

HQ NRDC-ESP

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Commander's Foreword

Lieutenant General Fernando García-Vaquero Pradal (ESP-A)
COMMANDER HQ NRDC-ESP

Dear reader,

The pace that 2022 set for our HQ has been amplified once more in 2023. Not long ago, we conducted our Exercise VALIANT LYNX 2023 which brought us to a new level with regard to experimentation and implementation of new technologies. We are going to continue this experimentation of C2 Concept, training, and testing derived from the UKR war observations, and we are following the lessons identified and lessons learned very closely.

The success of this exercise has proven once more that we are a learning Headquarters - innovative, and always thinking in a positive way, and where our personnel is the key cornerstone.

We have also experienced a remarkable amount of fluctuation with regard to our key personnel. Nearly half of all Seniors have been exchanged, as well as the entire Portuguese contingent. In this regard, it was a bittersweet moment to say farewell to our DCOM Major General Ribeiro. He was part of the unbreakable Triangle "COM-DCOM-COS" and he forged the whole Command Group with his dedication and experience.

On the other hand, I am very much joyful to welcome Major General Sergio Marques as our new DCOM and member of our "Triangle".

With the POLAD, another important position has been handed over this year. We were able to fill the position of POLAD internally with our previous ACOS G10 COL Juan Babío, since Ignacio Cortiñas has left for his well-deserved retirement.

I would like to take this opportunity to thank all those who have served at HQ NRDC-ESP. In particular,

however, our former DCOM and POLAD for their exceptional work for our Headquarters.

As all our Partner GRFL's, we are fully committed to all planning issues. In addition to that, we continue to provide support to other HQs for exercise and CREVAL.

Hence, all newcomers are very well welcomed to integrate as soon as possible into our HQ NRDC-ESP family in order to maintain and enhance our capabilities as Warfighting Corps.

My last, but no less important, point brings me to family. Our families are the backbone of our duty. We shall never forget for whom we serve, as their sacrifice is equal even to our own. The Team and the family are of paramount importance.

We are a learning HQ, we know, we want and we can. I am very proud to be the Commander of HQ NRDC-ESP.

"Twelve Nations, One Team"

Enjoy the magazine and I wish you, and especially your families, Merry Christmas and a successful and peaceful 2024 New Year.





Future of the AOCC(L)s after Air Support Operations Center (ASOC)

Lieutenant Colonel César Oliver Martorell (ESP-AF)
Major Brian Flynn (US-AF)
HQ NRDC-ESP AOCC

A BRIEF HISTORY

In March 2020, the Joint Analysis and Lessons Learned Center (JALLC) published a report titled, “Air-Land Integration: Extending NATO’s Tactical Air Command and Control Capability to the Corps level.” This document concludes that in a Major Joint Operation + (MJO+), NATO’s current TacAirC2 capability lacks real-time airspace de-confliction, further requiring a more robust ALI that’s fully integrated into the Corps level joint fires and targeting cycle. These recommendations led SHAPE to direct AIRCOM towards bridging this capability, utilizing the US/UK Air Support Operations Center (ASOC) structure as a template in which to incorporate NATO doctrine.

ASOCs, assigning the Deployable Air Command and Control Center (DACCC) to lead the effort within NATO. These ASOCs will be deployable, plug-and-play in a Warfighting Corps (WFC) HQ, and enable the Joint Air Ground Integration Center (JAGIC) to synchronize Kinetic fires to effectively shorten the Corp Commander’s kill chain within their AOR. By combining the Corps Joint Fires Support Element with Air SMEs within the ASOC, JAGICs will ultimately enable a scalable module in which to integrate and coordinate fires and air operations within assigned airspace.

With the introduction of the ASOC into the Corp HQ, it is crucial to explore the current ALI architecture, along with the future roles and responsibilities on the AOCC(L)s as NATO continues to adapt and deter Russian aggression along their eastern flank. Understanding both the similarities and differences between AOCC(L)s and ASOCs will promote a more

For the past 2 years AIRCOM and LANDCOM have taken SHAPE’s guidance to generate three NCS

accurate vision for the future. Both are air entities, subordinated to the Air Component (AC) but with a very different mission, function, task, equipment, and training.

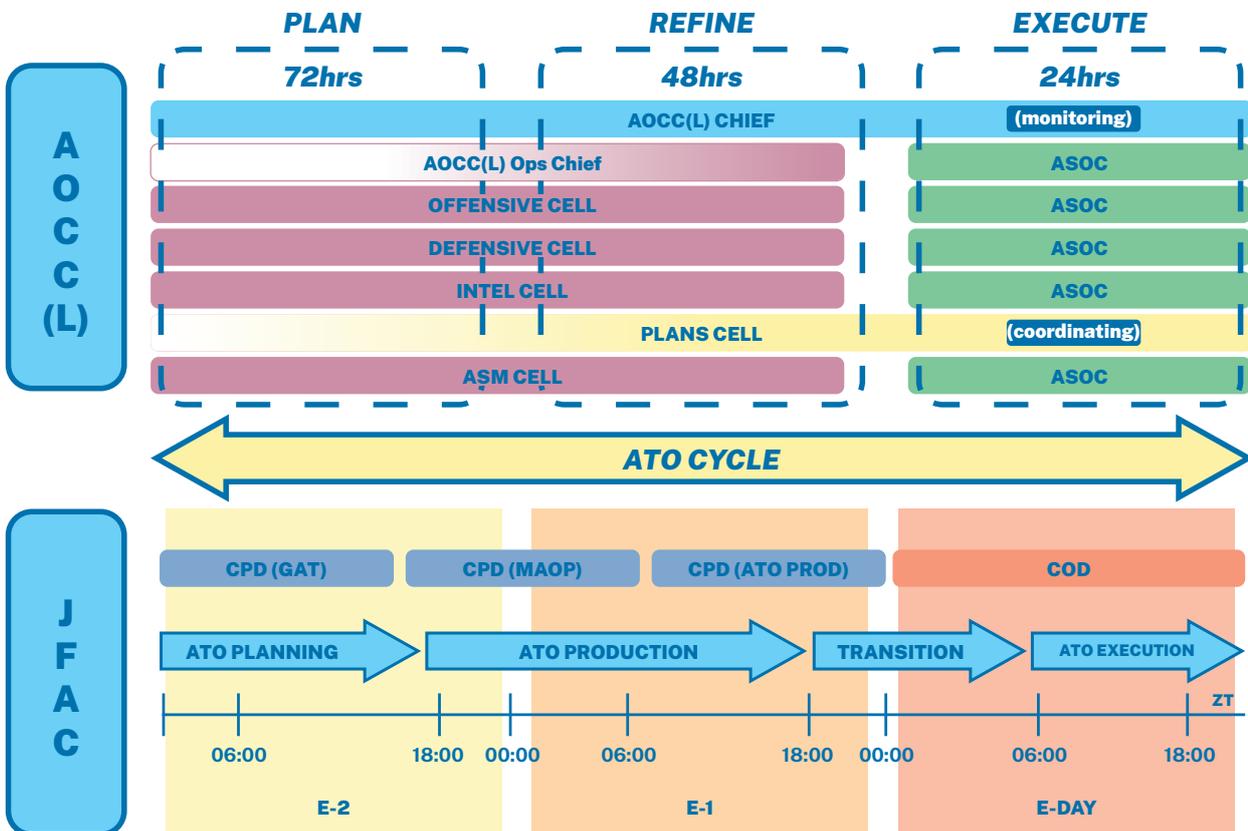
WHAT IS AN ASOC?

The first NCS ASOC will reach Initial Operational Capability (IOC) in late 2024, with 2030 showcasing all three NCS ASOCs as Full Operational Capability (FOC) and available to the NATO warfighter. The primary functions and tasks are: TacAirC2 to deliver direct air power counter land operations during ATO execution (within the Corps scheme of maneuver); execute specified ATO missions; procedural control of air missions within a specified airspace volume; operate the Joint Air Request Net (JARN); task or re-task specified air mission (when directed by JFAC). Although an approved and published ASOC CONOPS is currently in production, a NATO ASOC may better be defined as a tactical air entity deployed in a Corps HQ, which will act as the primary C2 node for integrating Air Support into counter-land operations, when available. The ASOC crew complement and expertise, is also important to appreciate.

The ASOC can be compared to that of a Combat Operations Division (COD), typically located at an Air Operations Center (AOC). More specifically,

the ASOC will be an extension of the COD floor as it relates to APCLO (Air Power Contribution to Counter-Land Operations). Much like the current AOCC(L) chain of command, the ASOC will be collocated with, though not subordinated to, the Corps HQ as they temporarily deploy to the Operations Center (OPSCEN) for exercises or operations. As exercised in Steadfast Leda 2021 and Loyal Leda 2022 (LOLE 22), the ASOC forms the air component of the JAGIC to shorten the Find, Fix, Track, Target, Engage, Assess (F2T2EA) kill chain, and enhance Fires and Targeting's ability to de-conflict within an assigned volume of airspace to meet the commander's objectives to shape the deep fight. Of note, manning, training, and equipment will be completely different from that of a typical AOCC(L). These ASOC positions will be highly specialized, and include currencies and qualifications in procedural control of aircraft, Joint Terminal Attack Controller (JTAC), JARN Operation, and Airspace Management, to name a few.

Furthermore, the ASOC team will follow strict crew rest regulation and shift work as they execute their duties within the Current Operations Cell. As the DACCC maneuvers their way to FOC by way of LOLE '24, continues equipment acquisition, and finalizes manning allocation (approx. 72 personnel), NATO must pay close attention to the AOCC(L) component of the HQ and how it differs from that of the ASOC.



AOCC (L) functions when an ASOC is deployed at Corps level

WHAT IS AN AOCC(L)?

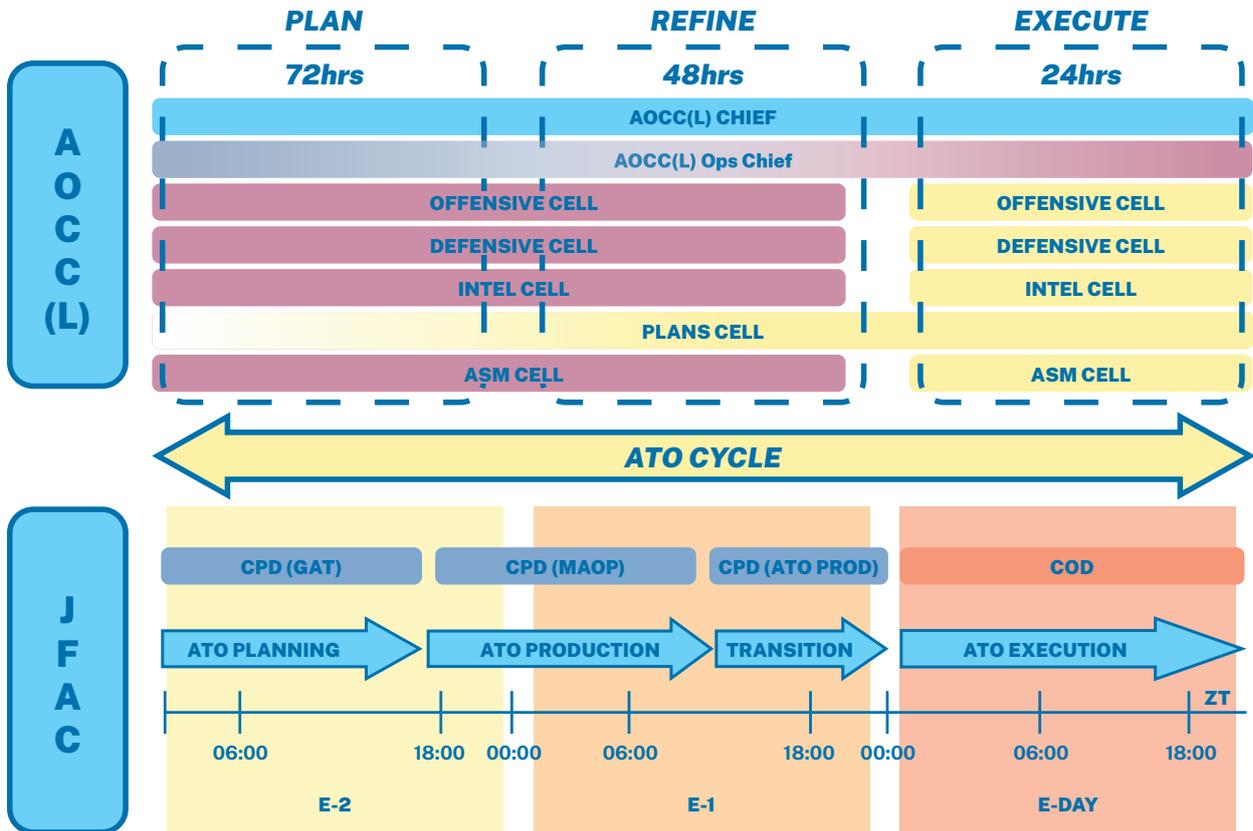
The AOCC(L) is a tactical air entity that is permanently collocated with a GRF(L) HQ. These entities are functionally subordinate to Combined Force Air Component Commander (CFACC) from peacetime until crisis or conflict. Traditionally, they will work with AIRCOM in peacetime, and with the designated JFAC (DCDR Air), in exercises/operations. The AOCC(L) mission is to represent the AC at Corps level, providing air expertise, liaising with AIRCOM or with the designated JFAC, and coordinating specified air missions.

The AOCC(L) mission can be summarized in three basic functions: ADVISE, ASSIST, and COORDINATE. ADVISE the Corps HQ Commander and his/her staff on Air Power capabilities and limitations on all matters concerning air operations that affect the Corps HQ Commander mission. ASSIST Corps HQ staff in specific processes, such as Airspace Management Requests (ACMREQ), Air Tasking Order Army feeders (ATO feeder) or, Air Support Request (ASR) process. COORDINATE those air missions, pre-planned or immediate, that require a certain degree of de-confliction or integration with ground units.

During peacetime, the AOCC(L)s are mainly focused on its advisory function. During exercises and operations, AOCCs cover all three main functions already explained (advise, assist, and coordinate) throughout the entire ATO cycle (72 hours). The AOCC(L) participates in the main Corps HQ battle

rhythm events, in order to ensure land air inputs are reaching the JFAC counterparts on time and correctly formatted for the JFAC Combat Plans Division (CPD). They will continue to liaise with CPD during the ATO planning and refining phases (72-48 hours), and with the COD during ATO execution (within 24 hours). Finally, AOCC(L)s capture Battle Damage Assessments (BDAs) to further refine measurements of effectiveness and future targeting objectives. The 72 hour planning cycle between the Corps AOCC(L) and JFAC CPD/COD is not only crucial, but required for mission allocation and success. From Air Space Management, to current air picture intel impacting both HQ targeting and/or defensive posture, the AOCC provides multiple SMEs to the planning process.

The AOCC hosts approximately 15-25 air experts, depending on mission support request and level of crises. For example, the Plans Officer contributes air advice at the G5 level, and as a member of the Integrated Planning Group, acts as a conduit for development of HQ Air related plans. Furthermore, the Intel Officer tracks and monitors incoming INTREPs, MISREPs and BDAs from APCLO missions, as well as prepares threat analysis, INTSUMs, SITREPs, and maps with current operations overlays, as necessary. Although the number of individuals assigned to the Corps AOCC (L) during peacetime can vary between organizations, their permanent presence and ability to increase in capacity, only solidifies the continuity and lethality of the Corps HQ during crises.



AOCC (L) functions without ASOC



CONCLUSION

As described, ASOCs and AOCC(L)s complement both the mission and function of Corps level Air Support. The AOCC(L) participates daily at Corps HQ to provide advice, assistance and coordinating functions during ATO plan, refine and execution phases (72-48-24). The ASOC is focused on the ATO execution phase (24), providing procedural airspace control and coordination over specified ATO missions. In short, the AOCC(L)s is not the executing and controlling agency during the ATO execution phase, it just provides coordination. In contrast, ASOCs are able to exercise command and control duties during ATO execution phase, but are not designed for attending ALI activities during ATO plan and refine phases as AOCC(L)s. Therefore, it can be said that AOCC(L) and ASOC roles are complementary.

Currently, NATO is comprised of 9 Corps HQ fielding 9 AOCC(L)s, with the goal of creating 3 ASOCs to FOC by 2030. In a MJO+ (Major Joint Operation) involving a preponderance of NATO Corps allocated to the eastern flank, AIRCOM will be unable to fulfil each Corps with an ASOC TacAirC2 entity (even with US/UK national ASOCs). Most probable, Corps bearing a larger maneuver effort will receive an ASOC, bolstering the air role with the collocated AOCC(L). For those Corps not receiving an ASOC, it will be necessary to continue working with their collocated AOCC(L)s in a traditional mode.



War in Ukraine. Multi-domain in the Black Sea

Major Juan Carlos Alonso Gonzalvo (ESP-N)
HQ NRDC-ESP MOCC

There is no doubt that the conflict between Ukraine and Russia is of great importance to the world, not only because of its military implications but also because of its political, economic, and social implications. The conflict between these two countries has revived the spectre of a large-scale armed conflict on the European continent in a way that has not been seen for years.

It may seem that in a conflict where terrain is of vital importance and is so extensive, military operations only take place on the ground. However, they take place on land, at sea, in the air and in cyberspace. This is not surprising; in modern conflicts there is no longer a place for operations in just one of these areas.

One of the important aspects of this conflict is the existence of the Black Sea. It has always been a strategic point to be taken into account because of its characteristics and geographical location. Not only Ukraine and Russia are aware of the importance of this sea, but also the rest of the world's organisations. In fact, until the conflict, maritime traffic between the Bosphorus Strait in Türkiye and the Black Sea ports was abundant.

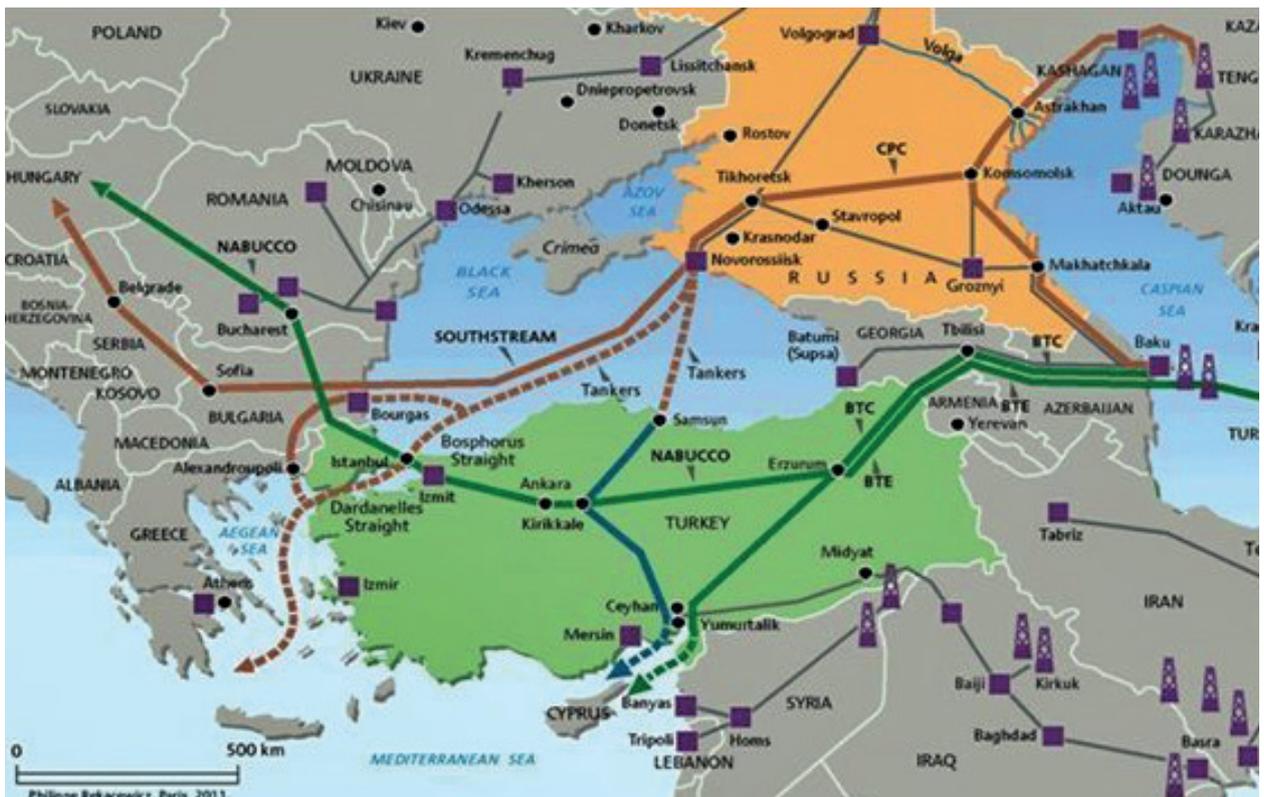
The use of the Black Sea is essential for countries in conflict, whether for economic or military reasons. In this latter aspect, it's worth noting that Russia has the Crimea peninsula, where the Naval Base of Sevastopol is located.

But as discussed above, the focus should not only be on the maritime aspect; when talking about the Black Sea, multi-domain actions have a place in this part of the conflict.



Snake Island. www.thepoliticalroom.com

Snake Island is a good example of this. When the conflict began, operations took place not only on land but also at sea. Russian naval forces deliberately attacked this island, whose Ukrainian garrison was rather sparse.



The importance of the Black Sea. www.elordenmundial.com

Once the Russian Armed Forces had taken control of the island, troops were deployed, including anti-aircraft systems, and it was even thought that the island could be used as a staging point for a possible Russian amphibious operation against Ukrainian ports or coastal installations. In the end, this did not happen, as the Ukrainian government gave the order to reinforce those ports and coastal areas that might be of interest to Russia.

However, it was not all good news for Russian forces on Snake Island, as large numbers of military personnel could not be stationed there either. Moreover, the island was isolated from the Sevastopol Naval Base, from where they could receive logistical support by sea. The distance was a disadvantage in realising this logistical support.

Ukraine decided that an action to recapture or damage Russian forces on this island would boost the morale of Ukrainian troops and citizens, who had seen how early in the conflict it had passed into Russian hands.

It might seem that the only way to strike this island was through naval action, which would take place if and when the circumstances were right. However, one thing the Russian government did not count on was the artillery capability that Ukraine would acquire, in part thanks to US support.

Part of these artillery pieces would be used against the Russian forces stationed on the island, producing a continuous wear and tear on them, not only physically but also morally, as artillery is capable of producing these effects.

At the same time, Russian logistical ships that could supply the island were attacked not only from the sea, but also from the air and the coasts near the island; missiles and artillery batteries deployed on some of these coasts made navigation difficult for Russian ships.



Ukrainian propaganda about Snake Island.
www.thepoliticalroom.com

The Russian government's efforts to supply the troops on the island were increasingly unsuccessful, and losses of personnel and materiel mounted. Finally, given the amount of resources Russia was investing in maintaining troops on the island, and the little that was being gained strategically, it decided to abandon the island with little to show for its occupation.

The withdrawal of Russian troops from the islet also boosted the morale of the Ukrainian government and population, which had seen the island taken from them at the start of the conflict. This could be used as an impetus to show that Ukraine still had much to say.

In any case, it should be noted that, although it might seem that because of the geographical location of the island and its surroundings only naval operations would be important, it was the actions of various Ukrainian units that made it difficult for Russian troops to remain on the island and supply them.

As stated at the beginning of this article, modern conflicts no longer belong to a single domain. The actions on Snake Island are an example of what can be expected in future conflicts, where multi-domain will be present.



Self-propelled howitzer during the Ukrainian military operation to liberate Snake Island in the second half of June 2022. Ministry of Defense of Ukraine. www.thepoliticalroom.com

Barrier Planning: Challenges and trends

Major Álvaro Michael Zamorano (ESP-A)
HQ NRDC-ESP MILENG

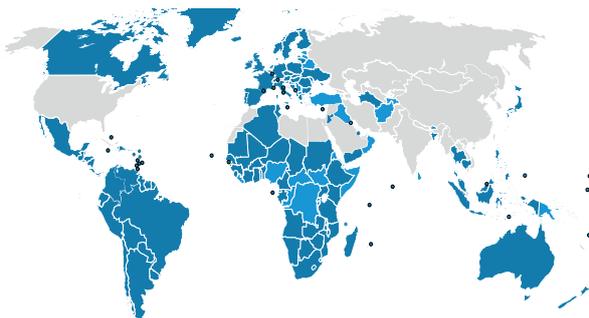
After an interval of several decades in Europe, the Russian invasion of Ukraine has brought conventional warfare back to life. Some mutations have obviously been observed on the current battlefield. New technologies have arisen, leading to many improvements in the Fire Support, for example. But many civilian technologies have been adapted and enabled the deployment of a great deal of low-cost equipment down to the foot soldiers. For example: Unmanned Aerial or Surface Vehicles (UAV or USV) and wider use of smartphones apps. All these updates have led to many evolutions in the battlefield tactics such as forced mobility, enhanced connectivity and greater dispersion of smaller tactical formations.

What seems to remain unchanged (and even more necessary) is the continuous need to shape the terrain in a way that provides an advantage over the enemy. Therefore, the old-fashioned Barrier Planning, also known as (AKA) the integration of obstacles with fire support in support of the maneuver plan, remains relevant nowadays. It is nevertheless facing new challenges which will be discussed below.

FIRST CHALLENGE: THE TECHNOLOGY

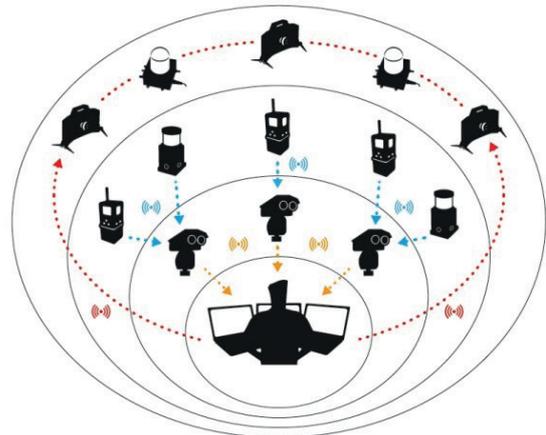
The signing of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines (APM) and on their Destruction, AKA the Ottawa Treaty, in 1997 has imposed severe restraints in the employment of one of the main counter-mobility weapon systems to the 164 states that have ratified it.

The treaty's main concern is the indiscriminatory nature of the APM, so a new means to obtain similar military effects has to be developed. The victim triggered fuses of the APM must be replaced by initiation devices that allow the selection of military valuable targets or the activation timespan of this explosive obstacle.



States in blue are party to the Ottawa Treaty.
www.icbl.org

As an example of the latter, Spanish defense company EXPAL has developed the Deployable Area Control System (D-ACS): It is a modern perimeter protection system for areas that allows passive actions for detection and identification of intruders and active actions for gradual response. It was designed to protect military facilities, such as Forward Operating Bases (FOB) or Combat Outposts (COP). Bear in mind that D-ACS is not optimized for more conventional warfare scenarios, which shows that the potential of development to find new technical solutions to overcome Ottawa Treaty's restrictions is vast. In fact, D-ACS's limitations, when compared to APM, are obvious: higher maintenance cost, permanent surveillance and inappropriate for maneuver warfare, to name a few...



Spanish EXPAL's Deployable Area Control System scheme. www.defensa.com

Nevertheless, emplaced anti-tank mines (ATM) and scatterable mines (SCAM) are still available for the execution of a barrier system. The emplacement of ATM is a time-consuming task and a massive logistical effort that, once done, poses a threat to the friendly troop's mobility as much as to the enemy's freedom of movement (FoM). SCAM can be employed through a range of systems (e.g. Field Artillery (FA) or aircraft), which allows a maneuver commander to rapidly place mines as a situational obstacle. Modern fuse-sensing and anti-disturbance devices allow scatterable mines to defeat enemy attempts to clear the MF. SCAM mines utilize pre-programmed self-destruct (SD) periods, countermeasure hardening and anti-disturbance features. The average duration of the SD-period varies from 4 hours up to 15 days depending on the system.

To increase a barrier system's effectiveness, the combination of explosive and nonexplosive obstacles is crucial, so that the enemy will have to deploy different breaching capabilities to get



Spanish EXPAL's Deployable Area Control System scheme. www.defensa.com

through the obstacle. These nonexplosive obstacles imply artificial terrain modifications. Examples of these constructed obstacles include the use of wires (concertina, barbed, etc...), digging tank ditches, and tying in Belgian gates, Czech hedgehogs, wooden beams, dragon's teeth or tetrahedrons into the obstacle plan. The selection of ingredients of the obstacle systems will be conditioned by the commander's intent, the threat, the terrain, and the availability of time and resources. Moreover, meteorological conditions have to be included in the equation, for the reason that weather can alter our obstacles' usefulness. Anyone who has heard about the miracle of Empel knows what I mean.

Last, but not least, the thermal, infrared (IR) and Ground Penetrating Radar (GPR) imaging technology implemented in UAVs and unmanned ground vehicles (UGV) has a huge impact on current and future counter-mobility operations. UAVs increase the common operational picture, while adversary UGV and UAV means augment their ability to detect or breach our obstacles at a lower human cost.

SECOND CHALLENGE: THE PROCESS

Targeting is not an Artillery issue, and neither is Barrier Planning an Engineers problem, it is a commander's responsibility. Its success consequently relies on planning a coordinated maneuver with integrated fire support and obstacles at all command levels.

Before coordinating the different branches within an HQ, the staff have to articulate the specific effects (ATP-3.12.1 2-12) they want the obstacles to achieve, according to the commander's intent and in line with the respective operational plans (OPLAN). These effects must be understood, so that the "experts" can properly utilize the enabling assets to construct an



obstacle system which accomplishes the commander's intent and supports the execution of the mission.

Since time is the most limiting factor, Barrier Planning, normally coordinated by G5 and assessed by MILENG (but involving G35, G3 and Fires & Targeting, among other branches), is not conducted in a vacuum, but in conjunction with the whole operation planning. As a result, it should provide a minimum barrier overlay showing the planned obstacles, obstacle control measures, reserved obstacle list, and a priority list for completion.

Obstacle control should ensure that obstacles support current operations, maximize subordinates' flexibility, and facilitate future operations. Additional obstacle control is achieved with obstacle restrictions, which are normally enforced from a higher headquarters. The operational level should set the framework for the tactical level in regard of the allowed obstacle types. This also includes coordination with host nations (HN) in the area of operations (AOO) as well as coordination with troop contributing nations (TCN), considering the Rules of Engagement (ROE) and national caveats, which tend to mitigate the consequences for the population and the potential environmental damages. Within the planning process, barrier resourcing is a permanent logistical challenge. Engineer advisors at each level may estimate obstacle resource requirements to make the necessary allocations, while the "logistician" will provide the creative solutions and possibilities. For that reason, military and civilian efforts should converge: contractors are capable of emplacing passive obstacles, reinforcing defensive positions and transporting whatever is indispensable. This cooperation increases the whole work performance exponentially.

CONCLUSION

War in Eastern Europe has resulted in a continuous need of barriers, involving an enormous investment of resources: finances, effort, time, manpower, equipment, mines... The only way to make it worthwhile lies in the coherent integration of the maneuver, fire support and barrier plan. Therefore, no military engineering capability will ever overcome failures in effective barrier planning, based primarily on coordination and prioritization. The combination of different types of obstacle, properly placed in depth, still shows its value in hindering maneuvers, due to the overall combat engineer shortage. A rise in the use of situational obstacles, such as SCAM, is foreseen, as they represent a flexible tool for the Commander, with a massive reduction in human resources needed to build the obstacle plan. In addition to that, a surplus of sappers is not to be expected in the execution of a barrier plan, so this work power has to be maximized through specific civilian labors. Furthermore, the acquisition of enhanced specialized mechanical equipment could be key to the effectiveness of MILENG units, while being aware that every asset has its limitations and optimal conditions of use.

Operational design, art or dictation

Major Leonardo Toledo Mira (ESP-A)
HQ NRDC ESP G5 PLANS

This article tries to analyze those possible factors that can limit in some way the freedom of the operational commanders when carrying out their operational design. In other words, the way to solve the problem.

The purpose is to determine if the operational commander really enjoys freedom when it comes to visualizing the possible solution to the problem that subsequently materializes on the joint operations area (JOA). For this, I will try to analyze the factors from the point of view of the operational commander, who is present in the JOA, taking into account those that are external to it and those within the JOA itself.

LIMITING FACTORS

External limitations are everything from outside that limits the commander when creating his design. We can find political/strategic limitations, and also those derived from public opinion.

Among internal limitations we can find ones that belong to the JOA itself and those that come from the nature of the war, as well as the operational commander's values, ethics, or morals.

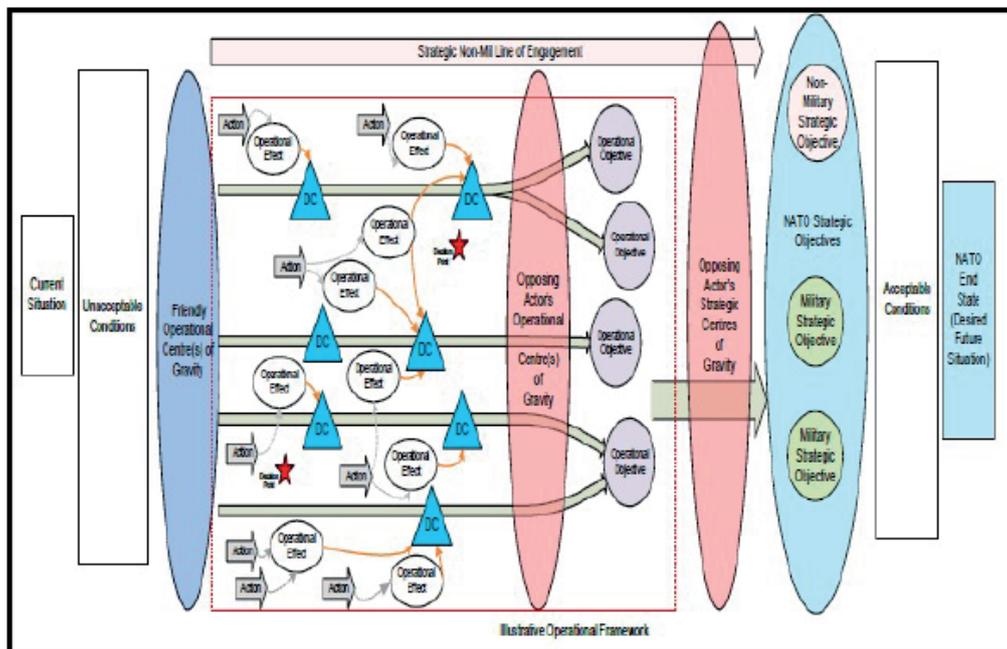
Both the joint allied and NATO doctrine give the operational commander vital relevance when designing the operation that leads to the end state established by the political level.



“An operational design is an expression of the COM's vision for the transformation of the unacceptable operational situation at the start of the operation into a series of acceptable operational conditions at its end.” (COPD v3.0, 2021, pg. 4-60)

The military strategic level plays a key role. Its role is vital to translate political decisions into military language, and also because it has the overall vision of all the instruments of power, not just the military one. The strategic level must monitor not only the JOA, but also beyond the theater of operations.

“Strategy is therefore the product of the dialogue between politicians and soldiers, and its essence is the harmonisation of the two elements, not the subordination of one to the other...” (Strachan, Hew, (2013): The Direction of War, contemporary Strategy in Historical Perspective, pg. 78)



The strategic level sometimes tends to encroach on the area of the operational level. Despite this, it performs a fundamental task. During the strategic conduct of the operation, it supports the operational commander in all matters that exceed the scope of the operational level, such as the provision of certain capabilities of a strategic nature.

The political level should set certain limits when waging war, but politicians should never materialize the solution in the JOA. The solution must be materialized by the operational commander. Given the dynamic nature of the war, OpCdr must have enough freedom to adapt this solution to the changes in that environment, within the framework established by the political level.



Society evolves and so does the way war is waged. The constant evolution of technology and the appearance of new domains, such as cyberspace, sometimes means that classical authors do not have the answer to every problem.

This technology evolution that saturates us with a huge amount of information is one of the fundamental reasons why the political level often encroaches on the operational commander's sphere of action.

This inevitably results in the operational commander being more controlled when materializing his design. The concept of *Participatory journalism* greatly contributes to this.

“Participatory journalism: The act of a citizen, or group of citizens, playing an active role in the process of collecting, reporting, analyzing and disseminating news and information...” (Bowman, S., & Willis, C (2003). *We Media*. How audiences are shaping the future of news and information).

Media and social media networks contribute to the flow of information in near real time, and this leaves little room for politicians to cushion the effects of this information on public opinion. Public support for a military mission decreases with the number of combat deaths: body-bag syndrome or casualty aversion.

But the operational commander still enjoys freedom when it comes to visualizing the possible solution to the problem; he is simply offered a framework within which to materialize this operational art. However, there are certain decisions that go beyond the operational level and must be duly authorized by the political level. Such is the case of ROEs.

NATO MC 0362/1, 2019 defines ROEs as the guidelines and directives for NATO commanders and the forces under their command or control that define the circumstances, conditions, degree, and manner of the use of force and that describe and regulate the behavior and actions of NATO forces that could be considered provocations in times of peace, crisis, or conflict.

The case for caveats is different, but has proven to be highly limiting. Today, most wars are fought in coalition, which makes operational design action very difficult.

“There are very few things over which Donald Rumsfeld and Canadians concur, but the problem of caveats in Afghanistan is one of them. There are somewhere between fifty and eighty known restrictions that constrain North Atlantic Treaty Organization [NATO] commanders in Afghanistan...” (Saideman & Auerswald, (2009). *Nato at War: Understanding the Challenges of Caveats in Afghanistan*).

As for ethical and moral limitations, although these would have a high impact on the operational commander's freedom of action when carrying out his design of the operation, in reality this impact is cushioned by common doctrine and training in values that servicemen receive throughout their career in most modern armies around the world.

CONCLUSIONS

It can be stated that neither was operational design previously pure art, nor is it practically a political/strategic diktat now. What seems to be clear is that the restrictions faced by an operational commander when it comes to shaping his operational design are much greater today.

The war of the 21st century has little to do with those wars of the 18th century in which figures like Napoleon Bonaparte represented the political, strategic, operational, and even the tactical level in his person. But those wars or even the bloody wars of the 20th century would not be acceptable today. For this reason, a more restrictive legal framework is essential.

It is also understandable that the political level tries to limit in some way the freedom of action of the operational commander. In that sense, the performance of the strategic level is essential. The military strategic level is the link between the political and the operational level, and translates the objectives of the political level into military terms.

PECC and PECCs' network. The key in the WFC MED SPT execution

Colonel Tomás Ruiz Ibañez (ESP-A)
HQ NRDC-ESP ACOS G-MED and MEDAD

Lieutenant Colonel Axel Rabba (DEU-A)
HQ NRDC-ESP SUPPORT DIVISION

Consider a 'worst case' scenario generated by a lack of patient evacuation and coordination. Patients lie waiting for medical assistance in overwhelmed surgical rooms, with exhausted surgeons operating 24/7 trying desperately to mitigate the chaos of casualties spreading towards the Warfighting Corps rear area. Ambulances, often unable to be cleaned, endlessly transport patients to medical facilities with many left unattended and facing drastically reduced supplies. In other areas, away from the turmoil of 'front line' activities, surgeons and ambulances are inactive, medical training facilities are empty and medical supplies are reaching the end of their shelf-life.

Prevention of this operational chaos within a Warfighting Corps is mitigated by the application of a Patient Evacuation and Coordination Cell (PECC). The PECC is specifically tasked with delivering order and control, ensuring the timely and efficient evacuation of patients, to the right place, in all weathers and terrain and by any appropriate means of transportation.

The PECC is a critical component within a NATO Warfighting Corps, responsible for the efficient and effective management of medical evacuation (MEDEVAC) operations during military campaigns. This complex and multifaceted organization plays a pivotal role in ensuring that wounded or injured personnel receive timely and appropriate medical care, contributing to the overall success of the mission and the well-being of service members.

ROLE AND RESPONSIBILITIES

1. MEDSPT Plan Conduction: The PECC is responsible for developing comprehensive strategic/operational/tactical plans for patient evacuation, considering the operational environment, enemy threats, and available medical resources. This involves collaboration with various stakeholders, including medical units, transport assets, and intelligence teams.

2. Coordination: One of the primary functions of the PECC is to coordinate the movement of patients from the point of injury to definitive medical treatment facilities. This coordination extends to multiple modes of transportation, including ground, air, and sea, as well as the prioritization of cases based on medical urgency.



Photo credit: Spanish Army

3. Asset Allocation: The PECC manages the allocation of medical assets, such as ambulances, helicopters, and medical personnel, to ensure that they are optimally deployed to meet the demands of the operation. This requires real-time tracking and communication.

4. Medical Selection: This is a critical aspect of patient evacuation. The PECC has to assess the severity of injuries and prioritize patients accordingly, although it is one criterion among many. This decision-making process is crucial for saving lives when resources are limited.

5. Communication: Effective communication is paramount in MEDEVAC. The PECC maintains constant communication with medical units and facilities, transport assets, and own, higher, and lower headquarters counterparts to relay critical information and updates.

6. Security and Protection: In a war zone, the safety of patients and medical personnel is paramount. The PECC should coordinate into the OPSCEN those necessary actions to protect both patients and those involved in the evacuation process.

7. Patients Flow Management: To be aware where each patient has been evacuated and where patients are held in any time.

8. Documentation: Accurate record-keeping is essential for tracking the status and location of patients, their medical conditions, and the resources used in their evacuation. This documentation aids in decision-making and post-mission analysis.

9. Legal and Regulatory Affairs: Complying with international laws and regulations, especially in conflict zones, it is vital that patient evacuation operations adhere to legal and ethical standards.

STRUCTURE AND COMPONENTS

1. Command and Control: The PECC is typically headed by a senior medical officer with experience in patient evacuation. The command team oversees all aspects of patient evacuation operations and liaises with higher headquarters.

2. Operations Section: This section is responsible for the day-to-day planning and execution of patient evacuation missions. It includes personnel who coordinate transport, medical personnel, and triage operations.

3. Intelligence and Threat Assessment: Given the evolving nature of modern warfare, this section monitors intelligence reports and assesses potential threats to patient evacuation operations. It provides critical information for route planning and security measures.

4. Medical Section: Comprised of medical professionals, this section manages medical prioritization, treatment, and stabilization of patients before their evacuation.

5. Communications Section: This unit is responsible for maintaining a robust communication network, including radios, satellite communication, and secure data transmission systems. It ensures seamless coordination and information sharing.

CHALLENGES

1. Enemy Threats: Adapting to evolving enemy tactics and threats is a constant challenge. The PECC must devise strategies to protect patients and personnel from hostile forces.

2. Limited Resources: Medical resources, including transport assets and personnel, are often limited in wartime. Prioritizing use and allocating MEDEVAC resources effectively is a constant challenge.

3. Coordination and Communication: Maintaining seamless communication and coordination in dynamic and high-stress environments is challenging but crucial for mission success.

4. Operational Tempo: Patient evacuation operations can be intense and relentless, requiring 24/7 readiness and responsiveness.



Photo credit: Spanish Army



Photo by: Warrant Officer 4 Rafal Mniadlo (Poland) - www.europeafrica.army.mil

PECC TRAINING

NATO Military Medical Center of Excellence (NATO MILMED COE) imparts a useful PECC Course. Classes alternate with syndicate practical works. Provided information is updated and realistic. The course focuses on the way to enhance confidence in procedures by meeting demands on a previously defined calculation of Air MEDEVAC times (Range Rings).



CONCLUSION

The Patient Evacuation Coordination Centre within a NATO Warfighting Corps is a pivotal element of modern military operations. Its ability to manage patient evacuation efficiently and effectively, even in the face of numerous challenges, is essential for the success of military campaigns and the well-being of service members. Through strategic planning, coordination, resource management, and the dedication of skilled personnel, the PECC plays a critical role in ensuring that wounded and injured personnel receive the lifesaving care they need during times of conflict.



Photo by: Spc. Cody Kellum - www.europeafrica.army.mil

Electromagnetic Warfare and Drones

Lieutenant Colonel José Miguel Valero García (ESP-A)
HQ NRDC-ESP G6 CIS

The Nagorno-Karabakh war in 2020 was the first case of actual use of drones as a decisive element in combat, in conjunction with the Electromagnetic Warfare (EW) and the field Artillery. Currently, in the conflict between Ukraine and the Russian Federation, the use of UAVs is proving to be fundamental for both contenders.

Moreover, in the conflict between Ukraine and the Russian Federation it is estimated that Ukraine loses about 1,000 drones per month and at the front there is Major EW Equipment from the Russian Federation every 10 km.



Ukrainian propaganda image announcing that their drones have destroyed more than 200 targets in one week.

This paper focuses on UAVs, but they are not the only unmanned systems present in Ukraine. Naval drones, (USVs), are becoming very important in the sea domain, where the conventional Ukrainian Navy is weaker than its adversary. The Unmanned Ground Vehicles (UGV) in the land domain bring not only surveillance but also autonomous combat power. Both are gaining more and more importance every day.

In this article we will analyse three topics: the most relevant drones being used in the conflict, those EW teams that are threatening them, and finally three particular cases of interaction of drones with the EW.

DRONE CLASSIFICATION

a) By its control method

i) Autonomous drones

Those that do not need to have a pilot operating in real time to control the movements of the aircraft. In other words, this type of drone moves autonomously according to prior programming that guides it through the places it must fly. They are highly dependent on GPS.

ii) Remote controlled drone.

This class of drones fly remotely controlled by a pilot. It is the most common type of drone of all and can be controlled using a remote control with a camera, or through FPV (First Person View) glasses that transmit real-time, first-person images to the pilot.

iii) Loitering drones.

These drones fly to their area of action and wait for the order to act, then they dive towards their target. They have inertial navigators and GPS positioning

b) By its weight

i) Class 1. Which in turn is subdivided into:

- Micro. Less than 2 kilos
- Mini. From 2 to 25 Kilos
- Small. From 25 to 150 kilos.

ii) Class 2. From 150 kilos to 650 kilos.

iii) Class 3. More than 650 kilos.

c) By its payload

i) Light. Up to 10 kilos.

ii) Medium. From 10 to 20 Kilos.

iii) Heavy. More than 20 kilos.

THE USE OF SPECTRUM BY DRONES

The types and classifications of drones are very diverse, as has been described in the previous paragraph, but practically all of them use the spectrum for three purposes:

1) To receive a positioning signal (GPS; Glonass, Beidou). This is how the drone knows its location and is able to return to its origin or to a predetermined position.

2) To receive orders from the operator or control station. All control orders are sent through the

Content

communications channel. Depending on the drone, this can be done in the radio band or by satellite communication.

information: pictures, video, or EW interceptions must first be transformed in order to be transmitted and sent to the base station.

3) To send the information they collect. All collected

DRONES IN THE CONFLICT

COUNTRY	NAME	FUNCTION			VULNERABLE TO ATTACK OF		PICTURE	OBSER.	
		RECO	ATK	KAM	COM	GNSS			
UKRAINE	LIGHT	AERAZORZI VIDKA R18			X	X	X		CIVIL MADE 20KM
		PUNISHER		X		X			MADE IN UK TILL 3 BOMBS
		LELECA				X			MADE IN UKRAINE
		SWITCHBLADE			X		X		FROM USA SEVERAL VERSIONS
	HEAVY	BAYRAKTAR TB2	X	X		X			MADE IN TURK. COM IN SAT BAND
RADF	LIGHT	ZASTABA	X			X	X		TILL 10 KM
		GRANAT-2	X			X	X		PHOTO RECONGION
		ORLAN 10	X			X	X		REC. AND EW
		ELERON 3SV	X			X	X		25 KM RADIUS
		LANCET			X	X	X		TILL 3 KG EXP
	HEAVY	FORPOS	X	X		X			MADE IN SRAEL. IN SPAIN PASI
		SHAHED 129	X	X		X			MADE IN IRAN. SAT COM
		MOHARED 6	X	X		X			MADE IN IRAN
		SHAHED 136			X	X			ORG MADE IN IRAN NOW MADE IN RUS
BOTH	DJI MAVIC 3T	X	X	X	X	X		CIVIL DRON MODIFIED	

EW STATIONS IN THE FIELD

EQUIPMENT	ATTACKED ELEMENT		PICTURE	ATTACK RADIUS	
	OPERATORS COMMUNICATION	PNT			
UKRAINE	UKRAINE ONLY HAS SURVEILLANCE AND INTERCEPTION THAT CAN'T AFFECT RUS DRONES				
RUSSIAN	KRASUKHA-4	AGAINST SAT BAND EMISSIONS		ABOUT 400 KM.	
	LEER-2	VHF-UHF EMISSIONS		40 KM	
	ZHITEL	VHF-UHF EMISSIONS	GPS		40 KM IN GSM 100 KM IN GPS
	BORISOGLEBSK 2		GPS		50 KM DIAMETER
	POLE 21		GPS		50 KM DIAMETER
	THOR-MDM		GPS		51 KM DIAMETER

CASES OF DRONE-EW INTERACTION IN THE CONFLICT

In this section we are going to describe the exceptions to the rule: Normally EW are able to detect, jam, and prevent the DRONES from doing their job, but sometimes there are cases where DRONES have been able to evade EW action such as the following below:

a) Destruction of a latest generation radar of the RAF.

At the end of August 2023, a Ukrainian Drone located a Russian state-of-the-art Predel-E radar, whose main purpose is to extend the detection range of surface and low altitude airborne targets beyond the conventional radio horizon (up to 400 km) with high accuracy.

Once the drone reported the radar position, a Ukrainian HIMARS battery engaged and destroyed the radar which was working in conjunction with an electromagnetically defending LEER 2 station. Most likely the Ukrainian drone was not located due to taking advantage of a pause period of the jammer so as not to give away its position.

b) Destruction of a German manufactured radar by a kamikaze drone.

Russian troops destroyed a high-tech TRML-4D radar that is part of the German IRIS-T air defense system. The attack was carried out by two Drones, one ISR and one kamikaze low end Lancet Drone. The acquisition of the target was facilitated by the fact that it was painted in desert camouflage in a green forest environment

and due to its location 40 km from the front, having a range of 200 km.

c) Destruction of a POLE 21 station.

In the Kherson region, a Leleka Drone belonging to the Ukrainian forces on an ISR mission, located a Pole 21 transmitter station that was disturbing the PNT navigation signal. The coordinates of the POLE 21 were transmitted to a unit of the Ukrainian Armed Forces, which destroyed it by means of precision artillery strikes.

Conclusions

During the current Ukrainian conflict, the decisive role of drones in ISR and strike functions has been demonstrated. Electromagnetic warfare is key to combat them, but when a drone manages to remain undetected or evade the actions taken against it, its action becomes decisive.

The cases exposed in the article show that drones can take advantage of the periods of no jamming, or movements of the EW stations to approach and attack them, so EW crews must take defensive measures in those moments they become vulnerable.

EW stations being high value targets and quite conspicuous both electronically and physically, must therefore pay extreme attention to concealment in both realms, otherwise, drones by themselves have the ability first to locate and identify them and then destroy them.

Volunteer Reservists in Information Environment Assessment to Strengthen NATO's Comprehensive Approach

**Captain Carlos Torrego Gómez (Volunteer Reservist ESP-A)
HQ NRDC-ESP G10 STRATCOM**

NATO is adapting to a Multi-Domain Operations (MDO) approach, based on the fast-changing security environment. MDO NATO's working definition is:

“The orchestration of military activities, across all domains and environments, synchronized with non-military activities, to enable the Alliance to create converging effects at the speed of relevance”¹

In this current scenario, the role of Information Environment Assessment (IEA) has become critical in today's warfare, with a crucial weight of information, and a warfighting multi-domain function in military operations.²



For this reason, at the 2022 Madrid Summit, the NATO Secretary General mandated the development of IEA capability as a high-priority programme.

Ongoing efforts are being made by NATO to reach excellence by advancing in the classic three-component golden triangle: people, process, and technology.³ A shift in one of these elements contributes to changes in others, and overall, this article explores the benefits of employing volunteer reservists and their potential value in IEA, on the people side, keeping in mind NATO's Comprehensive Approach, which combines the

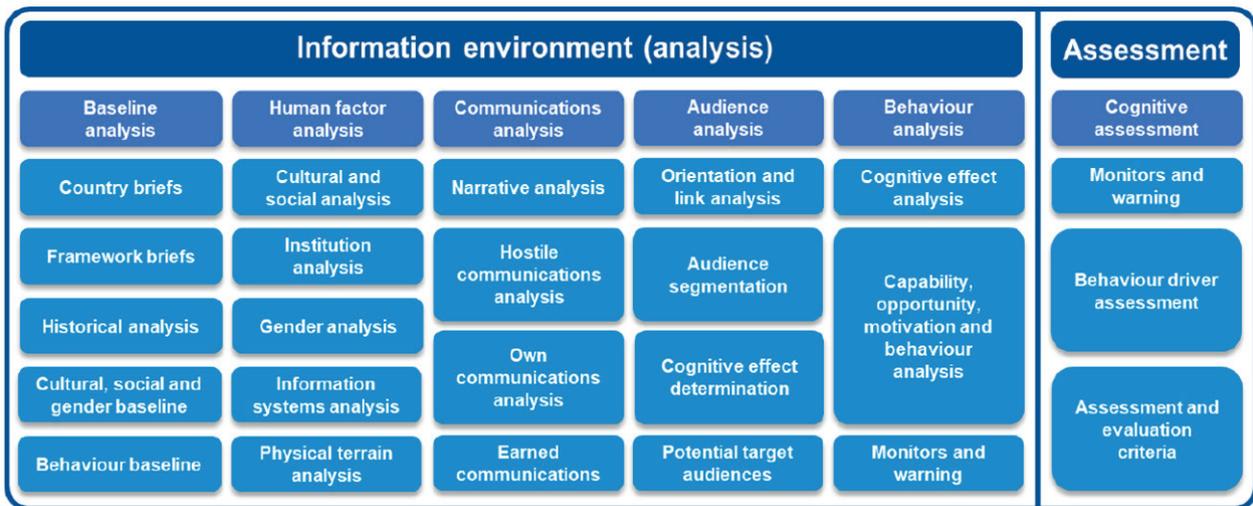
capabilities of third-party partners, as well as civilian and military resources, to tackle security challenges effectively.⁴



Understanding Information Environment Assessment (IEA)

Allied Joint Publication (AJP)-10.1, Edition A Version 1, Allied Joint Doctrine for Information Operations, published by NATO in January 2023⁵, outlines the principles, relationships, and processes for Info Ops. It defines the Information Environment (IE) in the context of NATO as:

“An environment comprised of the information itself, the individuals, organizations and systems that receive, process and convey the information, and the cognitive, virtual and physical space in which this occurs.”



IEA aids in detecting misinformation and hostile narratives, as well as recognizing initial warning signs of potential hybrid actions. Furthermore, the IEA concentrates on evaluating NATO's own communication efforts in a complex IE. Also, IEA empowers NATO to better respond to disinformation and to grow proactive communication strategies. This means a systematic process that evaluates the information sphere, analyses adversaries, understands populations, and shapes the information landscape. It also involves identifying key actors, messages, and channels of communication, and analysing the social, political, and cultural context in which they operate.

StratCom's IEA is merged with other assessments through the Comprehensive Understanding of the Operating Environment (CUOE).

Comprehensive approach and volunteer reservists

It is essential to recognise that reservists have a dual role as both service members and civilians. They promote awareness about national and collective defence within their social and cultural contexts. Moreover, their expertise in various fields such as political, social, human, and technical sciences, as civilians, is highly valuable and can significantly enhance the capabilities of the IEA. At Info Activities, G10, and in general at HQ NRDC-ESP, most reservists are experienced professionals who can bring specialized knowledge and skills to the table. These personnel, already trained and willing and ready to participate in the assigned task, are also familiar with military procedures.



Volunteer reservists' serviceability

Some key points of the serviceability of volunteer reservists are:

- Advanced Technical Skills and Support to Digital Transformation:** Volunteer reservists are valuable assets, specialized in various fields due to their advanced technical skills, certifications, and education - assessed from different perspectives as an excellent way to bring added value to the CUOE, and to be a bridge between their civil positions and academia, because of their continuing education.
- Problem-solving and Resilience:** Through their experience, reservists can develop strong problem-solving skills and resilience, allowing them to overcome challenges and adapt to changing situations, common in the IE.
- Interpersonal and Communication Skills:** The military benefits from collaboration and teamwork, aided by strong interpersonal and communication skills, resulting in a more productive and harmonious work environment that also helps to decipher the complex IE.
- Leadership and Responsibility:** Volunteer reservists usually demonstrate professionalism, leadership, responsibility and discipline.
- Adaptability and Flexibility:** Reservists' experience in dynamic environments makes them adaptable in their posts.

In addition, volunteer reservists can continuously improve their skills and knowledge through military training and development programs. This can benefit their civilian jobs as well. For example, G10 reservists have participated in a variety of exercises and activities such as Trident Jaguar 14, Trident Jackal 19, Steadfast Leda21, U.STRADOC Seminar on "Cognitive Manoeuvre", and NATO Information Environment Assessment Tiger Team (NIEATT) meetings, among others.



Challenges in the employment of volunteer reservists

- **Difficulty in finding specific personnel:** Certain professionals in both military and civil spheres are difficult to find, limiting their availability. This shortage can affect the availability of reservists for IEA tasks.

- **Employment Protection and Personal Availability:** Reservists are protected by laws such as the Royal Decree 383/2011, of March 18, which approves the Regulations for Reserves of the Armed Forces in Spain, but in some cases, the development of their work, or personal availability, makes their participation in military activities difficult.

- **Integration with active-duty forces:** This integration can be challenging due to differences in training, experience, and availability between active-duty and reserve components.

- **Information environment analysis techniques and procedures:** To conduct a thorough analysis of the IE, it is essential to have a profound understanding of its cognitive, informational, and physical dimensions. It is also crucial to know the techniques, procedures, and technologies used for the analysis. Quick training can help new personnel be ready, but reservists may have less expertise than active-duty personnel.

Conclusion

NATO has prioritized the development of IEA, with a specific focus on people, process, and technology. Volunteer reservists can serve as valuable contributors to the IEA, bringing with them advanced technical and interpersonal skills. The inclusion of volunteer reservists in NATO's information capabilities poses challenges that need to be managed effectively to maximize their potential benefits and contribute to military success.

REFERENCES

- [1] Reynolds, J. & Operational Analysis Branch. (2022). Multi-Domain Operations (MDO) — Adapting Beyond Joint Doctrine. *The Three Swords*, The Magazine of the Joint Warfare Centre. www.jwc.nato.int/application/files/5916/7085/8695/issue38lr.pdf
- [2] Johns Hopkins University & Imperial College London. (2021). NATO Review - Countering cognitive warfare: awareness and resilience. www.nato.int/docu/review/articles/2021/05/20/countering-cognitive-warfare-awareness-and-resilience/index.html
- [3] Information Environment Assessment Capability Programme Plan Initiated. (2023, April 3). Allied Command Transformation NATO's Strategic Warfare Development Command. www.act.nato.int/article/information-environment-assessment-capability-programme-plan-initiated/
- [4] A "comprehensive approach" to crises. (2023, April 17). NATO. www.nato.int/cps/en/natohq/topics_51633.htm
- [5] NATO Standard AJP-10.1 Allied Joint Doctrine for Information Operations Edition A Version 1, (2023, January 26), North Atlantic Treaty Organization Allied Joint Publication, NATO Standardization Office.



Volunteer Reservists during Valiant Lynx 2023 exercise.

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Born in Portugal, Major General João Pedro Rato Boga de Oliveira Ribeiro concluded the Military Sciences degree – Infantry Branch, in 1987, and a Military Sciences Master degree in 2014.

Besides his education and training assignments, he performed command duties during 4 years as Company Commander, one year as Battalion Commander, at the Territorial Infantry Regiment, and Infantry School Commanding Officer (2011-2013) at the Infantry School. Between 2016 and 2019 he was appointed as Army General Staff Force Planning Division Head. In 2020, he was appointed Commander of the Portuguese Mechanized Brigade.

He was also deployed in Kosovo as KFOR Task Force DELTA Operations Officer, Joint Force Command Headquarters Naples J7 Division Training Development Officer and Policy and Programming Officer. Between Dec 19th and Jun 20th, he was deployed to Mali, as Mission Force Commander of the European Union Training Mission.

From 2006 to 2008 he performed the duties of Army Military Adviser to the President of the Portuguese Republic.

Major General Ribeiro is married and has one daughter and two sons.

What do you remember most nostalgically about your first assignment as officer when you left the academy?

Definitely my first platoon command as a Junior Officer and Instructor at the Infantry School. The first time that you are left almost by yourself, in charge of making around 30 civilians adapt to a very different environment, learn new things, value the group more than the individual, making them proud to wear a uniform and to represent our Flag, and to assume all that responsibility at such a young age, was a challenge and a task that I will never forget. I still remember the first platoon, and I'm still in contact with some of them, once in a while.

You were deployed in Kosovo. How was your experience in that country?

This was my first deployment abroad. My unit had around 7 months to prepare, and we stayed together in Kosovo for more than 9 months. We still get together every year, not all of us but at least the ones that can manage to do so, with their families. I think this says a lot about the way that all of us feel about our time in Kosovo and the way in which we carried out our job. At the time, Kosovo and the Balkans were still very unstable, something which unfortunately has not changed. Our battalion had to control a huge area, moving around in a random pattern, from two fixed points: our compound in Klina, and the only standing orthodox monastery in our area, the Budisavci Monastery. We carried out more than 100 cordon and search operations, patrolled the area daily, supported the first free municipality elections in Kosovo, and provided as much humanitarian support as we could to the local population, including the repair of basic municipal structures. We also participated in several operations tasks outside our area: in Mitrovica, on the borders with Montenegro and Albania. Due to a national decision to withdraw from this mission (we went back again a few years later, but with a different assignment), I clearly remember our farewell ceremony, offered to the people of Klina, with thousands of people saluting the Portuguese Soldiers. As I'm sure you can understand, being the Operations Officer of that Battalion, all of these memories are engraved in my memory, along with the privilege of having worked with many Spanish and Italian battalions, under the Multinational Brigade West (MNBW), also known as the "Latina" Brigade. That's when I met LTG Gan Pampols, a former NRDC-ESP COM, at the time as a LTC conducting the duties of MNBW Ops Officers.

Mission Force Commander in Mali. A responsibility that is not within everyone's reach. What was that experience like? Did you have to make any sensitive decisions?

EUTM Mali was the most demanding command mission I've ever had the privilege to assume. Not so much for the type of tasks that the mission was supposed to provide, but essentially due to mission's main features (the biggest European military mission in Africa with



almost 30 different nations, two fixed locations and several far-away deployments in an immense country), the Sahelian overall situation and its evolution, the extremely difficult and dangerous Malian security situation and the arrival of COVID-19. Without wanting to exaggerate any specific insight, every decision was sensitive, always requiring the best possible judgment about the balance between risk to the force and risk to the mission. My time as Mission Force Commander in Mali had three main phases: the enhancement phase, building on the work done previously, and amplifying it to increase the level of mission efficiency from the political-military level down to the tactical level; the dynamic phase, in which the mission performed exceptionally well, significantly gaining momentum and adding more activities inside and outside of our operating bases; and finally the hibernation phase, in which the mission had to change its posture, focusing on force protection, mostly due to the impact of COVID and the extraction of a huge part of the mission and other entities and civilians, together with the worsening of the security situation, while still trying to

keep the EUTM presence and effectiveness as much as possible. The most difficult decision I had to make was to freeze the mission activities due to the possible effects of COVID on us, the training audiences, and the population. There were several highly sensitive decisions related with operational tasks, internal management, and the posture required to face the security environment.

At HQ NRDC-ESP, as DCOM, how did you see your main task?

As the COM normally says, it is extremely important to have a sound understanding and a perfect relationship between the three points of the Command Group triangle: The COM, the DCOM, and the COS. So I think it is very important to perceive the DCOM's role in the best way possible, and as quickly as possible. My interpretation of this role was mainly to be ready to take on all the tasks and responsibilities delegated by the COM, and to be ready to replace him or act on his behalf, as determined or required. Having said this, the DCOM is also expected to be the COM's trusted

adviser, thus requiring his participation in, and/or knowledge of, all the HQ activities and processes, under the COM's guidance, and in close coordination with the COS and all HQ NRDC-ESP Command Group elements and the HQ key leaders. The key words to understand the DCOM's role are, balance and readiness. Balance to promote and contribute with the best possible inputs respecting all different roles, and readiness to be always prepared to take on different tasks and react to very short notice events. I had the privilege to serve under a very enlightened and experienced leadership, and to work alongside a very strong and cohesive team, which made my job extremely enjoyable, easy and motivational, despite the several different areas and situations in which I was called to contribute, and for which I'm most grateful, and I hope I provided what was expected. I have to emphasise all the help that I had from my own office in order to do so-working tirelessly to make sure that I was given all the right conditions to carry out my duties, and coordinating in the most efficient way with the other Command Group offices, the Special Staff and the whole HQ. They are the best!

I also have to mention my role as Portuguese Senior National Representative, in which my tasks were made rigorously simplified due to the possibility of relying on a very good Portuguese contingent, all of them with very important positions within the HQ Staff, but always available to carry out any national duties or to contribute to our mission of representing our country in the most positive way. Although there are not very many, I have to express my most sincere thanks to all of them, because they definitely made up for our small numbers with a lot of quality.

What is your impression of HQ NRDC-ESP and its staff? Do you think that NATO in general and HQ NRDC-ESP in particular are adapting to the new challenges?

I have had the privilege to witness first hand, the quality of this HQ. Having jumped onto a fast-moving train when I arrived, back in Feb21, it was not possible at that time to understand the challenges that the HQ had and were to face in its Warfighting Corps certification process. NRDC-ESP successfully took over this high intensity mission from the ARRC, thus coming a headquarters ready to do, what no one had done since the end of the Cold War, but now incorporating many additional complexities like hybrid warfare, multidomain operations, 360-degree approach, cross cutting topics restrictions, and others. As if this was not enough, the world was taken aback by the most unfortunate surprise of the Russian illegal aggression towards Ukraine. Once more, the HQ responded in the most appropriate way, observing, learning, and adapting its organization and procedures, and introducing new technologies that required more knowledge and training. HQ NRDC-ESP has been up to the task since its foundation, more than 20 years ago, and it continues to adjust

itself in accordance with operational environment changes. The same happens with NATO. That's why the Alliance is there, standing for almost 75 years, as the most successful international security and defence organization in the world, not only carrying out its mission, but also attracting new members. This says a lot about adaptation to new challenges. This performance is only possible because people are able to understand its evolution and to find ways to innovate and to overcome challenges. Therefore, this is what I think about HQ NRDC-ESP and its staff: an evolving, resilient, and highly professional organization, which I have the honour of belonging to.

How has your family adapted to life in Spain?

My wife and I had no trouble whatsoever adapting to Spain, and much less to Valencia, for several reasons: First because there's a very strong bond between Portuguese and Spanish. Every Portuguese feels at home in Spain, and I believe the same happens with Spanish in Portugal. Secondly, because Valencia is one of the friendliest cities we've ever lived in. Besides the many beautiful and different things and areas, in and close to Valencia, the city has strong cultural dynamics and traditions, set in very well organized and nice places. Above everything, the Valencians are extremely cordial. But essentially because we've always sensed, in every situation, a strong concern for our well-being, thus generating in ourselves that feeling of not really being foreigners, living in another place just for a specific period of time. We really feel that we belonged to this place, and we will surely strongly miss this time of our lives.

What things will you remember most fondly from your time as DCOM in the HQ NRDC-ESP?

The extraordinary people that I had the pleasure and privilege to meet and work with, not only here but throughout NATO. And again, not only at work but also on a more personal basis. The beautiful view of the "river" and of the City of Arts and Sciences, and I and my wife's late afternoon walks in it. The beauty of Valencia's historical centre, and the intensity and emotions of everything involving Las Fallas. The exercises in the snow, the Family Days, the sense of Family within Spanish Armed Forces, the HQ quest for innovation. And all that I've learnt at HQ NRDC-ESP which I expect will greatly influence the rest of my military life.

Can you tell us something about your future after HQ NRDC-ESP, what motivates you the most?

At the time that this interview is taking place, there's no way to tell you what my future will be. But whatever it may be, the things I've experienced and learned here will have an impact on how I will live the future. The important thing is not only doing the things that motivate you the most. What really makes the difference is to trying to do everything like the things you like to do. Thank you HQ NRDC-ESP. Thank you Valencia.



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Support Battalion

the full logistic support to the different deployable Command Posts.



Born in Suceava County, Romania, Major Andreea Cosmina Bucătariu has dedicated herself to roles in administration, engineering, and internal auditing. After completing her studies at the Land Forces Academy in Sibiu, Andreea worked for the ROU Air Force as a combat engineering officer. One of her standout moments was in 2011, serving in Afghanistan as a Base Engineer at Kabul Airport – a role full of challenges.

Returning home, she continued to serve, taking on infrastructure procurement for Romanian Air Force. She joined the Internal Audit Directorate, ROU MOD, in 2018, where she focused on evaluating and enhancing risk management, control, and governance processes to ensure the efficient and compliant functioning of military units, while also providing recommendations for continuous improvement. With degrees in Public Administration and Law, along with a master's degree in Conflict Analysis and Resolution, Major Bucătariu offers a blend of academic and practical insights.

She is married and has one daughter.

Trained in Public Administration and Law, what would you have liked to do if you were not in the military?

With my background in Public Administration and Law, I always thought about jobs where I could help people and make things fair. If I wasn't in the military, maybe I'd be practicing law. However, serving my country has always been a primary goal, and the military has provided me with the opportunity to fulfil this commitment in the most profound way.

You have worked within the Army, in areas as diverse as Military Engineering or Internal Audit. Why is that?

In the military, I've had the chance to work in many different areas like Air Force Engineering, procurement, and Internal Audit. I did this because I wanted to learn different things and see how each part helps the whole military system work better. I believe trying different roles makes me a better soldier and helps me understand the bigger picture.

How did you experienced being stationed in Afghanistan? What would you highlight from that experience?

Being stationed as the Base Engineer at Kabul Airport in Afghanistan was a great experience for me. Not only did it offer me a unique chance for professional development, but it also allowed me to serve my country in a significant way. Working within a multinational team deepened my understanding of teamwork in challenging environment. It was a period of immense growth and learning, and I am deeply grateful for that experience.

Tell me about your hobbies: What do you like to do when you are not in uniform?

When I'm not in uniform, one of my favourite hobbies is exploring new places and meeting new people. I'm especially drawn to locations with historical significance, but I also seek out less touristic spots to truly grasp the local culture. This deeper connection to places and their inhabitants offers me a richer understanding and appreciation of the world beyond my daily routine.

Do you like Valencia? What do you like most about this land?

Yes, I truly like Valencia. While it's undeniably a beautiful city with a lot to offer, what captivates me most is the people. Their joie de vivre, their warmth, and their unique way of cherishing every moment is inspiring. It's a part of Valencian culture that I deeply admire and something I hope to learn and integrate into my own life.

What is the next step you would like to take in your professional career?

Serving my country is already a great privilege and responsibility in itself. I believe in giving my best in every task I undertake. My ambition is not just about



advancing or taking on bigger roles, but it's more about making a meaningful impact. I want to ensure that wherever I am or whatever I do, I contribute positively and make a difference.

What's it like to be a lessons learned and evaluation staff officer in this HQ?

Being responsible for the lessons learned is a

rewarding role, as I get to be part of a process that consistently aims for improvement. This responsibility requires extensive interaction, promoting a culture of collaboration and continuous learning. Additionally, being part of the evaluation of different corps, gives me a comprehensive view of the big picture. This broad experience is undoubtedly a significant asset that will have a lasting impact on my career.



Sergeant First Class (SFC) Phillip Ezekiel Meade Jr. was born in the Caribbean on a small island named Saint Kitts in its capital Basseterre. He enlisted in the United States Army in 2006 at the age of 22.

He first served at Fort Hood Texas as a Field Artillery Automated Tactical Data System Specialist. After changing his specialty to Information Technology Specialist, he served in Korea, Hawaii, Fort Drum New York, SHAPE Belgium, and now in the G6 branch of HQ NRDC-ESP.

SFC Meade enjoys being active during his free time. He enjoys playing and watching basketball, running, yoga, and hiking. When he is not being physically active, he enjoys social activities with friends such as Murder mysteries, escape rooms, and karaoke. Enjoy Video games, sports such as basketball, running and Paddle too. He is currently learning how to play the Saxophone and training for his first Marathon in Athens (Greece).

He has a ten-year-old daughter who lives in New York.

What motivated you to be in the military?

During my early twenties, I felt directionless and needed a change. I was in a government training program to become an Information Technology (IT) specialist. After graduating from this program, I did not gain employment in the IT field. While working as a security guard I was approached by an U.S. Army recruiter and was immediately intrigued by the idea of serving my country and doing something more meaningful with my life. I enlisted two weeks after meeting my recruiter.

Texas, South Korea, Hawaii, New York, Belgium... Half the world. Halfway around the world. By choice or by force?

Traveling to different countries has always been a dream of mine; when I learned I could do that while serving my country I volunteered for as many abroad locations as I could. I have been extremely fortunate throughout my country to have been given these opportunities and I thank the U.S. Army for choosing me to represent them in these locations.

And how does your family manage this way of life?

My daughter was born in Hawaii and is very proud of that fact. Whenever someone asks her where she is from, she will say she is Hawaiian. It can be difficult to relocate every three years; saying goodbye to the friends you have made and the place you called home. But my family always approached moving as an adventure, a chance to create new and unique memories with new friends.

What experiences would you highlight from everything you have lived so far?

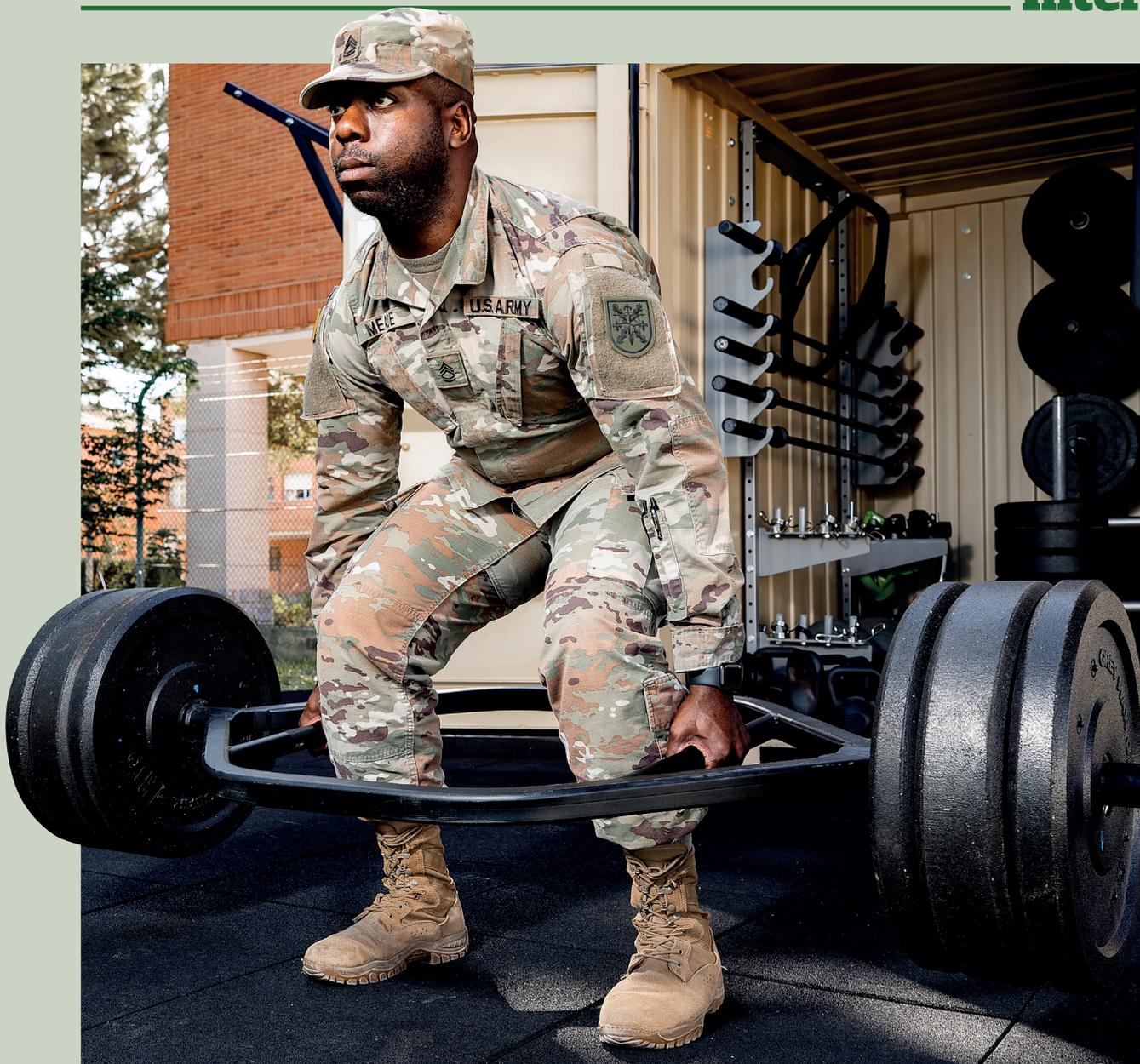
I can give a military answer such as returning from a deployment or one of my promotions, but honestly, the greatest highlight of my life was the birth of my amazing daughter Delilah. Before my daughter, I thought I understood what being a father would mean to me but I could not imagine how profoundly having a child altered how I viewed the world and myself.

Originally from Saint Kitts, a beautiful island in the Caribbean, how did you end up in the United States?

During the summer of 1992, I was eight years old when my aunts invited my mother and her children to visit them in Brooklyn, NY for the summer. At the end of the summer, my mother decided to start our new lives in Brooklyn. So, from then until I enlisted in the U.S. Army in 2006 my three sisters, my mother and I called NYC our home.

You have an important challenge ahead of you: to run the Athens Marathon. Tell me about it.

This race will be my second attempt to complete a full marathon. Five years prior I planned to participate in the Cologne, Germany marathon but unfortunately, I suffered a serious knee injury while training for that race. This is my second chance for my first time and I



am ecstatic at the idea that my first marathon will be the origin of all marathons. I have been training with my running partner for over half a year preparing for this race and now we are ready to take on this challenge.

Where would you like to retire?

I am currently three years away from being eligible to retire and have given this matter a great deal of thought. I hope to be selected for a final overseas assignment next. My number one preference is Japan. After retirement, I will start the process of becoming a resident of Spain and move back to my favorite country I have resided in during my military career.

What is your day-to-day work at HQ like?

My day generally starts with a short run in the morning with my marathon training partner. After conducting personal hygiene I head to my office. The first thing I do in my office is greet my co-workers and my boss and identify if there are any pressing issues that must be addressed. Next, I check my emails for any external requests that need to be handled. Generally around 10:00h, everyone takes the mandatory morning cafe

break. After coffee, I will process any CIS trouble tickets that are pending for me and work on any projects that need to be completed throughout the day. If it is a Monday I will generally eat lunch in the cantina with my fellow Americans. On Fridays, I will generally finish the work week in the cantina enjoying Tapas with friends before we leave for the weekend.

What has struck you most about Spanish culture in general and Valencian culture in particular?

I know I will be crucified for this statement but since I have spent the majority of my time in Valencia and have not really studied the culture while in different communities; Valencian culture is Spanish culture to me. Valencia a.k.a. Spanish culture is much more expansive than I expected, when you watch TV and movies you only see one dimension of a country and its people. After spending over three years in Spain I am still surprised when I learn more about the history, the subcultures, and the different cuisines that are part of the fabric of being Valenciano and Spanish.



Born in Valencia, Corporal López lived throughout his childhood between Madrid and Valencia. He joined the Army in 2004 and was assigned to the Parachute Brigade (Alcalá de Henares, Madrid). Two years later, he was assigned to the HQ NRDC-ESP Support Battalion, where he started as a Military Policeman.

In 2008 he attended the Mine and Explosives Detection Canine Guide course and was assigned to the Military Police Battalion, being the first Canine Guide of the Battalion. In 2015, he also attended the course to become a drug and narcotics detection guide.

Since 2008 he has been posted to different assignments in Spain, all of them as an escort and canine guide, as well as 2 missions abroad, in Afghanistan and Iraq, as a canine guide.

Among his fellow Battalion members, he is considered an experienced dog guide. Currently, in the Military Police Battalion he is in charge of a very young female dog in training for drugs and narcotics called "Vinci".

At home he is also gaining experience as a father with his son Roi.

Why the Cynological Unit? Were you forcibly assigned or it was your own decision?

I think that the course of Canine Guide (any of its specialties) is one of the most requested and I was really lucky to be given it. In my civilian life I have always had dogs since the day I was born, I like them very much, so when the course came up, I applied for it without thinking about it. It's good luck to be able to work with dogs. When you get your first dog it becomes your work partner and your friend, although the work is really very hard because it has a lot of responsibility - the dog has to do the perfect job and that means very specific daily training. I also had the opportunity to be the first canine guide of the Military Police Battalion, and I will always carry that in my heart.

You started as a paratrooper, how do you remember that period as your first assignment?

It was very good. I still have very good memories, and I learned a lot about the infantry, how to manage in the field, how to suffer and overcome adversity, it was all so rigorous that although I am currently being promoted to Corporal 1st class, I still remember all the training after 18 years.

You have been deployed in Afghanistan and Iraq. How was the experience?

I was very proud of my experience, but it was very demanding. I went on both missions as an Explosives Detection Canine Guide, with all the responsibility that entails, and in both missions I was in charge of supervising everything that entered the base from the moment the door was opened until it was closed.

They were two very different experiences. In Afghanistan the climate is very hard for dogs - very extreme weather in a very short time: 50 degrees in summer and -20 in winter, with a very fine dust in the air that makes it difficult to smell. In Iraq, although the weather was more stable and that helps a lot with the work of the dogs, I started the mission with all the expansion of the base - many vehicles arriving daily with all kinds of material, it was a titanic job. I loved getting to know the Afghan and Iraqi citizens and being able to see, even from a distance, how their daily life is so different from ours, I can only show respect for their people.

If you were not in the military, what would you have liked to do in life?

I couldn't tell you. When I was a teenager, I was very lost in life. I never thought about what I wanted to do. Even entering the army was totally by chance - I have no military family. One day I woke up and said, "I'm going to join the Army!". No sooner said than done, and straight to the Paratrooper Brigade I went. I was 19 years old, and I wanted to do something that not many people had done. I fell in love with the Army from that moment on, and I couldn't imagine myself anywhere else.

Caving, climbing, surfing, I can see that quiet sports don't really suit you.

I've always liked to do very different things that



challenge my own abilities, and also climbing, caving, and surfing are very stimulating, it's very impressive to descend a chasm in total darkness with only your flashlight, or to be at peace in the sea, sitting on the board and waiting for a wave.

Beatles or Rolling Stones?

Hahaha the eternal debate! Well... Pink Floyd! With their song "Comfortably numb". Well, I'll drop myself in it and answer! Personally, I think that The Beatles is a group whose songs we have all grown up with, and who doesn't have a great affection for them? And let's not forget that they were more famous than Jesus! But I prefer The Rolling Stones, they have released albums from the 60's to the present, so for each decade they have a new sound, I love their album "Bridges To Babylon" from '97. I've even seen the movie "Shine A Light" directed by Scorsese.

What does your family think of the life you lead?

My family is super proud of everything I've done; paratrooper, military police, canine guide, escort, etc. But every time I gave my father news I had a terrible time: I'm going to jump out of a plane, Dad! I'm going to Afghanistan with my Explosives dog, Dad! Do you remember when I went to Afghanistan with the explosives dog? Well, now the same thing but to Iraq. The only calm news I gave him was, on Father's Day, that he was going to be a grandfather. And now I am the father of a boy named Roi, this is my new adventure in life.



Moral & Welfare activities 2023

Cementing the cohesion and esprit de corps of the HQ NRDC-ESP

1 Family Days, **2** Weekend in the snow, **3** Visits to several cities, **4** Padel and Golf Tournaments



Moral & Welfare activities 2023



HQ NRDC-ESP organizes the 4th edition of the seminar “Emerging NATO Concepts”

The fourth edition of the seminar on NATO Emerging Concepts, organized by the NATO Rapid Deployable Corps Headquarters Spain (HQ NRDC-ESP), was held on 25 and 26 January at the Army War College (Madrid).

Based on some of the concepts that HQ NRDC-ESP has been working on in recent years, the aim of the seminar was to explain and share these concepts with members of the armed forces and civilian armed forces personnel, and to create a forum for discussion and ex-change of information among the participants.

This seminar is based not only on the main doctrinal developments being discussed within the Atlantic Alliance, but also on the experiences gained by this headquarters in its various roles as part of NATO’s

Force Structure since its creation. This edition of the seminar was attended by an officer from the United States Army stationed at HQ NRDC-ESP, an officer from MADOC (the Spanish Doctrine Command), as well as a Professor from the University of Granada and a Director of the Catholic University of Valencia, who contributed their knowledge in a very enriching way. The French Armed Forces Li-aison Officer at DIGENPOL (General Directorate for Defense Policy) was also in attendance.

Logistic support in high-intensity operations, multi-domain operations, new technologies in command posts, the grey zone, applications of artificial intelligence in armed conflicts, digital transformation, as well as the concept of cognitive warfare, were some of the most important topics discussed at the seminar.



HQ NRDC-ESP staff carry out training sessions for spokespersons in Bétera (Valencia)

Spanish and allied HQ NRDC-ESP staff participated in a series of training sessions for spokespersons carried out at the HQ facilities in Bétera, Valencia, throughout the month of February.

The aim of this training was to develop communication skills and strategies in the relationship with the media in order to be able to succeed when conducting interviews with journalists.

The sessions, which were provided by personnel of the Mil PA section with the support of the G10 STRATCOM/Mil PA technical team, were eminently practical in nature, although they combined theory with an on-camera interview in a professional environment, thus simulating a real situation.

The training audience was composed of designated spokespersons from each of the functional areas of the headquarters, in order to improve their preparation and to be able to appear before the media when the situation demands it.



Mentoring activities with the HQ Multinational Division Centre

From 27 to 30 March, the HQ NRDC-ESP G3 OPS Branch organized and conducted a training as part of mentoring task of the HQ Multinational Division Centre, which is based at Székesfehérvár, Hungary. The activity was conducted in Betera Military Base (Valencia), and a total of 25 people from HQ NRDC-ESP shared experiences and information with the MND-C team for one week.

For HQ NRDC-ESP, certifying as WFC HQ was not only a result of the successful execution of STLE 21 exercise, but also beginning of transformation and improvement. Since certifying to the WFC role, HQ NRDC-ESP has been working to understand current volatile, uncertain, complex and ambiguous (VUCA) environment in 360 approach and adapting its capabilities to overcome current threats.

In accordance with NATO's Deterrence and Defense concept, MND-C HQ was originally established in order to provide command and control capabilities for NATO tasks and missions as a part of NATO Force Structure. MND-C HQ was planning to reach Full Operational Capability (FOC) after execution of Strong Bastion 2023 exercise in June. Until this period, HQ NRDC-ESP was mentoring MND-C HQ in its way of achieving FOC. As part of this effort, HQ NRDC-ESP was supporting MND-C HQ in several areas of staff work and training: courses, information and experience exchange, mutual exercises, etc.

Russia's invasion of Ukraine in February 2022 has presented challenges to the HQ NRDC-ESP in terms of maintaining WFC capabilities and improving concepts and procedures as result of the Lessons Identified/Lessons Learned process (LI/LL). On the other hand, as being an innovational and learning headquarters, sharing experience and information within the alliance is paramount in the upcoming activities.



The city of Valencia hosts the 4th edition of the NATO Information Environment Assessment Conference

The event was attended by 180 civilian and military participants from 28 countries. All of them professionals from the information environment. Of particular note was the presence of personnel from NATO, the European Union, the United States European Command, military personnel from various countries, as well as representatives from the academic and business worlds.

From 17 to 21 April, the NATO Information Environment Assessment Conference and Strategic Communication Activities was held at a hotel in the Valencian capital as well as at the Santo Domingo Barracks in Valencia.

The event was organized by NATO Headquarters in Brussels, Supreme Allied Command Europe (SHAPE), located in Mons, Belgium, and Allied Command Transformation, based in Norfolk, Virginia, United States. The Joint Staff of the Spanish Armed Forces and the HQ NRDC-ESP hosted its execution.

The event consisted of two parts. In the first, a combined working group developed ideas on how to transmit and give relevance to Strategic Communication in the framework of NATO military operations, where each country presented its point of view. Subsequently, there was a sharing of procedures and the use of the tools available to carry out the assessment of the information environment, as well as to analyze its trends and future needs. In the second (the so-called “Tiger Team” for the Information Environment Assessment), a series of conferences were held, through which the participants were informed of the current state of NATO tools, as well as the trends in this field.

During the opening session, Lieutenant General Fernando García-Vaquero Pradal, commander of HQ NRDC-ESP, welcomed all the participants, highlighting the crucial importance of the cognitive dimension in today's world which “... is growing in relevance day by day and it is something we can confirm when we look at current conflicts”.



Commander HQ NRDC-ESP visits the Headquarters Multinational Corps South-East (HQ MNC-SE)

On 29 May, Headquarters Multinational Corps South-East hosted the visit of NATO Rapid Deployable Corps - Spain Commander, Lieutenant General Fernando García-Vaquero Pradal.

During the event, the Commander of MNC-SE, Major General Dragoș-Dumitru Iacob, provided a briefing about the headquarters' role, specific missions, current operational stage and upcoming

development phases in the context of current European security environment, drastically changed by the invasion of Ukraine by Russia.

Lieutenant General García-Vaquero thanked Major General Iacob for the presentation, pointing out beneficial aspects of the collaboration between the two NATO headquarters in the context of the upcoming exercises.



Photo credit: MNC-SE



Commander Rapid Reaction Corps France visits HQ NRDC-ESP

On Tuesday, 13 June, Commander Rapid Reaction Force France (RRC FRA) based on Lille, Lieutenant General Emmanuel Gaulin, visited NATO Rapid Deployable Corps-Spain Headquarters in Bétera (Valencia-Spain).

Commander NRDC-ESP, Lieutenant General Fernando García-Vaquero Pradal, welcomed Lieutenant General Emmanuel Gaulin upon his arrival at the Bétera Military Base, and all seniors of the allied countries represented at HQ greeted him on his arrival at the HQ premises.

Lieutenant General Gaulin was briefed about HQ NRDC Spain's Warfighting Corps concept, capabilities and organization including how they had evolved based on the lessons of the war in Ukraine, and ongoing tasks and future plans. The visit also included exhibitions by the HQ Support Battalion and the Tactical Command Post with the latest technology. During the visit, they shared experiences and discussed possible areas of mutual interest, including training, to confirm that both commands are organizations ready to support the Alliance and international stability.





HQ NRDC-ESP: Mentoring and supporting HQ MND-C



Exercise New Bastion 2023 (NEBA23)

Seventeen personnel from HQ NRDC-ESP participated in the exercise New Bastion 2023 (NEBA 23) in Székesfehérvár, Hungary, from 18 to 30 April 2023.

NEBA 23 was a Battle Staff Training (BST) event aiming Multinational Division-Center (MND-C) preparation for its Combat Readiness Evaluation (CREVAL), which was conducted later during Strong Bastion 2023 (STBA23) exercise.

HQ NRDC-ESP mentored and supported MND-C with Subject Matter Experts (SME) in several areas, assisting MND-C Headquarters in the goal of achieving its Full Operational Capability (FOC) during NEBA 23. The HQ NRDC-ESP's mentoring efforts as the Corps Higher Command (HICON) focused on the areas of staff coordination, setting the conditions for execution and testing MND-C command and control (C2) structure and procedures.

Stronger and capable together, HQ NRDC-ESP maintains their readiness and collaboration working with our partnered nations and organizations.



Photo credit: MND-C





Exercise Strong Bastion 2023 (STBA23)

From 19 to 30 June 2023, part of this HQ participated in Strong Bastion 2023 Exercise (STBA23) in Székesfehérvár-Hungary.

This computer-assisted command exercise served as the Combat Readiness Evaluation (CREVAL) for the Multinational Division Center (MND-C) HQ, based in Székesfehérvár, Hungary. The exercise involved approximately 500 soldiers, including the primary training audience and members of the exercise control. In this complex tactical level exercise, HQ NRDC-ESP played the role of the division level higher control (HICON), testing the skills of HQ MND-C staff to manage an Article 5 environment coupled with hybrid challenges and threats. Soldiers from ten NATO countries served together again, ready themselves for high-intensity operations during day and night shifts. After four-and-a-half years, HQ MND-C, has finally and officially been declared combat ready!

Congratulations!



Photo credit: MND-C





Commander`s visits to affiliated Brigades

In the first half of this year, Lieutenant General Fernando García-Vaquero Pradal, Commander of HQ NRDC-ESP, took the opportunity to visit the affiliated Brigades in Portugal and Greece.

At first he paid a visit to the Portuguese Mechanized Brigade, from 27 to 29 March. The official visit started with the Portuguese Land Forces Command (CFT) in Lisbon, within the framework of the affiliation that the Portuguese Mechanized Brigade has with HQ NRDC-ESP since 2002. Our Commander was initially received by the 2nd Commander of the Portuguese Land Forces Command, Major General Pedro Sardinha.

The appointment aimed at strengthening cooperation in areas of common interest between the Portuguese Army and the HQ NRDC-ESP, as well as finding opportunities for future cooperation and consolidating the affiliation of the Mechanized Brigade.

The programme included a presentation on the Portuguese Land Forces Command with the main

focus on the Mechanized Brigade. In a briefing for junior and senior officers, our Commander elaborated on NATO Warfighting Corps capabilities and challenges within the framework of emerging concepts of the Alliance.

The visit culminated with a stopover to exercise Strong Impact 2023, where a tactical demonstration of combined arms took place on 29 March at the Santa Margarida Military Camp.

Close to the Land Commanders Conference in Greece, our Commander visited the 34th Mechanized Brigade in Assiros / Thessaloniki from 22 to 23 June.

The Commander was received by Brigadier General Ioannis Vlachogianis in their Headquarters. This was also a good opportunity to get a closer look in a very well equipped unit and their capabilities. Both very fruitful and important visits ended with the signing of the respective CFT Book of Honour and with an exchange of gifts.



Exercise “Ángel Guardián 23”

The Military Police Battalion (BPM I), a unit subordinate to HQ NRDC-ESP, conducted from 26 to 30 June the most important multinational exercise of the year concerning Military Police missions, both at national and NATO level. This exercise, which takes place annually, aims to provide the participating units with scenarios similar to those that may be encountered in operations, to be resolved in accordance with national and Alliance doctrine, increase mutual knowledge, train together and exchange knowledge and experience, taking advantage of synergies that will facilitate coordinated work in missions abroad.

The exercise involved Military Police Units belonging to the Spanish Army, Navy, Air and Space Army, Emergency Military Unit (UME), Royal Guard and Civil Guard, as well as representatives from Belgium, Bulgaria, Canada, Estonia, Germany, Netherlands, Ireland, Jordan, Portugal, Romania, Switzerland and the United

Kingdom, with a total of around 670 participants, 175 vehicles and 40 dogs.

Ángel Guardián is a type of real deployment exercise in different scenarios similar to those in which the Military Police find themselves in the different Zones of Operations abroad to perform functions such as security, detention, mobility support and stabilization policing, within a force support environment during a crisis response operation. For this purpose, a variety of incidents have arisen such as crowd control, route security, traffic jamming with military vehicles involved, building clearance, detention, searches, armed individuals inside military installations, active shooter, protection of authorities or evidence collection.

BPM I has extensive experience in operations in Afghanistan, Lebanon, Irak, Mali and the Central African Republic and participates in cooperative security activities with Mauritania. Currently, part of the Battalion has deployed personnel, material and means to support the security and protection of the operation in support of Irak-NATO Mission Irak.





Personnel from the HQ NRDC-ITA Support Brigade visit the HQ NRDC-ESP Support Battalion

During the week of 18 to 22 September, personnel belonging to the HQ NRDC-ITA Support Brigade visited the facilities of the Support Battalion to learn first-hand about our capabilities, materials and procedures in support of the HQ NRDC-ESP. The representation, coming from the staff of the Support Brigade, the Signals Regiment and the Logistics Support Regiment, exchanged experiences with our personnel throughout the week thanks to a full agenda that included talks, a visit to the Support Battalion facilities at the Jaime I Base in Bétera and a visit to the General Almirante Base where the battalion was materializing the deployment of the different elements of the command posts (CP) in support of the Valiant Lynx 2023 Exercise.



It is worth highlighting the interest aroused among the Italian personnel for the new concept of main CP modules and the implementation of the TAC CP with wireless technology. They also had the opportunity to get to know the Santo Domingo Convent, home of the Spanish High Readiness Land Headquarters (CGTAD), through a guided tour offered by battalion personnel. The visit was of great interest to the Italian personnel who gave us the opportunity to pay them a return visit to their facilities in Solbiate Olona (Varese), and thus continue to maintain contact to facilitate the exchange of information in search of solutions to the common challenges that both units are currently facing.



Exercise Valiant Lynx 2023: Training, new concepts & technology

The Valiant Lynx 2023 exercise (VL23) has been the main training activity for HQ NRDC-ESP during this year. The exercise was attended by approximately 450 military personnel from both the Headquarters itself and its support units, as well as from other NATO nations, and provided the venue to test a new command post concept and also to assess new procedures adapting to new scenarios aligned with cutting-edge technologies. A modular command post with adapted internal procedures and a new command and control tool called “PROMETEO” were the most significant innovations of this exercise, during which hundreds of incidents based on a fictional scenario were simulated to provoke decision-making process.

“THE VALIANT LYNX 2023 EXERCISE WAS NOT ONLY AN OPPORTUNITY TO TRAIN THE HQ, BUT ALSO A CHANCE TO TEST AND ASSESS NEW CONCEPTS AND TECHNOLOGY”.



“New concepts have been tested, employing state-of-the-art technology during the Valiant Lynx 2023 exercise”.

Valiant Lynx 2023, a Command Post Exercise (CPX), was also the venue to maintain the capabilities certified in 2021, when HQ NRDC-ESP was trained as a Warfighting Corps Headquarters (WFC HQ) and prepared to conduct Major Joint Operations (MJO+).

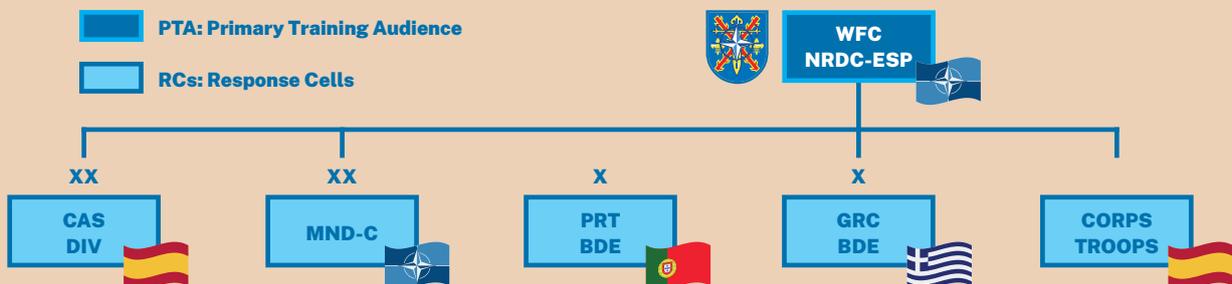


Professors from CEU-Cardenal Herrera University in Valencia during Valiant Lynx 2023 exercise.

The exercise was carried out in different locations, with the General Admiral of Marines Base (Valencia) hosting the Main Command Post, while the Tactical Command Post was deployed in Szekesfehervar (Hungary), and allowed to confirm that HQ NRDC-ESP is ready to lead multinational forces. In order to produce a credible and realistic scenario to be played by the training audience, an Exercise Control (EXCON) cell composed of around 100 military personnel was set up in Bétera Military Base, the site of the Headquarters.

In the exercise, voluntary reservists and several professors from CEU-Cardenal Herrera University in Valencia, experts in the field of communication and social media, as well as a gender advisor, also participated.

Structure at the exercise VL23





During the last day of the exercise, a Distinguished Visitors Day (DVD) was organized. The DVD was attended by different military authorities, both from Spain and other allied countries, and they were able to observe on-site the direction and execution of the exercise. Notably the Spanish Chief of Defense Staff (JEMAD), Admiral General Teodoro E. López Calderón, was in attendance.

This type of training means that HQ NRDC-ESP is at the forefront of new procedures, serving as a reference within NATO's Force Structure, and demonstrating its strong commitment to Spain and the Atlantic Alliance.





9th Forum Commanders of European Land Forces

General Amador Enseñat y Berea, Chief of Staff of the Spanish Army, served as host, receiving his European counterparts to discuss the use of land forces against threats with a 360-degree approach.

On 15 and 16 November, Spain hosted for the first time the 9th edition of this important forum, which brought together 30 commanders of European land armies. The event took place at the Santo Domingo Convent, site of the Spanish High Readiness Land Military Staff HQ (CGTAD in Spanish), which is in turn the national part of the HQ NRDC-ESP.

During the opening ceremony, the Spanish Chief of Staff of the Army, General Amador Enseñat y Berea, who acted as host, highlighted the great opportunity provided by this event to share and discuss ideas, initiatives and points of view at the highest level of the land forces in Europe.

This edition, aimed to promote dialogue and cooperation between the heads of European armies, as well as to address the common challenges they face, including on the agenda panels on contemporary warfare, the employment of land forces in current and future operational environments and the impact of emerging technologies on land warfare.

This event was an excellent opportunity to strengthen cooperation between European land armies and to address the common challenges they face.



Photos: Spanish Army

Deputy Commander Handover-Takeover Ceremony at the HQ NRDC-ESP

On 17 November 2023, Major General Sergio Valente Marques was officially appointed as new Deputy Commander of the HQ NRDC-ESP, a position occupied by Portugal, taking over from outgoing Deputy Commander, Major General João Boga Ribeiro, in a parade held at the HQ premises.

The HOTO Ceremony was chaired by Lieutenant General Fernando García-Vaquero Pradal, Commander of HQ NRDC-ESP, and took place in the presence of the Chief of Staff of the Portuguese Army, General Eduardo Manuel Braga da Cruz Mendes Ferrão. All the representatives from the twelve allied nations present at the HQ NRDC-ESP were in attendance.

During the ceremony, Lieutenant General Fernando García-Vaquero Pradal, Commander of HQ NRDC-ESP, welcomed Major General Valente and his family to Valencia, highlighting his distinguished military career. He also expressed his gratitude to Major General Boga for his outstanding work during his years at the headquarters as the second in command, wishing him the best in his new assignment in Portugal.

Personnel from the HQ Support Battalion, the Military Police Battalion, a Sapper Squad and the Military Music Unit, were in formation and paraded at the end of the event.

Welcome on board, Sir!!

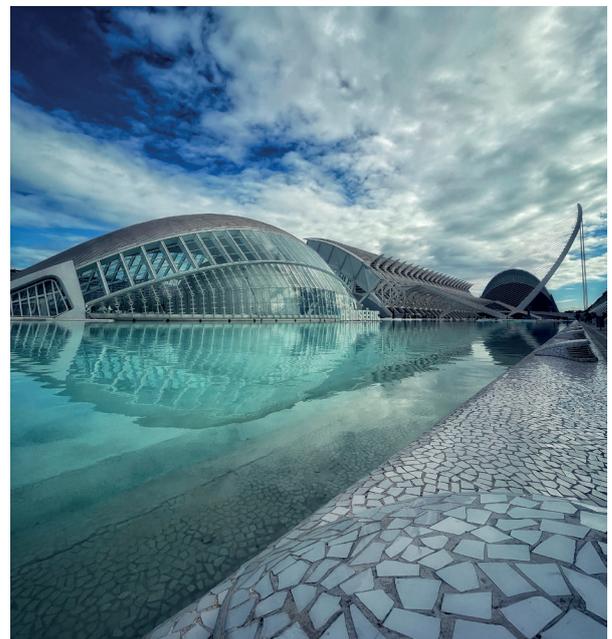


CITY OF ARTS AND SCIENCES

The City of Arts and Sciences is an ensemble of six areas in the dry river bed of the now diverted River Turia in Valencia, Spain. Designed by Valencian architect Santiago Calatrava and started in July 1996, it is an impressive example of modern architecture. The “city” is made up of the following, usually known by their Valencian names: El Palau de les Arts Reina Sofía — Opera house and performing arts centre; L’Hemisfèric — Imax Cinema, Planetarium and Laserium; L’Umbracle — Walkway / Garden; El Museu de les Ciències Príncipe Felipe — Science museum; Oceanogràfic — Open-air aquarium or oceanographic park; Àgora — A versatile space that will allow the holding of varied events. Surrounded by attractive streams and pools of water, it and the surrounding areas of the “city” are typically used as a relaxing place to walk day or night, with an open air bar outside El Museu de les Ciències Príncipe Felipe during the evening.



The City of Arts and Sciences in Valencia is in itself a spectacle for the eyes. It is “the most lively city in the world” and a reference point for leisure in the XXI century with infinite possibilities and activities for visitors.



Source: www.valencia-cityguide.com



Palau de les Arts Reina Sofia (Valencia Opera House)

A spectacular building dedicated to promoting the performing arts. Measuring over 70 metres in height, the Palau de les Arts is divided into four separate halls, all boasting the latest technological advances conceived to stage all kinds of opera, musical and theatrical performances.

Agora

The Agora in Valencia city is a versatile and multifunctional building which can accommodate different events such as sports, conferences, concerts, conventions or performances. Over the last years, it has hosted the Valencia Tennis Open 500.



Hemisferic

Planetarium, Laserium and IMAX Cinema in a single building, the Hemisferic was designed like a giant human eye, looking out on the world over a 24,000 square metre pool. Like the eye it is, it has a semi-spherical pupil, under which you find the projection room, eyelids and eyelashes, which move thanks to a unique feat of engineering.



Getting to know Valencia



Museo de las Ciencias Príncipe Felipe (Prince Felipe Museum of Science)

The Principe Felipe Science Museum is just as spectacular inside as it is outside with its five floors and 42,000 square metres of surface area, the Science Museum was built using a complicated system of platforms and covered by two great roofs that rise to over 40 metres. It was designed as an educational area where visitors can experience things by using their own senses. Its dynamic character means that most of the space is devoted to temporary exhibitions. The Museum also hosts major cultural and scientific events.



The Umbracle

The Umbracle is the gateway to the City of the Arts and Sciences, a green area open to all. The Umbracle is 320 metres long and 60 metres wide, and contains El Paseo de las Esculturas - an open-air art gallery with sculptures by contemporary artists such as Miquel Navarro and Yoko Ono. Its roof also provides shelter for a great number of different plants chosen for their shapes and colours which change continuously with the different seasons of the year.



Oceanografic

Oceanografic invites us to travel around the planet's main seas and oceans. More than 45,000 examples of 500 different marine species inhabit nine underwater towers that, structured in two levels, represent the most emblematic ecosystems of the planet.

This is the setting for the largest aquarium in Europe - Oceanografic. The park was designed as a centre for leisure, education and research and is divided into ten broadly themed areas, which cover all the different marine ecosystems on the planet. The marine areas properly speaking recreate the habitats of the Mediterranean, the Arctic and Antarctic Oceans, Islands, Tropical Seas, Temperate Seas and the Red Sea. The park also has a spectacular dolphinarium, an auditorium - within which is the Red Sea aquarium, an area representing the Wetlands - with one section for mangrove swamps and another for marshes, and different gardens containing over 80 different plant species.







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