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# REVISTA ESPAÑOLA DEFENSA inporthe strategic of satellites



# **Tactical Leadership Program in Spain** AIR COMBA LEADERS





## REVISTA DE DEFENSA HABLANOS de Defensa

36 años de información de calidad

## **TLP Albacete**

HE Tactical Leadership Programme (TLP) arrived at Albacete Air Base on 1 October 2009. As the TLP approaches its 15th anniversary in Spain, it is safe to say that it continues to be the reference centre in Europe for enhancing the tactical leadership capabilities of NATO air forces and for implementing conceptual and doctrinal initiatives in support of the Supreme Allied Commander Europe (SACEUR), the Supreme Allied Commander Transformation (SACT), and the Spanish Air and Space Force.

This advanced pilot school was founded in 1978 and currently consists of ten permanent members: Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, the United States, and the United Kingdom. However, courses are also attended by other NATO Allies and invited nations. Initially located in Germany and Belgium, the headquarters was transferred to Spain seven years after our accession to NATO in 2002.

The first flying course of the year ended on 9 February 2024 and, as usual, lasted three weeks. There were approximately 650 participants, 40 of whom graduated: 28 pilots, 6 intelligence officers and 6 air traffic controllers.

The flights were conducted in the afternoons from Monday to Friday, commencing in the second week. The first week was dedicated to academic activities and flights on the MACE simulator, which enables pilots to train in a virtual environment and interact with aircraft in real missions through communication protocols.

The commitment and dedication of military and civilian personnel from the ten allied nations working at the Headquarters ensures that the TLP continues to be an up-to-date programme tailored to meet the training requirements of modern fighter jets, and that it is the focal point for addressing today's tactical air challenges.

It also has a significant economic impact on Albacete. The activity generated by the TLP has led to the creation of 120 jobs and the generation of income worth approximately six million euros a year.

Like any other organisation, the TLP has changed and evolved since its arrival in Spain, but it must continue to do so in order to preserve its prestige and achieve excellence in the quality of its courses, which is the hallmark of this programme.

RED

### REVISTA



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### **ARMED FORCES**

## **"DOCTORATES" IN AERIAL COMBAT**

NATO's Tactical Leadership Programme commemorates 15 years of training elite fighter pilots in Albacete

Thirty-four fighter aircraft from Spain, France, Greece, Italy, Switzerland and the Czech Republic participated in this year's first Tactical Leadership Programme course. In the foreground, a Czech JAS-39.

N her way back to Los Llanos air base (Albacete), Flight Lieutenant Nuria Moral walks the taxiway after an hour and a half of flying at the controls of an F-18, feeling the effect of the adrenaline brought on by the tension, but also by the satisfaction of having accomplished her goal. This young but experienced fighter pilot from the 12th Wing has managed to handle her stress as mission commander. She is the highest flying authority in an Allied air formation of 24 fighter jets and two command and control aircraft in a highthreat scenario, one of the most complex operations in NATO's Tactical Leadership Programme (TLP) flying course.

This is her first time as "conductor of a large multinational orchestra", as she puts it, using a musical metaphor to define the role she played for the first time on the evening of 6 February 2024. Her job was to "set the tempo" in an operation that responded to the concept of Dynamic Targeting, that is, suppressing targets about which the aircraft has little or no information at all before striking the enemy.

Flt Lt Moral is one of the 28 NATO fighter pilots who, between 22 January and 9 February 2024, proved their ability to assume the roles of mission commander and package leader. They have been chosen to take part in the first COMAO (Composite Air Operations) Flying Course organised this year by the TLP at its headquarters at Los Llanos air base. These men and women will be the new "doctorates" in NATO's Tactical Leadership and will wear on the sleeves of their flight suits the patch that proves their ability to plan, organise and direct complex multinational air operations involving numerous air assets. The course also served to improve interoperability between the different air forces of participating countries and the different weapons systems at their disposal.

Colonel Luis Alberto Martínez, the TLP Commandant, emphasises that this programme is a unique flight training school within the NATO environment in Europe, comparable to others in the US or the Persian Gulf. The TLP was established in Spain fifteen years ago to improve the tactical leadership skills of allied fighter crews. They are "highly experienced fighter pilots chosen by their squadrons to participate in the programme", he explains.

A staff of 48 military personnel from Belgium, Denmark, France, Germany, Greece, Italy, the Netherlands, Spain, the United Kingdom, the United States and the United Kingdom work at the TLP headquarters, which is located next to the Eurofighter facilities of the 14th Wing and close to the 'Maestranza' aircraft maintenance unit.

Six intelligence officers also graduated from this first course. They are "the flight INTELs", says Lieutenant Colonel Juan José Sellán, chief operations officer of the TLP. Before the aircraft take off, these officers participate in the morning briefing, as they also do during the planning phase, "to resolve any doubts or answery



### **ARMED FORCES**



questions from the crews about the scenario in which they are going to fly", he explains. Six air traffic controllers and specialists in C2ISR (tactical command and control, intelligence, surveillance and reconnaissance systems) also took part.

In the COMAO Flying Course, up to 34 aircraft were deployed, divided into two opposing forces — Blue Air and Red Air— confronting each other over an area of

almost 51,500 square kilometres with an epicentre in Albacete. The 28 candidates aspiring to become qualified for tactical leadership were grouped in Blue Air at the controls of a fleet of 24 fighter jets (four of which were two-seaters): Italy's *Eurofighter*, Spain's *F-18* and *Eurofighter*, France's *Rafale*, Greece's *F-16* and, although not part of NATO, Switzerland's *F-18*. They were also joined by JAS-39s

from the Czech Republic, even though the latter is not a member nation of the TLP group. Supporting assets included *NATO AWACS*, a US Air and Space Force *MQ-9 Predator B* drone, US command and control assets and tactical air control parties (TACP), and Spanish joint terminal attack controller (JTAC) teams.

Blue Air faced an air threat posed by ten fighter aircraft: Swiss *F-18s*, French *Rafales*, Greek *F-16s* and Spanish and Italian *Eurofighters*. Their offensive actions were reinforced on the ground by *Mistral* anti-aircraft batteries, as well as surfaceto-air threat simulation systems.

#### **COMPLEX SCENARIOS**

The COMAO flying course lasts three weeks and consists of twelve missions, three of which are carried out in the MACE simulator. "The idea is to gradually increase the difficulty of air operations in progressively more complex scenarios", says Lieutenant Colonel Sellán. "We start with very simple missions to help the crews get acquainted because at the beginning the people don't know each other or the airspace they are going to work in...", says the chief operations officer.

The missions become increasingly more complex over time with aircraft escort missions, close air support, suppression of ground-based enemy air defences, etc., or a compendium of all of them, like the aforementioned Dynamic Targeting that includes a series of incidences or "unforeseen factors that make it necessary to adjust the plan during the flight", explains Lieutenant Colonel Sellán. The mission programmed for this first course culminated in a Time Sensitive Targeting procedure. This is a "surgical action" to attack a critical target, "for instance, a terrorist leader during a meeting of his organisation", says Flt Lt Moral. Both combat SAR (combat search and rescue) and non-conventional assisted recovery (personnel recovery) missions, which use helicopters and transport aircraft, respectively, are also very complex operations.

An A2/AD mission was also programmed for the final phase of the course. It was only an introductory mission, as the removal of the anti-access/ area denial systems would require a much larger fleet than the 24 participating aircraft. "It was an atypical and very new mission



for the crews because, as fighter pilots, they are used to flying at high altitude. In this case, they flew at very low altitude, in silence, without radio communication to avoid being detected and maintain the surprise element of the operation", explains Lieutenant Colonel Roberto Prieto, commander of the opposition forces and flight instructor. The TLP expanded its radius of action four years ago. Its airspace currently spans 150 nautical miles in length and nearly 100 nautical miles in width, with an altitude range of 1,000 feet above the ground to an unlimited altitude. "This allows us to deploy between 40 and 50 aircraft to conduct missions using their longer-range weapons and develop their tactics and NATO doctrine with virtually no limitations", says Colonel Martinez.

"Time, pressure, integration and leadership". These are the four aspects on which the instructors of the TLP's COMAO flying course work. "We present a complex problem to the pilots and, in 70 minutes, they have to come up with an acceptable tactical solution", says Lieutenant Colonel





Lieutenant Colonel Sellán shows the capabilities of the MACE flight simulator, which has 30 stations for pilots to work in teams. On the left, a refuelling operation.

### The COMAO flying course includes twelve missions; nine real missions and three in simulators





Although Switzerland is not a member of the TLP, its Air Force deployed *F-18* aircraft to Albacete as part of Blue Air and Red Air.

Prieto. This is why the crews work as a team using a methodology that allows them to best integrate the capabilities of their weapons systems. Then they exercise tactical leadership: knowing what each crew is doing and making dynamic decisions as the operation evolves, "because a plan alone is not enough to withstand the first encounter with the enemy", says Lieutenant Colonel Prieto.

"Time is our real adversary", adds Lieutenant Javier Macho, an *F-18* pilot and Flt Lt Moral's colleague in the 12th Wing and during the flying course in Albacete. This young and experienced officer also had to handle his stress to lead an offensive counter-aircraft (OCA) operation and defeat or reduce the threats posed by enemy aircraft or missiles.

Both officers fit the profile of the combat crews participating in the TLP: "They must have more than 500 flight hours in the aircraft or the same role and, in addition to this experience, many of Two Swiss *F-18s* fly side by side, engaged in a COMAO nonconventional assisted recovery.

them have participated in real operations and major international exercises", explains Lieutenant Colonel Sellán. Lieutenant Macho has more than 700 flight hours in F-18s, just like Flt Lt Moral, who also flew F-5s as an instructor in the 23rd Wing and has been posted abroad twice, once in Estonia and another time in Lithuania, in the Baltic Air Policing mission.

In addition to the flying course, it is advisable to have previously completed the



The first TLP flying course was supported by a variety of air assets, including NATO AWACS (pictured) and French AWACS.

introductory courses to COMAO operations, which not only include a theoretical part, but also an extensive use of the simulator.

Once they have passed these academic courses, participants are more prepared to tackle the flying course and make the most of it. "Although the prerequisite for tactical training is to be able to lead a formation of at least two aircraft, many come to the course already qualified to lead packages of up to four",

> says Lieutenant Colonel Sellán. Some have even been trained with larger air formations, "of ten against eight", as Flt Lt Moral quotes from experience.

> In her opinion, the key to exercising leadership is threefold: "Proficiency in your own weapons system, basic knowledge of all the types of missions that are carried out and, most importantly, knowing how to listen to people; valuing their knowledge and background". This is why the first stages of the training are dedicated to

### ARMED FORCES

each participant explaining the capabilities of his or her aircraft, its strengths, its weaknesses, what it can contribute to the mission, etc. "This way, during the planning phase, everyone can have a clear understanding of the options available and how to handle them", adds Lieutenant Colonel Sellán.

"It's a gruelling three weeks, working twelve hours a days", says Colonel Martinez. The first four hours in the morning, are dedicated to planning, the next three to flying and the remaining four to mission analysis. "This is one of the differences between our COMAO flying course and, for example, NATO exercises, in which the mission is normally planned the day before and they fly the following day", explains the TLP Commandant. "Here, we plan and fly on the same day to

### The fighter aircraft flew almost 500 hours and made nearly 300 sorties

put pressure on the participants to be able to execute as many missions as possible over the three-week period. That's how we prepare them to perform in a real operation. If they are unable to handle that physical and mental stress, they will not be ready when the moment of truth arrives".

#### PAST, PRESENT AND FUTURE

In order to train its elite fighter pilots, NATO has been adapting to the technological advances in weapons systems and their use in the ever-changing strategic scenarios. The new tack of the TLP is guided by the need to move forward by, for example, integrating virtual training with the MACE simulator. The integration of fifth-generation aircraft, such as the F-35, which participated in the TLP two years ago, is another difficulty facing the programme. But, as Colonel Martínez claims, "we will see more and more of this kind of platform in our courses. Let's not forget that eight of the ten TLP countries are already operating these fighters or are in the process of acquiring them".

At the end of their training, the "doctorates" in tactical leadership participate in a satisfaction survey to assess the course syllabus, the quality of the instructors and the facilities. For FIt Lt Moral, her time at the TLP has been "the best experience you can have at the controls of a fighter jet". She believes that group cohesion and teamwork are crucial. "When we all fly together and recognise each other's voices over the radio, we realise that we are one big family".

> J.L. Expósito Photos: Pepe Díaz





Above, Lieutenant Macho checks his plane before flying. Also above, briefing to prepare the mission.

### INTERNATIONAL

## VISIT TO NATO HEADQUARTERS EUROPE

The King, accompanied by the Minister of Defence, was briefed on NATO's deployment and met with Spanish personnel

ING Felipe VI visited the Supreme Headquarters Allied Powers Europe (SHAPE), located near Mons (Belgium), on 20 February 2024. Accompanied by Defence Minister Margarita Robles, the King held several meetings at the NATO operations centre, where he learned about the development of NATO's deployment and highlighted Spain's contribution.

According to Robles in a message on the social media platform X, the visit was "yet another demonstration and expression of Spain's significant role in NATO". She stated that our nation is "a serious, reliable, and responsible Ally, committed to many missions and, even more so, in such complicated and difficult times as those the world is going through".

Dressed in the uniform of the Spanish Navy and the stripes of captain general, King Felipe was welcomed by the commander of the Supreme Allied Command Europe (SACEUR), US General Christopher Cavoli, who was accompanied by the Allied military leadership. This was the monarch's second visit to the Allied Headquarters since his coronation, the first one being in 2018.

After a welcome with honours, the King held an informal meeting with the authorities. He then proceeded to the conference room, where General Cavoli explained the new Allied territorial defence plans and the strategy for the southern neighbourhood, as agreed at the Madrid Summit. After this working meeting, King Felipe visited the Multi-Domain Strategic Operations Centre (MDSOC) and signed the Book of Honour.

Later, King Felipe presented General Cavoli with the Grand Cross of Naval Merit with white badge, which the Spanish Ministry of Defence has awarded him for



King Felipe presents General Cavoli with the Grand Cross of Naval Merit with white badge, awarded to him by the Ministry of Defence for his "leadership and determination" since he assumed command of SHAPE.

his "leadership and determination" since he assumed command of SHAPE in July 2022. Speeches were subsequently delivered by the Chief of Defence Staff (CHOD), Admiral General Teodoro López Calderón, and the SACEUR.

#### DECORATION

In his message, punctuated by words in Spanish, the SACEUR expressed his gratitude for the award. "I accept this award on behalf of the men and women of NATO Supreme Headquarters, who make everything I do possible. I share this honour with you", he declared.

General Christopher Cavoli highlighted Spain's contributions as "a crucial member

of our Alliance since 1982" and noted that "its impact on area operations continues today, with the command of the NATO mission in Iraq, as we move towards a future of collective defence in which your leadership continues to be felt".

"My respect for the Spanish Armed Forces knows no bounds", declared the Commander of the Supreme Allied Command Europe, who recalled his experience as a young officer with the Parachute Brigade, and later when he was deployed in northern Iraq. "From the beginning of my career until the end, which is now approaching, I have had the fortune of working with the Spanish Armed Forces", he stated.



Earlier, the CHOD had made a speech, stating that, during General Cavoli's tenure, NATO "is facing challenges and threats that have not been seen in more than 30 years", and that, thanks to the General's "leadership and determination", it has been possible to "preserve peace and security in the Atlantic area". "Without a doubt, his experience in the Persian Gulf and Afghanistan and his time as commander of the United States Armed Forces in Europe and Africa have given him the expertise and knowledge to face this complex scenario in which we advance decisively with the support and involvement of all Allies", added Admiral López Calderón.

King Felipe's visit ended with a meeting with SHAPE multinational personnel and another with Spanish personnel. Besides the Minister of Defence and the CHOD, the King was also accompanied by the Spanish Ambassador to Belgium, Alberto Antón Cortés; Spain's military representative to the NATO and EU Military Committees, Francisco Javier Fernández Sánchez; and the commander of Chièvres air base, which is mainly used to provide logistical support to NATO and SHAPE, Colonel Lindsay R. Matthews.

Spain is one of the countries most committed to NATO missions. It currently participates in the maritime groups and is present in the Mediterranean and the Atlantic (SNMG and SNMCMG), in the maritime security and counter-terrorism operation Sea Guardian, in those in support of Iraq and Turkey and, on the Eastern flank, in the Baltic Air Policing, Reinforced Air Policing and Reinforced Forward Presence missions.

#### **EVOLUTION**

In 1950, a year after the founding of NATO, whose 75th anniversary will be celebrated in 2024, members of the Alliance agreed to create a military command structure to ensure greater integration of Allied forces. Thus, in 1951, the Allied Command Europe (ACE) was established, and General Eisenhower, who served as its first commander, was granted the title of SACEUR. Its headquarters, SHAPE, was located in Paris. In 1952, NATO's second major strategic command, Allied Command Atlantic (ACLANT), was activated in Norfolk, United Kingdom.



General Christopher Cavoli briefs the King on the new Allied territorial defence plans and the strategy for the southern neighbourhood, as agreed at the Madrid Summit.

In 1967, SHAPE moved to its current location at Casteau, near Mons, as a result of France's decision to withdraw from NATO's integrated military command structure.

A major reorganisation of NATO's command structure was decided upon at the Prague Summit in 2002. This resulted in leaving a single strategic-level command in charge of all operations, the Allied Command Operations (ACO), and establishing a second strategic-level headquarters, the Allied Command Transformation (ACT), to promote the continuous transformation of NATO forces and capabilities. The locations of the two former strategic commands (ACE and ACLANT) served as the headquarters for ACO and ACT. For financial and

### SACEUR highlighted Spain's contribution as a "crucial member" of the Alliance

legal reasons, ACO HQ kept its SHAPE nomenclature, while its commander kept the SACEUR designation.

NATO employs 85 military personnel and 150 Spanish civilians at Chièvres air base. The majority of these workers have families in or near SHAPE, forming one of the most active communities at the Headquarters. Many Spanish interns, young people just starting their careers who choose to work in this field and are highly valued for their professional skills and attitude, are among the civilians.

For the benefit of the community, civilian and military volunteers are organised in a number of thematic sections with the purpose of helping and facilitating the lives of those who need support by providing assistance in a wide range of areas, including housing, school enrolment, academic accreditation, religious matters, sports, entertainment, and more.

The base works like a town, with its own zip code, supermarket, church, hospital, bowling alley, etc. It even has a school with more than 2,400 students. There are military personnel of 40 different nationalities at the HQ, so the idea is to make their lives as easy as possible.

> Santiago F. del Vado Photos: H.M. The King's Household

### SPACE SECURITY

## THE SATELLITE "BOOM"

Its unstoppable growth poses new risks and threats to security and defence

According to the United Nations, there are 6,200 tonnes of space debris orbiting the Earth.

INCE space is a privileged location from which to provide multiple services to modern societies, everyone aspires to be up there. It is the new borderless world, a "new Wild West", without global regulation. More satellites than ever are being launched, mostly by the private sector, ushering in a new commercial space age. However, this does not come without challenges and risks: collisions, space debris, unidentified objects, and so on.

In the last three years, the number of operational satellites orbiting the Earth has risen from 2,700 to 7,500, an average of almost 2,000 launches per year. Considering that a decade ago the number of satellites did not exceed 200, this increase is a giant leap.The commercial conquest of space is a major concern for traditional space actors, who are worried about this surge in which private companies like US tycoon Elon Musk's Starlink and its telecoms mega-constellations play a major role. Other popular tech giants are gearing up for "colonisation".

The saturation of satellites or space objects, particularly in low-Earth orbit (LEO), which takes place at an altitude of between 250 and 1,200 km, triggers a number of problems and risks with security and defence implications.

According to Miguel Ángel Serrano, head of the operations department of the Spanish satellite operator Hisdesat, first of all there are traffic issues, which means that "it becomes increasingly difficult to operate a satellite in orbit". He claims that this "popularisation of space" is taking place without regulation in a domain upon which today's essential services and applications —like communications, navigation and scientific observation— depend.

According to the United Nations Office for Outer Space Affairs (UNOOSA), not just thousands but tens of thousands of satellites will reach space this decade. Some of them are not identified or catalogued, which makes it hard to "know exactly what is in orbit, who operates it and what their intentions are" as stated by Major General Isaac Crespo, head of the Space Command (MESPA) that Spain established within the Air and Space Force, just like other nations around us did.

According to Crespo, the satellite "boom" means "that space is highly saturated, which along with space debris and the re-entry of space objects into the Earth's atmosphere, increases the risk of collisions in orbit and has a clear impact on the security of satellites". He adds that there are numerous threats to space systems that could disrupt the normal functioning of satellites providing essential services for today's society and military operations. "No one should be oblivious to the reality that space is already militarised, meaning that assets are being used by the military in space", says General Crespo.

Hisdesat, which operates the XTAR-EU and SpainSat communications satellites —very important for example for the Spanish Armed Forces' maritime operations— and the *Paz* Earth observation satellite, whose main customer is the Ministry of Defence, warns that they receive "between three and four collision warnings per year. A situation in which satellite operators find it challenging to perform evasion manoeuvres".

#### A SECTOR ON THE UP

The relevance of space in everyday life, and therefore in the economy, is paramount. In some developed countries it already accounts for 10 percent of GDP, and it is growing every year. Satellites have become "one of the cornerstones of modern society", says UNOOSA in its 2022 report.

Spain has doubled its capacity in this sector, with a turnover of around 1 billion euros per year, which represents between 10 and 11 percent of the European total, according to Hisdesat's data. It is the fourth largest country in the EU, behind France, Germany and Italy. And it is also the fifth largest of the European Space Agency, with the United Kingdom in fourth position.

The most cutting-edge satellites in Europe and NATO, the Spainsat NG I and II, are about to be launched by Hisdesat, a government satellite services provider that primarily works in the areas of defence, security, intelligence, and foreign affairs. As of 2025, this company will join the four nations previously mentioned as another satellite supplier to the Atlantic Alliance.

Since the beginning of the space age in 1957, the United Nations office has kept track of objects launched into space and the debris they generate. Not surprisingly, according to the latest data for 2022, this list is headed by the USA, with 7,000 objects, followed by Russia (more than 3,500). At a considerable distance, with

### Communications, navigation and scientific observation depend on space

less than a thousand launches, are the United Kingdom, China, Japan, France, India, etc. Spain, with 23 launches, is in 18th positon out of a total of 72 countries that have already sent at least one object into the various space orbits.

Satellites basically move in three types of orbits: low, medium and geostationary (LEO, MEO and GEO). Hundreds or even thousands of satellites launched in constellation are in low Earth orbit or LEO, which poses a risk to traffic, but also has advantages over other higher orbits: it does not generate debris. Once the useful life of satellites is over, they eventually re-enter the Earth's atmosphere and disintegrate, although they usually remain active for 20 to 25 years.

Miguel Ángel Serrano claims that since nothing that is launched into medium Earth orbit, between 20,000 and 25,000 km altitude, or geostationary orbit, at 36,000 km, returns to Earth, the problem of space debris is therefore also accelerating. An estimated 26,000 fragments of debris, some of which are extremely small, are believed to be in orbit and to be a major threat to satellites. "Unmonitored" objects are the other main concern about this "new space", which is why some countries are considering launching "inspector satellites".

A decent summation of the current landscape we are up against is what Pedro Duque, former Spanish minister and the first astronaut to represent Spain in the late 1990s, recently said in an interview: "Space is no longer just about going there and back, but what we do there".

Iciar Reinlein



### SPACE SECURITY

### MAJOR GENERAL ISAAC MANUEL CRESPO ZARAGOZA, HEAD OF THE SPACE COMMAND

## **"WE WANT TO PROVIDE A COMPREHENSIVE RESPONSE TO SATELLITE SECURITY"**

General Crespo emphasises the "strategic importance" of maintaining unrestricted access to space and protecting our space assets

ENERAL Crespo highlights his team's excitement in setting up the Space Command (MESPA in Spanish), located at Torrejón air base, and the hard work carried out in recent months. Major General Isaac Manuel Crespo Zaragoza, commander of this new unit, explains that, thanks to this enthusiasm, they have already reached the initial limited operational phase. He leads a team of eleven Air and Space Force military personnel and two civilians from 'Systems Engineering Applied to Defence' (ISDEFE in Spanish) that seeks to respond to the complex security and defence challenges posed by outer space.

#### -It is estimated that hundreds of thousands of satellites will be in orbit by 2030. What is the impact of the current "boom" on security and defence?

-This "boom" means that space is highly saturated, which along with space debris and the re-entry of space objects into the Earth's atmosphere, increases the risk of collisions in orbit and has a clear impact on the security of satellites. This increase is mainly occurring in the LEO regime, the low orbit. The emergence of non-state actors in the so-called "new space", who view space as a business opportunity, has fuelled the launch of private sector-operated telecommunications constellations, such as Starlink.

### -What is the role of the Air and Space force in this field?

-That of contributing to the security of space assets of interest and reducing the risks that the uncontrolled re-entry of large space objects pose to air traffic and citizens, by means of the national space alerts protocol, in which our Space Surveillance Operations Centre (COVE in Spanish) plays a pivotal role. The Air Force operates the space surveillance radar at Morón air base and strives, both nationally and internationally, to have the best space situational awareness capabilities to anticipate risk situations more accurately and enable the taking of appropriate action.

The profitability of space and the greater amount of actors and assets in space makes it hard to know exactly what is in orbit, who operates it and what their intentions are. All this has defence implications since it is strategically

"Space operations are being conducted by irresponsible state and private actors" important for us as a nation to protect our space assets and have unrestricted access to them, which is why NATO and the EU have declared space a new operational domain.

### - Is this why the Space Command was established?

-We established it, just like other countries in our neighbourhood, including the United States, Germany, France, Italy, and the UK, to integrate all the capabilities and efforts of our armed forces in this field under a single organisation. We seek to ensure the protection of our assets in space and Spain's unrestricted access to it, and to contribute to the freedom of action of military operations in, from, to, or through space. In other words, its establishment is not solely due to the saturation of LEO orbits and the risk this poses to our interests; rather, it is to offer a systematic and all-encompassing response to security and defence issues alike.

To this end, the MESPA is responsible for two specialised units, the Centre for Aerospace Observation Systems (CESAEROB in Spanish) and the COVE. The former's mission is to support decisionmaking by providing high-level government officials and the Armed Forces with the information and intelligence they require via satellite images. The COVE monitors objects orbiting the Earth at distances ranging from 200 to 36,000 kilometres, tracking their trajectories and creating



a catalogue of objects that need to be tracked.

### -What measures is Spain taking to increase its capabilities in outer space?

-This is a new operational field and is therefore still under conceptual and doctrinal development. Nevertheless, the Air and Space Force already has a plan in place for developing space capabilities. This document will be updated according to the guidelines and level of ambition established by the Chief of Defence for the Armed Forces, but it already includes clear priorities and lines of action.

One of these priorities is having the capability to ensure situational awareness in the space domain, which means enhancing the COVE's current capabilities. Hence the promotion of the Space Situational Awareness and Control programme, which will update the COVE's computer systems for data processing, fusion and classification as well as the creation of catalogues of spatial objects of interest. Completing the programme by the end of 2024 is one of the requirements for the COVE to reach its maximum operational capability.

In addition, a major effort is being made to enhance the sensor network that feeds the COVE with data. With the participation of the Spanish Space Agency, a programme is underway to upgrade the S3TSR space surveillance radar at Morón air base. Through an agreement with Elecnor-Deimos, a telescope has just been installed at the 21st Air Surveillance Squadron in the Canary Islands, and there are recent plans to equip the COVE with its own network of robotic telescopes.

We intend to have a tracking radar to complement the current S3TSR, and we are looking into the possibility of using other sensors. All of this without undermining efforts to foster agreements with other nations for data sharing, which can contribute to the development of the aforementioned Space Situational Awareness and Control programme. Another line of action is to promote and support the replacement of government communications and Earth observation satellite systems. Thus, the launching of the *SpainSat NG I* and II communications satellites is scheduled for 2024 and the new *Paz 2* system with synthetic aperture radar for 2028. Meanwhile, options for mediumterm availability of Earth observation satellites in the electro-optical spectrum are under analysis.

### - Will the number of qualified staff increase?

-The Space Command implementation plan establishes and organises, among other things, personnel resources until 2025, when the initial operational capability is expected to be attained. According to the plan, the Command will be staffed by about 40 military personnel in addition to 15 to 20 qualified technical staff members to carry out the tasks that the Armed Forces lack personnel for. The COVE also has a plan that will involve at least doubling the current amount of staff over the next two years. The MESPA's potential long-term transition from a surveillance centre to a space operations centre is currently being considered, most likely as part of the plan to achieve its full operational capabilities.

### - Experts call for necessary global regulation...

-We are all concerned about the proliferation of actors and assets in space without comprehensive international regulation. The saturation of orbits on a first come, first served basis creates inequalities and jeopardises the essential principle defined by the UN that space exploration should be carried out for the benefit and in the interest of all countries.

Moreover, space is already militarised, meaning that assets are being used by the military in space. This means that space operations are being conducted by state and private actors whose behaviour is often unwise or irresponsible. There are numerous threats to space systems that could disrupt the normal functioning of satellites providing essential services for today's society (telecommunications, positioning, navigation) and military operations. Hence the need for national capabilities to monitor and protect national space systems and ensure open access and freedom of action for their use.

Santiago Fdez. del Vado

## EU AND NATO APPROACHES

The two organisations consider space to be a strategic domain and have developed concrete measures to ensure its control

IVEN the new geopolitical context, characterised by the speed of technological developments, the increasing competition between powers and the intensification of threats, NATO and the EU already identify space as a strategic domain. In March 2023, the European Commission and the High Representative of the Union for Foreign Affairs and Security Policy, Josep Borrell, presented a Joint Communication defining the first EU Space Strategy for Security and Defence. Its objectives include enhancing the resilience and protection of space systems and services in the EU; strengthening Europe's collective capacity to respond to any threat to its interests; developing dualuse capabilities, in particular for security and defence purposes; and developing global partnerships in this domain, notably with the Atlantic Alliance and other likeminded countries. Already in 2019, allies adopted NATO's Space Policy that guides the Alliance's approach to space, regarding it as essential to deterrence and defence. This policy ensures the right space-based support to the Alliance's operations and missions in such areas communications, navigation and as intelligence.

A State of the second s

The EU Strategy responds to one of the objectives foreseen in the Strategic Compass, which already identified space as a contested strategic domain whose security must be ensured. "The European Union's space systems and services are crucial for the functioning of our society and economy, as well as for security and defence. The EU is taking action to protect its space assets, defend its interests, prevent hostile activities and strengthen its strategic position and autonomy. With this Joint Communication we take action to protect our assets in space with a view to increasing the common understanding among Member States for a more coherent Europe in space", said Margrethe Vestager, Executive Vice-President for a Europe Fit for the Digital Age at the launch ceremony of the Space Strategy.

On the basis of a common definition of the space domain, the document therefore outlines counter-space capabilities and highlights the importance of identifying main threats in space that put space systems and their ground infrastructure at risk. To this end, and to increase the common understanding of threats by all Member States, the High Representative will present an annual analysis, drawing on Member States' intelligence services.

As a basis for defining future lines of action, the Strategy proposes a series

Europe is taking actions to protect its space assets and prevent hostile activities of actions for each of the objectives set. In order to strengthen the resilience, the Commission proposes four initiatives: first, it will consider proposing an EU Space Act to provide a common framework for action; second, it will set up an Information Sharing and Analysis Centre; third, it will launch the preparatory work to ensure long-term autonomous EU access to space; and fourth, it will enhance the technological sovereignty of the EU by reducing strategic dependencies and ensuring security of supply for space and defence, in close coordination with the European Defence Agency and the European Space Agency.

In order to respond to space threats, the Strategy proposes: expanding the existing space threat response mechanism, currently used for the protection of Galileo (the European satellite radio navigation and positioning system) to all EU space systems and services; better detecting and identifying space objects by acceding to information through relevant national space commands; and conducting space exercises in collaboration with partner nations.

The document clearly indicates the need to maximise the use of space for security and defence purposes and proposes launching two pilot projects: one to test the delivery of initial space domain awareness services building upon capacities of Member States, and another one to test a new Earth observation service as part of the evolution of Copernicus. It also proposes improving the connection of space, defence and security at EU



level and ensuring synergies and crossfertilisation, notably in terms of research and development; developing concrete measures to foster collaborative work between space and defence start-ups; and enhancing skills related to the development of space services for security and defence.

EU Defence Ministers endorsed the Strategy during the Council Meeting on 14 November 2023 and proposed some concrete measures to complement it, such as better responding to space threats through space domain awareness information; launching a dedicated toolbox for EU joint responses; the further development of exercises; and enhancing the use of space for security and defence purposes by better integrating the space dimension into the planning and conduct of missions and operations, and by strengthening the EU Satellite Centre (EU SatCen).

#### **ALLIED EXPERIENCE**

NATO's Space Policy is seen as a key forum for information-sharing among allies and determines that "space is essential to the Alliance's deterrence and defence". Space underpins NATO's ability to navigate and track forces, to have robust communications, detect missile launches and ensure effective command and control. Building on this, the Space Policy document - approved by defence ministers in 2019- notes that allies increasingly rely on space for various national security tasks, as well as military operations around the globe. Space data, products and services are a key enabler and directly support other operational domains. From a security and defence perspective, space is critical in five main areas: positioning, navigation and timing, which enables precision strikes, tracking of forces or search and rescue missions; early warning, which helps to ensure force protection and provides vital information on missile launches; environmental monitoring; secure satellite communications; and intelligence, surveillance and reconnaissance.

Already since its launch, NATO's Space Policy has acknowledged the evolving nature of this domain and the need for constant updating: "The evolution in the uses of space and rapid advances in space technology have created new opportunities, but also new risks, vulnerabilities and potential threats". Therefore, further steps have been taken to update and improve this Policy. In October 2020, Defence Ministers decided to establish a NATO Space Centre at Allied Air Command in Ramstein, Germany, Shortly afterwards, at the 2021 Brussels Summit, the Alliance recognised that attacks to, from or within space present a clear challenge to the security of the Alliance and could lead to the invocation of Article 5 of the North Atlantic Treaty.

The 2022 Strategic Concept –NATO's guiding document and blueprint for adaptation approved at the Madrid Summit – underlines the vital role of space for NATO's deterrence and defence posture. And in February 2023, the Atlantic Council announced plans to establish the Alliance Persistent Surveillance from Space (APSS) initiative to enhance spacebased surveillance and intelligence.

Rosa Ruiz



Defence Minister greets a member of the protection force at Union III base, along with the CHOD and Lieutenant General Agüero, head of NATO

### INTERNATIONAL MISSIONS

## ROBLES VISITS TROOPS IN IRAQ

Spain has 367 troops deployed in the country as part of the international coalition against Daesh and NATO mission Iraq

EFENCE Minister Margarita Robles travelled to the Republic of Iraq on 7 February 2024 for a two-day visit. She met with the country's authorities and visited the Spanish contingent deployed there as part of the international coalition against Daesh and of NATO Mission Iraq (NMI).

Upon her arrival in Baghdad, the Spanish Defence Minister met with her Iraqi counterpart, Thabit Mohammad Saeed Al-Abassi, who expressed his gratitude for the support Spain has offered to Iraq since 2003. Both leaders highlighted the friendship between the two countries as well as their commitment "to the common objective of working for peace", said Robles, who also thanked her counterpart for "the welcome and support being provided to our troops".

Over the past ten years, Spain has shown its commitment to peace and stability in the country through the international coalition and NATO's training mission, in which some 370 Spanish military members are currently deployed. Robles recalled that Spain is the largest contributor to NATO mission Iraq, with 183 troops, which have been under the command of Lieutenant General José Antonio Agüero since May 2023. In addition to security tasks, this mission collaborates in capacity building tasks for the protection of civilians, women and children.

As a result of the crisis in Gaza, the security of the entire region, and especially of Iraq, is seriously threatened. Hence, the Minister commended the Iraqi government for its efforts to prevent and eradicate attacks on the bases where Spanish

The Minister met with her Iraqi counterpart and the Iraqi Prime Minister in Baghdad troops are stationed along with other military forces.

Robles then went to the NMI headquarters at Union III base, where she met with Lieutenant General Agüero, commander of the mission and of the Spanish contingent. Together they reviewed the political and economic situation of the country and the border territories, as well as the daily running of this mission, which began in October 2018 with the purpose of advising the Iraqi government on security matters and providing assistance to its Ministries of Defence and the Interior.

The Minister shared a late dinner with the Spanish military personnel, to whom she conveyed her Iraqi colleague's gratitude: "Just as proud as I feel when the role of the Spanish armed forces is praised, you should also feel immensely proud of what you are doing, contributing to peace in such trying times".

#### **SECOND DAY**

Margarita Robles travelled to Iraq accompanied by the Chief of Defence Staff



mission Iraq; conversation between members of the contingent and the delegation with a representation of the Spanish military personnel.

(CHOD), Admiral General Teodoro López Calderón; the Undersecretary of Defence for Political Affairs, Admiral Juan Francisco Martínez Núñez; and the commander of the Operations Command, Lieutenant General Francisco Braco. On the second day of her visit, the Minister of Defence held a meeting with Iraqi Prime Minister Mohamed Shia' Al Sudani, in which they both committed to continue working together in the military and industrial fields, and emphasised their shared goal of bringing peace and stability to the area.

During the meeting, Iraq's Prime Minister expressed his gratitude to Robles both for the presence of the Spanish armed forces and for Spain's stance regarding the situation in Gaza. The two leaders agreed on the need for a ceasefire and a solution involving the recognition of two states.

#### **BILATERAL AGREEMENT**

The Iraqi Prime Minister's office issued a press release on the meeting, informing of a forthcoming bilateral agreement between the two countries, "which will

cover military and security cooperation, as well as collaboration in the field of military industries". According to the communiqué, this agreement "is part of the comprehensive partnership that was discussed with Spanish Prime Minister Pedro Sánchez during his recent visit to Baghdad on 27-28 December 2023. In addition, the talks covered cooperation in various sectors and explored the potential contribution of Spanish companies to projects seeking to modernise Iraqi infrastructure and enhance development initiatives".

After the meeting with the Prime Minister, Robles headed to the NMI headquarters at Union III, where she met with the commander of Operation Inherent Resolve (OIR), Major General Joel B. Vowell. This operation was the response of a coalition of nations, led by the United States, to the Iraqi government's request for support in the face of the threat posed by the self-proclaimed Islamic State of Iraq and the Levant (Daesh). Once the main combat operations concluded at the end of 2017, the coalition started a transition process towards more stabilization-related tasks.

Robles toured the headquarters' working areas and addressed a few words to the Spanish contingent, in which she urged them "not to lower their guard" at this time of great instability in the region. In turn, the CHOD also thanked the soldiers for their "magnificent work", which has attained the desired result: "to prevent Daesh from taking over this country".

Robles pointed out that during the previous meeting with the Prime Minister they also discussed the continuity of this mission, given that the Iraqi government is aware that "Daesh, which was the primary objective of the international coalition, has been defeated". The process of completing this mission, for which there is no estimated date, will be "the result of dialogue and there will be an organised transition", the Minister added. "They are aware that there cannot be an abrupt end, quite the contrary, it has to be a smooth and calm ending, leaving the doors open for the future and always working bilaterally", said the Defence Minister, who confirmed the continuation of NATO's training mission.

#### **COLLECTIVE COMMENDATION**

Before the end of the day, the Minister and the Spanish delegation had lunch with the contingent, after which Robles spoke with some members of task force *Toro*, the Army's helicopter unit (ISPUHEL XVIII) that provides air transportation to coalition troops and NATO's mission in the region. These personnel were collectively commended for their "unconditional effort and good work" in handling the various

incidents at Al Assad air base, where they were stationed when it was attacked in January 2024 by missiles and mortars. Since mid-October 2023, other coalition bases have also been affected by similar attacks as a result of the escalation of the situation in the Middle East.

The delegation then flew by helicopter to the Baghdad Diplomatic Support Centre, near the capital's airport, where they visited the Special Operations Task Group (SOTG) also deployed there as part of Operation Inherent Resolve.

MDE Photos: Iñaki Gómez



On the second day of her visit, Minister Robles meets with Iraq's Prime Minister, Mohamed Shia Al Sudani.

### **INTERNATIONAL MISSIONS**

## FIFTEEN YEARS COMBATING PIRACY IN THE INDIAN OCEAN

Vice Admiral Ignacio Villanueva Serrano takes command of Operation Atalanta at naval station Rota



TALANTA, the European Union's first naval air operation, celebrated its 15th anniversary on 23 November 2023 at Rota naval base, the operation's headquarters since 2018. The event took place along with the HOTO ceremony in which Vice Admiral José María Núñez Torrente handed over the command to Vice Admiral Ignacio Villanueva Serrano.

Spain is the only member of the EU to have consistently participated in Atalanta, an operation that started in 2008 in response to the crisis sparked by Somali piracy. The current mandate seeks to establish a secure maritime environment in the Horn of Africa and the Western Indian Ocean by combating piracy and armed robbery at sea, providing protection to UN World Food Programme (WFP) vessels and other vulnerable ships transiting the region. This force also monitors illegal fishing activities, combats drug trafficking, and contributes to the arms embargo on Somalia and to the eradication of the illicit trade in charcoal.

In these fifteen years, this European force has escorted 2,200 ships, guarding the delivery of more than three million tonnes of food. Furthermore, 171 pirates have been arrested and 16 tonnes of drugs seized.

#### **NEW MANDATE**

The ceremony was presided over by the Chief of Defence Staff (CHOD), Admiral General Teodoro López Calderón, in representation of the Chairman of the European Union Military Committee, General Robert Brieger. After receiving the EU flag, the new Commander pointed out that one of the challenges he has to face is dealing with Atalanta's new mandate, which has been extended until December 2024. Vice Admiral Villanueva explained that the radius of action of the operation has been extended, which "does not necessarily involve more assets; it will require a higher degree of coordination" while keeping in mind the tasks that gave rise to the operation, because "piracy can be reactivated at any time", he warned.

Twenty thousand ships travel through this maritime area every year. Vice Admiral Núñez Torrente told the media that "when the operation began, the situation in the area was chaotic, with a lot of piracy



A Spanish frigate escorts a UN World Food Programme vessel in the Indian Ocean.

hijackings". In 2011, piracy networks held up to 736 hostages and 32 ships.

"Today —he said— we are celebrating the embodiment of what the European Union can achieve with the international, synergistic and committed effort of all its Member States, in cooperation with its partners".

Although the countries in the region are still far from "being able to provide their own security without the assistance of international forces", they are "significantly closer" to achieving this final goal. That is why he intended to convey a message of "optimism" when he handed over the command, as this maritime area is now "calm, although not risk-free".

In late 2008, the Council of the European Union, based on various UN resolutions, decided to establish a maritime military operation to contribute to the deterrence, prevention and repression of acts of piracy off the Somali coast. Basque fishing

Spain is the only member of the EU to have consistently participated in *Atalanta*  boat *Alakrana*, with sixteen sailors, was hijacked 400 miles off the coast of Somalia on 3 October 2009, marking one of the first attacks to be faced by this force. It was the second Spanish fishing boat that Somali pirates had seized in those waters, following the highjack of the *Playa de Bakio* in April 2008 when fishing in the area.

Over time, the mandate of EUNAVFOR Atalanta has been adapted to reflect the evolving threats in the region. Its headquarters —which was relocated five years ago to naval station Rota from Northwood (UK) due to Brexit— employs some 600 civilian and military personnel from around 20 countries, namely, 16 EU countries, Colombia, Serbia, Montenegro and South Korea.

Two ships regularly patrol the area of operations, one of which is from the Spanish Navy. Right now frigate Victoria patrols the area and carries an *AB-212* helicopter, a *Scan Eagle* UAV, a Role 2 medical team and Marine Corps' special operations security teams.

This force is complemented by the *Orion* tactical air detachment of the Air and Space Force in Djibouti. With a 50-strong crew it is fitted out with a *D-4 VIGMA* maritime patrol and reconnaissance aircraft that replaces the former *P-3 Orion*, after which the detachment was named. During these 15 years, Spanish patrol aircraft have conducted nearly 2,000 missions with some 15,000 flight hours.

Victor Hernández Photos : OHQ Atalanta **INTERNATIONAL MISSIONS** 

## NATO PROJECTION IN SLOVAKIA

Exercise Strong Cohesion 23-II shows the BRILAT's ability to lead land forces in Eastern Europe



HE Spanish Army participated actively in *Strong Cohesion 23-II*, a multinational exercise held in the Slovakian town of Lešť from 6 to 16 November 2023. The exercise involved 460 Spanish soldiers and 150 vehicles, most of them from the 7th Airborne Light Infantry Brigade *Galicia* (known as BRILAT), which was supported by the 61st Logistical Support Group from Valladolid and the 1st Signal Regiment from Huesca. The contingent was deployed along with forces from Germany, the Czech Republic, Slovakia, and Slovenia, the countries which make up NATO's Multinational Battlegroup in Slovakia. Spain is scheduled to join the Multinational Battlegroup in June 2024, replacing the Czech Republic as the Framework Nation.

On 13 November 2023, NATO hosted a Distinguished Visitors Day for NATO officials, with the presence of the Chief of Defence Staff (CHOD), Admiral General Teodoro López Calderón, who reviewed the troops and verified the BRILAT's ability to lead this type of deployments in Eastern Europe. López Calderón was welcomed by his Slovak counterpart, General Daniel Zmeko, with whom he held a meeting to discuss collaboration matters of bilateral interest. He then headed to military training centre Lešť, where he was received by General Alfonso Pardo de Santayana, commander of the 7th Brigade *Galicia*. There, he was briefed on the development of the activities being carried out by the Spanish contingent and witnessed the performance of a tactical exercise, in which some seven hundred soldiers from various units and nations participated. Admiral General López Calderón was flanked by other civilian and military authorities, including the Slovakian Minister of Defence, Robert Kalinak; the Spanish Ambassador, Lorea Arribalzaga; Lieutenant General Fernando García González-Valerio, Chief of the Joint Defence Staff (JEMACON); Lieutenant General Carlos Melero, Chief of the Land Force; and other authorities from the Allied Joint Force Command Brunssum (JFC Brunssum) and NATO's Land Component Headquarters in Türkiye.

During the visit, the authorities analysed, among other issues, the new concept of Forward Land Forces (FLF), which will enable NATO deployments on the eastern flank to expand from the size of battlegroups to brigade-sized units. They were also able to verify Spain's ability to lead multinational operational organisations in line with this new force model, as well as its readiness to take on the logistical challenge of strategically projecting assets from national territory to Slovakia and to set up a command and control system that ensures integration with the other units.

"The mission we have been entrusted with is to be trained in force projection, enhance interoperability, receive brigadelevel training and withdraw", summarised the BRILAT commander a few days earlier, on 27 October, when Defence Minister Margarita Robles visited the



The Chief of Defence Staff (CHOD), Admiral General Teodoro López Calderón, salutes military personnel of the Spanish and Slovak contingents.

Spain will lead NATO's Battlegroup in Slovakia in June 2024, deploying 700 soldiers



Two BRILAT vehicles at Leš training centre facilities during the tactical exercise performed on the Distinguished Visitors' Day.

unit's headquarters in Pontevedra to gain a first-hand insight into the specifics of the deployment. "We want to make an effective contribution to NATO's new deterrence concept", stressed General Pardo de Santayana in his presentation.

The projection of assets to Slovakia began on 26 October 2023 with combat and logistical support vehicles, armament, communications equipment and other material being shipped from the port of Vigo.

On 2 and 5 November, two personnel rotations were conducted by air. The withdrawal began on the 16th and ended on the 30th when all the troops arrived in Spain.

Eight battlegroups extend all along NATO's eastern flank, from the Baltic Sea to the Black Sea. The first four were deployed to the three Baltic states and Poland in the wake of Russia's annexation of Crimea in 2014. Spain, with 650 troops, is the second largest contributor to the Latvian battalion, led by Canada.

At last year's Madrid Summit, following Russia's invasion of Ukraine, the allies agreed to establish four new battlegroups in Bulgaria, Hungary, Romania and Slovakia, while NATO upgraded the other battlegroups to scale them up to brigadesize formations. At the Lithuania Summit last July, Spain offered to lead the new battlegroup in Slovakia in 2024, and also to reinforce its presence in Romania.

> Victor Hernández Photos: BRILAT

### PERSPECTIVE

# Ten years protecting the skies over southern Europe



Lieutenant General Juan Pablo Sánchez de Lara CAOC Torrejón Commander

N 27 November 2023, the Combined Air Operations Centre at Torrejón celebrated its tenth anniversary. It was presided over by the Chief of Defence Staff (CHOD) with the presence of a large number of civilian and military authorities, both national and foreign. It was a very moving ceremony that honoured the joint effort made by our predecessors in "making this dream come true".

A commitment that has positioned Spain in the sphere of Allied air defence and proven that those who spearheaded and pitched for this centre were not mistaken.

On 7 February 2013, the then Minister of Defence, Pedro Morenés, officially inaugurated the NATO Combined Air Operations Centre (CAOC) for southern Europe at Torrejón air base (Madrid). The establishment of this unique unit was actually facilitated during the 2010 NATO Lisbon Summit of Heads of State and Government, which approved a new strategic concept with a new command structure, and the geographical distribution of its headquarters that culminated, among other things, in grouping air defence operations in Europe into two centres: north (CAOC Uedem, in Germany) and south (CAOC Torrejón, in Spain).

The launching of the new structure in January 2013 involved the commencement of operations from our CAOC. However, this entailed overcoming extremely difficult tasks related to the operational, material, and technical integration into a single centre of the air operations, which had been directed from five different centres (Türkiye, Greece, Italy, Spain, and Portugal).

Since its creation, CAOC Torrejón's mission has been to plan, direct, command, coordinate, monitor, analyse and report on the air operations of the means assigned to it in times of peace, crisis and conflict, in accordance with the directives of the Commander of the Allied Air Command (AIRCOM) in Ramstein (Germany).

To this end, the CAOC is constantly training its staff to prepare them to reinforce the AIRCOM's command and control capabilities or, in certain cases and when appropriate, to direct air operations from the CAOC by delegation of the AIRCOM.

However, the mission that makes CAOC unique in the Alliance is the so-called "air policing" mission within the concept of air defence, which is actually part of the NATO Integrated Air and Missile Defence System (NATINAMDS). A mission that is carried out in peacetime every day of the year in NATO's European skies.

#### **INTEGRATOR**

The letter that adds the most value to the nine letters that make up the NATINAMDS acronym is I, for Integrated. In order to integrate

> NATO's CAOC for Southern Europe was inaugurated at Torrejón AB in 2013



capabilities it is necessary, among other things, to have weapons systems, equipment, sensors, links, databases, facilities, command and control, procedures, planning, and training, that are fully interoperable among allies. Since all of NATINAMDS's capabilities come from voluntary contributions from the nations, integrating such disparate elements — both in terms of quantity and quality — is the biggest obstacle to be overcome, particularly when it comes to including new nations under the system's umbrella. It is important to bear in mind that some of the weapons and radar systems that need to be integrated, both from the West and the former Soviet Union, were conceived, designed, and manufactured more than 50 years apart.

What does integrated air defence achieve? It enables the best possible use to be made of the air defence capabilities provided by nations, in accordance with the principle of using the most optimal means to counter any risk or threat, regardless of borders, while taking advantage of the intrinsic characteristics of Air Power (in particular of fighter-interceptors), such as speed of action, radius of action and flexibility of use.

NATINAMDS indeed seeks to integrate air defence capabilities, but, above all, it aims to integrate the mentalities, traditions, wills, attitudes, etc., of different sovereign nations on a journey that began back in 1961 and which is the best and oldest example of what is known as Pooling & Sharing in the field of shared security and defence.

#### **MULTINATIONAL**

CAOC Torrejón's personnel come from 18 Allied nations, both from the 14 nations within its area of responsibility (from the Azores and the Canary Islands to Türkiye), and from four other nations that, while not included in that area of responsibility, jointly and severally contribute personnel to ensure its mission.

The word solidarity, which is also part of NATO's DNA, crystallises in the skies over southern Europe when, for instance, nations contribute their air defence assets to provide security to countries that do not have them yet, as in the case of Hungary and Italy over Slovenia, Greece and Italy over Albania and Montenegro, and Greece over North Macedonia. Additionally, since 2014, as a result of Russia's illegal invasion of Ukraine, air policing in our area of responsibility has been reinforced with fighter detachments in Romania and Bulgaria. There, different NATO nations have rotated, including Spain, which has been participating with Air and Space Force assets, including F-18 fighters from the 12th and 15th Wings, *Eurofighters* from the 11th and 14th Wings, and a deployable radar from the Mobile Air Control Group.

#### JOINT/MULTI-DOMAIN

In addition to its multinational nature (hence its name "Combined"), the CAOC stands as an integrating element of the air defence capabilities provided not only by air forces, but also by land forces, naval forces and, most recently, by space forces. Once more, this integration requires a wide range of resources as well as a comprehensive mentality that is already oriented towards multi-domain operations in order to once again maximise efficiency and effectiveness in NATO's integrated air defence task in times of peace, crisis or conflict.

As a unique feature, the CAOC facilitates the integration of mentalities because, while the majority of its members are drawn from each

### PERSPECTIVE

country's air force, it should be noted that some nations also send personnel from their armies and navies to participate, creating a true combined-joint spirit that serves as a hallmark or trademark.

#### **VERY SPANISH**

The fact that CAOC TJ comes from the former CAOC 8, which established a strong foundation of trust, integrity and experience, ensured that this CAOC started off with a strong Spanish personality. Another wise decision was to appoint a Spanish Air and Space Force general as its Commander. This implicitly means that Spain is the nation that must contribute the greatest amount of personnel to its staff. People who, once they return to their national assignments, will provide our Armed Forces with a highly valuable operational, technical, and professional background.

However, we must also draw attention to the work carried out by our NATO Communications and Information Agency (NCIA) detachment and, most importantly, by our National Support Element. This NSE, with the characteristic zeal of our personnel, goes above and beyond providing support to our contingent and has become a vital pillar in sustaining CAOC's mission, in particular its personnel. We, the CAOC Spanish members, feel like proud ambassadors in our own land, and the CAOC's international staff are very appreciative of the continuous support and friendship they receive from all our personnel.

It is also fair to acknowledge the support provided from the very beginning by different organisations and units, both by the Ministry of Defence, the Defence Staff headquarters and the Air and Space Force, without which the concept we have today of the CAOC would not be possible.

And of course, the excellent relations with other agencies belonging to the Ministries of Foreign Affairs and Cooperation; Interior; Finance; and Public Administration, which have understood the peculiarities of the personnel assigned to the CAOC and facilitated their integration in our mission and with our society.

Since CAOC TJ is the only NATO headquarters of its command structure in our nation, we also consider ourselves to be NATO ambassadors to Spain. Hence, bearing in mind the numerous institutional activities that take place at our facilities with international authorities and institutions, we also consider it as a means of conveying Spain's commitment to NATO and, in particular, to our CAOC.

#### RELIABLE

Trust is the key to success when it comes to interoperating between nations. Trust is something that is gradually gained but may be lost all of a sudden, shattering the unity of action and cohesiveness of the sovereign states that make up the Alliance.

Trust is precisely what nations place in NATO's commanders when conducting NATO's permanent integrated air defence mission. It should be noted that these countries have, by means of the Trans-



fer of Authority (TOA) mechanism, ceded the operational command and control of their air defence assets —a highly valuable and expensive capability to acquire and maintain— to the commander of NATO's Allied Command Operations, who in turn hands over the tactical command and control to the CAOC commander through COMAIRCOM.

The CAOC's daily task is to repay that trust by using these capabilities on the ground and in the air in a professional manner, guaranteeing a seamless, rapid, and accurate air defence in the resolution of all types of incidents.

This extensive list of incidents (risks and threats) covers instances of non-NATO military aircraft violating or infringing the use of Allied airspace, as well as occurrences involving cruise missiles, RPAs, balloons, and more. In the field of civil aviation, where 30,000 flights occur daily on average throughout NATO European theatre, and which is a backbone of the economy and progress of our societies,



the CAOC assists in resolving incidents pertaining to the safety and security of its operation, such as loss of communications, air emergencies, terrorist threats of all kinds, organised crime, etc.

It goes beyond merely providing defence. It is also about preventing any kind of threat through the deterrence offered by a system that is constantly alert, highly trained and has excellent problemsolving capacity.

#### **A SUCCESS STORY**

If NATINAMDS is an example of pooling and sharing air defence capabilities, where the sum of all of them has a multiplier effect, then it is reasonable to argue that CAOC TJ has established itself as a benchmark for all the countries to which it provides such security. This guarantee is also based on our values, as our mission requires the best from each of our staff: professionalism, technical expertise,

CAOC Torrejón personnel come from 18 Allied nations

initiative and willingness to understand and respond to all kinds of sensitivities.

Our daily performance is based on the integrity and impartiality of our staff, on the ability of all the components forming and having formed part of this multinational crew to understand and face any challenge in our area of responsibility, on our adaptability to changing situations, and our loyalty and commitment to undertake our mission with responsibility and teamwork. And it is through these lines that I wish to honour the work of every member of our staff, not only the ones who have contributed to a single chapter of our ten-year history, but also those who have contributed to several chapters or to all of them.

But our work does not end here. We continue to train hard to be able to lead the air operations that may be assigned to us in the future or to provide personnel to any air component command that might be established. In addition to air policing missions, we also carry out training, deterrence, and defence missions in designated areas of operations, as we are currently doing with NATO's Air Shielding missions to counter Russia's illegal invasion of Ukraine, with the integration of all the air defence capabilities deployed in that area.

#### LOOKING TO THE FUTURE

Sometimes it is necessary to look back in order to look forward. For 62 years, NATO's integrated air defence has faced a number of challenges and has accomplished its mission in a selfless manner. The nations' voluntary contributions and mutual trust have made it possible to achieve and maintain a more than robust system.

However, this system must be constantly adapted to face present and future threats that seek to restrict our freedom of action, such as sophisticated area denial systems, hypersonic missiles, directed energy, stealth, swarms of unmanned aerial systems, etc., as well as the use of the multi-domain spectrum, in particular, cyber and space, and the ever-present hybrid, asymmetric and terrorist threats.

More precisely, this future calls for the incorporation of new technologies, the extensive use of digital transformation, and the integrated and interoperable use of the multi-domain environment in the field of air and missile defence, with a Command and Control capability in the air domain (our primary mission) ready to respond to the different challenges in a robust, resilient, agile, flexible and effective manner.Our aspiration is to become "a cohesive and professional mul-

> tinational crew that builds trust, based on the continuous and seamless surveillance and security provided in NATO airspace within the Southern European region".

> Thanks to the creativity, passion and dedication achieved in unison by our team, CAOC TJ is ready to meet any challenge that comes our way. It is always an honour to be part of this great family, of this excellent crew.

### OVERVIEW



### NATO Defence College Margarita Robles presents the *General Gutiérrez Mellado* Award in Rome

N 1 March 2024, the NATO Defense College (NDC) received the *General Gutiérrez Mellado* Extraordinary Defence Award 2024 from Spanish Defence Minister Margarita Robles, who stressed that the NDC "has created a common spirit of service by educating generations of Allied officers and senior officials", including 423 Spaniards.

In her speech, Minister Robles referred to the important contribution of the Alliance's leading academic institution, located in Rome since 1966, to the transformation and modernisation of the Spanish Armed Forces, providing high-level multinational education on security issues from a 360-degree approach and contributing to NATO's effectiveness and cohesion.

"NATO and this college in particular have offered us excellent opportunities to broaden the horizons of our officers", Robles said, adding that "their education is firmly rooted in the highest standards of values, respect for the rule of law and the promotion of human security".

Likewise, in the year that marks NATO's 75th anniversary, the Defence Minister acknowledged the work of the Alliance and its flagship school in fostering "the culture of peace, stability and democratic values in the North Atlantic area and partner countries". "NATO represents the best guarantee of security for all of us", she said, recalling the current critical moment with a vicious war raging in Ukraine, and argued that "peace cannot be taken for granted, it requires strong determination, a strong organisation and good soldiers".

In her speech, Robles evoked the figure of General Gutiérrez Mellado, to whom the prize is dedicated for his key role in the transformation of the Spanish Armed Forces and in Spain's transition to democracy, as well as the literary genius Miguel de Cervantes "who combined the trades of arms and letters like few others have", whose bronze figure is presented to the prizewinners.

Every year, the *General Gutiérrez Mellado* Extraordinary Defence Award honours people or legal entities that have excelled in their professional career and have helped to advance the profile of the Armed Forces in the fields of peace, culture, and defence.

In 1951, US General Dwight D. Eisenhower —the first Supreme Allied Commander in Europe— founded the NATO Defence College in Paris.

The goal of the education plan was to supply NATO with the qualified workforce it needed to meet the Alliance's complex challenges. Since then, it has been instrumental in consolidating the creative thinking, common culture and shared values of all NATO members.

## Tribute to the fallen in Ukraine

### Spain has trained 4,000 Ukrainian soldiers

On 24 February 2024, on the second anniversary of the Russian invasion, Defence Minister Margarita Robles presided over a ceremony at the Infantry Academy in Toledo to pay tribute to the fallen civilian and military personnel of Ukraine. According to President Volodymir Zelenskyy, 31,000 Ukrainian soldiers have died in this war, not counting those who are missing.

Ukrainian Captain Serhii Pohoreltsev invited those present to join in the mourning for the soldiers who have given their lives in this war. "Their courage and sacrifice —he said— will continue to be an immortal example



for us", and thanked the Spanish people for their support. "For us it is very important to feel and have the moral and military support of the European countries. We will win, and it will be thanks to their support".

Spain takes part in the European Union Military Assistance Mission in Support of Ukraine (EUMAM UA) to carry out activities in support of the training of the Ukrainian Armed Forces, which are coordinated through the Toledo Training Coordination Centre (TTCC). Our country is the third contributor to the mission. The training of the first Ukrainian contingent began on 14 November 2022 and has since then been provided to 4,000 military and civilian personnel. In total, some 40,000 Ukrainians have been trained in EU countries. (Shown in the photograph, a Spanish instructor guides a Ukrainian in marksmanship training).



### **Deployment in Slovakia** First vehicles and equipment arrive in Lést

The first part of the deployment of vehicles and military equipment of the 7th Brigade *Galicia* (BRILAT) concluded at the training camp near Lést (Slovakia). From the end of June, the BRILAT will lead a NATO multinational battlegroup in this municipality, replacing the Czech Republic. This battlegroup is one of the eight that the Atlantic Alliance has stationed on the eastern flank on deterrence and defence missions. Should the need arise, it is ready to integrate into larger brigade-size formations. Fifty military personnel are already working in the area reconnoitring the new facilities and managing the medical support. The projection by sea of these resources started at the port of Vigo on 12 February 2024, aboard merchant ship *Estraden*, and ended eight days later in the port of Koper, Slovenia. Subsequently, on 21 February, after three intermediate stops at the transit bases of Postojna and Murska Sobota in Slovenia and Camp Croft in the Hungarian city of Veszprém, the materiel was unloaded and the convoys were prepared to be driven to their final destination in Lést.

### *Tigru* **Detachment** 10,000 hours of surveillance over the Black Sea

In mid-February, the Spanish Air and Space Force's *Tigru* tactical air detachment, which has been deployed in the Romanian municipality of Schitu since October 2022, exceeded 10,000 hours of Allied airspace surveillance on the European eastern flank, specifically over the Black Sea.

This has been possible thanks to the high operational readiness of the *AN/TPS-43M* long-range tactical radar, activated 24/7 in support of the NATO enhanced Air Policing (eAP) mission. The highly trained and technically skilled personnel of the Mobile



Air Control Group (GRUMOCA), who manage and maintain the radar, enable the integration of the data collected into NATO's Air Defence System through the Crystal Control and Reporting Centre in Bucharest.

The *Tigru* detachment also includes members of the Second Air Deployment Support Squadron (SEADA), which, like the GRUMOCA, is located at Morón air base (Seville).

### O V E R V I E W

### **Somali Armed Forces**

### Spanish military personnel supports training

THE European Union Training Mission in Somalia (EUTM-S), has a team made up of several nationalities, including officers and non-commissioned officers from Spain. One of its main tasks is to advise and coordinate with the Chief of the Training Division of the General Staff of the

Somali National Army, the planning and execution of courses to be conducted according to the desired capabilities and the target audience.

In the last semester, the Spanish officers and NCOs within the Team have Trainers led the planning and execution of 11 out of 12 courses taught at Dhagabadan General Training Centre, all of them in support of the Army's Somali 14th October Brigade, based in Mogadishu. After nine

years of sustained work, the Spanish contingent of EUTM-S trainers has become an essential tool for improving the operational capability of the Somali Army, providing military training and instructing future trainers.

The European Union Training Mission in Somalia



was launched on 10 April 2010 and was established in Uganda until 22 January 2013, when it was transferred to Mogadishu. Since its beginning, Spain has shown its commitment to this country in the development and strengthening of all its institutions and, in particular, its Security Forces, so that they may definitively develop the required capabilities to enable the country achieving peace and stability.

### **Operation** *Atalanta*

### F86 *Canarias* replaces F82 *Victoria*

On 22 February 2024, frigate *Canarias* joined the European Union Naval Force (EUNAVFOR) in its fight against piracy in the Horn of Africa, relieving frigate *Victoria* in the port of Souda, Crete. The *Victoria* had participated for more than four months in Operation *Atalanta*, during which time she sailed over 26,000 nautical miles, most of them patrolling the western Indian Ocean and the Gulf of Aden. In those waters, she participated

in as many as four anti-piracy missions, the most important of which was the release in mid-November of the Iranian-flagged fishing vessel *Almeraj-1* and its crew. An *AB-212* helicopter was used, taking off to conduct near-shore surveillance and surface search missions, while *Scan Eagle* drones were also launched to reconnoitre and gather information on the maritime environment.

They each flew for more than 80 and 170 hours, respectively. Frigate *Victoria* also embarked a team from the Special Naval Warfare Force and a Security detachment from the Spanish Marine Brigade for alternating two-month periods. For her part, frigate *Canarias*, in addition to having similar assets on board, will be equipped with antidrone defence systems for the first time in this, her fifth participation in *Atalanta*, to deal with the ever-increasing threats posed by remotely piloted aircraft systems (RPAS).





## Multinational artillery

### The MACA in exercise *Dynamic Front 24*

For the first time, the Field Artillery Command (MACA in Spanish) has organised, projected and deployed a brigade-size Artillery Command Post (PCART) as part of international exercise Dymanic Front 24. The most significant exercise with this capacity takes place annually in Europe and is led by the US Army Europe and Africa. From 5 to 25 February 2024, around a thousand troops from 20 NATO allies and partner nations took part in an exercise with both live and simulated fire, simultaneously in Germany, Spain, Poland, Romania and Turkey, to improve the joint forces readiness and interoperability of their fire support command and control systems, such as the Spanish TALOS, through the ASCA (Artillery Systems Cooperation Activities) protocol.

The multinational brigade under the MACA command, integrated by field artillery units from Spain, Denmark and Italy, operated under the direction of NATO's Rapid Deployable Corps-Spain Headquarters (HQ NRDC-ESP), which was activated for the first time for this exercise. HQ NRDC-ESP acted as a response cell simulating an Army Corps-size headquarters from which all missions were directed, based on the regional defence plans implemented in NATO's new force model.



### **Off-shore patrol vessel** *Furor*

Deployment on the west coast of Africa and the Gulf of Guinea

**O** FF-SHORE patrol vessel *Furor* left its base at the Cartagena Shipyard on 15 February 2024 to begin a deployment to the west coast of Africa and the Gulf of Guinea. The deployment will last approximately four months. With 74 people on board, during this period of time the ship will visit ports in the Ivory Coast, Gabon, Nigeria, Ghana, Angola, Cameroon, Senegal, and Mauritania. (Shown in the photograph, during its first call at the Mauritanian port of Nouakchott).

The stability in West Africa and the Gulf of Guinea is essential for Spain's security. Piracy and acts of robbery at sea pose a major risk to the national fishing and maritime community operating legitimately in the region, where there is also a proliferation of illicit trafficking. The instability in this region, which is a source of important energy resources, jeopardises free navigation along essential sea lanes. The vessel will carry out maritime surveillance and situational awareness activities on a permanent basis. Additionally, military cooperation activities are to be carried out with the coastal countries, fostering mutual understanding and trust as well as assisting them in strengthening their maritime security capabilities.

The deployment of OPV *Furor* makes a decisive contribution to strengthening the European Union's Coordinated Maritime Presences initiative as an effective instrument to improve maritime security in the area, and to enhance cooperation between the EU and West and Central African states.

### ANALYSIS

April 2024 marks the anniversary of an organisation that has been able to respond effectively to the fears and hopes that led to its founding

## NATO's 75 years



Federico Torres Muro Ambassador, Permanent Representative of Spain to NATO

NNIVERSARIES are often a good occasion for individuals and organisations to take stock of the past, and the North Atlantic Treaty Organisation (NATO) certainly has a unique opportunity to do just that in 2024. Naturally, the event not to be missed is the celebration of the North Atlantic Treaty's 75th anniversary on 4 April, which marks the signing of the treaty by the twelve founding Allies. However, the coming months will also see a number of significant anniversaries in NATO's recent history.

First, those pertaining to the accession of twelve countries: Hungary, the Czech Republic and Poland are celebrating their 25th anniversary; Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia are celebrating their 20th anniversary; and Albania and Croatia are celebrating their 15th anniversary.

At the same time, this year is also the anniversary of three important initiatives in NATO's efforts to promote cooperation with partners: the Partnership for Peace and the Mediterranean Dialogue, now in their thirtieth year, and the Istanbul Cooperation Initiative, now in its twentieth year. Finally, the 25th anniversary of Spain's full membership in NATO's integrated military structure is especially noteworthy from a national standpoint. The context surrounding these anniversaries is unfortunately overshadowed by Russia's brutal aggression against Ukraine, which began in Crimea ten years ago and has tragically escalated over the past two years in the wake of the invasion of Ukraine on 24 February 2022.

It is commonly acknowledged that NATO is the most successful alliance in history. In fact, it is hard to find a similar example of such a long-lasting partnership of countries that support each other in security and defence. This is all the more relevant given that the birth of the Alliance, with the signing of the treaty in April 1949, was not a logical or foreseeable event.

There was certainly a geostrategic framework pushing for its creation, in which fear and hope intermingled. Fear was manifest in the coup d'état experienced by Czechoslovakia in February 1948 while, around the same time, unease reigned over the Soviet Union's increasing pressure on Norway to sign a security agreement that served its interests. Concern was palpable regarding the outcome of the April general elections in Italy and the civil war in Greece and, some months later, June saw the commencement of the

### The Alliance can be considered one of the most successful international treaties in history



Berlin blockade, which was to last for almost a year. However, it was also a time of hope in which the foundations were being laid for the multilateral structure on which to support a rules-based international system.

Nevertheless, this series of circumstances did not necessarily have to lead to the establishment of the North Atlantic Alliance, which, as we all know, was one of the most radical changes in US foreign policy: the United States had never before been part of a peacetime military alliance. This, together with other issues such as differences among the founding states over their international policy priorities, geographical scope, mandate or membership of the new alliance, resulted in complex negotiations that were to last for more than a year and had to contend, in the midst of it all, with the US presidential elections of November 1948.

The result, however, ended up being what is arguably one of the most successful international treaties in history, and undoubtedly an essential pillar of NATO's 75-year existence. Despite being brief — only 14 articles— the text manages to offer an extremely solid legal framework that is both broad and flexible enough to respond to the different circumstances faced by the Organisation throughout its history and has required neither amendment nor revision. An example of this is Article 2, one of the most hotly debated articles during the negotiation process, which reflected the interest of some founding

Allies in giving the Alliance an economic as well as a security and defence character. Though never fully realised, this 1950s objective has provided a legal framework for the growing work that NATO is currently doing to address resilience and economic security.

There is a crucial element that allows us to understand the validity of the Washington Treaty, and that element is its ability to respond effectively to the fears and hopes I mentioned above. As far as fears are concerned, Article 5 establishes a collective defence mechanism that combines respect for national procedures with inter-Allied solidarity in the case of an attack. This is especially important in the field of security and defence. The treaty also responds to hopes, with a preamble that aligns the Alliance with the purposes and principles of the United Nations Charter, and expresses a commitment to democracy, individual freedoms and the rule of law. Furthermore, we must not overlook two crucial NATO tools that have also helped in the Washington Treaty's adaptation to the different circumstances that have emerged over the past 75 years: NATO's strategic concepts and political dimension.

After the Washington Treaty, the Strategic Concept is NATO's second most important document. It outlines the Alliance's approach to the current geostrategic landscape and the political-military priorities that ensue from it. In these seventy-five years, eight strategic concepts —four of which were adopted during the Cold



War— have been approved. All of them were secret at first, had a purely military component, and were primarily focused on deterrence and defence, although they varied in how much emphasis was placed on détente and the use of non-military instruments. Four others have been approved since 1991 — the most recent one being endorsed at the historic 2022 Madrid Summit— and have been made public since their adoption. They have a more political-military component and take a different approach to reflect the swift changes that have occurred in the international arena over the past 30 years.

I also highlighted the political dimension earlier. Traditionally, NATO's military nature has been emphasised to the detriment of its political dimension, which means overlooking a key tool in the Alliance's evolution and the validity of the Washington Treaty itself. Article 9 of the Treaty provided for the establishment of the main political body, the North Atlantic Council, which in the following years was to become the main pillar of the Alliance's institutionalisation process, largely driven by the impact of the Korean War. It began to meet on a permanent basis in 1952 and to be chaired by another institutional figure central to the Alliance's political dimension, the Secretary General, a position that was established that same year and held for the first time by Lord Ismay.

The motto "animus in consulendo liber", which calls for a spirit of dialogue among Allies, is emblazoned on the wall of the North Atlantic Council's meeting room. The role of inter-Allied political consultations has perhaps not been sufficiently highlighted. They have helped the Alliance to move forward, to adapt to the challenges that have arisen, and to overcome difficult times, such as the Suez Canal crisis in 1956, the withdrawals of France and Greece from NATO's integrated military structure in 1966 and 1974, respectively, and the Iraq war in 2003. One distinctive aspect of political consultations and, in general, of political negotiations in NATO is that they have always been based on the principle of consensus. This means that decisions are not put to a vote and only take effect once all Allies have agreed upon them. This principle, which is sometimes associated with slow decision
making or possible deadlocks, has nonetheless proved essential to the Alliance's survival. There are three main reasons for this. First, once a decision has been endorsed, it has the solidity that comes from having the support of all Allies. Second, consensus stimulates and makes consultation amongst the Allies necessary, which undoubtedly strengthens the Organisation. And third, consensus provides each of the Allies with the ultimate guarantee that their legitimate interests will be taken into account when deciding on such sensitive issues as security and defence.

Article 4 of the Washington Treaty is closely associated with this consensus. It provides for a reinforced consultation mechanism when an Ally believes that circumstances exist — whether motivated by situations outside the Alliance or by specific actions of an Ally— that could threaten the territorial integrity, political independence or security of one of the parties. I have emphasised its reinforced nature because, unlike Article 9, which establishes the general framework for inter-Allied discussion, Article 4 establishes an automatically enforceable consultation mechanism. This is an effective tool that has been used numerous times in NATO's history and has undoubtedly made it possible to bring disparate viewpoints and stances closer together, express solidarity, and identify possible courses of action.

Needless to say, this important political dimension developed by NATO over the years has been fundamental insofar as it has necessarily been accompanied by parallel efforts in the military sphere, starting with an institutional development from the very beginning, the establishment of the Military Committee as early as 1949, the Supreme Allied Commander Europe (SACEUR) in late 1950, and the Supreme Headquarters Allied Powers Europe (SHAPE) a few months later, located at Rocquencourt, near Paris, until its relocation to Mons in 1967. The progressive advancements over the years in doctrines, interoperability, standards, and planning of the Allied armed forces has undoubtedly ensured the fulfilment of the ambition expressed in the treaty in 1949, "to unite their efforts for collective defence and for the preservation of peace and security".

NATO's ability to adapt throughout its history and to uphold the principles and commitments assumed in Washington in 1949 has been put to the test. This has been particularly evident in the post-Cold War decades up until the present time, in which we are facing an extremely complex geostrategic scenario.

President George H. W. Bush's speech to Congress in 1991 announcing a New World Order that would draw together diverse nations in a common cause to achieve "peace and security, freedom, and the rule of law", occurred barely ten years before the terrible attacks of September 11, 2001, during George W. Bush's presidency, which forced the international community to confront a new and more challenging reality.

Throughout that decade and in order to accommodate the legitimate aspirations of the European members of the former Soviet bloc that applied for NATO membership, the Alliance sought

security mechanisms more in line with their interests and worked to establish a stable relationship with the Russian Federation, while also acknowledging its continued importance as a major international player. The former has undoubtedly been a success and is a tangible demonstration of NATO's effectiveness in continuing to provide a security and defence umbrella for its members. The latter, however, has become the main threat faced by the Alliance today, along with terrorism.

For the accession of new members, the treaty proved its validity once again. Article 10, the provisions of which brought about the accession of Greece and Türkiye in 1952, Germany in 1955, and Spain in 1982, was to lay the foundations for the successive waves of accession that have occurred since 1999 (the first one being approved at the 1997 Madrid Summit), and 2024 will see the commemoration of many of these anniversaries.

At the same time, it is important to highlight NATO's commitment to stable relations with Russia, which joined the Partnership for Peace initiative in 1994. These relations were institutionalised mainly through the NATO-Russia Founding Act of 1997 and the NATO-Russia Council of 2002.

However, as Russian assertiveness and aggression have increased, these relations have gradually deteriorated, as evidenced by the violation of Georgia's sovereignty and territorial integrity in 2008 and Ukraine's in 2014 and 2022. The Russian threat has once again made deterrence and defence in NATO more important than crisis management and cooperative security, the other two core tasks that were first outlined in the 1991 Strategic Concept. Nevertheless, both have been equally relevant to NATO in recent decades and are still fully in force in the 2022 Madrid Strategic Concept. Crisis management led to extremely complex military interventions outside SACEUR's area of responsibility, such as in the Balkans (where NATO used military force for the first time in 1994 under a UN mandate), Afghanistan and Libya.

Cooperative security, for its part, has been further consolidated as another essential pillar, based on the direct link between the Alliance's security and stability and those of its Allies and neighbours. The three anniversaries also being commemorated this year –the 30th anniversary of the Partnership for Peace and of the Mediterranean Dialogue, and the 20th anniversary of the Istanbul Cooperation Initiative are reminders of this, as is the valuable work that NATO Mission Iraq (NMI) still carries out to support the Iraqi authorities in capacity building.

Like other international organisations, NATO was the result of the specific security conditions at the time of its founding, but it has been successful in adapting its focus to reflect the evolving threats and challenges to the Alliance's collective defence. This will again become evident at the Washington Summit in July, where NATO will renew its commitment to the founding principles and values of the 1949 Treaty and its resolve to continue to work for the security and defence of all Allied countries in unity and solidarity. Cartagena Shipyard hosts the commissioning of first conven

# SPANISH NAVY TAKES CLASS SUBMARINE

The new submarine and its crew during the official handover ceremony by Navantia to the Spanish Navy.

tional submarine entirely designed and built in Spain

# DELIVERY OF S-81 'ISAAC PERAL'

## **ARMED FORCES**

30 November N 2023, in a ceremony presided over by Defence Minister Margarita Robles, the Navy took delivery of the S-81 submarine Isaac Peral at the shipyard in Cartagena. With this commissioning, Spain joins the elite group of ten nations with the capacity to design and build submarines, marking a significant turning point in the recent history of the Spanish Navy and defence industry.

The *Isaac Peral* is the first of four state-of-the-art S-80 class submarines. A programme that will place the Spanish Navy among the best equipped in the world in terms of Submarine Flotilla, and will consolidate Navantia's position among the leading international companies.

"We are taking a substantial leap forward in this programme and, today, we feel particularly proud of our Navy. A Navy that has inherited the legacy of the great sailors of history who transformed the world", the Minister of Defence claimed, adding that "Spain's international presence is guaranteed with the Spanish Navy and with this programme".

Robles thanked the city of Cartagena, the Navy and all of Navantia's staff, as well as those from the Ministry of Defence for their involvement in the project. She also had some words of remembrance for the late Chief of Naval Staff (CNS), Admiral General Antonio Martorell, who lived through this project with great enthusiasm: "I believe that today, wherever he may be, he will feel just as proud as we all do".

During the solemn ceremony, the handover and transfer documentation was signed between Navantia, the Directorate General for Armament and Materiel of the Ministry of Defence, and the Cartagena Shipyard. In addition, the first commander of the ship, Lieutenant Commander Manuel Corral Iranzo, was sworn in and the ship was presented with its flag.

The ceremony was also attended by the Chief of Defence Staff (CHOD), Admiral General Teodoro López Calderón; the current Chief of the Naval Staff (CNS), Admiral General Antonio Piñeiro; the Secretary of State for Defence, Amparo



The commanding officer of the Submarine Flotilla, Captain Pedro Marquéz de la Calleja, hands over the command of the S-81 to Lieutenant Commander Manuel Corral Iranzo.

Valcarce; and the President of Navantia, Ricardo Domínguez, among other civilian and military authorities.

The Chief of the Naval Staff stressed that "today marks the beginning of an exciting stage, in which we are incorporating cutting-edge technology into a submarine that is called upon to play an important role in naval operations". He also thanked the Minister of Defence for promoting a project "that would not have been possible without her resolute and personal support".

Also present at the event were the Director of the National Intelligence Centre, Esperanza Casteleiro; the Undersecretary of Defence, Adoración Mateos; the Director General for Armament and Materiel, Admiral Aniceto Rosique; the President of the Region of Murcia, Fernando López Miras; and the Mayor of Cartagena, Noelia Arroyo.

## AN INDUSTRIAL AND TECHNOLOGICAL MILESTONE

The S-80 programme represents the greatest industrial and technological challenge ever faced by Spain's defence industry given that a submarine is a system designed to operate autonomously and for long periods of time in a very hostile environment, and hence requires high expertise in diverse disciplines. In this regard, the president of Navantia pointed

out that "the commissioning of the first of these submarines is a testament to both the technical excellence and other values and principles that form the cornerstone of every challenge: collaboration, confidence in our capacity, effort and the will to improve". He also extended his special thanks to the Ministry of Defence and the Navy. "Without your determined help, we would not be here celebrating this historic milestone", he said.

Likewise, during her speech, the Secretary of State for Defence assured that "the S-80 and Navantia's work in the naval industry hub in Cartagena is, without a doubt, one of the most complex technological projects ever undertaken in our country", and stressed that, in addition to placing the Spanish

naval industry among the most important in the international arena, it will bring important economic returns.

"This project represents a real challenge for our science and technology system", said Valcarce, "and a major investment milestone by the Spanish administration, of 4 billion euros between 2018 and 2032".

The S-81 will be followed by three other submersibles that are at different stages of progress, all of them named after pioneers of underwater navigation: the S-82 *Narciso Monturol*, the S-83 *Cosme García* and the S-84 *Mateo García de los Reyes*.

#### **UNIQUE CAPABILITIES**

With an overall length of 80.8 metres, a diameter of 7.3 metres and a submerged displacement of around 3,000 tonnes, the S-80 has unique capabilities among NATO non-nuclear submarines, and has been the greatest challenge for Spanish shipbuilding to date. Due to its high degree of automation, it can operate with a crew of only 32 and is capable of carrying out a wide range of missions, including antisurface warfare, anti-submarine warfare, land attacks, operations at various depths, special operations and evacuation of civilian personnel, intelligence gathering, and deterrence. The S-80 represents a substantial technological leap compared



The first 50-strong crew of the Navy's new submarine, which includes six women. Below, signing of the delivery documents between Navantia, the DGAM and the Cartagena Shipyard; and a picture of the ship during its sea trials.



The delivery of the Navantiabuilt S-81 submarine is a historic milestone that consolidates Spain at the forefront of naval technology



### LIEUTENANT COMMANDER MANUEL CORRAL IRANZO, COMMANDING OFFICER OF THE S-81

## "The Submarine Flotilla is extremely capable, professional and effective"



O one knows better than the commander of the Isaac Peral the rigorous training, instruction and certification process undergone by all those involved in the project for the first S-80 class submarine. Lieutenant Commander Manuel Corral Iranzo is not shy to express his pride in having gone through this journey with what he claims to be "the best crew in the history of the Submarine Flotilla". This 41-yearold from Teruel, who has not wanted to develop his professional career in any other environment since he sailed on a submarine, will be responsible for commissioning the new ship within a year.

#### -What does it mean to you and the crew to dock in the Submarine Flotilla pit for the first time?

-One of the crew's main sources of motivation along this journey is the emotional factor. One-off milestones or certain days when we have carried out sea trials for the first time fill us with a sense of excitement that far outweighs the sacrifices we have had to make. An example of this was 9 November 2023, when the Isaac Peral came home for the first time, even though it was only for a few hours. Everyone was ecstatic considering what it meant. For years, the Spanish Navy and all of us submariners had been anticipating the arrival of new submarines, and when the first of the S-80s docked in the pits of the

Submarine Flotilla, it was a sign that they were coming to stay and to be enjoyed by all submariners.

#### -What will be the steps for the submarine to become fully operational?

-It is important to distinguish between delivering it to the Navy and commissioning it. The former is an act in which the shipyard formally transfers the product to the customer. From that moment on, it belongs to the Navy, but it has to follow a regulated procedure for the submarine to be transformed from a sea trial ship to a fully operational warship integrated into the Fleet.

These are mainly logistical, administrative and operational milestones culminating in an endurance cruise and the ship's operational qualification. The total process will take approximately one year.

"I can proudly say that, in my opinion, this is the best crew in the history of the Submarine Flotilla"

## - What has been the training plan for the crew?

—Before we set sail in early 2022, we underwent a rigorous training, instruction, and certification process. This has allowed us, thanks to the availability of shore-based simulators and the training on board the submarine, to gain in-depth knowledge of the platform, so that the S-81 can be operated safely. To give you an idea, the keel crew completed 1,500 hours of simulator training before starting sea trials.

#### -The current crew is higher than expected. What is the reason for this?

-The first submarine's crew is still in the experimental stage and, as part of the commissioning process, this is something that will need to be fine-tuned as more experience is gained in the operational handling of the platform. This initial crew of 40 people was increased to 53 in order to have a greater amount of personnel trained in handling the platform. This has allowed us to ensure that we can absorb any potential staff vicissitudes, including disembarkations due to promotions, courses, balancing work and family obligations, etc. This was a very wise decision, in my opinion, as the human factor is absolutely crucial and we cannot fail in this regard. Thanks to this approach, we have always had the necessary amount of personnel to

face this great challenge with no problem whatsoever.

## -What was it like to work with Navantia's technicians during the sea trial phase?

-Sailors, and in this case submariners, are not used to having to work side by side with engineers. However, the demands of this project have taught us to learn about or make an effort to comprehend the more technical and less operational approach to submarine design. Furthermore, Navantia's personnel has consistently shown exceptional rigour and professionalism in handling situations. On the other hand, they have also found it enlightening to witness our capacity as sailors to adjust to changing circumstances that may arise and our pursuit of maximum efficiency during sea trials. In short, we have been a team, which is what the situation required.

## - What will the Submarine Flotilla be like once the S-81 joins the Navy?

- Despite the shortage of submarines and the age of the current Galerna-class submarines, the Submarine Flotilla is still today an extremely capable, professional and effective flotilla. Without a doubt, on 30 November 2023, we will begin to increase personnel and I am confident that this will serve to keep the submariners motivated and at the same time help attract new applicants.

## -How do you feel about being the protagonists of this new chapter?

-We undoubtedly consider ourselves privileged to be seeing first-hand the various historic events being achieved by the Isaac Peral. But not everything has been a bed of roses. The crew of this first submarine decided to embark on this adventure, which involved certain risks and personal and professional sacrifices. These problems have compelled us to stop sailing for a long time on an operational submarine and spend a significant amount of time studying in front of computers or on simulators to get to where we are now. We are driven by vocation, camaraderie, courage, audacity, the adventurous spirit typical of divers and our capacity for sacrifice. Thanks to those values, I can proudly say that, in my opinion, this crew is the best in the history of the Submarine Flotilla.

**Elena Tarilonte** 

## ARMED FORCES



The crew proceeds to hoist the flag on the deck of the new submarine. The ceremony concluded with a military parade and a family photo in front of the *Isaac Peral*.

to its predecessor, the S-70, since it will have an Integrated Platform Management System and a Combat System that, at the same time, will allow it to increase its degree of automation, and significantly reduce the number of people required to operate the submarine.

The innovative Air-Independent Propulsion (AIP) System will be fitted into the S-83 and S-84. This system, unique in the world, serves to recharge the submarine's batteries during immersion with a fuel cell that uses hydrogen. The first two submersibles (S-81 and S-82) are ready to integrate this technology on board during their first major refit. The crew has carried out a rigorous learning, training and certification process throughout the sea trials. This has allowed them to gain in-depth knowledge of the platform and, therefore, to operate the submarine safely, both on the surface and submerged.

The S-81 underwent its last sea trial on 17 November 2023 before Navantia delivered it to the Navy: dive and surface sea trials were carried out, as well as a towing test with rescue ship *Neptuno*.The CHOD wished the crew the best of luck: "your work really begins now", and urged them to "make the most of the systems you have and make them work at the highest level".

#### MDE/Photos: Pepe Díaz

## Robles: "This programme guarantees the international presence of Spain and its Navy"







Image of the diagnosis room of the basic ROLE 2. Below, one of the three emergency boxes of the same health unit.



## ARMED FORCES

# THE 112 EMERGENCY SERVICE FOR AIR OPERATIONS

Emergency surgery is now part of UMAAD-Madrid's health support capabilities for Air and Space Force deployments

INCE October 2022, the Air Force Medical Deployment Support Unit in Madrid (UMAAD-Madrid) has been able to project a field hospital capable of performing "bullfighting surgery" anywhere in the world, according to its commander, Lieutenant Colonel Armando José Munayco, a flight medical officer. He is referring to the responsiveness required for a surgical intervention in a combat zone, as vital as that required for a bull horn wound. "Emergency damage-control surgery" is a procedure that allows the lives of wounded patients to be saved in less than two hours. In other words, from the time they are struck by fire or an improvised explosive device (IED), for example, until they receive forward life support and are operated on for their stabilisation and air evacuation to a higher medical ROLE (echelon), where they can be treated with all the necessary safeguards. "We follow our parachute sappers and work close to the hot spot where they are operating", explains Lieutenant Blas Juan Navarrete, a flight nurse officer and an emergency specialist. This is the profile of the members of UMAAD-Madrid who work in ROLE 2F (Forward), the Air and Space Force's forward surgical

team, "which acts as the 112 emergency service and operates 24 hours a day in the context of special air operations or in very harsh missions, where we hardly have any resources available in the area", says Lieutenant Colonel Munayco. Just like the infirmary in a bullring, this immediate intervention health centre is located "as close as possible to where casualties may occur", says Major José Luis Manzanares, also a flight nurse officer and head of the Logistics and Training branch of UMAAD Madrid.

#### **NATO CERTIFICATION**

This unit's capacity to project, launch and maintain a ROLE 2F operational, both in national and multinational exercises and in international missions, was certified

> ROLE 2F is designed to perform surgery on a forward base

by the Atlantic Alliance in 2022 during the Syrian exercise, the most demanding exercise of the Spanish Air Force. This type of medical unit operates as part of a Special Operations Air Task Group (SOATG). As projection assets, this elite group uses C-295 transport aircraft from the 35th Wing and NH-90 helicopters from the 48th Wing. Members of the Parachute Sapper Squadron (EZAPAC) are on board, and their mission is to infiltrate enemy territory. As close as possible to this hostile area, members of UMAAD-Madrid are deployed from a forward base. Next to them are the Air Deployment Support teams, which are responsible for combat support tasks (EADA) and force protection and maintenance (SEADA), as well as the Mobile Air Control Group (GRUMOCA), which is in charge of communications.

As part of NATO's Rapid Reaction Force, the Spanish Special Operations Air Task Group (SOATG) was ready to come into action at any time throughout 2023. Spain has thus entered the group of allied countries whose highmobility health formations are the most developed, together with the United States, France, and the United Kingdom. ROLE 2F complements the other two models of ROLE 2: one with a basic

## **ARMED FORCES**

(2B) configuration and the other with an enhanced (2E) configuration. The latter also has surgical capabilities and its projection and assembly depends on UMAAD Madrid and its twin unit in Zaragoza.

Furthermore, our country is leading a European Union project called the ROLE 2F Permanent Structured Cooperation Project, which was launched in Madrid at the end of October 2023 under the Spanish Presidency of the Council of the EU. The meeting was attended by ten

countries whose delegations had the opportunity to visit a ROLE 2F and a ROLE 2B deployed by UMAAD Madrid at Torrejón air base. They witnessed a demonstration of how an emergency surgery is performed in ROLE 2F to stabilise and transfer the wounded fighters to ROLE 2B, where they will be treated with all safeguards in the area of operations or transferred directly to Spain, to ROLE 4, namely, the military hospitals in Madrid and Zaragoza.

#### **ROLE 1, THE FIRST ECHELON**

Major Manzanares refers to ROLE 1, which focuses on providing the bare minimum of healthcare services for Air and Space Force members deployed abroad, and says that "both in operations and national territory, the general practitioner should be the first point of contact for health services, rather than a hospital emergency room, unless there is an urgent pathology". Major Manzanares summarises the services rendered by the emergency specialists -a medical officer, an orderly, and an enlisted nurseas "aviation medicine, forward life support, and primary healthcare".

The Air and Space Force currently has a ROLE 1 deployed in the Orion detachments of Operation Atalanta in Djibouti, in the Marfil detachment of Operation Alfa-Mike in Senegal, in the Tigru detachment of NATO's enhanced air policing mission in Romania and, in the same framework, when Spanish fighters participate in the Baltic countries. "We provide medical support in this first echelon if the country we are in offers us a centre with surgical and trauma care capabilities just 30 to 40 minutes away from our detachment and a haemodynamic centre no more than two hours away", explains Major Manzanares.

#### **ROLE 2**

It becomes vital to project a ROLE 2 to the area when there are no such means available to treat an urgent pathology. This is what happened at Herat air base in Afghanistan, managed by the Spanish Air Force from 2005 to 2016.

ROLE 2B occupies an area of approximately 1,500 square metres and



Soldier Latorre checks the test results of a dummy casualty in ROLE 2F's forward life support area.

has seven healthcare areas: emergency assistance, with three boxes; diagnosis, with a laboratory, radiology and telemedicine; operating room; critical care, with three beds; hospitalisation, with twelve beds; pharmacy and resource sustainment; and administration and communication. About 35 people work in this ROLE, which can also include a sterilising container and a mortuary. In addition to the members of the damage control surgery team and the UMAAD emergency specialists, there is also a dentist, a veterinarian, a psychologist and a pharmacist.

In turn, ROLE 2E replicates some of ROLE 2B's capabilities. "The emergency area grows from three to six boxes, the critical assistance area has six beds and the hospitalisation area has between 24 and 50 beds", explains Commander Manzanares. It also features an additional operating room which, together with an ICU, form in a single container the socalled "three-in-one". This unit is airborne to any part of the world aboard an A400M

> aircraft already designed in national territory for this purpose. Finally, the radiological assistance provided by ROLE 2E includes a CAT (Computerised Axial Tomography) scanner and an incinerator.

#### **FORWARD SURGERY**

ROLEs 2B and 2E are too big to be deployed in an immediate intervention operation, typical of small units that conduct intelligence missions or carry out guick and accurate strikes in enemy territory. "This is why in 2019 the Air and Space Force started to develop the ROLE 2F concept, initially only for its special operations units", states Lieutenant Colonel Munayco. "We can reach full operational capability in five days, from the time we are called until we have all the supplies and equipment ready in the area", he explains.

"We don't deploy to stay for a long time, just for the duration of the paratrooper sapper mission", says Lieutenant Navarrete. He is as a flight nurse officer of UMAAD-Madrid, ready to be part of a forward life support team, consisting of a medical officer (the ROLE commander), two nurse officers/NCOs specialised in

emergencies and three medical support enlistees. They are accompanied by an NCO from the UMAAD who is in charge of the maintenance of the facilities. In turn, the forward surgical team consists of a general surgeon, an orthopaedic surgeon, an anaesthesiologist/intensivist and two nurses. Since the UMAADs do not have doctors with these specialties, when they are activated, personnel from the hospitals in Madrid and Zaragoza staff the surgical area of all ROLE 2s.

According to the head of logistics at UMAAD-Madrid, ROLE 2F is set up in a single 54-square-metre tent -never containers- "and is permanently ready to provide forward life support to three casualties during the first hour after the wounds occur, as well as damage control surgery in the next two hours". ROLE 2F (Forward) has thus three surgical lines: one for each casualty, which includes a box containing all of the sterile, disposable instruments for general, vascular, and thoracic surgery, as well as another for traumatology. Additionally, there are two battery-operated active refrigerators that serve as freezers or refrigerators, respectively, storing the blood and plasma reserves required for surgery.

However, "the highlight of ROLE 2F is the oxygen concentrator", says Lieutenant Colonel Manzanares. It was purchased in 2020, coinciding with the pandemic, although it has only been in service for just over a year. "Its application has resulted in a qualitative leap in the care of critical patients", he points out. "We are no longer limited to using four 50-litre oxygen cylinders, which can only be replaced when they run out with support flights - which are extremely uncommon in special operations missions-". "Now, there is total autonomy in this area", emphasises master sergeant Jesús Esteban, the unit's most senior soldier and the one in charge of the facility's assembly and maintenance. "The two



UMAAD-Madrid demonstrated to an EU delegation last October at Torrejón air base the capabilities of its ROLE 2 basic and forward health facilities.

The forward hospital can be deployed and reach full operational capability in just five days



A ROLE 2B hospitalisation area —pictured here— has twelve beds; however, depending on NATO doctrine, this number can be increased to 25 or even 50.

compressors of the concentrator assimilate ambient air, each producing up to ten litres of 95% pure oxygen per hour", he explains.

A small and limited space like the one offered by ROLE 2F "does not allow us to keep patients hospitalised for a long time, as they have to be evacuated within two hours after surgery", says Major Manzanares. However, thanks to the availability of oxygen, if there are no air assets for their evacuation at that time, they can stay up to twelve hours receiving post-surgical care. "Before, with the use of cylinders, they could only stay for a maximum of six hours", adds Brigadier Esteban.

ROLE 2F is much lighter and leaves a smaller logistic footprint than ROLEs 2B and 2E. And, most importantly, it is located close to where casualties may occur", emphasises Major Manzanares. Unlike 2B and 2E, which need aircraft such as the A400M for their deployment, the material of the 2F -two and a half pallets- and the twelve people who manage it fly from Madrid to the area in just one C-295. Their flight crews are trained to operate in hostile environments, which allows them to position UMAAD-Madrid's "112 emergency service" in a forward base as close as possible to the parachute sappers' area of operation. If necessary, we can perform surgery on a casualty in about 150 minutes after positioning the operating room there", concludes Lieutenant Colonel Munayco.

> J.L. Expósito Photos: Pepe Díaz

### ANALYSIS

## **EMBRACING CHANGE, A SENSE OF URGENCY** (Part 2)



General Philippe Lavigne Supreme Allied Commander Transformation (SACT)

#### FLUID AND AGILE, A NEW APPROACH

The new approach to NATO's transformation promoted by ACT aims to create a more fluid, "water-like" MIoP. Just as water adapts to any container, it must have the inherent fluidity and flexibility to adapt and respond effectively to different contexts, threats and tensions. This adaptability should enable NATO to navigate the dynamic and everchanging nature of international security. As water is incompressible because its molecules are close and strongly bonded, NATO's MIoP must draw on its unity and resilience to assert its presence and maintain its freedom of action. Just as water has formidable energy, from raging torrent to steam to sharp ice, NATO must project the protean strength and power necessary to ensure credible deterrence and defense. Finally, like the water that gives life, NATO's MIoP must foster growth, cooperation and shared values. NATO must cultivate an environment that fosters cooperation, solidarity and the common pursuit of progress. By nurturing these foundations, the Alliance can build resilience, cohesion and trust among its members.

NATO will achieve its transformation by embracing digital transformation, which serves as a pathway to MDO. NATO's Digital Transformation will allow us to harness the power of technology, optimize the use of data and foster collaboration between academia, the private sector, member states and partners.

One of the critical challenges in this journey is the secure sharing of data. NATO is sitting on a formidable treasure trove... a vast amount of data produced by each of the Alliance's 32 nations, each of which manages it according to a "proprietary" logic that must be overcome if we are to make efficient use of it. NATO must establish robust protocols and frameworks to ensure the seamless, secure exchange of sensitive information. By implementing technologies that already exist in many non-military domains, such as data-centric security and quantum resistant encryption, NATO can protect the integrity and confidentiality of data while enabling optimal collaboration and information sharing at all levels.

By adapting to new challenges, NATO can maintain its operational edge to ensure the collective security of its members



However, alongside the benefits, there are also challenges associated with the vast amount of data generated in the digital age. NATO must contribute to debate on privacy, ethics and governance. Finding the right balance between the use of data and the protection of individual privacy rights is crucial for democracies. NATO will engage further in the development of robust policies and frameworks to ensure responsible data management, transparency and accountability in accordance with legal and ethical standards.

In the rapidly evolving technological landscape, there is a widening gap between the pace of technology development by the private sector and its adoption by governments, and by the Alliance. To bridge this gap, NATO needs to manage innovation, particularly open innovation. We need to harness the knowledge, expertise and capabilities of external actors, such as academia, industry, think-tank and research institutions, to drive innovation within the Alliance. It will allow us to tap into a wider pool of ideas, technologies and solutions that may not be readily available within the traditional defense industry framework.

We must foster a culture that embraces and encourages innovation at all levels of NATO's organization. This means nurturing a mindset that promotes openness, curiosity and continuous learning. NATO should probably scale up what has been initiated by the ACT Innovation Hub ten years ago, an environment that encourages risktaking and experimentation through an incremental approach. DIANA, our defense innovation accelerator for the North Atlantic, provides a great opportunity for this endeavor. With this resolutely modern and motivating mindset, NATO can attract and retain talent and create an ecosystem conducive to the generation of new ideas and solutions.

Likewise, ACT advocates and experiments the need for a new approach to capability —and especially software— development. A bold and incremental approach supported by experimentation, wargaming, modelling and simulation, and value analysis, which addresses risk aversion.

By adopting an incremental approach, NATO can iteratively develop and refine capabilities, allowing for continuous feedback, testing and improvement. By conducting experiments and simulations, NATO can assess the feasibility and effectiveness of potential capabilities, reducing the risks and costs associated with full-scale implementation. Wargaming helps identify vulnerabilities, test strategies, refine operational concepts and assess potential EDTs for new opportunities. Wargaming is also a powerful way to improve NATO's decision-making processes. Concepts and doctrine play a critical role in this virtuous circle by facilitating the exchange of best practices, aligning member states, and establishing common norms and standards for joint military action and beyond. This alignment ensures interoperability, cooperation enhances and strengthens NATO's collective defense. Capabilities and talents are the practical manifestation of the virtuous circle. NATO must continually and maintain develop robust military capabilities, taking advantage of advances in technology innovation. and Bv encouraging investment in research and development, modernizing equipment and infrastructure, and improving training and education. NATO can ensure that its members have the tools and skills they need to stay ahead. By attracting and retaining skilled personnel and providing opportunities for career growth and been able to take advantage of the peace dividends to create a robust, attractive organization, with the utmost respect for rules of all kinds. Technology must now be used to allow us to move faster while maintaining these high standards. This is not an option, but an imperative if we are to keep pace with technological developments. For example, software and hardware development require different approaches due to their inherent characteristics. Software development, often characterized by rapid iteration and frequent

updates, benefits from agile methodologies and flexible development processes. Hardware development, on the other hand, may require longer lead times and stricter quality control measures. We should adapt accordingly, tailoring the development process to the specific requirements of each domain.

Developing partnerships with relevant actors who share the values of the Alliance, such as the European Union, is paramount to positively influence the operating environment. The European Union's role as a normative power is important in shaping international norms, values and standards. With its emphasis on multilateralism, human rights and the rule of law, the EU contributes to the promotion of a rulesbased international order. By deepening cooperation and coordination, NATO and the EU can leverage their respective strengths

and capabilities to achieve common goals. Twenty-two -23 with Sweden- countries are members of both NATO and the EU. Building a strong NATO-EU partnership also means addressing areas of potential overlap or duplication, ensuring complementarity and avoiding unnecessary competition. Clear delineation of roles, responsibilities and areas of specialization is essential to promote effective cooperation and synergy.

Partnership with the private sector is certainly promising... just look at what the private sector is bringing to Ukraine in terms

advancement, NATO can capitalize on the talents of its human resources, to better anticipate future challenges.

Despite a general increase in NATO defense budgets, and declarations by Heads of States and Governments indicating their determination to meet their budgetary commitments, the Alliance's resources are limited. It is therefore important to conduct a value analysis in order to prioritize investments based on their strategic relevance, operational impact and cost-effectiveness. Fostering a culture that tolerates calculated risk is equally essential. NATO has



The objective is to maintain a virtuous circle of strategic foresight,

concepts and doctrine, capabilities and talents. Strategic foresight

allows anticipating emerging trends, risks and opportunities in the

global security environment. By analyzing geopolitical dynamics,

technological advances and societal changes, NATO can identify

potential threats and develop proactive strategies to mitigate them. Strategic foresight provides a solid foundation for informed decision-

making and the formulation of long-term goals and priorities.



of civilian and military capabilities, from Amazon Web Services to Starlink. NATO needs to give itself the means to be connected to private sector innovation, and research and development so that it can always know what is out there and train with it; and the same logic applies to academia. For industry, it is a win-win partnership because, as ACT has been doing for several years, we enable them to test new ideas and capabilities in a real-world operational environment for rapid development that meets military needs while creating business opportunities.

#### TRANSFORMATION AND INTEROPERABILITY

ACT's area of expertise is interoperability. It is a much more complex concept than it appears. It starts with a common operational culture among Allies.

A common operational culture ensures that NATO forces can work together seamlessly, regardless of their national backgrounds. It involves the development and adoption of common concepts and

doctrines that guide military operations and processes. These common concepts provide a shared understanding of how NATO forces should operate, enabling effective coordination and cooperation in joint missions and operations, and fostering trust and predictability. Education and training are essential components in achieving interoperability. Allies invest in such programs to ensure that their personnel are familiar with NATO procedures, practices and command structures. By providing standardized training and education, NATO enhances the ability of its forces to work together seamlessly. In addition to cultural aspects, interoperability also encompasses technical compatibility. This means ensuring

that NATO forces can operate together at all levels, from common munitions standards to securely federated capabilities that enable any NATO warfighter or decision-maker, at any level, from any nation, in any domain, to share and consume any data with/from anyone else in near real time.

Interoperability requires the development and integration of compatible and complementary assets. However, it goes beyond capabilities to include processes and organizational structures, and can be described as the development of an operational ecosystem that enables the creation of convergent effects from different assets. Wargaming and experimentation play a crucial role in ensuring the effectiveness and efficiency of the operational ecosystem. Wargaming allows NATO to simulate and test different scenarios and operational concepts, providing insight into the strengths, weaknesses and interdependencies of the operational ecosystem. Wargaming is also an important means of developing our ability to manage escalation dynamics. Through experimentation, NATO can identify innovative

We must foster a culture that embraces and encourages innovation at all levels NATO's organization

approaches, validate concepts and refine capabilities, fostering continuous learning and improvement.

The operational ecosystem must bring flexibility, in order for NATO to rapidly integrate new technologies and exploit emerging operational concepts. By fostering this interoperable operational ecosystem, NATO enhances its ability to operate across multiple domains. To support this ecosystem, we need to refine some of our tools and find new ones, for example by adapting our processes, including procurement. The Alliance needs to be agile and responsive in the acquisition and integration of new capabilities and technologies. This means streamlining procurement processes and adopting new acquisition models that facilitate the rapid and efficient development and fielding of capabilities. The NATO Defense Planning Process (NDPP) is the vehicle for transforming NATO and developing its toolkit. The NDPP is a comprehensive and iterative process that guides Allies in the development of defense plans and capabilities. It ensures that NATO's collective defense requirements are met through

a coordinated and collaborative approach. The NDPP involves a series of steps and provides a framework for Member States to align their defense efforts, share burdens and responsibilities, and enhance interoperability. Most importantly, NDPP is flexible enough to integrate new inputs and evolving situations, such as regional plans.

#### **EMBRACE CHANGE OR LOSE**

General Charles Q. Brown, as Chief of Staff of the US Air Force, made frequent reference to the need to "Accelerate change or lose". For NATO, it captures the imperative of transforming in order to remain effective and relevant in the face of the new reality, and turning challenges into opportunities. At the Madrid summit, Heads of State and Government agreed to "expedite our

digital transformation". A year later, we have accelerated with the adoption of a Digital Transformation Vision in October 2022 and a Digital Transformation Implementation Strategy for Vilnius.

While Ukraine is in many ways a war of the digital age, the war we are seeing in Ukraine is not the war NATO will face in the future. To move forward, we need to focus on accelerating interoperability; we need to apply digital transformation to capability development, to become agile; we also need to digitalize our people and our mindset; and we need to accept a little risk and learn to fail by developing our toolkit with innovation, experimentation, wargaming, modelling and simulation.

These are critical tenets for NATO's ability to navigate an increasingly complex global security environment as we move towards multi-domain operations. By proactively embracing change and adapting to new challenges, NATO can maintain its operational edge to ensure the collective security of its members, and promote global peace and stability.









Above, scene of the Battle of Manila Bay (Philippines, 1898) against the USA; map showing the routes of the epic Spanish Road repeatedly travelled by the famed Army of Flanders (tercios); robe of Boabdil, the last Nasrid king; map of Cartagena and its arsenal; inflating a balloon in the Guadalajara Aerostation Park.







## A BRIEF MILITARY HISTORY OF SPAIN

The Spanish Ministry of Defence and Sílex publish this "basic manual" on the long and intense history of our Armed Forces, also providing insight into their cultural heritage

new book that offers interested and curious readers the chance to learn more about the history of our Armed Forces is now available for free in PDF format (publicaciones.defensa.gob.es) and for purchase in hard copy.

The Breve Historia Militar de España (A Brief Military History of Spain), published by the Ministry of Defence and Sílex Publishing House, was presented to the public on 6 February 2024 in the auditorium of the CESEDEN (Spain's Centre for Higher National Defence Studies), a meeting place for teaching and academiccultural exchange.

The event was presided over and closed by Defence Minister Margarita Robles, who also signed the Presentation of the book. Both in her speech and in the aforementioned text, Robles described the book as "a basic manual to bring Spain's military history closer to the public".

## MILESTONES, AVANT-GARDE AND INFLUENCE

The minister also wrote that this history is marked by "epic events, deeds, etc., as well as by strategic and tactical decisions that contributed over centuries to forging our identity, culture and social customs, and which also had a powerful influence on the economy and national and international politics". She concluded that, "knowing about all this military legacy, thus enhancing our Defence culture, is essential to help society better understand and appreciate its Armed Forces, their historical role and their contribution to the community they serve". Therefore, as mentioned earlier, this book has been made freely available online in order to promote the dissemination of this knowledge.

Furthermore, as Sílex editor Ramiro Fernández underlined during the presentation at the CESEDEN, the goal was to deliver a comprehensive work without sacrificing its "historical rigour". A work that serves as a first approach to that rich and intense history, guardian of episodes that may even surpass in bravery and action the narratives of the most famous literary creations of adventure, war, and even science, of all time.

It is thus different from the comprehensive and academic *Historia Militar de España* (A *Military History of Spain*) published by the Ministry of Defence from 2009 to 2017 in nine volumes. Spain's Royal Academy of History participated in that edition,





An adarga, a hard leather shield used by the soldiers who defended the West of New Spain.

Surrender of arms by the resistance in Honduras (ONUCA, 1989) and a Lombard (a smoothbore cannon) from the time of the Catholic Monarchs.





Knights of the peninsular Christian armies until the 8th century.

## BOOKS

as did the Spanish Commission of Military History, which is once more at the genesis of this new endeavour.

The current chairman and director of the CESEDEN, Lieutenant General Miguel Ballenilla, is its coordinator. In the aforementioned presentation of the book, he began his speech by highlighting the excellent moment that history is going through as a literary protagonist. According to him, both novels and essays account for 52% of the titles published.

#### **SOME THIRTY SPECIALISTS**

This publishing surge appears to contribute to the purpose of the book: to bring the Spanish military chronicle closer to all audiences. To this end, it brings together the contributions of 27 renowned civilian and military specialists –two of them professors at the Pontifical Catholic University of Peru– who have written the 22 chapters.

With such a group of professionals, this initiative —which Sílex's editor described as "brilliant"— has produced a book that stands out from others because of its peculiar diversity. Each author deals with his or her own period, highlighting some aspects over others, such as military or political events, economic, social, educational background, etc.", Ballenilla said.

In addition to the contrasted analyses, there are 200 illustrations. These include a large sample from the Ministry of Defence's archives, libraries and museums, as well as from its virtual library (bVd). This may "arouse curiosity about the heritage preserved in these centres", said Defence Under-Secretary Adoración Mateos, who is responsible for the Ministry's cultural heritage policy and is co-presenter of the book.

In addition to this complementary information, there are 52 text boxes and 32 infographics, also highlighted in the presentation. Hugo O'Donnell, member of the Spanish Academy of History, states in the foreword that "A Brief Military History of Spain relies on illustrations and graphic design, synthesising the themes of the book, as its most effective instruments". "Both can be an object of consultation in themselves for the sporadic reader



Infographics of Hispanic America and its protagonists. Below, a model of an arsenal in Havana (Cuba).





Historical photograph and recreation of the Air and Space Museum evoking how bombs were loaded and dropped by the first military pilots.

[...] independent but integrated in the general discourse" of the book, he adds.

#### **FROM PRE-ROMAN HISPANIA**

The book begins in prehistoric times, in pre-Roman Hispania, and continues up to the present day. Each chapter includes Food for Thought and recommended Readings.

Some also have stand-alone texts, highlighted in boxes, linked to the central theme of the chapter. These underscore events, battles, etc., and important figures, such as Gonzalo Fernández de Córdoba, the Great Captain, an exceptional strategist and diplomat in the service of the Catholic Monarchs, to whom the infographic "The Battle of Ceriñola" is dedicated.

The battle fought in what is now Italy is one of this Spanish soldier's most famous victories. He proved his warfare mastery on that battlefield, as is schematically and faithfully reflected by the author, Rafael Navarro, Art Director of the "Revista Española de Defensa" (Spanish Defence Magazine).

Thirty-two infographics, distributed throughout the book, shed light on

The Ministry of Defence's Publications website offers a free download of the book in pdf format such iconic issues as the Spanish Road, the unparalleled logistical war effort that for decades linked the Peninsula with Flanders, crossing the very heart of Europe; Christopher Columbus' voyages; the Spanish conquests in America; or the current international missions of our Armed Forces.

The text boxes also deal with numerous themes: Lepanto, Elcano's first round-the-world voyage, 18thcentury military reforms, the Spanish Peninsular War, and so on. Although it does not feature prominently, the pages on the Spanish Empire are not oblivious to the fact that there were women in its armies, such as Catalina de Erauso, the ensign nun, whose portrait appears elsewhere in the book.

> Esther P. Martínez Images: A Brief Military History of Spain

More than a dozen activities will be organised, including a Maritime Security exercise (MARSEC) and a Search and Rescue at Sea exercise (CANARSAR)

# **Spanish Presidency of the 5+5 DEFENCE INITIATIVE**

#### Rafael Andreu Güell

Defence Diplomacy Division of the General Directorate for Defence Policy (DI-GENPOL)

N 13 December 2023, in Lisbon, Defence Minister Margarita Robles picked up the baton from her Portuguese counterpart, Helena Carreiras, to assume the leadership of the 5+5 Defence Initiative, which Spain will chair until the end of 2024. The origins of the Initiative date back to the establishment of the 5+5 Dialogue in 1990, a forum for multilateral cooperation between ten countries in the Western Mediterranean region, namely, five from Europe (France, Italy, Malta, Portugal and Spain) and five from the Maghreb (Algeria, Libya, Morocco, Mauritania and Tunisia).

The Dialogue was initially limited to foreign affairs, but in the following years it was expanded to include other topics as well, such as the interior, transport, migration and tourism, the environment, renewable energy, agriculture, food security, water, economy and finance, as well as education, culture, innovation and higher education.

Defence matters were first included in 2004 when the relevant ministers signed a Declaration of Intent with the objective of "developing multilateral cooperation in order to promote security in the Western Mediterranean". The idea behind this Initiative was to encourage mutual understanding as a confidence-building measure.

#### **TWENTY YEARS**

This year will therefore mark two decades since the 5+5 Defence Initiative was launched, a period of time in which the security landscape has significantly evolved on a regional and global scale. Since 2004, the Western Mediterranean has been affected to a greater or lesser extent by major natural disasters, pandemics, political changes such as those resulting from the so-called Arab Spring, the spread of Jihadist terrorism and the exponential increase in migratory phenomena, which involve countries of origin, transit and destination.

Despite all these vicissitudes, the Defence Initiative is still alive and is arguably the most active, participatory and successful of all those formulated at the time. Moreover, since the reasons that led to the establishment of this project are still fully valid today,

## This Initiative is based on dialogue, equality among participants, mutual trust and cooperation



the Western Mediterranean can be regarded as a privileged scenario in terms of peace and stability compared to the difficult situation in nearby regions. This is therefore a confirmation of its validity compared to other fields of action, where progress has been significantly slower.

Perhaps one of the main factors behind the forum's continued validity is that it is an informal partnership based on dialogue and equality among participants, and promotes the exchange of ideas, mutual trust and cooperation.

As Margarita Robles pointed out in the last ministerial meeting held under the Portuguese Presidency, "Talking as equals, taking into account our different realities and legal frameworks, and openly disclosing our views and personal needs in order to take the former into consideration and make every effort to meet the latter".

Willingness, consensus, and pragmatism have been and continue to be its guidelines and principles of action. These differ somewhat from those of other regional organisations, which are more conditioned by national leaderships and particularisms. "To speak without ceasing to act, in multiple directions and without going into the domains of other forums and organisations", the minister recalled, in line with what has been one of the Initiative's permanent concerns: to prevent operationalisation in order to avoid duplicating efforts and adapt to the substantial differences in national legislations, procedures, material resources and interests.

For this reason, high-cost, low-return activities are shunned in favour of the involvement and the achievement of specific, attainable goals through a realistic and pragmatic approach.

The 5+5 Defence Initiative comes to fruition every year through the drafting and implementation of an Action Plan that is broken down into military cooperation activities in areas such as maritime security, air safety, search and rescue at sea, support to civilian authorities in major disaster situations, gender perspective, training, research, special operations, cyber defence and humanitarian demining.

These fields are not a closed list, but are regularly reviewed and renewed to adapt to the security environment and the circumstances of the participants in today's ever-changing scenario.

The activities defined in the annual action plans have progressively increased and are grouped, in turn, into several main sub-fora. These include the 5+5 Defence College, whose Pedagogical Committee is permanently based in Paris and offers training modules at the higher, intermediate and basic levels; the Euromaghreb Centre for Strategic Researches and Studies (CEMRES), whose Permanent Secretariat

### **ANALYSIS**

is located in Tunisia, and is in charge of organising and coordinating research projects in the security and defence field: and the Virtual Regional Maritime Traffic Centre (V-RMTC), a virtual network created by the Italian Navy to connect and promote the exchange of unclassified information between the Maritime Operations Centres of the countries that are members of the Trans-Regional Maritime Network (T-RMN) and the 5+5 Defence Initiative.

There are also subgroups addressing issues such as the fight against marine pollution caused by accidents at sea (in its various aspects concerning organisation, necessary means, training and legal matters) or the promotion of gender equality, for which Spain has been hosting annual virtual seminars on the implementation of the gender perspective in operations abroad.

<image>

Apart from the aforementioned, there are sectorspecific initiatives in several domains, such as collaboration

between special operations forces, air security exercises, cyber defence, planning strategies to respond to major natural disasters or meetings of experts in humanitarian demining.

#### SPANISH PRESIDENCY

The Presidency of the 5+5 Defence Initiative is assumed annually on a rotating basis by participating countries, following the alphabetical order of their names in English. Therefore, coinciding with the 20th anniversary of the Initiative, Spain will now take up this responsibility after Portugal.

This entails organising high-level meetings, basically those of the Steering Committee comprising national delegations, and culminating with the Ministerial Meeting in December. As in Lisbon, the work of the Steering Committee will be approved in that meeting, along with the Action Plan for the following year and the Ministerial Declaration that lays out the course of action and strategic objectives. As the nation holding the Presidency, Spain will also host the annual meetings of the Chiefs of Defence Staff, the Naval Group (Chiefs of Naval Staff) and the Pedagogical Committee – Spain's Centre for National Defence Studies (CESEDEN) forms part of the latter—, as well as similar agencies of the other participating nations.

Furthermore, two important exercises will be conducted in the waters of the Canary Islands archipelago: the Search and Rescue at Sea Exercise (CANARSAR), led by the Spanish Air and Space Force, and the Maritime Security Exercise (MARSEC), led by the Spanish Navy.

In total, Spain will organise twelve activities in 2024, as well as a seminar on force health protection in operations and an underground combat exercise.

One of the goals of the Presidency is to progressively move from the original, valid at the time, concept of the Initiative —which concentrated on establishing a relationship

between two sub-regions – to a single geographical environment made up of 10 equal nations.

As Margarita Robles recalled in Lisbon, "perhaps we should stop thinking on the basis of 5+5 and instead consider that we are only ten shores of the same sea. Historically, the Mediterranean has served as a bridge, rather than an obstacle, for the exchange of knowledge between the two sides, contributing to the prosperity of its inhabitants through navigation and trade, and fostering the development of close, long-lasting relationships".

"Spain wishes to continue to be a point of reference among nations and diverse positions", the Minister continued, adding that, as a result, Spain "will continue to be a very active member of the 5+5". This Defence Initiative is a fundamental tool for our Defence Diplomacy since it contributes to stability and fosters understanding and confidence-building.

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