrence and defense and effective fulfillment of the Alliance's core tasks. According to allied leaders in Warsaw, resilience shall be enhanced by achieving seven baseline requirements for civil preparedness: assured continuity of government and critical government services; resilient energy supplies; ability to deal effectively with uncontrolled movement of people; resilient food and water resources; ability to deal with mass casualties; resilient civil communications systems; and resilient civil transportation systems.

As stated above, LANDCOM operationalizes Human Security by maintaining a dedicated Human Security section, which serves as a repository of expertise for the CCTs. As an effective Human Security approach should be integrated, allowing each stakeholder to pursue their respective competencies the Human Security section is establishing a Human Security working group for peace and crisis, including the CCTs as well the seven baseline requirements for civil preparedness all of which contribute to a more safe and secure environment. LANDCOM's efforts to widen its approach to human security builds more resilient societies, thus contributing to the Alliance's credible deterrence and defense. **LC**

MIDDLE EAST AND NORTH AFRICA: AN IMPORTANT REGION TO NATO

BY: STAFF, NATO STRATEGIC DIRECTION – SOUTH HUB

The Middle East and North Africa (MENA) is certainly an important region for the North Atlantic Treaty Organization (NATO). Its security and stability are of great importance to the Alliance since many of the threats, challenges, and opportunities are shared. Projecting stability beyond the Alliance's borders by working with countries in the region is a priority NATO does not underestimate.

MENA might not be the first region that comes to mind when one contemplates NATO. The Alliance was founded largely to unite Europe and North America, and to counter threats emerging from the Warsaw Pact. The end of the Cold War and other major global developments have changed this. The Alliance's security perspective has started to move toward a more complex vision recognising MENA's role in an ever-changing, multi-faceted global context. For too long, one of the immediate neighbouring regions had been left largely to dealings between NATO countries and MENA countries on a bilateral basis. More recently, NATO has understood the need for it to become collectively involved in the security aspects emerging from the changes taking place to its south and the need for dialogue and cooperation.

After the end of the Cold War, many developments in MENA – the wars in Kuwait and Iraq, progress in the Israeli-Palestinian process and more, – and the establishment of the Partnership for Peace program for European states, all created circumstances conducive to the launch of a similar network with the Alliance's southern neighbours. Such partnership

platforms with MENA partners as the Mediterranean Dialogue (MD) and the Istanbul Cooperation Initiative (ICI) were established with no political ambitions beyond the exchange of views and information. However, in times of transnational challenges such as energy security, migration, climate change, the proliferation of weapons of mass destruction, and terrorism, NATO understood that only a comprehensive approach, inclusive of its southern partners, could confront global challenges. During recent decades, the MENA region has been described as an area of growing instability with transnational and multi-dimensional security challenges. From an alternative perspective, one might say that the security challenges are global and require new levels of shared awareness, flexibility, cross-organizational cooperation as well as strengthened crisis response capabilities and resilience.

As emphasised by NATO Secretary General, J. Stoltenberg, NATO has been successful because it has been able to adapt, building partnerships to work with countries outside the NATO Alliance. An important part of that partnership is of course the cooperation the Alliance has developed with the countries around the Mediterranean, the MD, and with the countries which make up the ICI. It is precisely for this reason that during the Warsaw Summit in 2016, NATO committed to a better understanding of the MENA region and the common challenges, and to assess their applicability in the military domain and to implement them by way of innovative solutions. Through the Framework for the South, NATO seeks, in cooperation with North African and Middle Eastern countries, to assist in enhancing regional stability and security, facing the same global and common challenges and threats together.

NATO, as a political and military Alliance whose principal task is to ensure the protection of its citizens and to promote security and stability in the North Atlantic area, must be able to address the full spectrum of current and future challenges and threats from any direction, simultaneously. The Alliance's deterrence and defence posture and its engagements in the South reflect this need in an evolving security environment.

To better implement the framework for the South and demonstrate how NATO could provide added value for MENA, and to improve how the Alliance is perceived by countries in the MENA region, the NATO Strategic Direction - South Hub ("the Hub") was created. The Hub is a unique tool and is founded on a political consensus between all Allied nations for the need to enhance the coordination of activities in the South. From this cooperative framework NATO, through the Hub, endeavours to augment shared understanding of the security agenda with its partners in the South and to optimize NATO and Allies' activities in the region to identify and avoid futile duplications and gaps.

Looking towards the long-term perspective for NATO, of great importance is the building of local capacity and the development of local capability considered a much more viable strategy in the fight against terrorism than deploying troops. As the Secretary



Ribbon cutting ceremony marking the opening of the NSD-S Hub

General has stated: "... it's so important that we work on training local forces, building local forces, building local capacity because that's one of the best weapons we have in the fight against terrorism."

To paraphrase the Secretary General, cooperation between NATO and its partners in MENA is fundamental and requires practical cooperation combined with political dialogue so that we may face our shared security challenges in a united manner. The development of this cooperation is the most likely way to counter instability and create greater prospects for peace and stability both for NATO and for the countries and peoples of the MENA region. **LC**

The NATO Strategic Direction-South Hub (NSD-S Hub) initiative was devised and formally brought into existence in September 2017, reaching full capability in July 2018. Prevention is always preferable to cure, and long-term stability can be achieved by effective horizon scanning to better understand, anticipate, limit or even resolve challenges. The Hub acts as a meeting room for the achievement of this goal by being a conduit for open information sharing. It is a ground-breaking forum which connects NATO allies and partners with subject matter experts (SME) from local and regional institutions including universities, research centers and non-governmental organizations from North Africa, the Middle East, Sahel and Sub-Saharan Africa so that all matters pertaining to the south can be better discussed, understood and, whenever possible, remedied.

An old African proverb states, "If you want to go fast, go alone. If you want to go far, go together." On this basis, the HUB adopts a holistic, collaborative approach at all times so that independent local knowledge and experience is genuinely heard, replacing what might often have been a well-intended but sometimes pre-conditioned perception, with a more accurate awareness brought about by an attentive inclusion of all relevant parties. The unique role of the Hub is to connect allies, partners and international, non-governmental and civil organizations by creating fluid dialogue resulting in universal understanding, trust and stability.

The Hub aspires to:

Connect: creating connections where previously only barriers have existed.

Consult: improve the consultation process so that all those involved feel at liberty to contribute while trusting that they will be heard.

Coordinate: pro-actively assist NATO to better coordinate with its Allies and partners in the south in order to achieve the desired safe, secure and stable environment.



RUSSIAN AND CHINESE



Aligning strategic interests

INFLUENCE IN KEY STRATEGIC AREAS

By NIC A-3 Can ERGEN, LANDCOM G2 KDA

China's growing global presence and its increasing cooperation with Russia in military, energy and technology sphere is considered by observers as the largest strategic challenge to Western countries and multilateral institutions in the 21st century. Cooperation between these two countries is evidenced across the globe as they pursue national interests with similar goals.

This article examines only few of the most critical areas of Chinese and Russian endeavor in pursuing international objectives with a mutual Russia-China relation perspective. The areas included in this article are the Arctic, arms trade, foreign direct investments and private security firms.

Aspects of Relationship

Alignment between Russia and China is considered to have peaked in the recent years¹. President of the People's Republic of China (PRC), Xi Jinping and president of the Russian Federation, Vladimir Putin defined their relationship in 2019 as a comprehensive strategic partnership². Experts rather define their relationship as more of an overlap of interests (when their interests coincide) rather than an alliance or close cooperation. Russia's pivot to Asia and move towards Chinese sphere of influence accelerated after sanctions in 2014, but close relations remain hindered by historical distrust of each other.

Both China and Russia are similar in their perception of U.S. as their main adversary, with ruling apparatus of centralized power in the hands of single person, strong nationalistic ideology with extensive use of state enterprises in economy, suppression and violation of human rights to maintain centralized power, and pursuit of foreign political agenda that challenge current international institution and norms (territorial claims, occupation of territories in the near abroad).

However, their partnership is not without problems. The two sides have historical border disputes that remain to the present day, different approaches of engaging with developing countries, and have mutual asymmetric trade that creates Russian over-dependence on China.

The two sides have strong mutual interests in dominance in the Arctic, cross sophisticated arms and energy trade, and mutual political support in UN are core areas that create strategic partnership between Russia and China to weaken and counter Western countries and multilateral institutions like NATO.

1 - <https://www.wsj.com/articles/allies-seeking-more-independence-from-u-s-intelligence-leaders-warn-11548773031>

2 - <https://www.youtube.com/watch?v=TjaJxUL9vkq>

Russian and Chinese Core Interests

National interests are the driving factors for foreign policy. National interests can be grouped under three categories: core interests, important interests and general interests³. Core interests concern the very existence of the nation and its basic interests. They serve as national 'red lines'.

Chinese core interests in recent years, have broadened beyond the traditional concerns of sovereignty, territorial integrity, national unification, and political and social stability to include China's growing interest abroad and the confidence to defend those.

Russian core interests continue to include defense of the country and the regime, maintaining strong influence in their near abroad; promoting a vision of Russia as a great power; protecting against external non-interference in domestic affairs; and pursuing political and economic cooperation as a partner equal to other great powers. In the recent years, Russia expanded its non-near-abroad reach in the last decade via instruments like trade, investment and military operations in areas including the Balkans, MENA and African Continent.

Arctic

Control of shipping routes, access to untapped natural resources and opportunity for new investments (energy and construction) are three main reasons why the Arctic is mutually important for Russia and China.

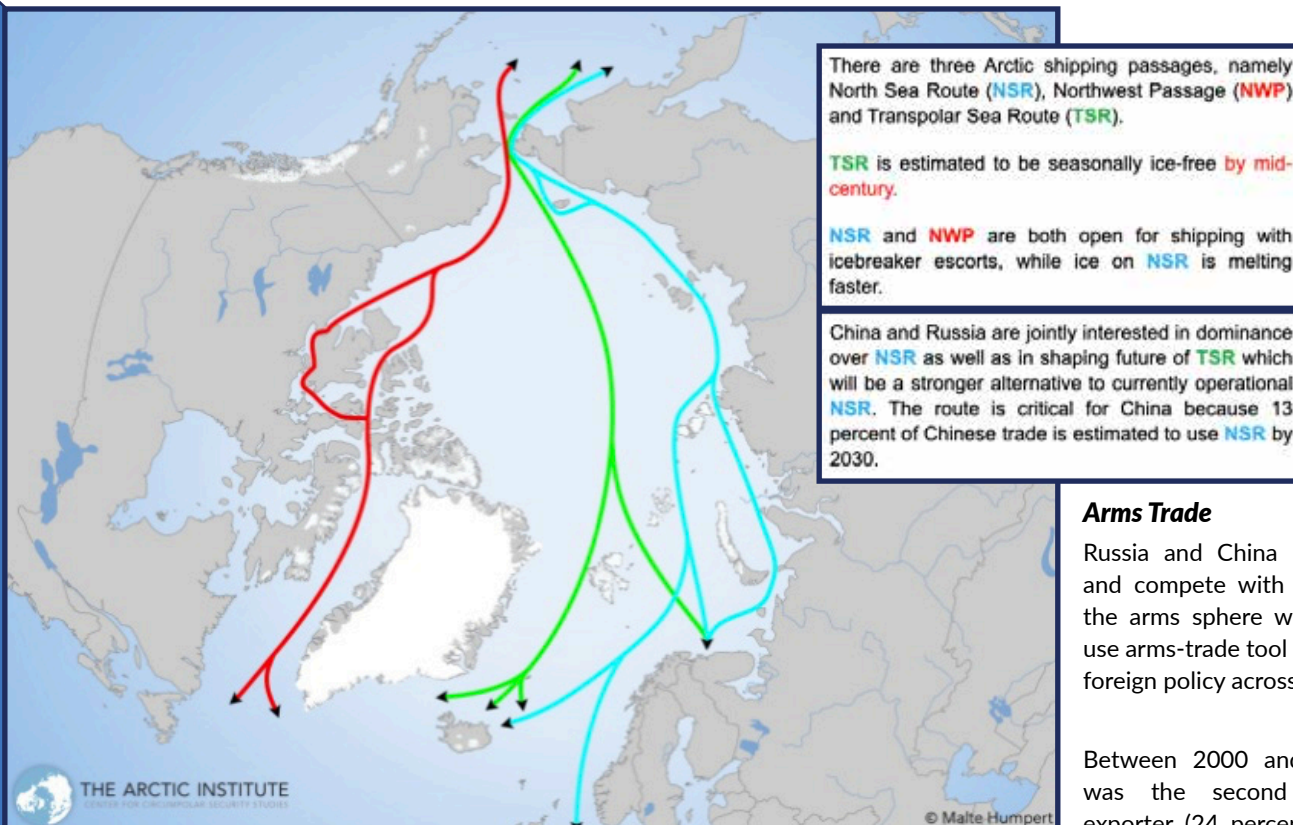
Arctic Routes / Source: www.thearcticinstitute.org

use⁴. China, on the other hand, has only received its second (first domestically built) icebreaker and recently started building its first nuclear-powered type⁵.

Natural Resources. The Arctic is estimated to be home to 22 percent of world's undiscovered natural resources⁶, in which the

Russian zone is estimated to have the great majority⁷. Arctic energy currently accounts for some 20 percent of Russia's current GDP⁸ and making joint investments with China in the Arctic region has become a strategic issue given the post-2014 sanctions on Russian economic units limiting access to western funds and technology.

China is co-investing mainly in construction of energy plants and infrastructure in Russian Arctic shores and acting jointly in Arctic sphere with Russia in an effort to have a strong say in Arctic matters despite its current observer status. We expect current partnership to grow with China continuing to seek opportunities to grasp concessions from Russia in using the NSR. Almost as important, this partnership in Arctic policymaking can also spill over to governance of the TSR and its resources in the future⁹.



Arms Trade

Russia and China both cooperate and compete with one another in the arms sphere which both sides use arms-trade tool in implementing foreign policy across the world.

Arctic Fleet: Russia operates various types of ships built to function in ice conditions and remains the country with largest Arctic fleet and the only country with nuclear-powered icebreakers in

Between 2000 and 2019, Russia was the second largest arms exporter (24 percent) right behind the United States (32 percent) while China taking the sixth place (4 percent). During this period, Russia's total arms exports were 6 times larger than those of China's.

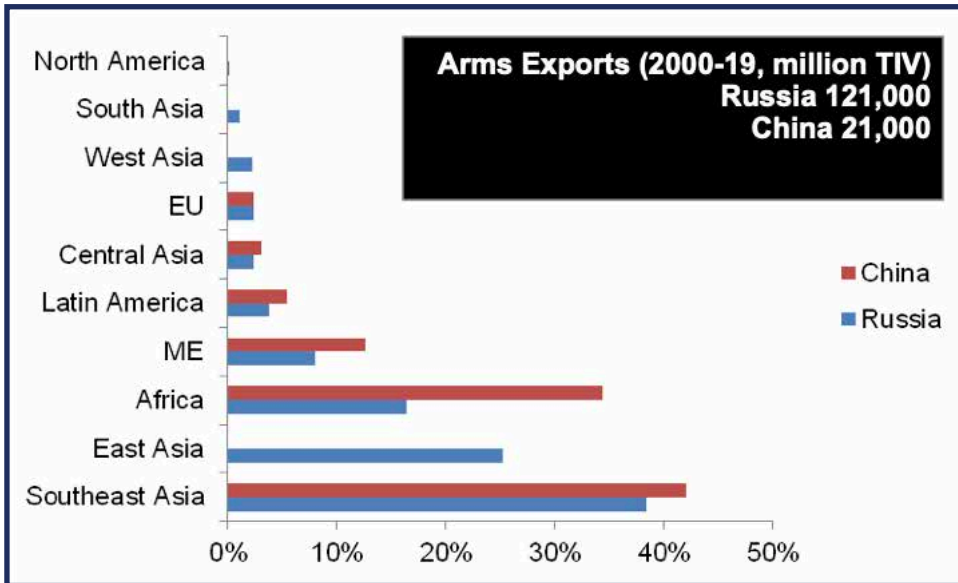
3 - https://www.rand.org/pubs/research_reports/RR2798.html

4 - <https://www.thecanadianencyclopedia.ca/en/article/icebreakers>

5 - <https://warontherocks.com/2019/11/the-icebreaker-gap-doesnt-mean-america-is-losing-in-the-arctic/>

6 - <https://www.defensenews.com/opinion/commentary/2020/09/23/great-power-competition-heats-up-in-the-thawing-arctic-and-the-us-must-respond/#:~:text=That%20is%20no%20small%20thing,evolving%20in%20the%20north.>

7 - <https://www.chathamhouse.org/2018/01/russias-untapped-arctic-potential>



Russian and Chinese Arms Export / Source SIPRI

Russia's largest arms export markets have been Southeast Asia (India), East Asia (China) and Africa (Algeria). China, having fewer clients, sold mainly to Southeast Asia (Bangladesh and Myanmar), Africa (Algeria) and the Middle East (Iran). The African market grew in the recent years, the largest for both Russia and China.

As Chinese arms industry develops at a high pace, Russia is facing increased Chinese competition in certain markets. China is home to the second largest arms industry (behind the US and ahead of Russia)¹⁰ while Russia continues to sell strategic, sophisticated arms to China in support of building China's strategically critical air defense system. Although Russia has historically been wary of transfer of technology to China, their level of cooperation is critical in developing China's military capabilities.

Investment and Finance

Investing in developing countries to improve poor infrastructure has been the primary economic policy of China, increasingly after 2013 with the launch of the Belt and Road Initiative (BRI). Russia, on the other hand, reportedly has had insignificant flow of investment and loans to such countries and benefited from China's investment into the developing regions. This section examines investment and financial loans in Asia and Africa, which are the main two markets targeted by Russia and China for economic, and as an extension and product of these economic activities, political influence.

Hit hard by economic downturn, investments in Asia fell by 45 percent in 2020. However, Asia is still the world's largest foreign investments (FDI) recipient with China being the leading investor¹¹. Chinese investments have mainly been in large infrastructure and energy constructions and part of Belt and Road Initiative (BRI), which was launched in 2013 to cover 70 countries.

In Africa, China is also the largest single country creditor (22 percent of African states' external debt) and investor (11 percent of FDI stock, mostly in Sub-Saharan Africa)¹². According to experts, China

has been more of a financier rather than an investor in Africa, though it invested heavily in construction of various projects including roads, bridges, railways, energy plants and network, government buildings, and other infrastructure. Russia's investments, on the other hand, have been insignificant compared to those of other major economic powers and mainly been in extraction of oil and gas, mining and construction of nuclear power plant (as is the case in Egypt). China has also been more risk-taking compared to other creditors and reportedly a more preferred creditor despite higher costs and shorter loan terms¹³.

In parallel to a slowing global economy, foreign investment flows, which peaked

in 2016, have been falling in the last 4-5 years, including those of China. Among world's 68 heavily indebted developing countries, the majority of which are located in Africa, Chinese loans doubled in the four years, reaching figures close to those of former creditors, like the World Bank¹⁴. Observers analyzing China's overseas lending practices and underlying intentions have reportedly not encountered Chinese intentions on capturing sovereign assets via over-lending¹⁵.

Investment as a financial tool has been extensively used by China, particularly in Africa, whereas Russia's relative share in both Africa and Asia has yet been insignificant.



Observers analyzing Chinese overseas lending practices have reportedly not encountered Chinese intentions on capturing sovereign assets via over-lending.



Private security companies (**PSCs**), private military companies (**PMCs**) and Private military and security companies (**PMSC**) are basic three forms of civilian companies operating in the security and military sphere (called "security firms").

While **PMCs** and **PMSCs** perform tasks closely linked to combat operations, **PSCs** has more of a passive stance, mainly using a certain degree of force to deter criminal and political violence.

Meanwhile, Russian and Chinese authorities in 2018 declared 73 new joint investment projects worth 100 billion dollars (US)¹⁶, showing another sign for cooperation. Based on their historical performance on joint projects, realization of all these are highly doubtful but currently contribute to development of their cooperation.

8 - <https://www.arctictoday.com/does-a-russia-china-alignment-in-the-arctic-have-staying-power/>

9 - https://www.sciencedirect.com/science/article/pii/S0308597X2030453X?casa_token=kz_jhgf9_6UAAAAA:wORs0CMclVbnozHCbXN8Cti_ZxW67arvqusr4Rjh61jMKgR88b0NIR253Emg1C4mv7VCzixmTQE

10 - <https://www.reuters.com/article/us-china-arms-production-idUSKBN1ZPOUE>

11 - <https://unctad.org/news/investment-flows-developing-countries-asia-could-fall-45-2020>

12 - <http://www.sais-cari.org/data1>

13 - <https://asia.nikkei.com/Politics/International-relations/China-doubles-loans-to-68-nations-further-tightening-grip>



Illustration: Craig Stephens

Security Deals – Use of PSCs, PMCs and PMSCs

There are both Russian and Chinese security firms offering a wide array of services across their respective political and economic spheres of influence worldwide, but they reportedly have different reasons for the use of these contractors. Furthermore, there are significant differences between Russia and Chinese personnel employed in pursuit of Moscow's and Beijing's interests. Russian security firms are used extensively in support of military operations, political consultancy, media services, and mining and extraction in addition to providing security services for Russian interests and assets, while their Chinese counterparts mainly provide security for Chinese economic assets and protect Chinese citizens abroad. Both sides are mainly active in the African Continent.

China: China's doctrine and longtime claim of "non-interference" in foreign policy and its reluctance to deploy its armed forces abroad has evolved in the last decade, and safeguarding overseas interest and deployment of PSCs abroad became "a core mission" by "China's National Defense in the New Era" (2019). Eighty-four percent of China's BRI investments are in medium to high risk countries. Subsequently, the total number of Chinese immigrants in Africa was over one million and in 2015 and 60 percent of all attacks against Chinese overseas workers occurred in Africa. Such incidents have put Chinese security efforts in Africa one of its top priorities¹⁷. While its security firms' operations in mainland China were legalized in 2009 by

Chinese law¹⁸, international operations still lack clear guidelines and therefore limit and weaken Chinese PSCs' operational scale and type¹⁹. Countering these limitations, China has in recent years reportedly found a middle ground by maintaining a mix of Peoples Liberation Army (PLA) troops in non-traditional roles such as peacekeeping and antipiracy, along with paramilitary forces, contractors, and local forces²⁰.

China had 4,000 registered security firms of which around 30 of them operated overseas with roughly 3,200 personnel (2016)²¹. China's global expansion, large number of military veterans at home will lead Chinese security presence to grow quickly. Their operations are more limited to advisory services (training) and protection of Chinese property (factories, plants, infrastructure, ships, etc.) and Chinese citizens abroad.

Russia: Russian PMCs are known to be active since the 1950s (via military advisors) across the world, mainly in Africa and are substantially larger in size, reportedly have more experience and perform a diverse set of tasks. PMCs, by law, are still not legal in Russia, but their actions outside of Russia are a useful technique for gray zone warfare as it provides Moscow with a non-attributional action arm to pursue military, political and diplomatic interests abroad. There are over 100,000 estimated personnel active in Russian security firms also seeking business opportunities in direct military action, military operational support, political consulting services, mining and extraction, security and protection and media services mainly in Africa²². In

14 - <https://asia.nikkei.com/Politics/International-relations/China-doubles-loans-to-68-nations-further-tightening-grip>

15 - <https://static1.squarespace.com/static/5652847de4b033f56d2bdc29/t/5efe93effc0b1550d2e8d5c3/1593742320379/PB+46+-+Acker%2C+Brutigam%2C+Huang+-+Debt+Relief.pdf>

16 - <https://www.cnbc.com/2018/09/11/russia-china-consider-investments-worth-more-than-100-billion.html>

17 - <https://carnegietsinghua.org/2020/10/08/chinese-security-contractors-in-africa-pub-82916>

18 - <https://carnegietsinghua.org/2020/10/08/chinese-security-contractors-in-africa-pub-82916>

19 - <https://jamestown.org/program/chinese-private-security-contractors-new-trends-and-future-prospects/>

addition to Russian security firm activities, Russia has since 2015 signed more than 20 bilateral military cooperation agreements with African States²³ to strengthen ties with local governments and counter Western presence on the continent.

Chinese security contractors provide advisory service to local States and security for Chinese economic interests and citizens, while Russian firms often provide training and actively engage in combat operations²⁴. Despite distinct differences in size, means and ways, Chinese security firms in some respects resemble those of Russia, whereby their contractors are more aligned with their relative State authorities. We expect to see growing Russian and Chinese security contractor presence particularly in developing countries with different underlying strategic agendas and tools. Chinese figures will grow faster in parallel to expansion of economic interests. Russia and China are not likely to pursue any mutual cooperation with regard to PMC, PSC and other security contractor operations or activities in those regions, and the relative separation of the employment locations will likely not cause conflict between these elements. However, their operations will likely continue to be accompanied by a mutual political umbrella and understanding in multilateral forums for legitimizing, justifying, and in some cases, disclaiming these firms' controversial operations.

Conclusion

Russia and China will likely continue to develop cooperation primarily in military, energy and technology spheres, which certainly enhances the impact of Chinese expansion with Russia providing necessary military technology, oil and gas

supply and political support in multilateral forums. Beijing and Moscow are not likely to diverge from one another in the midterm as the perceived need to continue to challenge the U.S. and the Western international order continue to outweigh past historical conflicts, border disputes and disagreements in certain critical strategic areas. China almost certainly continue to use trade, investment and loans as its primary tools while also increasingly seeking new military bases and employing more security firms to protect national interests. Russia on the other hand will continue to seek new military bases in developing regions, employ low-cost methods like obtaining local security contracts, mainly via private firms, to reach concessional rights on mining and extraction rights. Strengthening Russian and Chinese cooperation in the Arctic sphere, growing presence in developing countries via use of security firms, increasing shares in arms supply and expansion of Chinese investment and loans under the BRI umbrella is likely to create new challenges for NATO and allied countries. Having insight on Russian and Chinese strategic maneuvers will certainly improve analysts' interpretation of current intelligence. Continuing in this vein, Land Power will examine Russia's global power projection and capabilities in the Fall 2021 edition. **LC**

“ Having insight on these strategic maneuvers will certainly improve analysts' interpretation of current intelligence. ”



20 - <https://jamestown.org/program/chinese-private-security-contractors-new-trends-and-future-prospects/>

21 - <https://jamestown.org/program/chinese-private-security-contractors-new-trends-and-future-prospects/>

22 - <https://carnegieendowment.org/2020/06/02/improbable-deniability-russia-s-private-military-companies-pub-81954>

23 - <https://www.bbc.com/news/world-45035889>

24 - <https://jamestown.org/program/chinese-private-security-contractors-new-trends-and-future-prospects/>

CREVAL: An Area Leader's Perspective

By Italian Army Lieutenant Colonel Gianluca MOSCA, LANDCOM G3 CUOPS

Eighteen intense months, starting with the initial coordination meeting through to the evaluation itself: this is Combat Readiness Evaluation (CREVAL). It is a piece of luggage that I will now carry with me throughout my professional career and from which I have learned a great deal, and have contributed a lot to as well.

CREVAL is one of LANDCOM's priorities and its main effort. By participating in multiple CREVALs as an Area Leader, I can say that CREVAL is also a unique experience that combines the effort of two fundamental actors: those who evaluate a unit and those who are evaluated. This must be a perfect symbiosis that facilitates the osmosis of information on two fronts to obtain a high-quality assessment on the one hand, and to enable all the actors concerned to increase their knowledge on the other.

Of course, in the past units and formations have been frequently evaluated to prove their capabilities to fulfill assigned tasks. However, the CREVAL program ensures the necessary compatibility with allied units in conducting specified tasks and operations.

The training is a continuous journey and the achievement of the final evaluation is just one of the many waypoints to raise operational readiness in its entirety. Each CREVAL is different, adapted, and customized to optimize the potential of both the unit and the CREVAL team. A wealth of shared experiences fused together leading to a common understanding of readiness.

Proving Readiness in Peacetime

Combat readiness is the real factor that exemplifies an armed force's preparedness to respond to every critical situation promptly. The levels of combat readiness determines the overall level of preparedness of military units to perform their duties at a certain point in time. Various states of combat readiness have been adopted by NATO. Nevertheless, the lowest state of readiness usually represents the current/day-to-day status of military units and is usually called a "permanent" level of combat readiness. The highest level of readiness is designated to answer the demands of readiness for immediate execution of operations, and it is commonly called by most armies "full" combat readiness.

To optimize the overall process of activating military units to a higher level of combat or mobilization readiness, it is necessary to develop and assess this in peacetime. This involves building a system of control and evaluation of the individual components of combat readiness and mobilization and identifying measures for their improvement. Military headquarters and formations are regularly evaluated to prove their operational capabilities to meet NATO standards in conducting military operations. Therefore, the use of CREVAL programs ensures the necessary operational capabilities and interoperability with allied units in multinational allied operations. Depending on the level of manning, equipment, and training of military units, they are classified into different categories in ascending order of size. The smaller the category, the higher the operational readiness of the military units is and vice versa, the higher the category, the longer the mobilization period required, and the longer the time to reach operational readiness. This further requires effective integration to enhance the capabilities in a wide range of expected operations described by the NATO policy documents.

Readiness as a Metric

Readiness measures the ability of a military unit, such as an army division or a battle group, to accomplish its assigned mission. Logistics, available spare parts, training, equipment,

and morale all contribute to readiness. At the highest level, a unit is prepared to move into position and accomplish its mission. At the lowest level, a unit requires further manpower, training, equipment, and/or logistics to accomplish its mission. But readiness is also a mental attitude that allows increasing the skills already existing in a context of great adaptability and resilience. The secret of CREVAL lies precisely in this: to always be ready, adaptable, and dynamic. In a context that has always been transparent in order not to fuel misunderstandings or hide something, CREVAL constitutes an opportunity for technical and human professional development. Evaluations have always been transparent, correct, and made to detect errors, accept them, and identify areas for improvement. Strengthening readiness and resilience fosters a culture of self-confidence in which the idea of “trust more and verify less” counts.

Conclusion

Ultimately, CREVAL is a vital tool to ensure combat readiness. This is the tool LANDCOM employs to collect empirical data that delivers tangible results. The evaluation then provides SACEUR with the assurance that those NATO headquarters and units meet Alliance standards and are ready for combat operations: to be always vigilant and ready for deterrence and defence. **LC**



Romanian JTACs during EXERCISE SABER GUARDIAN 2017
Opposite: Latvian Soldier during EXERCISE SABER STRIKE 2013



BUILDING JOINT FIRES & EFFECTS

-THE IMPORTANCE OF THE TEAMING PROGRAM-

By Spanish Army Lieutenant Colonel Alberto MUNOZ, LANDCOM G3 JFEB

Allied Land Command (LANDCOM) headquarters is in a continuous evolution to face new challenges. This is the case of the ever-growing number of new threats in the first half of the 21st century, which requires NATO headquarters' adaptation in terms of doctrine, organization, training and, most important, mindset. Today's complex, dynamic, and uncertain security environment, with near peer threats and potential state-based peer adversaries, requires the decisive implementation of a "culture of change".

Introduction

From a Land Domain perspective, NATO Command Structure Adaptation (NCS-A) serves as the driving force behind the 2019-2023 Campaign Plan: Leading Change - Fit for Purpose. While NCS-A increases structure and personnel across the NATO Command Structure (NCS) for the first time in decades, more important is the changing land domain culture. This entails promoting a culture of strategy to deal with today's strategic challenges and revitalizing warfighting readiness to compete, deter, and if needed, fight and win.

According to NCS-A, LANDCOM's mission is to serve as the Theatre Land Component (TLC) and Land Advocate responsible for coordinating and synchronizing NATO and Partner Land Forces by enabling land domain readiness, interoperability, standardization, and competency. It stands ready to deploy headquarters elements to provide planning, coordination, and Command and Control (C2) capabilities to Allied forces. In addition, LANDCOM retains the capability to perform the role of Multi-Corps Land Component Command (MC-LCC) as long as it is required, even on a permanent basis if the decision is made.

Considering this demanding mission, LANDCOM began changing its structure in 2019 and it is still in a process of increasing its capacity to fulfill this mission. All LANDCOM divisions and branches are involved in this adaptation process, but one of the most relevant changes is taking place in the area of Joint Fires and Effects.

A New Branch

Joint Fires and Effects Branch (JFEB) was created in 2019 within



Steel on target

G3 division. It is a new entity in NATO Command Structure (NCS) with the role of representing the joint function Fires in the land domain, as well as assuming Fires and Effects functions in both the TLC and the MC-LCC. The challenge is even greater if we consider the increasing importance of Fires in the current strategic environment against potential peer and near-peer adversaries who are investing significant energy and resources to prevent NATO assets from getting close, with an extended, layered defense across all domains to create stand-off. Another relevant area is the establishment of the Joint Effects function in NATO under NCS-A in order to bring critical enhancement to NATO's ability to deliver effects.

Building JFEB

The process of building JFEB is based on the most valuable NATO resource: capable allied personnel. Luckily, for LANDCOM, a nearly full-up JFEB team was assigned in summer 2020, and several actions are being executed to achieve the required capability within a G3/JFEB plan. For one, education is a pillar in a capable JFEB. National personnel with deep knowledge and experience in the Fires discipline, and a firm grasp of NATO

procedures and systems is required. JFEB is making a concerted effort to ensure that designated officers and NCOs have the essential certifications in specialized areas, including Targeting, Air Land Integration and Functional Area Systems (Joint Targeting System, JTS; Functional Area System for dynamic and time sensitive Targeting, FAST; Integrated Command and Control Software for Air Operations, ICC; Tool for Operational Planning Functional Area Service, TOPFAS). T

This education is complemented by individual and collective training within LANDCOM to prepare for LANDCOM's signature biannual battle staff training event, LOYAL BONUS (LOBO), an event that will enhance the cross-functionality of Joint Fires and Targeting.

The Teaming Program

Apart from the standard courses and training events, LANDCOM's JFEB benefits from an additional key tool to improve its readiness: the teaming program. LANDCOM instituted a teaming approach with the Graduated Response Force (Land) (GRF(L)) community to jointly advance several initiatives – Joint Fires and Targeting among them – to review, refine and develop joint warfighting

concepts and doctrine. This is something which requires a strong linkage between the NCS and the NATO Force Structure (NFS) to foster cohesion, standardization, and interoperability. The teaming effort provides coherence to land domain efforts and ensures that lessons are indeed shared and learned.

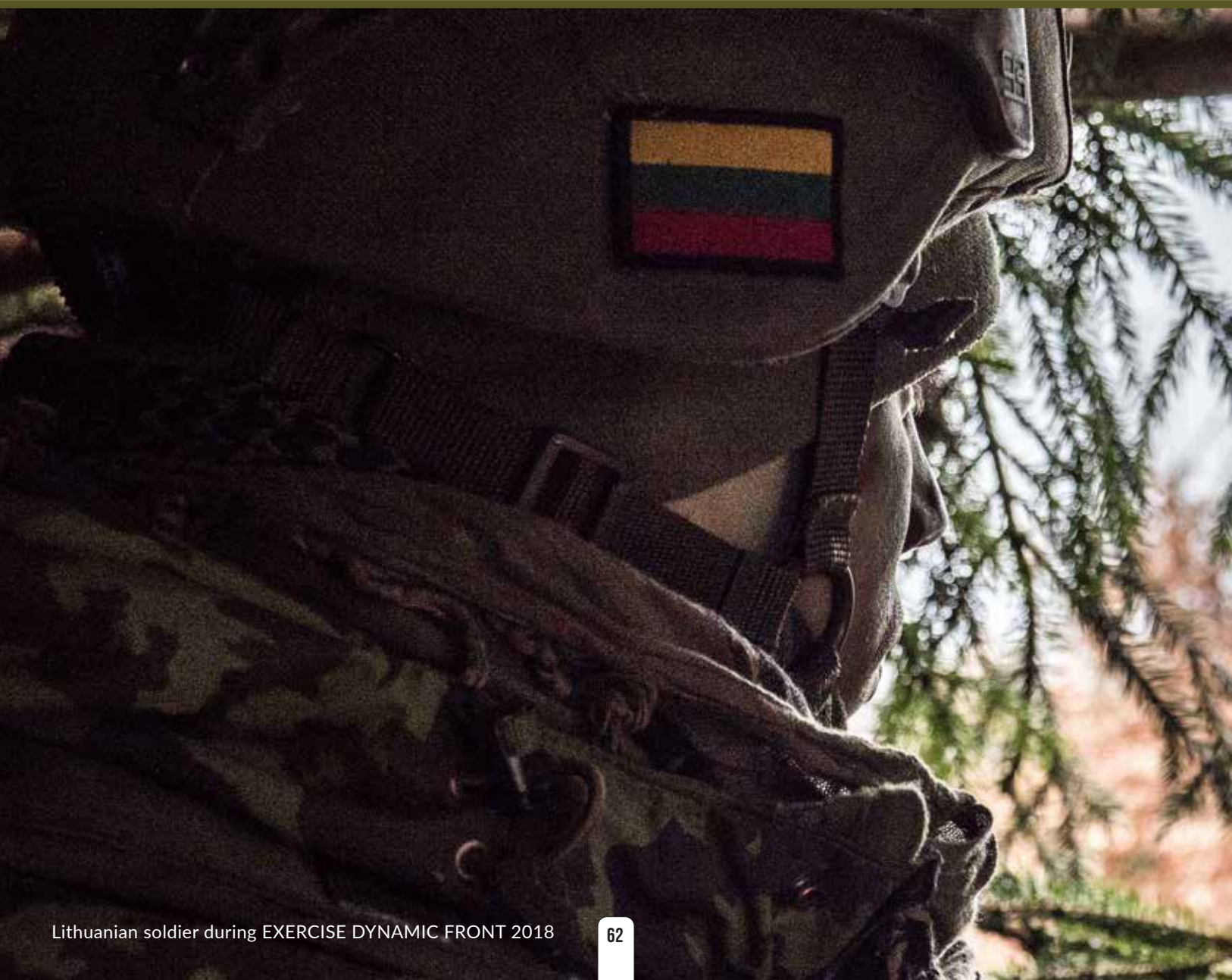
In 2018, LANDCOM created an initiative to develop a Joint Fires and Targeting Strategy aimed at improving Joint Fires and Targeting in the land domain with the ability to integrate, synchronize and execute lethal and non-lethal capabilities to achieve effects.

LANDCOM's Joint Fires and Targeting Strategy was a programmatic, federated approach within NATO through contributions from the NCS and NFS Headquarters to increase readiness and warfighting capability in Joint Fires and Targeting by improving processes, training and education, doctrine and policy, interoperability, organizational structure, as well as building capability and capacity to deter and defend. LANDCOM organized the challenges into work strands and identified

custodians at strategic, operational, and tactical levels where appropriate to champion the development of solutions with an associated plan of action and milestones. The outcome resulted in a roadmap to drive developments and requirements to meet the challenges of the future.

This initiative drew attention from higher headquarters, leading SHAPE to task LANDCOM to broaden this initiative and define a Joint Fires Initial Requirements and Roadmap. This initiative was not only aimed at the land domain, but for delivering a solid single document to further the way ahead for the NCS, NFS, and nations. This document was signed by COS SHAPE in 2019.

The original 2018 Joint Fires and Targeting initiative and its subsequent Joint Fires Requirements and Roadmap from 2019 also support the building of JFEB. The distributed effort among a highly experienced Fires and Targeting community in both NCS and NFS facilitates the rapid plug-and-play of new entities. This is because interoperability presides over the entire process, from acquisition to sustainment; development of tactics, techniques



and procedures; standardization; leader development; and training and exercises.

Proof of Teaming Success

A clear example of the importance of the teaming approach in the land domain is the excellent work developed by Allied Rapid Reaction Corps (ARRC), acting as land representative in Air Land Integration (ALI) development since 2018 as part of the aforementioned Joint Fires and Targeting Strategy.

ARRC is playing a key role in ALI based on the great experience gained by regular engagements with Allied Air Command (AIRCOM) through the ARRC team known as Ground Liaison Element (GLE), which is comprised of Army officers deployed to the Joint Force Air Component (JFAC) in exercises like the Allied Air Command (AIRCOM) led RAMSTEIN AMBITION series run on an annual basis. GLE represents the Corps Commanders' intent and priorities by filling key positions throughout the heart of JFAC in the various Air Force divisions and branches, giving ARRC an unique opportunity to improve ALI processes in a realistic environment.

ARRC experience is supporting the whole land community by providing LANDCOM with valuable recommendations to improve ALI in doctrine, organization, training and interoperability.

Conclusion

LANDCOM's JFEB recently joined the NATO community in a challenging period requiring rapid and efficient adaptation in an evolving security environment that requires early and decisive involvement of Joint Fires against peer and near-peer adversaries. Internal LANDCOM process to build this new team is based not only on the traditional education and training, but also on the outputs of the teaming approach. The combined efforts of teaming initiatives among highly experienced headquarters, like the LANDCOM-led Joint Fires and Targeting Strategy, and further the Joint Fires Initial Requirements and Roadmap, are clear examples of the benefits derived from avoiding the duplication of work, sharing lessons learned and improving NATO and partner land force integration. JFEB development proved that interoperability is the key driving factor to enable the rapid integration of new NATO structures, like JFEB. **LC**





HOW LANDCOM & RRC-FR [CO] OPERATE IN THE CYBERSPACE DOMAIN

BY LANDCOM G6 DCO BRANCH

EXERCISE CYBER COALITION 2020 is NATO's flagship cyber defence exercise and one of the largest in the world. Edition 2020, CC20, was organized by Allied Command Transformation (ACT) under the governance of the Military Committee from November 16-20, 2020. LANDCOM participated with two cyber specialists acting as a Deployable Land Element (DLE) within the Rapid Reaction Corps – France (RRC-FR), who was in turn acting Land Component Command (LCC).

CC20 tested decision-making processes, technical and operational procedures, and collaboration in both NATO as well as national cyber defence capabilities. This exercise series improves collaboration within NATO's cyberspace domain, enhances the ability to conduct operations and provides feedback to NATO Cyberspace Transformation. The aim is to bring together a cyber-coalition of NATO entities, allied nations, and partners to strengthen the ability to deter, defend, and counter threats in and through cyberspace in support of NATO's core tasks.

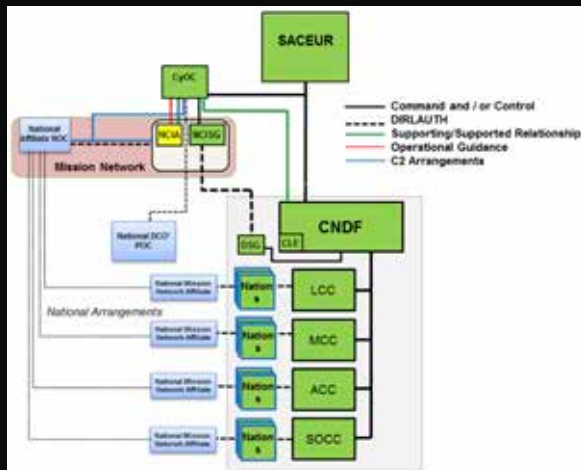
This year's CC20 marked the first active participation for LANDCOM's cyberspace team. Our goal during CC20 was to train towards a LANDCOM DLE role. Our DLE members made a significant contribution to LCC's mission success, enabling RRC-FR to efficiently integrate into the exercise C2 structure. Furthermore, with the full strategic to tactical joint chain of command tested, LANDCOM leveraged the exercise to train and refine its implementation of cyberspace operations supporting land domain operational functions (Manoeuvre, Intel, Sustainment, C2, etc.). For RRC-FR, this exercise offered an opportunity to train their integration into a NATO chain and command of a multinational task force. They practiced, self-evaluated and developed existing skills within a realistic scenario, which was a valuable step in preparing for their future NATO Response Force (NRF) responsibilities.

Pandemic Challenges

Despite the challenges of executing a multinational exercise during the COVID-19 pandemic, NATO and its members' cyber community met these challenges head on and successfully executed one of the most ambitious cyber exercises yet. CC20 was executed entirely in a virtual environment, where each entity executed their roles from their respective location. This made it necessary to establish several virtual networks connecting detached participants all over Europe and North America. Nevertheless, more than 1,000 personnel participated in this multinational exercise comprised of 25 NATO nations, four partner nations and the European Union.

The main stakeholders were:

- Military Committee as Officer Scheduling the Exercise;
- ACT as the Cyberspace Branch as Officer Conducting the Exercise and Officer Directing the Exercise;
- Cooperative Cyber Defence Centre of Excellence as host nation and cyber range provider;
- SHAPE / Cyber Operation Centre (CyOC) at strategic level;
- Joint Force Command Brunssum (JFCBS) as Headquarters at the operational level, named "Collective Nordic Defence Force" (CNDF) in the exercise scenario;
- Nations acting as force providers including the establishment of four component commands.



Valued Advisors

Starting with the preparation phase, LANDCOM supported the CC20 direction through all exercise planning process. Our dedicated subject matter experts added real value when asked to contribute to the scenario with their specific expertise of the domains land and cyber, as well as their interactions. During the exercise they deployed as a DLE to the LCC (RRC-FR) in order to provide support and advice:

- Provision of land / cyber expertise, as effects and incidents in one domain can have significant impacts on other domains;
- Synchronisation and adaptation of processes and battle rhythms;
- Building a comprehensive cyberspace situational awareness;
- Supervising and managing cyber incidents handling processes;
- Assessment of cyber threats, incidents and operational impacts.

Conclusion

Multiple aspects of a potential cyber war were tested, including the interoperability and efficiency of decision making processes as well as technical and operational procedures of various NATO and national entities. CC20 demonstrated effectively NATO's cyber resilience and its ability to rapidly share information within the Alliance and to partners. With this first active participation in a Cyber-Coalition exercise, LANDCOM has significantly gained experience in solidifying the integration of cyberspace operations. Considering the potential of this series of exercise, the HQ has already volunteered to reconduct the experience in 2021. **LC**

“Cyber defence is part of collective defence. CC20 proves NATO's ability to adapt and to counter any cyber threat even during a pandemic like COVID-19.”

- U.S. Navy Commander Robert Buckles
 CC20 Exercise Director

What's in a Name?

The Land Component Command

U.S. Army Major Logan SMALL, LANDCOM G5, Policy and Assessment Branch Head

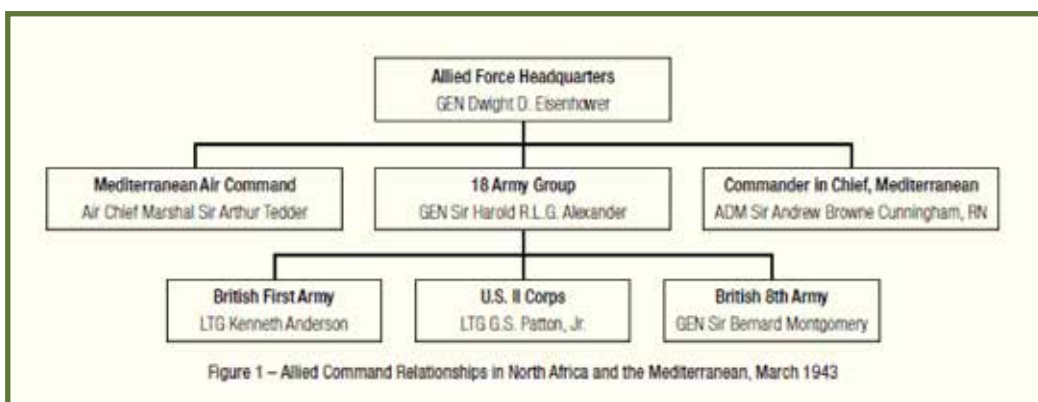
Land forces operate in a dynamic and complex environment characterized by the risk of a rapid transition from peacetime to conflict against a peer adversary. How land forces react at the speed of relevance in such an environment depends greatly on the Alliance's command and control (C2) structure and use of the Land Component Command (LCC). The LCC is a set of responsibilities and authorities which allow the selected HQ to plan and conduct land operations as part of a joint force¹. This article will provide a historical overview of the LCC and clarify three main questions regarding the LCC: Is it required; who should serve as the LCC; and what is the difference between a LCC at the theatre-level and one within a JOA? It will also critique some current uses of the LCC within the Alliance.

Origins of the LCC

Historically, the advent and use of a LCC was for two purposes: allow the higher headquarters (HQ) to focus on strategic level issues and joint integration, and to create unity of command and effort in the land domain. This is seen in the North Africa campaign during World War II. General Dwight Eisenhower initially elected not to designate a separate HQ to C2 ground operations. The C2 structure of the initial landings and subsequent drive to Tunisia during Operation TORCH was so convoluted that Eisenhower's own staff could not clearly depict it!² The Allies eventually decided to reorganize the C2 structure, creating single commanders for the air, maritime, and land operations all subordinate to Eisenhower³. In the land domain, General Harold Alexander's 18 Army Group served as the LCC, allowing Eisenhower and his HQ to focus on strategic issues. Debates between the Americans and British on when and where to launch an invasion of continental Europe is just one example of the larger strategic issues occupying Eisenhower's time. Without an LCC, he had to deal not only with these strategic issues but also synchronize three Corps

with in a large joint operation. The creation of 18 Army Group and its designation as the LCC allowed Eisenhower more time to focus on the larger issues. This LCC also allowed for greater unity of command in the land domain.

Prior to 18 Army Group's creation, Eisenhower and his staff were C2ing a British Field Army of two Corps and a separate American Corps. The advance of General Bernard Montgomery's Eighth Army out of Egypt meant that an additional Field Army of two Corps would soon fall under



Eisenhower's command. Intra-alliance politics combined with the strong personalities of Generals Montgomery and George Patton made it difficult to achieve unity of effort in the land domain. The designation of 18 Army Group as the LCC did not completely eliminate the friction inherent in Allied warfare, but it did create a clear chain of command and a better unity of effort.

Despite this historical lesson, the U.S. military following WW2 largely ignored the LCC, electing not to use one until very late in the Korean War and not at all during the Vietnam War or Operation DESERT STORM (ODS). Likewise, U.S. doctrine on the LCC did not develop in earnest until after ODS. Prior to that, there was no joint doctrine on the matter and the US Army's doctrine was limited and largely ignored⁴. Army commanders preferred to dual hat as the joint force commander and their own LCC, as was the case with the commander of U.S. Central Command (USCENTCOM), U.S.

1 - AAP-06: 2020 Edition, 30.

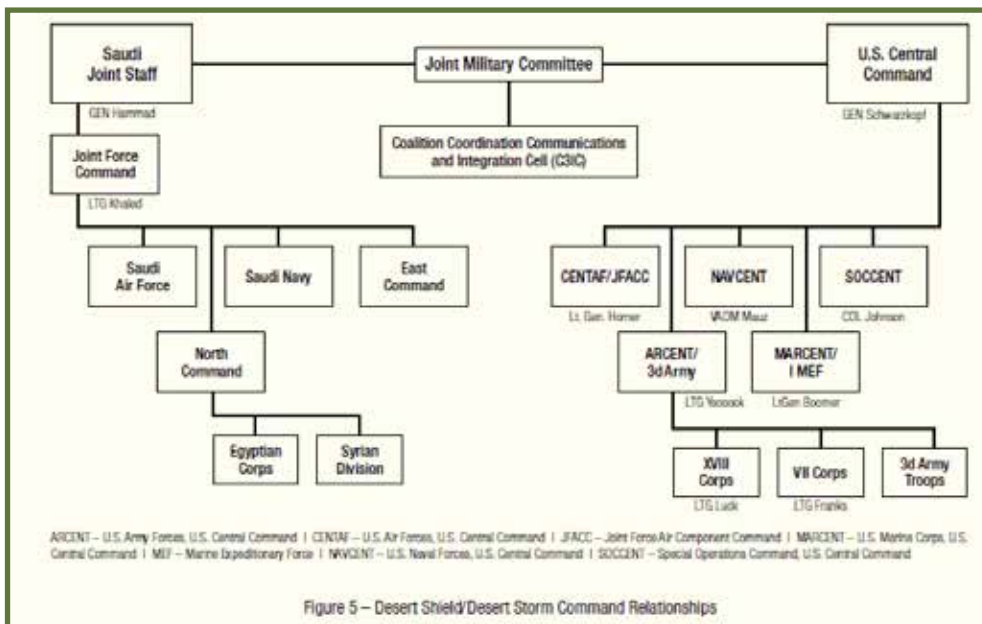
2 - Rick Atkinson, "An Army of Dawn: The War in North Africa, 1942-1943," 323.

3 - Combat Studies Institute Report No. 6, "Larger Units: Theater Army, Army Group, Field Army," 2-16.

4 - John A. Bonin, "Unified and Joint Land Operations: Doctrine for Landpower," 7.



General Dwight D. Eisenhower (left) - Allied Force Headquarters Command, D-Day, World War II



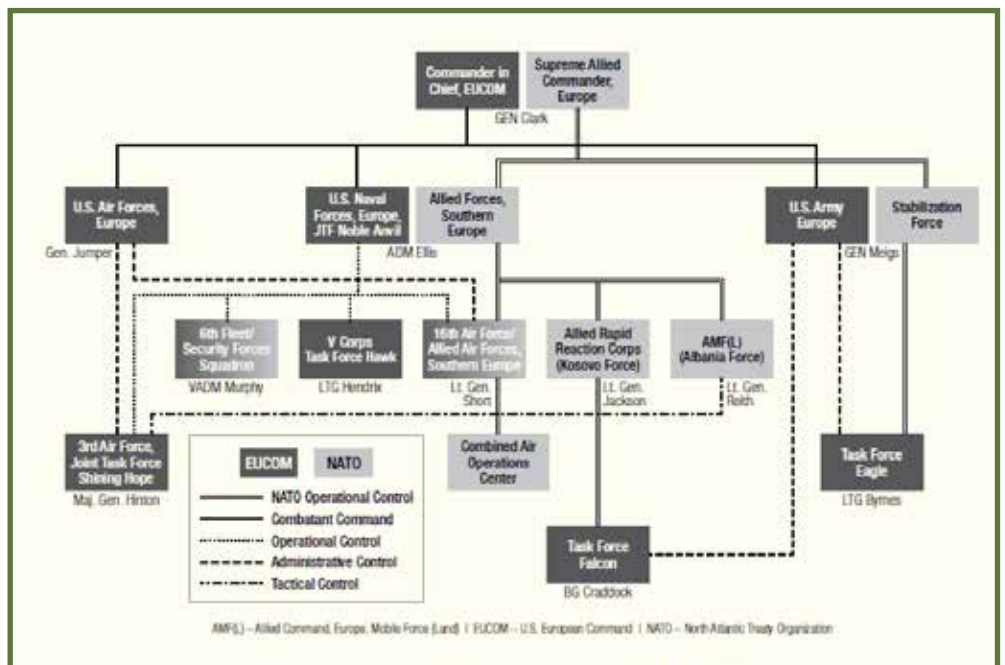
Army General Norman Schwarzkopf, during ODS. U.S. Marines also disliked the notion of a LCC, fearing that their service would get piecemealed to a LCC and Air Component Command under the command of different services⁵.

LCC Evolution

This slowly began to change in the late-1990s. First, the commander of USCENCOM at the time, U.S. Marine Corps General Anthony Zinni designated ARCENT as his theatre-LCC in an effort to ensure "there will be one ground war and a single land component commander⁶" in future conflicts. The impetus to change was furthered after problems during Operation ALLIED FORCE. Supreme Allied Commander Europe (SACEUR)



General Wesley Clark
SACEUR 1997 - 2000



5 - Ibid.

6 - General Anthony Zinni, USMC, retirement speech, 12 March 2000.

at the time, U.S. Army General Wesley Clark, decided not to designate a separate HQ as his LCC. Instead, he opted to give instructions himself to three separate U.S. and NATO ground elements. Afterwards, U.S. Navy Admiral James Ellis, commander of Allied Forces Southern Europe (predecessor of JFC Naples) at the time, commented “the lack of a land component commander was doctrinally flawed and operationally dangerous.”⁹ By this time there was renewed interest in developing LCC doctrine.

The U.S. Army and USMC eventually published a doctrinal

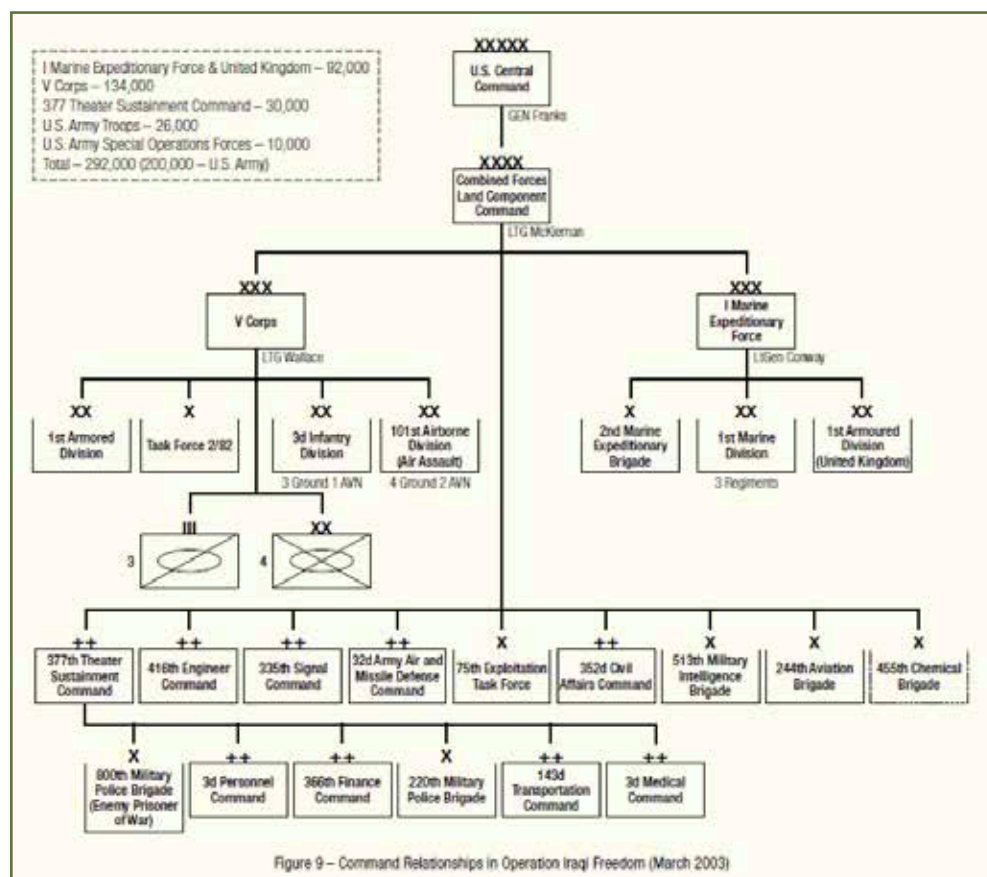
manual in December 2001 and the first joint doctrine on the LCC was published in March 2004⁸. This evolution led to an effective use of a LCC during the U.S. invasion of Iraq in March 2003. Here the joint force commander (JFC), USCENTCOM Commander U.S. Army General Tommy Franks, designated U.S. Army Central (ARCENT, also known as 3rd Army) as the LCC for the impending invasion. As the LCC, 3rd Army commanded and controlled a U.S. Army Corps (V Corps) and a USMC Marine Expeditionary Force (MEF, a corps sized element), while maintaining its theatre-wide responsibilities. Since then, the

LCC has become ingrained and widely used throughout the Alliance, but not without some confusion. Three points of clarification of the LCC are required to better align the LCC to its historical roots.

First, there is no doctrinal requirement for a LCC. A joint force commander (JFC)⁹ may choose to organize his command along service and not functional (domain) lines. Army commanders would command only Army forces, Marine commanders only Marine forces. Such an arrangement is known as an “integrated model” in NATO doctrine¹⁰. As mentioned, this was the case during ODS. It was also the case in WW2 where, after the Normandy breakout, Eisenhower elected to C2 the various Army Groups himself on the final drive to Germany¹¹. However, it is generally advisable to organize along functional lines and for a JFC to designate a separate HQ as the LCC. The failure to destroy the Iraqi Republican Guard during ODS is, in part, attributed to Schwarzkopf’s decision not to designate a LCC¹². In WW2, Eisenhower commented on the difficulty of balancing strategic and operational-level issues.¹³ Therefore, the practice of designating a LCC is prudent and should continue. But what HQ can and should serve as a LCC? Which HQ a JFC chooses is the second point requiring clarification.

The Scale and Authorities of the LCC

The LCC designation is not intended to link to a specific echelon of command. Rather, any land HQ as small as a Brigade or as large as an Army Group can be granted the title LCC by a



Lieutenant General McKiernan (left) in 2003 - Combined Forces Land Component Command

7 - Bruce R. Nardulli, et. all, "Disjointed War: Military Operations in Kosovo, 1999," 114.

8 - Bonin, 9.

9 - JFC here is used to specify any commander with the authority to command joint forces and not the specific NCS commands of JFC Brunsum, Naples, and Norfolk. SACEUR and the Commanders of JFC BS, NP, and NF are considered joint force commanders for the purpose of this article.

10 - AJP 3.2 Allied Joint Doctrine for Land Operations, Edition B Version 1, 11. NATO limits this type of structure to Small Joint Operations only. US doctrine has no such restriction.

11 - Combat Studies Institute Report No. 6, 3-17.

12 - Bonin, 6; Douglas W. Kraft, "An Operational Analysis of the Persian Gulf War," 21-31.

13 - Forrest C. Pogue, "The Supreme Command," 315.

commander of joint forces. Which echelon of command is chosen to be the LCC depends on the scale of the crisis or conflict; the greater the level of ambition the higher echelon of command¹⁴. In North Africa during WW2, the scale was so large that an Army Group was required to serve as a LCC. A JFC, thus, should choose the LCC based off several factors to include the anticipated scale of the crisis or conflict and the readiness level of the HQ.

The third point of clarification is understanding the difference between a LCC with theatre-wide responsibilities and a LCC inside a specific JOA. The difference relates to where, geographically, the HQ designated as the LCC has its authorities. An in-JOA LCC's authorities are confined to that JOA, and more specifically to the land Area of Operation inside that JOA. A theatre-wide LCC's authorities cover all areas within the theatre. The theatre-wide LCC's relationship with an in-JOA LCC depends on the situation; in U.S. doctrine it is typically limited to Administrative Control (ADCON) and other, service-specific, relationships¹⁵. While simple enough in doctrine, the U.S. military's unique C2 construct and historical use of dual hatting its theatre armies (similar to a theatre-wide LCC) has led to some confusion on this matter. In the U.S. construct, the theatre army has a variety of theatre-wide tasks, many of which are logistics and sustainment related. For example, a theatre army is responsible for setting the theatre, the Reception Staging and Onward Movement and Integration (RSOMI) of U.S. Army forces entering a theatre, and sustaining U.S. Army forces assigned to a theatre.¹⁶ The theatre army will have subordinate HQs, such as a Theatre Sustainment Command (TSC), which execute the majority of these tasks on behalf of the theatre army. In short, in the U.S. construct, large logistics and sustainment issues are done along service-specific lines; there is no single joint HQ responsible.

If a theatre army, such as 3rd Army during Iraq in 2003, is also designated an in-JOA LCC, then the HQs and its commanders have both theatre-wide and JOA specific responsibilities. This dual hatting of theatre armies and their commanders requires a large staff to accomplish both tasks. The U.S. is able to do this, at least thus far, thanks to the existence of TSCs and other HQs specifically designed to handle theatre-wide issues on behalf of a theatre army. Fortunately for NATO, the dual hatting of a HQ to serve as both a theatre-wide LCC and an in-JOA LCC is not so problematic.

While the U.S. lacks a joint HQ to handle joint logistics, sustainment and enabling issues NATO has both the Standing Joint Logistics Support Group (SJLSG) and Joint Support and Enabling Command (JSEC). These two organizations, in close coordination with national forces, are responsible for many of the tasks that a U.S. theatre army would have to accomplish. This would free HQs such as LANDCOM to be able to serve as

in-JOA LCCs, since many of the theatre-wide responsibilities are handled by other HQs. Some dual responsibilities may remain, such as C2 of land forces not assigned to a specific JOA, but the existence of JSEC and SJLSG removes the need for a large, U.S.-like theatre army.

Recommendations

With the history of the LCC and the three points of clarification in mind, this article argues that NATO should modify its current practice of prematurely labelling certain HQs as the LCC, such as the Multi-Corps Land Component Command (MCLCC), Regional LCC, and NATO Response Force (NRF) LCC. First, these HQs should be named to reflect their echelon of command. The MCLCC should either be renamed a Field Army (U.S. Army doctrine) or Army HQ (Great Britain and Turkish Army doctrine). Allied Land Command (LANDCOM) could then serve as the Alliance's Field Army or Army HQ, a HQ capable of C2ing two or more Corps in crisis and conflict. Likewise, Regional LCC and the NRF LCC should be renamed Regional Warfighting Corps and the NRF Warfighting Corps. This renaming would better reflect their actual echelon, Corps HQ, while simultaneously noting their unique capabilities (regionally focused or at a high state of readiness). This renaming does not preclude these HQs from serving as a LCC in crisis or training for this role in peacetime; it simply provides greater clarity and flexibility to JFCs for advanced planning. In advanced plans, JFCs should determine first, if they want an LCC (recommended but not required), then second, what echelon of command (from Brigade to Field Army) should fulfill the LCC role. Which specific HQ is selected to serve as the LCC depends on the anticipated scale of the crisis and the readiness and availability of the potential HQs at the time. For plans against near-peer or peer adversaries, JFCs should plan for the highest echelon of command (Field Army or Army HQ) to serve as their LCC early in a crisis. This will best posture the JFC to integrate and C2 large numbers of land forces if required.

Conclusion

Understanding and clarifying the LCC is a necessary precondition to successful C2 of land forces. The historical background of the LCC's original purpose, use, and doctrinal development provides much needed context to its current use. Recognizing that the use of a LCC is not required but recommended, the LCC is a set of authorities not limited to a specific echelon, and the difference between a theatre-wide LCC and an in-JOA LCC all help provide clarity for future use. Finally, stopping the practice of prematurely labelling certain HQs as the LCC will increase JFCs' flexibility and remove a source of confusion. With a shared understanding of the history and use of the LCC, the Alliance can now create a C2 structure necessary for land forces to react at the speed of relevance. **LC**

14 - AJP 3.2, 26.

15 - Department of Defense, "JP 3-31: Joint Land Operations," II-13.

16 - Department of the Army, "FM 3-94: Theater Army, Corps, and Division Operations," 2-3.

THE THREAT OF HYPERSONIC BALLISTIC INTERCONTINENTAL MISSILES, THE SPACE DOMAIN AND THE USE OF MODELLING & SIMULATION

By Italian Army Colonel Michele TURI, NATO Modelling and Simulation Center

THE THREAT AND STRATEGIC EQUILIBRIUM

The concept of the ballistic intercontinental missile is not new in the field of military applications, but the new technologies that have transformed this weapon into hypersonic devices have ensured to some Superpowers very powerful and important offensive tools on the global battlefield. In this historical moment, Russia and China have a partial supremacy over the United States because they already have an operating system in an advanced stage of development. These missile systems represent major threats because Western defences are not yet prepared to deal with them: they can travel at speeds above Mach 5. In fact, a cruise missile that flies at hypersonic speed at low altitude or a HGV¹ warhead capable of flying at lower altitudes, make current strategies ineffective and even challenge the effectiveness of the best current defense systems such as the Patriot, THAAD or the GMD. A cruise missile directed at hypersonic speed against a target is therefore difficult to detect by the flight profile radars and can easily overcome missile and anti-aircraft defenses.

Hypersonic technologies are those in which it is necessary to use new engine design features, structures, aerodynamics, propellants and driving systems with requirements and objectives that are difficult to obtain because they require considerable costs and experimentation on the materials. These evolutions have included new hypersonic technologies as an important sector of EDTs², in which all Superpowers are investing billions.

The development of EDTs have important implications for civil society, but hypersonic technologies applied to the military can modify the strategic equilibrium due to their unpredictability, difficulty of interception, maneuverability and high speed, reducing evacuation time, defence and response times.

Past and Future

In the recent past, a classification of ballistic missiles was based on taking into account three main types of missiles: short (up to 1,000 km), medium and long range (up to 5,500 km) and intercontinental (over 10,000 km).

A modern ICBM³ consists of three stages and a MIRV⁴, capable of carrying a number of multiple and independent warheads equipped with an autonomous guidance and aiming system to hit multiple targets simultaneously.

The recent generation of hypersonic missiles are the result of complex and expensive technologies that travel at very high temperatures and very great pressures using SCRAMJET⁵ propulsion systems that activate only after exceeding the speed of sound. The technological difficulties, despite the availability of suitable materials, have made it possible so far, to develop only two types: a GLIDER module with ample ability to maneuver and modify the path until it hits the target. The other like a standard cruise missile, but equipped with a SCRAMJET engine, which uses another vector that brings it to the speed of sound to activate it.

1 - HGV - Hypersonic Glider Vehicle

2 - EDT - Emerging Disruptive Technologies

3 - ICBM - Intercontinental Ballistic Missile

4 - MIRV - Multiple Independently Reentry Vehicle

5 - SCRAMJET - Supersonic Combustion Ramjet

Background: U.S. Air Force Minuteman ICBM



Russian RS-28 Sarmat "Satan 2" ICBM

In recent years, Russia and China have focused their technological research on these carriers, taking advantage of traditional ballistic missiles (such as the Russian RS-18 model or the SS-22) that can now carry a GLIDER, which in the descending phase can maneuver like a glider with speeds close to Mach 20. China has also developed a new medium-range missile that can carry a GLIDER with reentry speeds between Mach 5 to 10. India and France are also conducting sector's studies.

The United States does not have hypersonic missile models despite the large investments of money for the development of this technology. The focus has rather been on other EDT technologies such as satellite constellations for advanced tracking and discovery, equipped with HBTSS⁶, MFOV⁷ vision and OPIR⁸ sensors or energy weapons (LASER cannons).

Space Domain

The space domain has forcefully entered into the order of operational dimensions together with the cyber domain to flank the traditional domains. This represents the strategic multidimensionality of the threats that western organizations will have to face in the coming decades.

The rebirth of an intercontinental hypersonic ballistic threat has prompted many nations to establish units to manage their space domain. This trend was born after September 11, 2001, focused to monitor missile threats, airspace, satellites' control, space surveillance, C2 operations for leadership and strategic communications. Today this trend includes the areas of communication, positioning,

navigation and GPS data, meteorology and ballistic threat detection capabilities.

These military entities, depending on their size and the national ballistic capabilities, are committed to organizing, training and equipping their "space forces" to counter potential threats, guarantee the freedom of space maneuver and provide to the joint forces on the ground with support derived from space technologies (reconnaissance, communications, aiming, forecasting and in-depth analysis). The ability to recognize space, no longer an inconsistent and benevolent domain, has amplified the value that the space domain brings in a joint context and includes areas without precise boundaries where even opponents

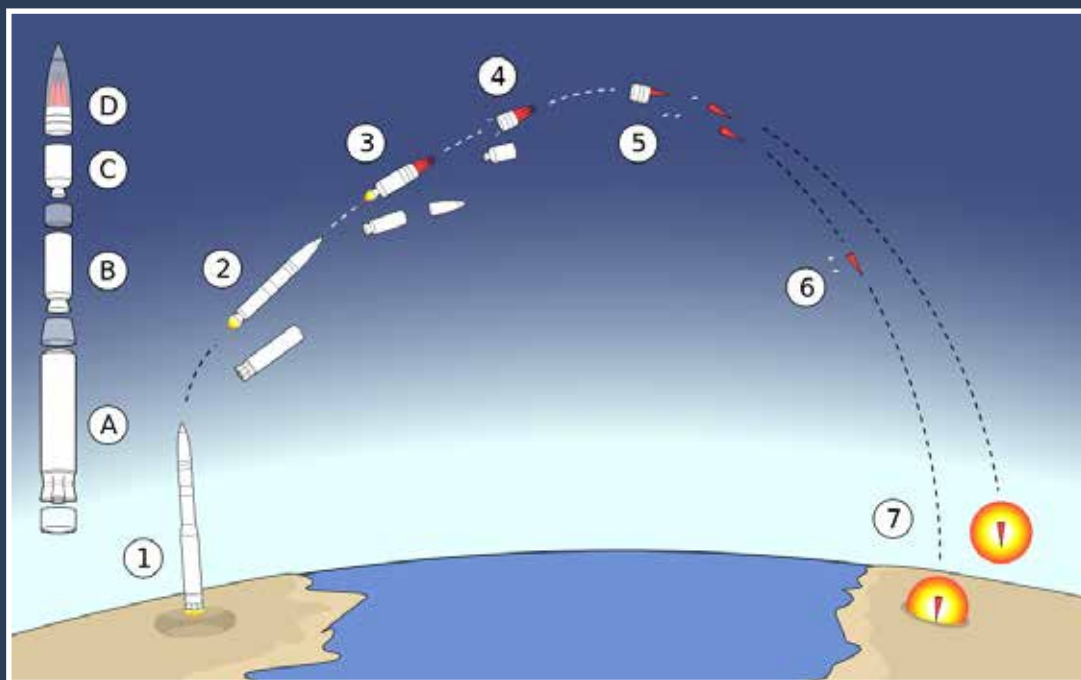


W87 Peacekeeper Warheads

6 - HBTSS - Hypersonic Ballistic Tracking Space Sensor

7 - MFOV - Medium Field Of View

8 - OPIR - Overhead Persistent Infrared



can operate undisturbed. This need has highlighted the gaps in the training programs for space specialists that have to plan, operate, and manage this domain. The goal is not to train “astronauts” but specialists with extensive digital and IT knowledge, able to maneuver swarms of satellites, manage constellations of orbiting devices, acquire information and manage data, receive alarms and direct communications to carry information and intelligence⁹ where it is needed.

This example comes from the U.S. Space Force (USSF) command, which has developed a training plan at the Space Training Readiness Command (STARCOM). This HQ prepares space forces to live and fight in degraded contexts and in deteriorated operational environments to ensure satellite equipment is working and guaranteeing the alarm level for ballistic threats through the application of the most advanced technologies, protected from cyber and kinetic attacks. The focus of this training, carried out through M&S¹⁰, or through accurate models of the systems (satellite, communications, missile, etc.), without approximations, which are used in simulators capable of making them operate in a synthetic multidomain environment where it is possible to test their skills and resilience. Virtual systems can act and react in the same way that the real systems do, training specialists to use resources effectively and apply proper procedures.

Missile Threats and M&S

Beyond the defensive approach adopted by Western nations to counter Russian and Chinese interference in the space domain, the response wants mainly to establish a generation of specialists with a real ability to fight in the space domain and where M&S will play a decisive role.

Modelling & Simulation’s purpose in this environment, is not only training but also to support decisions, improve the analysis and

allow the experimentation of new systems and procedures to effectively counter opponents. Technically, a minor strategic capacity a nation can express and the more effective training systems, such as M&S, should be used for its operators, specialists and managers. M&S allows specialists and commanders to be stressed by showing them volatile, uncertain, ambiguous and unpredictable operating environments where there is a real opponent capable of a precise strategy. Three-dimensional scenarios, in addition to taking into account an evident, real and contextualized strategic situation, must allow the staff to be prepared to intervene promptly using techniques, tactics and evaluation processes

to operate routinely in the space domain. The establishment of a “Space Range” is also a characterizing element of this education where satellite control centers are side by side with “Training Space Centers”; in these facilities, operators can manage the model of orbiting assets in training and operational mode.

These simulation centers represent the compromise between the operational needs of the operators and what happens daily in space, bringing the problems of the new domain into a synthetic three-dimensional operating environment. The simulation distributed and federated exercises for the space domain correspond to the classic organization of a CAX¹¹ where the response cells have different types of missions to complete (engagement of orbital maneuvers, maintenance of space superiority against threats, missile warning, Intelligence, Space domain awareness, space EME, etc.). The exercise direction cells provide the Command and Control functions while the opposing cells simulate the adversary’s will to attack the space domain and their skills. M&S is therefore crucial to guide the defensive and offensive response’s capacity to manage the space domain and allows studying the moves and countering moves in a critical and current scenario, such as the space environment. The distributed exercises are involved in the virtual space’s various systems and units with different operational capacities, connecting all the forces and reflecting on the entire space community.

The Bursting Model

One of the best-known models for modeling ICBMs is the sensitivity analysis of the BURSTING¹². It is used to evaluate the results of the observation of repeated launches of ICBMs to obtain the optimal results to achieve a target set at 8,000 km, varying the launch variables, the missile configuration and some parameters/variables, also taking into account turbulence and arbitrary values. The model can be used in a simulator in order to perform

9 - IMINT, MASINT, GEOINT, SIGINT
10 - M&S - Modelling & Simulation
11 - CAX - Computer Assisted eXercise

the number of launches necessary to study the trajectories. The ballistic carrier must meet specific requirements. The main one is to bring the MIRV ballistic load to a certain exo-atmospheric altitude to make it re-enter the earth's atmosphere and hit targets simultaneously at a great distance with an acceptable error (the more negligible the error is the greater power of the ballistic load). The design of the carrier must therefore respond to parameters that must take into account the features of the missile and its composition in stages, the electronics necessary for the guidance systems, its transportability, management and the military requirements for use. The main physical characteristics of a ballistic missile is summarized by its type and quantity of stages, mass and quantity of fuel transported, the release times of the stages, expressible power (thrust), while the launch variables are the weight of the MIRV launch angle, air turbulence and atmospheric conditions.

The ANOVA¹³ statistic study technique was born in experimental research to evaluate the effect of certain factors, independent variables of a continuous or categorical type or on the dependent variable of a continuous type. The objective of the model is to compare averages of two or more samples while taking into account several variables in order to accurately determine the achievement of the goal.

Conclusions

Hitting a hypersonic aircraft does not seem easy now due to the time it takes for the defense systems to process a response as well as their actual effectiveness. The detection and tracking, as well as determining the firing solution, still takes time which, given the hyper-speed, would not be sufficient to avoid contact. The countermeasures for traditional ballistic warheads were based on prediction and on the calculation of the trajectory with statistic mathematical models such as ANOVA. The presence of multiple warheads and hypersonic speed partially cancels this predictive ability as the new GLIDER systems glide at very high speed approaching targets with flat and low trajectories.

The EKV¹⁴ kinetic systems have only a 50% probability of hit, but they are still too expensive to be developed. The answer, at the moment, seems to come from a detailed and effective study of the adversary's abilities and an efficient contrast through effective detection systems with high technological capacity, to discourage the adversaries from using hypersonic systems. M&S can play a crucial role in this active defense strategy. The representation of models and the use of suitable simulators, can allow the training of personnel to counter these threats and to better support the chain of command in the implementation of procedures and active tactics of contrast, discovery, tracking of threats and defense of the national operational space. **LC**



U.S. Advanced Hyper Sonic Weapon (AHW) concept

13 - ANOVA - Analysis Of Variance

14 - Exoatmospheric Kill Vehicle

THE GEORGIAN DEFENCE FORCES AND NATO LANDCOM

By Georgian Army Lieutenant Colonel Giorgi TVAURI, Georgia Land Forces Office of Strategic Communication



firm support, Georgia actively returned to stable development and began building democratic institutions, including Defence Forces, and aspired for European and Euro-Atlantic integration. In 1992 Georgia became the member of North Atlantic Cooperation Council (NACC), and in 1994 active participant of Partnership for Peace (PfP) program. Georgia has been implementing key reforms in state institutions and economy as well as in Defence Forces for development and reflection on contemporary challenges.

Important steps in 2020

Minister of Defence, Irakli Garibashvili considers the process of strengthening and building of defence forces a national priority. He elucidated that Georgia's defence policy is based on the key pillars such as advancing NATO interoperability and eventual membership to the alliance, increasing defence capabilities, and providing modern social accommodations for military personnel and their families. In this vein, despite COVID pandemic challenges, major steps were taken in 2020 that will be continued in the coming years. As of now, military infrastructure has been fully modernized which includes a policy of switching to NATO weapons standards. This not only entails procurement of modern weapons, but also the replacement of aging Soviet special equipment. And although not yet a NATO

"Georgia is NATO's unique partner. Georgia will become a NATO member," said NATO Secretary General Jens Stoltenberg in Georgia in 2019, once again reaffirming the alliance's commitment to NATO's Open Door Policy. It served as Secretary General Stoltenberg's reaffirmation of NATO's 2008 Bucharest Summit declaration, and was a positive assessment of Georgia's progress towards the defence transformation process and its contribution to international missions. NATO's policy and support towards Georgia is the result of Georgia's successful implementation of reforms, despite significant challenges, since their restoration of independence. These challenges included Russian occupation of Georgia's Abkhazia and South Ossetia regions, a weakened economy, and a deteriorated security system.

Today Georgia is embarking on another important stage of defence transformation. With the help of Georgia's partners'

member, Georgia already complies with the two percent GDP defence spending guideline as well as all financial guidelines, including major acquisition and spending on personnel. Georgia is doing its best to meet NATO guidelines in every key area.

A History of Important Steps

NATO-Georgia relations and Alliance's support are crucial in raising readiness of modern Georgian Defence Forces (GDF). In 2002, Georgia took an important step towards strengthening the country's defense capabilities when it joined a US-initiated Georgian Training and Equipment Program (GTEP). At the same time, during the NATO Prague Summit in 2002, Georgia made an official announcement regarding its aspirations to become a member of NATO. Consequently, the main reforms that laid the foundation for the defence forces of modern Georgia stem from these events.

In the following years, Georgia took important steps towards increasing interoperability with NATO, culminating in the decision made by NATO member states at the 2008 Bucharest Summit that Georgia will be a member of NATO. This decision was a critical assessment of the modernization of Georgia's defense forces and the difficult, but effective path to interoperability with NATO. It remains important that at every subsequent summit NATO firmly reiterates this historic decision. In the

same year, a special meeting of the Alliance's foreign ministers established the NATO-Georgia Commission (NGC), and Georgia launched the Annual National Program (ANP) within the NATO-Georgia Commission.

These steps further enhanced NATO-Georgia interoperability which were highlighted at the 2014 NATO Wales Summit when Alliance member states recognized Georgia as one of their most compatible partners. It was also here at this summit Georgia was deemed an Enhanced Opportunity Partners (EOP) along with Australia, Jordan, Finland and Sweden. In the same year, NATO-Georgia relations were further deepened by the adoption of the NATO-Georgia Substantial Package (SNGP), one of Georgia's most powerful mechanisms for cooperation. The aim of the initiatives within the framework of this package is to strengthen Georgia's defense capabilities, increase interoperability with NATO and facilitate the preparation process for Georgia's accession to the Alliance. The relations between NATO and Georgia are based on the principle - more NATO in Georgia and more Georgia in NATO.

Georgia, the Global Peacekeeper

In addition to strengthening its defense capabilities and maintaining regional stability, Georgia has been actively involved in global peacekeeping. Georgia joined Kosovo's first NATO

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peacekeeping mission in 1999, where the Georgian military, along with representatives of NATO member states, participated in the prevention of hostilities in Kosovo and provision of international humanitarian assistance. For the Georgian Defense Forces, serving with representatives of NATO member and partner countries was an opportunity not only to strengthen global peace, but also to enhance mutual respect and interoperability between countries.

Georgia contributed to the 2003-2008 Iraq peacekeeping mission as part of the multinational force. In 2008, 2,200 Georgian servicemen served in Iraq, making Georgia the third largest contributor to the mission.

Georgia has also contributed more than 20,000 troops to NATO missions in Afghanistan. Starting in 2004, Georgia actively participated in the International Security Assistance Force (ISAF), and since 2015 continues its efforts in the Resolute Support Mission (RSM). Georgia is also represented in the EU-led peacekeeping and training missions in the Central African Republic and Mali. Serving in so many NATO missions has not been without casualties. GDF lost 35 military personnel in the international missions, with several hundred wounded and injured. Despite these casualties, Georgian soldiers are confident that by strengthening international peace and security alongside partners, they are also defending their homeland.

International Exercises

Along with international missions, military exercises are among the most important platforms for enhancing interoperability and experience sharing for the GDF. The growing dynamics and scale of the international exercises, with the involvement of NATO member countries – especially the United States – supports continuous strengthening of the defence capabilities of the GDF. NATO-Georgia Joint Training and Evaluation Center (JTEC), which was established within the frames of the SNGP, stands on this frontline. The center hosted the inaugural NATO-Georgia Exercise in 2016, a command and staff exercise involving 250 military personnel from 11 NATO member and partner countries. The exercise proved to be a formative educational experience, not only for the participants, but for the planning group and those who participated in the NATO exercise planning process. As a result, during NATO-Georgia Exercise 2019, Georgia was the first non-NATO member country to achieve the status of the Officer Commanding Exercise (OCE) and Officer Directing Exercise (ODE). Currently, the planning of NATO-Georgia Exercise 2022 is underway.

LANDCOM, An Enabler for Georgia

LANDCOM is an important part of the ever-strengthening NATO-Georgia practical cooperation. The land-focused





NATO command is actively involved in the development and modernization of the GDF, namely its largest branch – the Land Forces. Respectively, the development process of the GDF is fully in line with the modern challenges, NATO standards and practices. The main areas of the existing cooperation involve the visits of the mobile training teams in Logistics, Communication and Information Systems (CIS), and Intelligence. In recent years, LANDCOM conducted supervision and mentorship of the General Staff of the GDF throughout NATO-Georgia Exercise 2016 planning and execution process. During NATO-Georgia Exercise 2019, it continued providing support as an observer. As a result, on March 29, 2019 the GDF and LANDCOM signed a cooperation agreement which expressed the will to further strengthen ties between the sides. Last September, a LANDCOM delegation headed by their Commander, Lieutenant General Roger L. Cloutier, met with Defence Minister Irakli Garibashvili where they discussed Georgia's defence reforms and future cooperation.

A number of practical events have been planned to further assist Georgia to enhance NATO-interoperability. It is important that NATO offered the GDF various initiatives, including assigning an officer to a staff position at LANDCOM and participation in combat readiness evaluation courses, all of which serve a purpose of sharing experience with the Georgian side and strengthening partnership. NATO support, particularly through LANDCOM, to Georgia as a future member of the Alliance, and its involvement in the modernization of its Defence Forces, once again proves

NATO's commitment to the 2008 Bucharest Summit decision and Open Door Policy.

By active participation in the international missions, modernizing Defence Forces and Land Forces, and fulfilling international obligations, Georgia is NATO's loyal and trusted partner. NATO's strong support significantly enhances Georgia's defence capabilities, which fosters regional stability and establishes Georgia as a reliable security provider and partner. **LC**





UKRAINE'S LAND FORCES

A DEEPENING PARTNERSHIP WITH



KYIV – From March 10-12, 2021, NATO Allied Land Command's commander, Lieutenant General Roger Cloutier, held key engagements with several Ukrainian military and government leaders to build on a partnership initiative that began in September, 2018. At the time, then commander U.S. Army Lieutenant General J.T. Thomson, signed a letter with Ukrainian Land Forces that established the framework for future cooperation.

During the recent visit, Lieutenant General Cloutier, fresh off a visit to the Baltics to meet with Alliance land forces leaders there, met with Colonel General Oleksandr Syrskyi, Commander for Ukraine's Land Forces and his staff at his Kyiv headquarters. Lieutenant General Cloutier's purpose was to gain an understanding of Ukraine's Land Forces and deepen the cooperative relationship LANDCOM has with Ukraine as a strategic land forces partner.

"This visit to Kyiv is the final part on a multi-nation tour to see NATO's land forces and their leadership," said Lieutenant General Cloutier during a post-engagement press conference. "I find the fact I'm concluding this land domain fact-finding mission here in the Land Forces Headquarters of a nation that is a critical partner to our NATO mission of deterrence and defense incredibly appropriate."

LANDCOM plays a leading role in the standardization of NATO land forces as well as partner land forces like Ukraine who participate in the Operations Capabilities Concept (OCC) program. In 2019, LANDCOM sent an OCC evaluation team to Ukraine for Exercise Rapid Trident 2019 to evaluate a Ukrainian Chemical, Biological, Radiological, and Nuclear (CBRN) unit, an Engineer Company and a Military Police platoon. LANDCOM also sent a team to Ukraine to conduct training on logistics planning that year, and in 2020 formed a collaborative relationship with the Armed Forces of Ukraine's Strategic Communication Directorate.

Colonel General Syrskyi pointed out the significance of LANDCOM's visit.

"The visit of [the] NATO Land Forces Commander indicates that NATO military and political leadership and Alliance countries governments see us as the strategic and future partner," suggesting his country aims to become full member of "the world's most powerful collective security system" one day. "It also clearly confirms consistency of NATO's approach to support Ukraine in reforming the national security and defense sector," he said.

On June 12, 2020 Ukraine was designated an Enhanced

Opportunity Partner, joining Australia, Finland, Georgia, Jordan and Sweden as nations who make particularly significant contributions to NATO operations and other Alliance objectives. As such, these countries enjoy enhanced opportunities for dialogue and cooperation with the Allies. As a NATO partner, Ukraine has provided troops to Allied operations, including in Afghanistan and Kosovo, as well as to the NATO Response Force and NATO exercises. Allies highly value these significant contributions, which demonstrate Ukraine's commitment to Euro-Atlantic security. As an Enhanced Opportunities Partner, Ukraine will benefit from tailor-made opportunities to help sustain such contributions. This includes enhanced access to interoperability programmes and exercises, and more sharing of information, including lessons learned.

During the two-day visit in Kyiv, Lieutenant General Cloutier also met with Ukraine's Commander in Chief of the Armed Forces, Colonel General Ruslan Khomchak; Deputy Minister of Defence of Ukraine for European Integration, Anatolii Petrenko; and Deputy Prime Minister for European and Euro-Atlantic Integration, Olha Stefanishyna.

During his meeting with Deputy Defence Minister Petrenko, Lieutenant General Cloutier highlighted the unique experience of the Armed Forces of Ukraine in counteracting hybrid threats and

expressed interest in a detailed study of the issue. He invited Colonel General Syrski and representatives of Ukraine's Land Forces to take part in future conferences and help other NATO land domain commanders understand the threat.

For her part, Deputy Prime Minister Stefanishyna underpinned the very reasons behind LANDCOM's purposes for pursuing the cooperative partnership.

"First and foremost, we focus on modernizing our security and defense sector in line with the Alliance's standards and practices," she said. "I am convinced that the security of NATO and the security of Ukraine are interdependent, and this is the basis for the prosperity not only of Europe, but also of the entire transatlantic region." **LC**

By LANDCOM Public Affairs with contributions from UKRINFORM.net



Reforms in Times of War: the Experience of the Armed Forces of Ukraine

By Colonel General Ruslan KHOMCHAK, Commander-in-Chief of the Armed Forces of Ukraine



The strategic course of Ukraine as defined in the Constitution of Ukraine is to obtain full membership in the European Union (EU) and the North Atlantic Treaty Organization (NATO). Many governmental and non-governmental organizations in Ukraine are engaged in implementation of this task. The Armed Forces of Ukraine are a confident leader among governmental institutions on Euro-Atlantic integration. Substantial contributions made by the defense and security forces of Ukraine to the Euro-Atlantic security system development is of critical importance. Our unique combat experience, gained with sweat and blood, is extremely valuable for our partners, as well as their experience of reforms implementation for us. For this reason, the enhancement of the cooperation with NATO and the acquisition of full membership of Ukraine in this organization is a mutually beneficial process. And this process can reliably secure Baltic and Black Sea countries against potential future Russian Federation attacks.

Vision 2030

Despite serious security challenges and the need to constantly deter Russian aggression in the east of our country, we have found the courage and resources to implement reforms that bring us closer to compatibility with Alliance forces. NATO's values and principles, which we absolutely share, guide us along this path. Based on them, the priorities for the development of



the Armed Forces of Ukraine, set in the Vision of the Armed Forces of Ukraine until 2030, were determined.

In order to implement the Vision, in 2020 the practical realisation of defence reform began in accordance with the principles and standards adopted in the armed forces of NATO member states. This year, 2021, began with the transformation of the joint command and control (C2) system of the defense forces, and military management in the Armed Forces of Ukraine has been completed. In this way we delineated and eliminated task duplication between the Ministry of Defence of Ukraine and the General Staff of the Armed Forces of Ukraine, introduced the principles of separating the troops deployment function from the troops generation function in the overall command system, and specified leadership authority and responsibilities.



One of the most important tasks of reforming and developing of the Armed Forces of Ukraine is the establishment of a professional non-commissioned officer (NCO) Corps. Its successful implementation will directly influence the overall increase of combat capabilities and the level of combat readiness of units. We already have significant achievements in this direction: effective vocational education and training systems have been introduced, the array of NCO positions has been formed, and a new list of military enlisted ranks has been implemented. The rights and authorities of sergeants and NCOs have been significantly expanded to include:

- active roles in planning and organization of combat training activities;

The practical steps of the reform resulted in the five new commands within the Armed Forces of Ukraine: the Joint Forces Command, Logistics Forces Command, Communications and Cyber Security Forces Command, Support Forces Command and Medical Forces Command. When creating these new commands, the examples and experience of similar structures in the armed forces of NATO member states were studied. For example, the Medical Forces Command was created based on the Bundeswehr forces model, all while considering national peculiarities.

During 2020, the new structure of Armed Forces of Ukraine and its C2 system has strengthened its capabilities of assigned tasks accomplishment. During the strategic command and staff exercise, JOINT EFFORTS 2020, the new structure of the Armed Forces of Ukraine proved itself effective and was assessed highly by our international partners. Also, the new structure of the Armed Forces of Ukraine is tested daily for strength in real combat conditions in the course of the Joint Forces Operation, and provides a reliable deterrence of our Russian aggressor in the east of our country.

As part of the first stage of defence reform, the General Staff of the Armed Forces of Ukraine has undergone transition to a joint structure with a clear division of duties and responsibilities. The reform is carried out along the entire vertical of military authorities: in 2020 the command of military branches and services, operational, air and naval commands were transferred to the functioning as a part of G, A, N-structures.

After transformation of the management system, the main task of the Commands of military branches and services is to generate troops. Also, analogous to the U.S. Army's Training and Doctrine Command (TRADOC), our Land Forces Command has established a training command. In addition, in 2021 we will take further measures at the tactical level to implement the S-structure.

- "Sergeant to Sergeant" training principle is implemented;
- development of curricula and qualification standards for training courses designed for privates corporals and sergeants;
- leaders of educational divisions in training centers;
- performing duties as chief NCOs of operations/missions;
- participating in military decision-making processes; and
- serving in command positions of military training (individual units and subunits (groups, sections, divisions, departments) in headquarters at all levels.

New positions for NCOs as unit command advisers on the issues of military service and training for privates and sergeants, comprehensive support, and other issues were also introduced at all level units.

The basis of the professional NCO of the Armed Forces of Ukraine, as of the end of 2020, has been laid. Currently, the NCO Corps of the Armed Forces of Ukraine has all the features and attributes already inherent in the NCO Corps of many of the armed forces of leading NATO member states.

The Human Side

It should be emphasized that the cornerstone of all the transformations taking place in the Armed Forces of Ukraine is human. The safety and health of servicemen, adaptive programs for their training and career management, legal and social protection, adequate property and financial support – all these are a priority of the modern Armed Forces of Ukraine. Our major tasks for the coming years include:

- increasing the number of units involved in international exercises and NATO coalition operations;
- supporting professional development of personnel, particularly

through training abroad and military service on a rotation system at NATO headquarters at all levels;

- maintaining appropriate combat readiness of units through manning with qualified personnel; procuring sophisticated weapons, equipment and required supplies; and maintaining existing weapons and equipment. Along with that, procurement of modern weapons and equipment will be primarily allocated to those units performing combat tasks;
- developing new weapon systems and military equipment with emphasis on modern intelligence/surveillance and reconnaissance assets; electronic warfare (EW) assets; communications and air defence equipment; and weapon systems with improved accuracy and range capabilities (including ensuring nationally produced equipment is interoperable with weapons and equipment operated by our international partners);
- prioritizing the collective and joint training of all Defence Forces components, extending the list of joint theoretical and practical training activities covering the full spectrum of joint (for the Defence Forces) tasks;
- synchronizing the development of operational capabilities by all components of the Defence Forces in the development of weapons and military equipment of the same type;
- developing the Territorial Defence System and taking the necessary steps to prepare the territory and population of Ukraine for defence.

The vision of the Armed Forces of Ukraine provides for the Land Forces to reach operational capabilities by 2030 that are sufficient for conducting joint operations and maintaining integrated use of various combat systems. We will continue developing armaments and military equipment for the Land Forces, taking into account our rich combat experience and modern requirements including high maneuverability of units, autonomy of their actions (endurance), and long-range high-precision fire. Moreover, the Land Forces will form a basis of the territorial defence of our State to ensure its functioning both in war and peacetime mode.

The strength of the Land Forces would amount to almost half of the total strength of the Armed Forces of Ukraine. All combined arms brigades will be designated as high alert units. These units will be manned with highly-trained personnel, and provided with the requisite weapons and equipment. Our goal to increase an overall maneuverability of combat brigades would require us to optimize logistics units structure based on adjusted requirements for echeloning stocks of supplies and ammunition. The Land Forces have already established two joint training centers (Yavoriv and Shyrokyi Lan Training Grounds). It is worth mentioning that power to implement reforms in the face of two deadly threats – Russia's armed aggression against our State and COVID-19 pandemic – comes from understanding that we defend common democratic values and contribute to the development of common security space. **LC**







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