NINETY-EIGHT DAYS OF OPERATION BALMIS

The Armed Forces helped

DETERRENCE ON THE EASTERN FLANK

The Spanish contingent, part of NATO’s eFP mission in Latvia
We talk about defence
NOW ALSO IN ENGLISH
NOW that the state of alarm is over, and with it the Armed Forces’ Operation Balmis against coronavirus, the Retamares military base hosted a well-deserved tribute ceremony, presided over by Defence Minister, Margarita Robles, for the men and women who participated in the fight against the pandemic.

This operation, whose main objective has been to try to save lives and help citizens as much as possible, has once again shown the service vocation that guides the members of our Armed Forces on a daily basis. It is a great satisfaction for the men and women in uniform to feel useful to society and receive in return its affection and gratitude.

The members of our Armed Forces have stood by the sick who have been transferred to civilian hospitals or treated in defence hospitals, by the elderly in nursing homes, by the deceased in temporary morgues, by the homeless... “You were where you were needed”, Margarita Robles told them at the Retamares event. For fourteen weeks, the Armed Forces carried out 20,000 interventions in 2,300 cities and towns, in all the autonomous communities and cities, of which 11,000 were disinfections, a very necessary measure to stop the spread of the virus. They intervened in around 5,300 nursing homes, about 3,500 hospitals and health centres, more than 1,300 social centres, etc.

Balmis has also highlighted the flexibility and agility of the Armed Forces’ operational structure, which has facilitated at all times an adequate reaction capacity, as well as the effective response of the Inspectorate-General for Defence Health and its network of centres to immediately meet the challenge.

Looking to the future, the COVID-19 crisis has taught us that the challenges that modern societies have to face require a multidisciplinary and cooperative response, and that security must be comprehensive and global, paying special attention to aspects such as solidarity, preparedness or the guarantee of critical supplies.

The new National Defence Directive approved by the Government in June is along these lines. This document, which sets the defence policy guidelines for the coming years, includes for the first time pandemics, climate change and disinformation actions among the threats to our security. A security which will continue to be supported by a military that has shown in Operation Balmis its capacity for planning and immediate deployment throughout the national territory, and has proved to have professionals that, due to their skills and spirit of service, are ready to act in any situation.

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Recognition ceremony at Retamares

A HEROIC PAGE IN THE HISTORY OF SPAIN

All the professionals who participated in Operation Balmis are being honoured for their involvement in the fight against the pandemic.

“...In the eyes of the citizens, we have found our reward for the help provided on the streets. In particular, in the eyes of the most vulnerable, who were unable to stay in shelters because they were overcrowded. We were with them and prevented infections”, said Sergeant Benjamín Díaz de la Rosa on 25 June at Retamares military base in Pozuelo de Alarcón (Madrid). He is far away from the island of Gran Canaria where he participated in the presence patrols organized by the 50th Regiment Canarias within the framework of Operation Balmis. Next to him is the Commander of the Military Emergencies Unit (UME), José María Martín Corrochano, who said “never did I dream that I would live such a vital and powerful experience”, when he took on the responsibility for coordinating the transfer and custody of those who died from coronavirus in Madrid’s temporary morgues.

The testimonies offered by these two servicemen, along with those of other members of the Armed Forces, were the climax of the “closing ceremony of Operation Balmis”, as Defence Minister Margarita Robles defined this ceremony of gratitude and recognition for the more than 187,000 servicemen and women “who so generously participated in it”.

For 98 days “we all made an extra effort, because we knew we were doing something good”, said Commander Corrochano, giving voice to his comrades. “They were where they were needed, without asking questions”, said Margarita Robles, visibly moved as she recalled the support provided by the Armed Forces to public entities and state agencies in their fight against the pandemic.

This task, translated into figures, can be summarized as more than 20,000 interventions in 2,300 towns and villages, most of which were disinfections —5,300 in nursing homes—, 4,800 support activities for hospitals, health centres and social institutions and up to 70 flights to transfer 160 tonnes of medical supplies from abroad and within the national territory. “In times of peace, you have written a heroic page in the history of Spain”, added the Minister of Defence. “You are silent, quiet and generous heroes that society can count on”.

OPERATIONS COMMAND
The tribute to the men and women in uniform that participated in Operation Balmis was held at the Retamares military base, as this is the headquarters of the Joint Operations Command (MOPs in Spanish), in charge of conducting “the greatest military effort and deployment carried out in times of peace in Spain”, said its commander, Lieutenant General Fernando López del Pozo.

The recognition ceremony began in the outdoor courtyard of this military facility, observing a minute's silence in memory of all the victims of COVID-19 —“and also for the members of our Armed Forces and Ministry of Defence who lost their lives”, said Margarita Robles— with the participation of senior officials of the Department, the Chiefs of Staff and representatives of the land, maritime and air component commands, the Military Emergencies Unit and the Inspectorate-General for Defence Health, as well as the Royal Guard.
After that, in the unit’s conference room, Lieutenant General López del Pozo provided an assessment of the work carried out by the Armed Forces against the coronavirus during the state of alarm decreed by the Government on 14 March and that concluded on 21 June, four days before this recognition ceremony was held. In his view, Operation Balmis has been “tangible evidence of our soldiers’ commitment to their society. We have felt their dedication, and their recognition has encouraged us. In the end, it is the affection of the people what gives us the strength to go on”.

For the Commander of the Operations Command, one of the keys to the success of this mission has been “the Armed Forces’ capacity to react” to the urgent requests for support from the population. This response has been based “on a short, centralized chain of command”, created ad hoc “on an already existing structure of permanent missions in national territory that works in times of peace”. López del Pozo also announced a contingency plan to cope with a second wave of coronavirus, if it ever occurs. “It is nearly finished and we expect to submit it to the Chief of Defence (CHOD) for its promulgation in July”. In any case, “we are ready, not from now, but since yesterday, to intervene within a period of 24 to 48 hours after prior notice”, he added.

RESPONSIVENESS
The Chief of Defence, Air Force General Miguel Villarroya, recalled that “the members of the Armed Forces were the first to intervene after the state of alarm was declared”. “They have acted with generosity, dedication and efficiency”, proving to be “a highly effective instrument in crisis management”, without negatively impacting “their other missions: permanent missions in national territory and our international commitments in missions abroad”, stated the Chief of Defence.

One day after the recognition ceremony was held, on 26 June, the Official Defence Gazette published the granting of almost 150 Crosses of military, naval and aeronautical merit with white badge and the awarding of honourable mentions to those participating in Operation Balmis. In addition, there are plans for the creation of a specific medal for all the military personnel who have participated in the operation.

In the view of Commander José María Martín Corrochano, in fact, there are “46 million soldiers”, the whole of Spanish society, who are worthy of being distinguished for their fight against the coronavirus. “This experience”, he assures, “has made us all better people”.

J. L. Expósito
Photo: Pepe Díaz
Soldiers of the Parachute Brigade help set up the field hospital at Madrid’s international trade fair centre (IFEMA). Below, disinfection tasks—with a nebulizer cannon of the Military Emergencies Unit and in a nursing home—and the airlifting of medical equipment.
THE Armed Forces have ended their largest peacetime deployment in Spain: Operation Balmis, through which they have responded to the most serious and complex national crisis since the Spanish Civil War.

For 98 days, since it was activated on 15 March, following the declaration of the state of alarm, until 20 June, when the sixth and final extension thereof ended, 20,002 interventions were carried out to counter the coronavirus in 2,302 towns and cities.

Balmis — named after the military doctor who brought the smallpox vaccine to the territories of the Spanish empire in the Americas and the Philippines at the beginning of the 19th century — thus evolved in parallel to this emergency period, maintaining a level of reaction commensurate to the needs at any given time. In the worst days of the crisis, on average, about 8,000 soldiers intervened and, later on, as the situation improved, the participation of the Armed Forces was progressively reduced.

In the fight against COVID-19, the military supported the authorities and institutions and also the citizens in their towns and cities, helping them to face the disease and mitigate its effects. They disinfected critical infrastructures and essential services, in particular, nursing homes; strengthened civilian medical capabilities by mobilizing the military healthcare and pharmacy; helped set up field hospitals and medicalized hotels; transported equipment and supplies by air and land and helped distribute them; transferred patients between hospitals and the deceased to temporary morgues; cared for the homeless; collaborated with the State Security Forces in the control and surveillance of public spaces, etc.

DEFENCE, IN THE THICK OF THE CRISIS

The Royal Decree of 14 March, which declared the state of alarm throughout the national territory, determined that the competent authority for this purpose was the Government and established, under the leadership of the Prime Minister, four delegated competent authorities in their respective areas of responsibility, namely: the Minister of Defence, Margarita Robles; the Minister of the Interior, Fernando Grande-Marlaska; the Minister of Transport, Mobility and Urban Agenda, José Luis Ábalos; and the Minister of Health, Salvador Illa. It specified that the delegated competent authorities could request the intervention of the Armed Forces, and thus the servicemen and women participating in tasks within the framework of the coronavirus crisis were granted the status of enforcement agents.

The following day, on 15 March, Margarita Robles presided over a coordination meeting at the Defence Ministry that activated Operation Balmis, as well as its unified command, which was assigned to Air Force General Miguel Villarroya, Chief of Defence (CHOD), who led this operation through the Operations Command (MOPS in Spanish). In this meeting, Minister Robles gathered all the participants — from the Army, Navy, Air Force, the Inspectorate-General for Defence Health (IGESANDEF) and the Military Emergencies Unit (UME) — under the operational control of the MOPS commander, Lieutenant General Fernando López del Pozo, putting the support of the rest of the Ministry at his disposal.

The Joint Operations Centre of the MOPS, at the Retamares military base in Madrid, was the nerve centre of Operation Balmis and coordinated the deployment of military personnel across the autonomous communities, in response to the requests for support made by the various authorities and entities. These requests were channelled through Government Delegations or Sub-delegations and were...
sent to the various competent Ministries. Those that were approved were sent to the MOPS, where analyst officers, on duty 24 hours a day, studied them in order to determine the most appropriate personnel and means. Subsequently, one of the four Component Commands —Army, Navy, Air Force and Emergencies— was assigned to intervene, and they, in turn, designated the unit that would provide assistance. The MOPS would then monitor and conduct the interventions.

The Armed Forces’ adaptation to Operation Balmis, which was unlike any previous experience, was not improvised; the daily use of the permanent operations structure greatly facilitated its almost total transposition into this operation.

HEALTHCARE SUPPORT

Qualitatively, the main contribution of the Defence Ministry in this crisis consisted of healthcare support and increasing hospital bed capacity. The Armed Forces supported the National Healthcare System, through the collaboration of military hospitals (they attended to over 5,000 COVID-19 emergencies, with 1,400 hospitalizations), the provision of medical supplies and equipment to civilian hospitals, the deployment of psychological and veterinary support teams, the reinforcement of basic and advanced vital transportation capabilities in various provinces and the timely provision of medical assistance in nursing homes that lacked such personnel.

Among the healthcare capabilities provided, the ones that stand out are those on board the ship Galicia sent to Ceuta and Melilla and the integration of the Air Force Medical Deployment Support Unit (UMAAD) into the field hospital at Madrid’s international trade fair centre (IFEMA), which served as an overflow for the city’s healthcare network at the height of the pandemic.

At the end of March, the UMAAD installed six ICU critical patient stations at IFEMA in just twelve hours, the first of their kind at the field hospital, and provided the ICU with stretchers to move patients and 30 conventional beds, in addition to the 50 beds supplied by the Army’s 1st Medical Group. In addition, the latter advised on medical and logistic issues in setting up the hospital, which also involved the participation of members of the 11th Specialist Engineer Regiment from Salamanca, the Parachute Brigade, the 12th Brigade Guadarrama, etc.

The Armed Forces also contributed to the assembly and maintenance of a shelter at Barcelona’s trade fair centre; the installation of field hospitals in Alcalá de Henares (Médécins Sans Frontières), Sabadell and Segovia; and the provision of advice on the hospital in Loeches, etc. Field hospital material was provided to several hospitals in Madrid such as the 12 de Octubre, Gregorio Marañón, La Paz and Ramón y Cajal; and to hospitals in Albacete, Alcorcón, Getafe, Leganés, León, Melilla, Las Palmas, Oviedo, and the Tres Mares hospital in Reinosa.

In addition to these actions, the efforts of the Military Healthcare Network and the interventions of the Inspectorate-General for Defence Health should be taken into account. Thus, Madrid’s Military Central Hospital Gómez Ulla increased its beds by 51%, 450% in the emergency department and 277% in the ICU; and Zaragoza’s military hospital Orad y Gajías increased its beds from 97 to 189

Most of the disinfection operations were carried out in nursing homes

The Intensive Care Unit (ICU) of the Military Central Hospital Gómez Ulla in Madrid doubled its beds (from 16 to 33) for the care of COVID-19 patients.
The Armed Forces ended Spain’s largest peacetime military deployment on 21 June. Since 15 March and throughout the 98-day state of alarm, military personnel carried out 20,000 interventions to support the population and public services in their efforts to contain the spread of coronavirus.

The mission was named after Francisco Javier Balmis, a military doctor who led the philanthropic expedition that took the smallpox vaccine to Spanish America and the Philippines in the early 19th century.

**Fields of action**

- **SECURITY SUPPORT**
  - Presence on the streets and at critical points
  - Border reinforcement
  - Nuclear power plant surveillance

- **LOGISTIC SUPPORT**
  - Land and air transport
  - Transfer of the sick and deceased
  - Receipt and distribution of medical supplies

- **FACILITIES DISINFECTION**
  - Health centres and nursing homes
  - Airports, ports and railway stations
  - Prisons
  - Government buildings
  - Public roads, shops, etc.

- **FACILITIES SUPPORT**
  - Field hospitals
  - Triage areas
  - Shelters for the homeless
  - Collection and distribution by the food bank

- **MILITARY HEALTHCARE MEANS AND PERSONNEL**
  - Military hospitals in Madrid and Zaragoza
  - Military Pharmacy Centre
  - Military Veterinary Centre
  - IGESAN Psychology Unit

**Air mobility missions**

- 70 domestic and international flights
- 160 tons transported.

**Daily average***

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<th><strong>INTERVENTIONS</strong></th>
<th><strong>MILITARY PERSONNEL DEPLOYED</strong></th>
<th><strong>POPULATIONS</strong></th>
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<td>550</td>
<td>(3,000 from military healthcare)</td>
<td>200</td>
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*In the core weeks (during the first week of April, coinciding with the worst data on deaths and infections, 9,000 military personnel were deployed).
(nine of these were ICU beds, up from just four).

Furthermore, the Deputy Inspectorate-General of Pharmaceutical Support and Management collaborated with its Military Pharmacy Centre in the production of hydroalcoholic solution and various medicines, and provided the production unit in Burgos with the necessary machinery to manufacture surgical masks. The Defence Institute of Preventive Medicine disseminated recommendations to guide the activity of the Armed Forces in the pandemic; the Armed Forces Blood Transfusion Centre collaborated, through the Carlos III Health Institute, in studies of hyperimmune serum aimed at treating those patients affected by COVID-19; the Deputy Inspectorate-General of Veterinary Support adapted its molecular biology laboratories to carry out diagnostic tests of the disease; the Psychology Unit offered its support to nursing homes and other centres for the vulnerable, etc.

DISINFECTION
Fifty-five per cent of the 20,002 interventions performed in Operation Balmis were aimed at cleaning and disinfecting public spaces. The military carried out 11,061 interventions, most of which were in hospitals, healthcare centres and nursing homes —where the frontline battles against COVID-19 were fought—; in large areas such as IFEMA's pavilions —where the field hospital and supply platforms were installed—; head offices of the central, regional and municipal authorities; railway, underground and bus stations; ports and airports; care centres for the vulnerable, etc. These tasks were carried out by the Military Emergencies Unit, the Nuclear, Biological and Chemical (NBC) Defence units and the Veterinary Services of the Army, Navy and Royal Guard.

In the Operations Command, analyst officers studied requests for both logistic and health support and determined the most appropriate personnel and means to intervene.

The main effort focused on nursing homes, of which military personnel decontaminated 5,301 all over Spain, working in teams of two to six people.

LOGISTIC SUPPORT
During the state of alarm, the Air Force carried out 70 logistic support flights, transporting 160,000 kg of cargo. Many of them served to bring medical supplies to Spain from China and NATO countries —Estonia, Luxembourg, Czech Republic, Turkey, etc.— in response to the Government's call for help. Others enabled equipment to be transported from the National Institute of Healthcare Management (INGESA) and the ONCE Foundation (Spain's National Organization for the blind) to the Balearic Islands, the Canary Islands, Ceuta and Melilla; as well as donations to charities and food banks.

The Armed Forces transferred the sick and the elderly by land, and took charge —with the utmost respect for the deceased— of the preparation and transport of bodies to the ice rinks in Madrid and Majadahonda and to the Institute of Forensic Medicine, set up by the Community of Madrid as temporary morgues. Likewise, medical supplies, biological samples and machinery were transported to manufacture personal protective equipment —such as masks—, as were basic necessities for food banks and social organizations.

The Armed Forces provided various social entities and hospitals with furniture, beds, chairs, containers, showers, refrigerators, portable tanks, hospital lamps, generators, etc., and sent them food and drinking water.

Logistic support was provided for the establishment or maintenance of facilities responding to social needs, such as nursing homes, juvenile care centres, shelters or hostels for the needy, in Burgos, Ceuta, León, Melilla, Requena, Santa Cruz de Tenerife, etc.

In support of the State Security Forces, the military carried out surveillance activities in nuclear power plants and other energy, water supply, transport and telecommunications infrastructures, while in collaboration with the Civil Guard they patrolled border posts.

Santiago Fernández del Vado
Opinion

THE ARMED FORCES HAVE SUPPORTED THE FOOD BANKS SINCE THE BEGINNING OF OPERATION BALMIS

Solidarity with the most disadvantaged

The Madrid Food Bank foundation exists because in the Community of Madrid there is food waste and poverty. This is the origin of our entity, which dates back to 1994. We are celebrating our 25th anniversary, a date that will mark a milestone in the wake of the crisis caused by COVID-19. We have had to reinvent ourselves.

The main activity of the Food Bank is to promote a circular economy (avoiding the destruction of surpluses and food waste) and to appeal to the solidarity of citizens and institutions, raising awareness of the needs of the most disadvantaged. At the present time, we cannot rely solely on food surpluses and we are forced, now more than ever, to seek the collaboration of companies, institutions and individuals in order to meet the demand for food. If in February 2020 we were distributing 1.4 million kilos per month, we are now at two million. We are providing a daily meal to 190,000 people who do not have enough income to buy food. The number of beneficiaries has increased by 46 per cent in the last three months. And everything has happened very fast.

We still do not know the extent of the post-COVID social crisis, but the indicators are not good, especially in the Community of Madrid was living below the poverty line. Of all these people, 500,000 lived in severe poverty (income below 355 euros per month) and 312,000 in Severe Material Deprivation (cannot afford at least four of the nine basic consumption items set by the EU, for example, eating protein twice a week).

There has been a lot of talk about “hunger queues”. Queues that already existed and are now being joined by new people. Many may wonder where these people came from; the answer is that they were invisible before. If a soup kitchen used to gather 400 people a day to sit at the table, now these people are outside queuing and social distancing, and there are probably more than 580 waiting. The coronavirus has given visibility to a reality that existed and of which many people were not aware. We were living inside a bubble that COVID-19 has burst.

We are a volunteer-based Foundation with 408 permanent volunteers with an average age of 65. Our profiles are varied: there are volunteers who have had a brilliant professional career and others whose professional development has been more modest. There are also many military men and women collaborating with our institution who bring a lot of rigour and order to the processes; active, efficient, principled people. All of them are empathetic with the underprivileged and have a very clear mission.

When we had to send the volunteers home in March—as most of them were at risk because of their age—we suddenly hit a wall. We launched an appeal for volunteers and, thanks to the solidarity of many people, especially young people, our four warehouses are operating more than ever. The new volunteers are led by our contract staff, they work on the front line, and, thanks to all of them, the distribution of food from the warehouses has been guaranteed.

We have also had the help of many volunteers to deliver meals to soup kitchens for their subsequent distribution. As of 18 June, we have provided, thanks to the collaboration with chef José Andrés’s NGO, World Central Kitchen, more than 620,000 meals. The numbers in this crisis are overwhelming.

I do not want to hide the fact that we suffered a lot, especially in March and April, because we had a big challenge ahead of us, with very poor visibility and a lot of confusion. Lack of human resources, teleworking with scarce IT resources, lack of protective measures for our people, thousands of requests for food aid, and overwhelmed charities unable to collect the food that was beginning to expire and could not reach the beneficiaries.

We have launched an appeal to mobilize everyone and to avoid stock-outs in our warehouses. There are countless signs of solidarity from companies and individuals with many donations, but we still need as much help as we can get. To solve the great logistic problem of transporting the food to the charities we continue to count on the help of private companies and the Armed Forces.

On 4 June, we were very fortunate to receive at our headquarters a visit from the Minister of Defence, the Secretary of State for Defence and representatives of the Operations Command, the 12th Brigade Guadarrama, the 11th Logistic Support Group, the Paratrooper Brigade and the Royal Guard, as well as other people from the Minister’s private office. During this visit we were able to express our deep appreciation for the help received through Operation Balmis, both in the transportation of food and in the disinfection of our facilities.
This pandemic has been one of those dramatic events that requires all of a State's resources to be brought into play. The Armed Forces are obviously part of those resources, and Operation Balmis is a practical example of the role of modern Armed Forces; namely, a close, reliable and versatile role.

The Army, Navy and Air Force are, first of all, a reserve of people available and ready to act in any situation. They have values such as discipline, spirit of service and sacrifice, and they are part of an organization designed to survive even in chaos and to continue operating no matter how difficult the conditions may be.

Discipline, organization and spirit of service are enhanced by education and training, and by the willingness shown by our soldiers to support their fellow citizens in all circumstances. Not only in their natural circumstances, but in any circumstance.

Neither should the capabilities of the Armed Forces be overlooked. Not all of them are useful in this crisis, but they are designed to serve in compromising and critical situations. They are diverse and sometimes unique.

I am not going to dwell on everything that has been done by the military because it is well known to all. However, I do think we have appraised a very important institutional and moral aspect. Our soldiers belong to all of us and they serve all of us. Their presence in our streets has helped to unite wills and foster the spirit of collective solidarity that is absolutely essential in order to emerge from a crisis.

Furthermore, the pandemic has provided us with many reflections and a profound experience on how to prepare ourselves for future crises. It has introduced concepts that are likely to stay, such as sufficiency and strategic reserve. Concepts that seemed a bit outdated in a global world, but that have been strongly rekindled. And this is not, as some have advocated, a return to an autarchic approach; this would be a very short-sighted view. There is a clear need to achieve a certain self-sufficiency in resources and strategic reserves in order to mitigate the first impact of a crisis, until the mechanisms of foreign cooperation —available to every country in the world in their particular situation and context—, manage to be implemented. Let us hope that this is one of the lessons learned at international level, and that the tragedy of COVID will end up serving as a meeting point for international solidarity and multilateralism.

There is no doubt that Defence is going to be affected in every country by the enormous uncertainty of the economic scenario we have to face. And this is where the work we are presenting here today gains special value, since it insists on the need to maintain an appropriate level of effort in Defence. An adequate level. I would like to make it clear that we do not intend to take advantage of the disorientation experienced by citizens as a result of the crisis to obtain more than what we strictly need, or to acquire capabilities that are no longer valid.

As the document rightly points out, Defence is also a safeguard that future crises can be more easily contained. And it has a second important added value as a driving force for employment, innovation and technological and industrial competitiveness.
Among the many ideas contained in the document, I would like to mention two that are also complementary. One is the need to thoroughly adapt future Defence capabilities to a multiform security scenario in which human security, with all its implications, is going to be the new core. A human security that is going to be intertwined with the concepts of security and defence of every country. This leads us to do our homework, to have to move out of our comfort zone. The classic planning... Some things will continue to be valid and others will have to be changed. It is no longer a question of wishing to have the most advanced technology, but to look for what is really useful for the protection of our citizens.

On the other hand, we need to work toward recovery on two levels: national and European. We must find a balance between an industrial niche —I would not say a defence industrial niche, but rather a national industrial one, part of a broad technological potential— enabling a certain level of sufficiency. And, at the same time, the integration of European chains, which is the only way to actually guarantee that we will be able to withstand the first few challenges. In Europe there is a real guarantee of supply, of both own and shared self-sufficiency. But without undermining our great ally on the other side of the Atlantic, since an effective multilateralism will be impossible without bridges.

We need to strengthen those bridges. It is not a question of administrations, but rather of citizens, countries, history, links and alliances. It is about having a broad vision. First of all, national and European, and then a growing commitment and vision, also within the Atlantic Alliance.

Moreover, as I often say, in order to build this more global planet, we must be more generous to those who we accuse today of being the cause of disinformation and unusual competitiveness. We should not be too naïve. Most fake news items are generated in our own societies and only 10 per cent of them are coming from foreign powers.

Without these steps, the European Union will not succeed in being the anchor, the stability enclave that both we and the world need. Because only the European Union has enough muscle to put together the very comprehensive instruments we require, including sufficient financial muscle.

I have great confidence in the amazing European DNA, which is essentially summarized in an exasperating slowness in decision-making (a task that usually takes at least all night), but then, at the same time, in an extraordinary capability to forge new paths on which Europe never retreats.

Good proof of this is the expression of will to prove that European Defence makes perfect sense, contained in the letter that the four Defence Ministers of Spain, France, Germany and Italy have addressed to the High Representative and to all their European counterparts.
International organizations are stepping up their efforts to help in reconstruction and are looking for lessons learned that will improve the security of all

UNITY IS STRENGTH

COVID-19 has shaken our societies with an intensity impossible to imagine just a few months ago. No one was ready for this, but international organizations are not only demonstrating their capacity for joint action and the undeniable need for multilateralism and solidarity, but also their ability to analyse what has happened, learn from experience and activate new response mechanisms guaranteeing our security and well-being. On 19 May, the 194 countries participating in the 73rd Assembly of the World Health Organization adopted an unprecedented resolution sealing the commitment to intensify efforts in the struggle for a vaccine that must be “global and accessible to all” and acknowledging the need for an “impartial, independent and comprehensive” evaluation to manage this crisis and improve the United Nations’ capacity to prevent and respond to future crises. For its part, Europe has taken a qualitative leap in the concept of solidarity and has demonstrated the solidity of the European project: in an unprecedented gesture, the European Commission approved an ambitious Recovery Plan on 27 May aiming at mobilizing a total of 3.1 billion euros. For the first time in its 60-year history, the EU will transfer part of its resources in the form of non-refundable grants to the countries hardest hit by the crisis, Spain being one of the main beneficiaries. Moreover, the Ministers of Foreign Affairs held a virtual meeting on 26 and 29 May, and agreed to give a fresh impetus to the Conference on the Future of Europe —scheduled for 9 May but cancelled due to the pandemic—to define the role the Union can and should play in the world, analyse deficiencies and stimulate sectors such as health, mobility, basic supplies and the use of technologies.
ENHANCED RESILIENCE

In the same vein, Defence Ministers held a videoconference on 12 May — chaired by the EU High Representative for Foreign Affairs and Security Policy, Josep Borrell, attended by NATO Secretary General Jens Stoltenberg and the UN Under-Secretary-General for Peace Operations, Jean Pierre Lacroix—to analyse the impact of the pandemic on our security and identify existing needs and gaps. After more than two months struggling against the effects of SARS-CoV-2, Defence Ministers were able to reflect on the lessons learned in areas such as solidarity, alliances, basic supplies or response capability. The ministers of the 27 member states agreed on the need to strengthen training and resilience for the future by preparing exercises, reinforcing work on cybersecurity and the fight against hybrid threats, paying special attention to measures to counter disinformation. All this, in close cooperation with our preferential partners: NATO and the UN.

And the first great lesson learned in this crisis is the critical role played by Member States’ Armed Forces in supporting civilian actors in different missions—the Spanish Defence Minister, Margarita Robles, informed her counterparts that in Spain, an average of 8,000 servicemen and women have conducted hundreds of operations every day since mid-March, showing people the reasons why they can trust their armed forces in times of adversity—and also providing cross-border support. In this regard, the Ministers expressed their appreciation of the European External Action Service Task Force (EEAS TF) established last April to facilitate information exchange and mutual assistance, as well as support among the Armed Forces of the 27 EU member states.

Minister Robles argued before her counterparts that “working together and improving mechanisms for cooperation will make the idea of a Europe that protects and defends its citizens a reality” in tackling global crises such as the one caused by the coronavirus. In her speech, Ms. Robles stated that “the current crisis shows us that security is integral and global, and requires solidarity and close cooperation through the EU”.

But when it comes to assessing lessons learned and improving our response capability, the minister said that “the European institutions have not acted in a sufficiently integrated fashion”. In this sense, Margarita Robles advocated “consolidating a sounder European industrial base”, and “strengthening our research and innovation capabilities in defence, making use of new cooperation models such as PESCO, CARD and the European Defence Fund”. She also expressed her firm conviction that the Armed Forces can help enhance our preparation and resilience through cooperation on projects of critical capabilities, such as the European and the Spanish Medical Command.

The ministers also discussed the implications of the pandemic beyond our borders—everything seems to indicate that COVID-19 will very likely deteriorate our security environment in the years to come—and agreed that the EU should do everything possible to keep all its missions and operations on the ground, combining the security of the personnel deployed with the performance of their duties, which
now include assisting civilian authorities in the battle against the disease.

In her speech, Margarita Robles, after reiterating “Spain’s unwavering commitment to European missions and operations”, stressed the importance of a presence in Africa as a sign of confidence and stability for those people that suffer the consequences of terrorism and institutional frailty, conveying the support of the European Union.

A few days later, the German, Spanish, French and Italian Defence ministers took a further step in their commitment to the “Europe that protects” and addressed a letter to the rest of their European counterparts as well as to Mr. Josep Borrell in which, on an

unwavering commitment to “our common European values”, the four ministers stated their intention to significantly intensify their efforts and to strive towards a more integrated, effective and capable European Union. To this end, they propose various lines of action aimed at enhancing the solidarity and resilience of the EU and the EU Member States through a more ambitious and comprehensive crisis management system and a communication strategy that will help to counter false narratives, strengthen Permanent Structured Cooperation (PESCO); reduce critical dependencies by enhancing own capabilities; progressing towards a greater common understanding of threats and challenges by developing a Strategic Compass concept, a tool that will improve our ability to act swiftly and decisively; and working on improving the coherence of EU tools, while remaining committed to strengthening the European pillar in cooperation with NATO, other international organisations, in particular, the United Nations, and partner countries.

ADAPTATION AND RESPONSE
On 14 May, for the first time in history, the NATO Military Committee including North Macedonia as a full member, held a virtual meeting in Chiefs of Defence format and discussed the Alliance’s ongoing missions and operations.

Secretary General Jens Stoltenberg stressed that “security challenges have not diminished because of COVID-19 and NATO must continue to ensure that the health crisis does not turn into a security crisis and continues to deliver credible and effective deterrence and defence”. Stoltenberg also underlined that NATO is analysing and discussing not only how to deal with this crisis, but also how NATO is preparing for the long-term effects of COVID-19 and working to help Allies bolster their resilience.

To this end, the Chiefs of Defence agreed on the need to continue delivering on NATO’s Readiness Initiative, modernizing the Alliance’s Command Structure, and sustaining all ongoing operations and missions. In this sense, missions in Afghanistan and Iraq dominated the talks.

In both cases, Air Chief Marshal Sir Stuart Peach, Chairman of the Military Committee, explained that despite a considerable reduction of troops due to the pandemic, the commitments made are still unwavering and the Alliance continues advising and training its security forces in addition to providing support in the fight against COVID-19.

In the specific case of Iraq, Marshal Peach pointed out that, “when health conditions permit, we will resume our training efforts as well as increase our activities by taking on some of the training activities of the Global Coalition against ISIS”.

With regard to the modernization of the Alliance and its adaptation to new challenges, the Chiefs of Staff discussed the steps taken since the new NATO Military Strategy was approved a year ago. The meeting helped to refine and implement the military objectives, the strategies set out and the capabilities needed through the Concept for the Deterrence and Defence of the Euro-Atlantic (DDA) and the NATO Warfighting Capstone Concept (NWCC). The latter, once defined, will be presented to the ministers at their next meeting in June.

Since the SARS-CoV-2 crisis began, the Alliance has been carrying out the unprecedented task of helping Allies and partners that need it. As of the end of May, there have been nearly 360 airlifts to transport medical staff and more than 1,000 tons of medical equipment; assistance has been provided in building 100 field hospitals and nearly 25,000 hospital beds; and nearly 7,000 medical staff have been deployed to support civilian efforts.

On 15 May, NATO responded to the request of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) to cooperate in the fight against COVID-19 and placed the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) at its disposal.

Rosa Ruiz

Poland has sent more than 70 tons of medical supplies and humanitarian aid to the Balkan countries that requested it.
COVID-19, LESSONS AND IMPLICATIONS FOR EU SECURITY AND DEFENCE

Since the beginning of the crisis caused by SARS-CoV-2, the EU has not only been acting with all the means at its disposal to cope with the pandemic but has also been constantly analysing and reflecting on key lessons and implications for its security and defence. The aim is to be ready to confront potential security consequences of the current pandemic and to be better prepared and resilient for the future.

PARTNERSHIPS
- Enhanced global competition demands strong multilateralism, with the United Nations at its core.
- Closer coordination with NATO, e.g. looking for synergies and avoiding duplications.
- Dialogue and cooperation with all international partners to cope with the pandemic.
- Coordination with partners on the ground (13 of the 17 EU CSDP missions and operations share the same theatre with UN missions).

SOLIDARITY
- EU Member States armed forces are helping each other.
- EEAS Task Force* supports and facilitates information exchange on national military assistance to civilian authorities.

RESPONSIVENESS
- Monitoring possible impact on the security and stability beyond EU borders, such as terrorism, e.g. in the Sahel.
- Our EU missions and operations need to be adaptable to changing circumstances and help partners.
- Fast track planning and decisions-making procedures.
- Making best use of our EEAS Early Warning System for conflict prevention and enhance if necessary.

CAPABILITIES
- Identify options for EU civilian missions to contribute to the EU response to the pandemic.
- PESCO projects: can generate collaborative projects enhancing the Union’s preparedness and resilience.
- European Defence Fund and Military Mobility need to be adequately funded, will also help EU’s economic recovery.
- EEAS — incl. Military Staff — could undertake stocktaking analysis to evaluate critical capabilities and existing gaps.

PREPAREDNESS
- Addressing vulnerabilities e.g. in cyber, hybrid, disinformation, or Chemical, Biological, Radiological, and Nuclear (CBRN) threats.
- Coordinated civil-military response, e.g. through exercises and training.
- Improving the protection of the EU’s internal information and communication networks.

* The European External Action Service Task Force (EEAS TF) provides a centralized information exchange platform to facilitate assistance and mutual support between the SAFs of different EU countries in their work and help the civilian authorities. Its work is closely linked to the European Commission, the Directorate General for Civil Protection and Humanitarian Aid Operations (DG ECHO) and the Emergency Response Coordination Centre (ERCC). It also holds regular meetings with NATO, including the Euro-Atlantic Disaster Response Coordination Centre (EADRC).
Disinformation and the European Union

Lieutenant Colonel Vicente Diaz de Villegas Roig
Private Office of the Undersecretary of Defence for Political Affairs

The truth is the first victim in conflicts. The duty of every civil society is to develop its own resilience and protect information as a common good. If you fail to take your place in the information environment, others will. During the Cold War, the potential mutual destruction guaranteed by a conflict with nuclear weapons served as a deterrent in the physical environment. However, the Internet and the subsequent boom of social networks have led the information environment to become a battleground. Government agencies, private organizations and other pressure groups fight a 24-hour battle for the narrative, where the technological gap no longer represents a determining factor.

Disinformation is taking precedence in today’s crises. Although it is not a new phenomenon, its systematic use and ease of dissemination, as a result of new technologies, have turned it into one of the main vehicles for hybrid threat. In this regard, the Joint Framework on Countering Hybrid Threats published by the European Union in 2016 states that “massive disinformation campaigns, using social media to control the political narrative or to radicalise, recruit and direct proxy actors can be vehicles for hybrid threats”.

Another Victim: Critical Thinking

In the battle for the narrative, disinformation seeks to generate doubts about the truthfulness of the facts, and thus the truth is relativized by devaluing public discourse so as to generate distrust in the institutions governing society. The main tool to achieve this effect is not so much a blatant lie, but rather the exploitation of information taken out of context and of messages that appeal more to emotion than to reason. An individual who doubts, mistrusts and is permanently subjected to infosaturation has a fickle opinion, which is an ideal situation to turn a passive opinion into an active conviction.

Assessing the effectiveness of disinformation is no simple task; the question is whether disinformation can create new opinions or simply strengthen existing ones. In order to do so, we need to consider society’s vulnerability factors such as the existence of external and internal divisions, the presence of minorities, fragile institutions and a weak media culture. Furthermore, the media utilized play a fundamental role. Customized narratives, in some cases microtargeting or even individualized targeting, interference in democratic processes, self-serving leaks, document falsification, etc. are just a few examples.

Boom of Social Networks

Those responsible for disinformation campaigns have found an ideal place to hide their digital footprint in cyberspace. In other words, the web makes it difficult to attribute actions, at least under traditional regulations.

The horizontal nature of social networks enables just about any citizen to become a journalist without going through any editorial filter. Community saturation and the presence of troll farms (people who make provocative comments attempting to create controversy or divert attention from a topic) have transformed the dynamics in the generation and dissemination of information. In addition to the foregoing, there are also semi-automatic and automatic

Its systematic use and ease of dissemination have turned it into one of the main vehicles for hybrid threats.
dissemination systems such as bots (computer programs that automatically perform repetitive tasks over the Internet) and zombie servers.

**HOW DO THEY DO IT?**

In order to increase log-on time to the net, platforms use customization algorithms that isolate internauts in a soundbox (filter bubble) with content related to the user’s search history, reducing access to information to contrast the news. Troll communities do similar work, generating a large number of false identities (sockpuppets) that convey the same idea with similar messages. In many cases, these messages are supported by false content created with increasingly sophisticated computer tools for sound, photo and video editing.

Humour has taken centre stage in information manipulation campaigns, for which memes have proved to be a very effective tool; an image with a short text that appeals to emotion and is easy to relay.

What is right is right if everyone does it. In 2006, Cialdini established the 6 principles of influence behind any attempt to persuade. One of them, the principle of social proof, states that “we determine what is correct by finding out what other people think is correct”.

This principle is fully valid on social networks since, once the information is on our radar, the more *likes* it gets, the more appealing it becomes. You can buy likes on the internet, and one of the main activities of troll communities is adding comments to the news to give the impression that most people agree with the ideas they promote.

Another method used to increase social polarization by taking advantage of controversial issues such as immigration or racial tensions is actively participating and taking both sides. Numerous cases have been detected in which sites and active profiles have been created from the same server, generating emotional content for each of the conflicting positions, thus seeking greater social division.

In this regard, the coronavirus disease has not escaped controversy. One of the most common theories circulating on the web is that the virus is a U.S. biological weapon that has been intentionally spread following Trump’s orders to isolate China. Another theory attributes its origin to an alleged British laboratory that also poisoned Russian dissident Skripal in Salisbury, and others argue that Chinese spies stole it from a Canadian laboratory.

**LEAKS: WHERE DOES MY OPINION COME FROM?**

One of the most powerful dissemination vehicles is *information leaks*. This is a very effective method since the target audience feels it has access to the truth because
it has been obtained directly from the source. In most cases, however, they are part of a disinformation campaign, since the dissemination occurs in a self-serving manner, is decontextualized, and tainted leaks are added, which are often unnoticed but produce intentional alterations.

The trial of four suspects accused of shooting down Malaysian Airlines MH17 flight with an anti-aircraft missile began in The Hague on 9 March. A month earlier, several media published news items pointing at “newly leaked documents” that allegedly proved that no BUK missile system (identified by investigators as having caused the air crash) was in the area of the accident.

HOW DOES THE EUROPEAN UNION PROTECT ITSELF?
Interference in electoral processes can be either targeted at voters, through campaigns to influence how they will vote, or at electronic systems, to modify databases that feed the census, the vote counting or simply to steal data.

The mere suspicion of the intention of manipulating the results of a vote generates a feeling of mistrust in the electorate that can undermine the legitimacy of the process.

The European Union has been forced to act given increased cases of interference in electoral processes, in particular, Brexit, the U.S. presidential elections and the French elections.

The EU Global Strategy of 2016, the year of the Brexit referendum, established a series of priorities, chief among which is the security of the EU against current threats. In order to counter threats, it presents a series of improvements in defence, cybernetic, anti-terrorist, energy and strategic communication capabilities.

The latter must be able, among other things, to rapidly and objectively refute disinformation, promote an open research and media environment both within and outside the European Union and develop its capability to take action through social networks.

The European Union’s Action Plan against Disinformation defines disinformation as “verifiably false or misleading information created, presented and disseminated for economic gain or to intentionally deceive the public, and may cause public harm. Public harm includes threat to democratic processes as well as to public goods such as Union citizens’ health, environment or security. Disinformation does not include inadvertent errors, satire and parody, or clearly identified partisan news and commentary”.

The Union’s coordinated response presented in the plan is based on four pillars:

• Improving the capabilities of Union institutions to detect, analyse and expose disinformation.
The proposed capability increase is achieved by reinforcing the Strategic Communication teams of the European External Action, the Delegations and the Hybrid Fusion Cell with specialised staff, monitoring services and big data analysis software.

- Strengthening coordinated and joint responses to disinformation. The plan assumes that prompt reaction via fact-based and effective communication is essential to counter and deter disinformation, including in cases of disinformation concerning Union matters and policies. Therefore, in March 2019, a Rapid Alert System was established in Brussels to facilitate sharing of data between Member States and EU institutions to enable a common situational awareness to facilitate the development of coordinated responses, ensuring time and resource efficiency.

- Mobilising private sector to tackle disinformation. Google and Facebook represent about 70 percent of web traffic; therefore, the audience of the vast majority of websites, including news sites, comes from these platforms. Brussels became aware of this fact and, about a year before the European Parliament elections, an EU Code of Practice against Disinformation was published.

The main online platforms (Facebook, Google and Twitter) signed the above-mentioned code, pledging to develop, before the date of the European Parliament elections, internal intelligence capabilities enabling them to detect, analyse and block malicious activities in their services. The Commission and the European Regulators Group for Audio-visual Media Services (ERGA) would monitor the implementation of the commitments made on a monthly basis.

- Raising awareness and improving societal resilience. “Greater public awareness is essential for improving societal resilience against the threat that disinformation poses. The starting point is a better understanding of the sources of disinformation and of the intentions, tools and objectives behind disinformation, but also of our own vulnerability”.

**WHO CERTIFIES THE IMPARTIALITY OF DIGITAL POLICE?**
The European Union’s code of practice against disinformation benefited from a great initial boost when the large social networking platforms implemented self-regulatory tools, mainly filters and moderators, against so-called “malicious activities”. However, both tools can be manipulated and thus their neutrality is questionable and their power to shape opinion undeniable. Therefore, in order to answer this question, it should be borne in mind that, in an apparent interest to identify information manipulation, one runs the risk of creating “ministries of truth” which, in order to strengthen a certain political mainstream, deteriorate one of the greatest achievements of democracy: freedom.

**OTHER INITIATIVES**
Many initiatives have emerged in recent years to analyse and detect information manipulation. Within the European Union, the East StratCom Force, under the EUvsDisinfo programme, analyses cases from Eastern Europe.

Its main publications are the Disinformation review, which analyses the cases detected on a weekly basis, and the Disinformation digest, which analyses the data collected to identify the objectives behind disinformation campaigns.

The NATO StratCom Centre of Excellence based in Riga provides analysis, advice, supports doctrine development and conducts research and experiments to find practical solutions in strategic communications, including disinformation. There are also other private or semi-private organizations such as the Digital Forensic Research Lab (DFRLab), Bellingcat, etc. in charge of analysing open sources and social networks in order to identify and expose instances of disinformation.

Finally, the traditional mainstream media, also present on the web, can play a significant role as guardians of sound journalistic practices. They are a key element in detecting and reporting information manipulation actions coming from outside and they also have a role to play in the education of society.

There are already quite a few media outlets making special efforts to unmask information manipulation such as, for instance, the Agence France Presse with its Fact Check, the BBC which produces Reality Check, Le Monde which publishes Decodex, etc.

Society can benefit from a collaborative environment between government, institutions, journalists, specialized associations, based on a common understanding of disinformation dynamics.

**NATO response to COVID-19 disinformation**

NATO has been affected by COVID-19 disinformation campaigns that focus on highlighting the lack of solidarity among allies, the irrelevance of measures coming from Brussels, and the damage the virus has caused to response capability.

In this regard, during the extraordinary meeting of NATO allies via teleconference on April 15, Defence Minister Margarita Robles underscored all the work the Atlantic organization is carrying out to counter disinformation, both in the field of public information and diplomacy. This action on the part of the Alliance is based on a process of analysing the information environment that includes traditional media, networks and audiences and allows for a timely, coherent and data-driven response.

Furthermore, in a crisis that knows no borders, coordination with other international organisations plays a key role. Therefore, NATO has forged closer ties with the EU in a common endeavour to counter the information manipulation linked to this health crisis.
“EVERYTHING has happened very quickly”, explains Air Force General Miguel Villarroya, who was appointed Chief of Defence (CHOD) on January 14th and two months later, on March 15th, also took over the Unified command of Operation Balmis against the coronavirus. “Whenever you start a new professional stage”, he reflects, “you face new challenges and time goes by quickly, without you even realising it; but this time, with the COVID-19 crisis and the Armed Forces’ deep involvement, everything has even been going much faster”. This has been mainly due not only to Balmis’ unified command, but also to the demands of his position as Chief of Defence: taking over the command of the Armed Forces’ operational structure, in charge of conducting operations abroad and permanent missions in the homeland; the responsibility for military planning; participating in international organizations and in allied planning; establishing joint action standards; and developing military doctrine. “In spite of this, when I think of my previous stage —adds this serviceman born in La Galera (Tarragona) 63 years ago, referring to the period when he headed the Technical Cabinet of the Minister of Defence— I have the strange feeling that it happened almost in another era since it now seems so long ago”.

—How can you fight a war against an invisible and unconventional enemy?
—In general terms, just like any other crisis or conflict. The operational structure, the capabilities of our Armed Forces and, in particular, the training and values of our personnel enable us to face a wide range of situations that may occur, by adapting day by day and with flexibility to new emerging challenges.

In particular with regard to health crises, we already had contingency plans ready for similar situations, although not of the global dimension.

“WE HAVE LEARNED A LOT DURING THIS CRISIS”

The CHOD states that “it is comforting to know that we have been there, wherever and whenever needed” and stresses that the recently approved structure of the Armed Forces is “more effective and flexible”.

“Different structures and capabilities must be maintained to enable us to respond to any threat”
and intensity of COVID-19. The 2014 Ebola crisis and Spain’s contingency plan for pandemics abroad are clear examples of this, although we have had to adapt them to the specific circumstances of this pandemic.

Anticipating the needs as they have arisen, the capacity of our soldiers and our organization to react, and our coordination with the rest of the institutions have been key to countering this invisible enemy.

—Has it been difficult to maintain the daily deployment of thousands of military men and women throughout the country?

—Not really. We have applied in a fast and efficient manner what we are trained to do in any crisis situation. We knew it was going to be a long-term operation and we have always borne this in mind in our planning. Besides, the experience gained over the last thirty years in missions abroad has also helped us to sustain our capabilities over time in this deployment throughout the national territory.

Obviously, the coronavirus crisis has involved an initial effort to adapt our tasks to meet the needs, by adapting our capabilities —logistic transport aircraft, helicopters, ships, military healthcare and medical staff— and sometimes just using our wits when facing a new situation.

That is why the Operations Command, from which the deployment has been led, has worked like in any other operation. We have highlighted existing synergies in the joint action of the Army, Air Force and Navy, the Military Emergencies Unit, the Royal Guard —explicitly offered by the King—, and the Inspectorate—General for Defence Health, when working as a team. It is also important to underline the good coordination with the various civilian institutions, which has been key to the development of the operation. And, of course, Balmis would not have been possible without the dedication, discipline, spirit of sacrifice and comradeship shown by all the men and women involved, in support of the citizens, wherever and whenever needed.
“Spaniards have had the chance to see first-hand, in their neighbourhoods, our full commitment to the service of society”

—Balmis will terminate when the state of alarm is declared ended. It is true that, as there are fewer requests for support, our level of contribution to the operation is decreasing. This does not mean that the Armed Forces’ involvement in the pandemic will end here. The only thing that will cease will be the extraordinary and effective mechanisms of the joint command, but support requests will be adequately addressed through the regular mechanisms of cooperation with the rest of society.

We have learned a lot and we will be better prepared in the future, both in terms of training and equipment. And should there be a fresh outbreak of COVID-19, we already have a contingency plan in place to be able to act quickly and efficiently, re-establishing the command and control structure as well as the support mechanisms. In any case, our flexibility enables us to be sufficiently prepared for any possible contingency of this or any other nature.

—Personally, which have been the most difficult moments you have gone through in this crisis?

—Undoubtedly, the most painful tasks have been those related to the transfer of the deceased to the intermediate morgues. From here, I would like to offer my condolences to those who have lost a loved one and to reiterate that we have considered all those we have looked after until their transfer to funeral homes as our own, as comrades, as brothers and sisters. Our servicemen and women have devoted all their efforts to this task, which we have carried out with special dedication and care, providing the solemnity and respect that family members and friends have been unable to offer.

—And the most rewarding?

—No moment can be considered particularly rewarding in the midst of this tragedy. Perhaps, receiving the support, the signs of affection and gratitude of society for the work carried out by our soldiers. We, the men and women in uniform, often talk about the innermost satisfaction of a job well done and, in this sense, it is comforting to know that we have been there, wherever and whenever needed, and that our efforts and dedication have helped to save lives and ensure Spain’s swift return to normalcy.

—Do you think the performance of the Armed Forces has improved the way society sees its soldiers?

—As we know, for many years now, the Armed Forces have traditionally been one of the most highly valued institutions according to the Spanish people. But despite this positive image, there have always been debates on the table that question us, such as the recurrent discussion on defence investment. For many citizens, we have often been an unknown institution and society has not always been aware of our contribution to security or of the work we carry out every day, both within and outside our borders.

With Balmis, Spaniards have had the chance to see first-hand, in their neighbourhoods, our full commitment to the service of society, that we work for and with society, and how in difficult times we are always where we are required to ensure the safety and well-being of all citizens, especially the most vulnerable.

—How is coronavirus affecting international missions?

—The impact in terms of operability has been practically zero. However, operations targeting at training
the military personnel of recipient countries have limited their activity at the request of those countries (mainly Afghanistan, Iraq and Mali) because of COVID-19 and, consequently, we have temporarily repatriated some of our troops. This drawdown has taken place in coordination with our allies and host nations and, once the necessary conditions are in place again, we will resume our work. The activity continues in perfectly normal conditions in all the other operations, always adopting the necessary measures for the prevention of COVID-19 infections.

I would like to point out that every member of the Armed Forces involved in operations abroad has to pass, before being deployed, the health security protocols established by our authorities and they also have to comply with the standards of the country of destination.

— Can the economic crisis undermine the operational requirements of the Army, Navy and Air Force?

— Clearly, the post-COVID-19 economic scenario is very serious and it will have a significant impact on the whole of society and in every sector. It is also true that defence investments represent investing in security, the cornerstone for the development of any society. To maintain our current model of society, on top of healthcare, education, justice and social services, there must be an adequate level of security to guarantee it.

Furthermore, defence investment generates other benefits, such as the return on technology and innovation, job creation or the strengthening of the Spanish industrial fabric, and it eventually acts as a driving force of the productive economy.

Our plans for operational requirements are long-term and must have budgetary stability to avoid jeopardising multi-year investments already underway or the maintenance of capabilities that would take years to recover if now lost.

— You have already held your first meetings with your EU and NATO counterparts. How is the pandemic being addressed in the allied field?

— This global crisis must have a global response. Cooperation between the members of the multinational organizations of which Spain is a member, such as the European Union and NATO, is essential to deal with any challenge. From the Military Committees of both organizations we have analysed the measures and mechanisms for crisis response, the possible medium-term effects and, of course, the lessons learned to be better prepared to cope with a potential new health crisis. This pandemic is of a transnational nature, it affects us all and we have to overcome it by working together and in a coordinated fashion.

— Will health crises be more present in the future plans of the Armed Forces?

— No doubt about it. We are living in a globalized world with many advantages, but at the same time with certain drawbacks. We will all have to adapt, and in the Armed Forces we are already doing so, by constantly learning in order to improve our operating procedures. Different structures and capabilities must be maintained to enable us to respond in a flexible manner not only to health crises but to any threat or challenge.

As far as our personnel is concerned, our traditional military values (discipline, courage, spirit of sacrifice, vocation of service, etc.) have still been found to be essential and provide us with the necessary human capital to face any challenge. We cannot give up our military status and we will continue to impart these values to our forces.

— Was this year’s Armed Forces Day very different from previous editions?

— Unfortunately, the situation in Spain right now does not call for a celebration. What we have done is to spend May 30th just like any other working day. And we have held a videoconference in the Operations Command presided by the King, to highlight the dedication and commitment of the men and women deployed not only in Operation Balmés, but in the rest of the missions in Spain and abroad. Due to COVID-19, the 2020 Armed Forces Day has been different, but at the same time special. I hope this year’s slogan, together for a better future, will guide our future actions.
—What challenges do you intend to address as CHOD?
—The challenges are many and very stimulating. The first one has come to the fore with the approval, at the Council of Ministers on May 19th, of the Royal Decree on the basic structure of the Armed Forces, which modernizes that structure, creating a more efficient organization with the necessary flexibility to adapt to the evolution of the environment. We have already started developing what is established in the Royal Decree, which will define a Defence Staff structure in line with the modernization and digital transformation of the Ministry.

The battle in cyberspace, in space, in the information environment and the emerging threats are challenges that must also be addressed. But perhaps the greatest challenge is related to the most important asset of the Armed Forces: their people. It is essential to keep them motivated, prepared and well equipped.

—What are the lessons learned in Operation Balmis that are reflected in this new structure of the Armed Forces?
—Basically, Balmis has not involved major changes to the structure, since we have demonstrated that we were ready for this kind of contingency and others of a different nature. Still, lessons can and should be learned in any operation. In this particular case, command and control, healthcare, CBRN and logistics capabilities have been critical, as it has become clear that a unified command improves efficiency and that our component command structure is very flexible and fast to implement. Health and CBRN capabilities are essential in pandemics, and logistics, as in any other operation, is vital.

The approved structure is intended to respond to the evolution of the Armed Forces’ actions when facing new challenges of a transnational nature, in which cyberspace and outer space now have greater relevance. The new organizational model is focused on knowledge, people and the growing potential of technologies, by standardizing the means and forms of action of the Army, Navy and Air Force in order to be more flexible and agile.

Santiago F. del Vado
Photos: Pepe Díaz
No one doubts anymore that the health crisis caused by the SARS-CoV-2 disease is not only the most serious one suffered by this generation so far, but also the toughest since the one at the beginning of the 20th century known as the Spanish flu. That pandemic a century ago infected around 500 million people, that is, approximately one third of the world’s population at that time, and it is estimated that it killed between 17 and 50 million people from March 1918 to March 1920, in three different waves.

The current pandemic is still far from those figures, but its impact is enormous and no continent, except Antarctica, has been unaffected by its dramatic consequences. At the time of writing these lines, the World Health Organization (WHO) estimates 11,669,259 confirmed cases and a death toll of 539,906 worldwide.

In order to stop this disease and to try to prevent a spread similar to the one of a hundred years ago, a number of measures have had to be taken, which have also put the world economy in quarantine. This simultaneous freezing of productive activities in all parts of the planet is also unprecedented. Proof thereof is the fact that the International Monetary Fund (IMF) forecasts that the world economy will contract by 4.9 per cent in 2020, a downturn of almost 7.8 per cent compared to 2019. As if this were not enough for us to worry about, the IMF also reports that there is a substantial risk of continued economic recession until 2021, thus we could now be facing the greatest crisis since the Second World War.

As a result of this contraction of economic activity, some estimates indicate that between 40 and 60 million people will fall into the pit of extreme poverty. In fact, COVID-19 is likely to cause the first increase in global poverty since 1998. Among all the regions in the world, sub-Saharan Africa will be the hardest hit by the worsening living conditions of the population. In addition to the effects on health and the economy, this pandemic is having a very negative impact on education, as 70 per cent of students around the world are being affected by school closures.

GLOBAL CRISIS

If we examine this impending economic crisis from the point of view of migration, the prospects look even more gloomy, since it is common knowledge that migrants tend to be particularly vulnerable in times of increased unemployment and high inflation which, according to an assessment carried out by the Organization for Economic Cooperation and Development (OECD), are precisely the most urgent economic risks faced by migrant receiving countries. In this regard, the World Bank estimates that overall global
Remittances sent by migrants to their countries of origin will fall by 20 per cent (developing countries received more than $550 billion in international remittances in 2019).

This dramatic decline will affect their economies significantly, as this is a major source of funding, which has helped hundreds of millions of people to overcome poverty in the past decade. Furthermore, this money sent by migrants has served to empower women, since they have taken on a greater role in financial decision-making, which has eventually led to improving the health and education conditions in their communities. To make matters even worse, the relative importance of remittance flows as a source of external finance is expected to increase for the duration of the crisis.

The movement restriction policy that has spread across the globe, including the closure of borders, is also unprecedented. Some estimates claim that these movement restrictions have affected 90 per cent of the world’s population. Migrants from all walks of life, whether they are refugees fleeing situations of violence or economic migrants looking for jobs, are not exempt from these restrictions on movement. In fact, in mid-March the High Commissioner for Refugees (UNHCR) and the International Organization for Migration (IOM) announced that they were temporarily suspending the resettlement of refugees and migrants as a result of COVID-19.

African irregular migration routes converging in Europe through the Mediterranean have also been strongly affected by mobility restrictions. A study conducted by the IOM has concluded that from May 2019 to May 2020 there has been a 39 per cent decrease in movements on some of these routes, such as those through Chad, Mali, Niger and Nigeria.

Another relevant fact obtained from this analysis is the estimate that, in this area alone, about 50,000 migrants are trapped without being able to move forward to cross the borders to their final destinations or in quarantine after having crossed those borders. In the
eastern part of the continent, the situation is even more acute. Thus, traffic on the route that leads to Yemen from the Horn of Africa has been reduced by 74% between March and April.

THE MOST VULNERABLE
The situation of these migrants, most of whom are in the hands of mafias to whom they have given all their savings, may become critical and many will have no choice but to try to reach their dream destinations no matter how. Furthermore, we must not forget that Africa has currently recorded more than 25 million people as displaced due to conflicts and insecurity. The majority of these displaced persons come from countries such as the Democratic Republic of the Congo, South Sudan, Somalia, Ethiopia, Sudan, Nigeria, the Central African Republic and Cameroon. Many of these refugees live poorly in overcrowded temporary settlements that make these populations highly vulnerable to the spread of diseases such as the coronavirus.

On the other hand, the spread of the pandemic in Africa still creates great uncertainty in a continent with a population of about 1.3 billion people and which, according to a 2016 study, is home to 22 of the 25 countries most vulnerable to infectious diseases.

The WHO is pessimistic about the evolution of the virus on the continent and forecasts that it will be the cause of tens of thousands of African deaths, despite the fact that, at the time of going to press, the statistics of the disease on the continent “only” show 397,942 confirmed cases and 7,415 deaths, although these figures are still growing. It is clear that, so far, the impact of the disease is much lower than in other regions. For instance, Europe, with a population of just over 740 million people, has already recorded 2,827,789 cases and 201,255 deaths.

Africa is obviously not prepared to fight a pandemic like this. In fact, no continent was ready, but the deficiencies in the African

The pandemic creates uncertainties in Africa as it is the most vulnerable continent to infectious diseases
countries’ health systems are huge and are reflected in the lack of means considered essential to overcome this disease, such as ventilators or the necessary tests for diagnosis.

Moreover, COVID-19 also threatens to condemn millions of Africans to poverty, as it is assumed that the continent will fall into its first recession in the last 25 years, a particularly serious prediction in a region where one out of three people live below the global poverty line. Therefore, hunger might rise strongly again in areas that seemed to foresee a brighter future, since besides the coronavirus pandemic we must also add locust infestations in East Africa or the current drought in the south of the continent, not to mention the persistence of diseases in many African countries, such as malaria or AIDS, or conflicts that have been frozen for years.

IMPACT ON EUROPE
All of the above leads us to believe that we cannot rule out a potential resurgence in irregular migration that will converge towards Europe as soon as the measures restricting mobility are relaxed. This cocktail of a health, economic, social and food crisis could push thousands of Africans to seek greater security within the Schengen area. In fact, fear of the virus has already triggered movements of a certain intensity in other parts of the world where borders are more permeable, such as those occurring between Iraq and Afghanistan or between the latter and Pakistan.

Clearly, irregular migration is not a new problem. The 2015 refugee crisis, which shook the foundations of the European Union, is still fresh in our minds. That year, the European citizens themselves witnessed the emergence of “many existential and conceptual anxieties and fears about their identity, security and well-being” (as published in an article in the journal Alternatives by analysts Ayse Ceyhan and Anastassi Tsoukala) with some very unexpected consequences, such as Brexit. The reaction to that migration crisis five years ago generated a change in approach that distanced the Union from the soft power model to adjust to the strategy of a stronger Europe. Therefore, in this context, it was decided to implement a military operation to counter the mafias trafficking in migrants, the already extinct Operation Sophia. The strengthening of the European Border and Coast Guard Agency, which is currently involved in an extensive recruitment process, is another indicator of the road taken towards the further securitization of the Union’s external borders.

Another Common Security and Defence Policy operation has recently been launched in the Mediterranean Sea, known as Operation Irini. However, on this occasion, the main task is to implement the UN arms embargo in Libya, while the dismantling of the business model of human trafficking networks has become a secondary task. If there is one thing we learned in 2015, it is that prevention is better than cure. In fact, the European Union institutions and bodies were heavily criticized for implementing a reactive rather than a preventive policy to address the issue of irregular migration. However, it now seems that this matter has once again taken a back seat on the European leaders’ agendas.

The coronavirus has caused a new form of insecurity and has contributed to intensifying others already existing in the sphere of economy, food, health, as well as personal and community security. European leaders have become aware of the new threat. Following the video conference held by EU defence ministers on 12 May, the High Representative of the Union for Foreign Affairs and Security Policy, Mr. Josep Borrell, said that “it is clear that this crisis will have far-reaching consequences for our societies, our economies, but also for our security and defence policy”.

One of the factors that might contribute to negatively increase the consequences referred to by the High Representative is the poor management of irregular migration when it reoccurs at our external borders.
Two battle tanks, a Spanish Leopard 2E and a Polish T-72, open fire and then retreat to a safe assembly area. This is the response of the allied “armour” to an attack against its defensive positions. Spike anti-tank missiles tear the sky wide open to repel the advance of hostile armoured units, while sappers breach obstacles between the lines to facilitate the infantry’s advance. M113 armoured personnel carriers open their rear doors and riflemen come out; they quickly cross a field of obstacles until they reach the enemy’s position supported by the fire of the vehicles they leave behind.

This is exercise Steel Crescendo, which took place from 4 to 9 May, 2020 at Adazi Training Grounds in Latvia, where the Spanish contingent participating in the deployment of NATO’s north eastern flank is located. A spokesman of the multinational battalion stated in a press release that “while we continue to take all the necessary measures to protect our Armed Forces during the COVID-19 pandemic, NATO’s operational readiness remains undiminished. Our forces remain ready, vigilant and prepared to respond to any threat.”

Steel Crescendo allowed the Battle Group to practise defensive fire using live ammunition. Training activities continued in the weeks that followed with exercise Steel Anvil, which focused on offensive operations with an opposing force element, and Mustang Dawn, a four-day rehearsal in which basic skills were practised at the platoon and squad level. The 350 Spanish troops of the battalion thus

The sixth Spanish contingent faces the final stretch of its mission in Latvia.
face the final stretch of their stay in Latvia as part of NATO’s Enhanced Forward Presence (eFP) mission, a deployment of a defensive nature that aims at maintaining deterrence against any aggression against the Baltic allies and Poland.

The eFP mission, which grew out of the Warsaw Summit in 2016, was established in the spring of 2017 on the basis of four rotating battalion-size battle groups operating together with the forces of the host nations (Estonia, Latvia, Lithuania and Poland). Canada, Germany, the United Kingdom and the United States are the framework nations of the four battle groups which, in total, comprise about 5,000 troops from 19 countries. They are under NATO command, through the Multinational Corps Northeast Headquarters in Szczecin, Poland; while Elblag, the Multinational Division Northeast Headquarters (MND-NE), also in Poland, coordinates the training and preparation activities.

The Spanish contingent is part of the battalion led by Canada, the most multinational of the four, with troops from Poland, Italy, Slovakia, Czech Republic, Slovenia, Albania and Montenegro. Altogether, 1,500 troops, including those of the service support units. Spain’s contribution, the second largest of the battalion, consists of a mechanized subgroup, a sapper unit, various posts within the main staff, and a national support element, including the logistic support unit that provides maintenance and supply to the force.

The current rotation -the sixth since the beginning of the mission, three
“The impact of the health crisis on the mission is minimal”

This is the seventh international mission for Lieutenant Colonel Emilio Hermoso, who leads the current Spanish troop rotation in Latvia, comprising about 350 soldiers, mostly from the 10th Brigade Guzman el Bueno. They arrived in January and are scheduled to return in mid-July.

The pandemic has caught the contingent far from Spain. How is this situation affecting all of you?

—We are living with certain concern for our families, but at the same time feeling proud of the behaviour of the Spanish people and of the service provided by our colleagues. The situation in Latvia is good. The impact of the health crisis on the mission is minimal. Some exercises have been cancelled, but similar activities have been scheduled instead at the Adazi training ground or other Latvian facilities.

You have participated in several international operations. Were any of them similar to this one?

—Every operation is different. This is my first deterrence mission. It is necessary to expand activities and achieve a cognitive impact on a potential adversary. Although we need to show exemplary behaviour in every operation, it is even more important in this one, because any mistake can be used to discredit NATO.

Latvia appears to be a stable and secure country. Why does it need the presence of an allied land force?

—Because its government has requested it. NATO’s permanent presence in the Baltic is a longstanding demand, in particular, since the Crimean crisis. Like any nation, Latvia has areas for development, one of them being security and defence. Spain’s commitment is to contribute to Latvia’s defence while it develops its own capabilities.

Is it very difficult to integrate units from different countries?

—it is not complicated, but it takes time. It previously requires unifying procedures and means. You also have to work in the human domain. It is a matter of living together over time and facing common challenges to unite wills and bring the battle group together.

What is life like at Adazi military base?

—Every day is different. There is no established routine. Readiness exercises are always ongoing. Units must pass a progressive and rigorous activity program. At least two nations participate in each activity. Exercises are always dual action, which is a continuous challenge. Having the entire unit permanently ready allows us to progress more quickly.

How are Spanish vehicles and tanks responding?

—Their performance is excellent. Tracked vehicles are best suited for humid and sandy terrain. The Latvian Armed Forces have also opted for this kind of means. As for firepower, Spanish means offer excellent features. Their performance in shooting exercises is enviable. Crews are very well trained because there is a lot of preparatory work behind each of them.

Has the harsh weather conditioned the mission?

—Yes, and not only because of the cold weather, but also because of the humidity and lack of light during the winter. Much is being learned in this respect and living with nations that are used to operating in extreme cold also helps.

Spanish is taught to other members of the tactical group. What is the purpose of this activity?

—Spain has a very strong culture and Spanish is the second most used language in the world and the fastest growing one. Why not offer it to other nations? What we want is to extend our culture, and what students want is to learn a language they can use in half of the world.
years ago, started last January 20 and is composed of units from the 10th Brigade Córdoba based at Cerro Muriano (Córdoba), mostly coming from the 2nd Infantry Regiment La Reina with elements from the 10th Armoured Regiment Guzman el Bueno, and the 10th Sapper Battalion. It also has elements from the 21st Signal Regiment and the 11th Field Artillery Regiment. For its part, the National Support Element (NSE) is made up of staff from the 11th Logistic Support Group.

The primary means provided by Spain are the Leopard 2E battle tanks and the Pizarro infantry fighting vehicles (IFV). This is the first time our country has deployed this type of means in a mission abroad. These include the Leopard 2ER recovery tank, better known as the Buffalo, which is in great demand by other contingents when vehicles are immobilized due to low temperatures. Moreover, other mechanized means are also provided, such as the M113 armoured personnel carrier, heavy mortars, sapper combat vehicles and the Spike anti-tank guided missile. The combat capability of the subgroup is completed by a Joint Terminal Attack Controller (JTAC) and a Raven remotely piloted aircraft system (RPAS).

Spain’s contribution is the second largest of the eFP battalion in Latvia, consisting of nine countries.
Units must pass a progressive and rigorous activity program at the platoon and squad level to keep physically fit and mentally prepared to conduct their missions.
IRON SPEAR COMPETITION

The Spanish tracked vehicles provide great mobility, protection and firepower to the battalion. As established by the Supreme Headquarters Allied Powers Europe (SHAPE), they are the most appropriate units to deal with a potential threat in this scenario, based mainly on similar means and capabilities.

The recognition and prestige of the Spanish armoured vehicles was once again highlighted last April in exercise Iron Spear 2020, a shooting competition held at Adazi training grounds. The Spaniards took the first three places in the battle tank competition and came first in the armoured vehicle competition.

Unlike previous years, this time the coronavirus crisis prevented the participation of personnel serving in other battalions deployed in Lithuania, Poland and Estonia. Battle tanks had to take down a set of fixed targets in the shortest possible time in competitions in day and night time conditions. In the battle tank competition, the Leopards from the 10th Regiment Córdoba came first, ahead of the Polish PT-91s fitted with automatic reloading.

The Spanish Pizarro armoured vehicles did the same in their category, ahead of the Slovak BMPs, the Canadian LAVs and Coyotes, and the Latvian Cimitars.

AIR POLICING

Spain also contributes to the air security of Europe’s eastern flank. The six F-18 fighters and the 132 personnel of the Vilkas detachment have completed their first month at Siauliai air base in Lithuania, where they lead the air policing mission that NATO has maintained since 2004 to preserve the integrity of the Estonian, Latvian and Lithuanian airspace, mainly against the Russian threat.

Aircraft occasionally operate with eFP battalions on air support missions. In mid-May, German and Norwegian troops from the Lithuanian Battle Group were trained with Spanish and British pilots to improve procedures. Spanish Air Force F-18s and Royal Air Force Eurofighters participated in various exercises with Joint Terminal Attack Controllers (JTACs), specialists who direct fighter aircraft to targets on the ground.

Victor Hernández
Photos: EMAD
OUTER SPACE as a strategic domain

Colonel José Luis Calvo Albero
Head of the Division for Security and Defence Studies and Coordination

When the Soviet Union announced in October 1957 that it had sent an artificial satellite into space, the event caused quite a commotion in the rest of the world. All the powers at that time were well aware that the control of space would give a decisive strategic advantage. The capabilities for observation, telecommunications and nuclear attack developed by devices placed in orbit were almost impossible to neutralize and granted an unquestionable position of superiority to those capable of deploying them. The Sputnik 1 launch triggered a strategic competition to place satellites in space, resulting in over a hundred satellites in operation only three years later.

Today, outer space is considered to be another domain of military operations. The United States has reinforced this idea with the establishment of a Space Force, conceived as an independent service within its Armed Forces. In any event, strategic competition in space is already a reality, driven by two main reasons. The best known is the development of anti-satellite systems (ASAT) by various powers, thus increasing the chances of confrontation in this domain. Another reason is that technological progress is ushering in a new era, in which the use of space is conceived in terms of exploration, search for resources and even the colonization of new human habitats beyond the Earth.

STRATEGIC CONSTRAINTS IN SPACE

The primary characteristic of outer space is that it is an unlimited and potentially infinite physical space. The strategic implications of this reality are so far-reaching that experts often prefer to leave them for the future, focusing space strategy on the much more limited domain of the so-called circumterrestrial space.

The second characteristic is that outer space is extremely hostile for human beings, and placing manned spacecraft there requires extremely complex and expensive life support systems. However, this domain is perfectly approachable by machines. Space exploration is one of the most promising fields for robotics and artificial intelligence, while saving the enormous cost and risks involved in sending human crews there.

The third characteristic of outer space is that it is very expensive to access. Fossil fuels used by Humanity as the main energy source since the Second Industrial Revolution are not particularly appropriate to overcome terrestrial gravity. Twenty years ago, it cost USD18,000 to place a one-kilo payload in space. However, today, and despite a dramatic cost reduction, SpaceX’s reusable Falcon 9 rockets still cost over USD2,500 per kilogramme.

In addition to the direct cost of each launch, delivering objects in space requires advanced technology for the development of rocket engines, as well as numerous infrastructure investments such as launching and monitoring centres. Few countries have reached full autonomy in the development of a space programme, and even those nations have tried to reduce huge costs by joining multinational projects. In fact, space exploration is one of the most successful fields in international cooperation.
Despite all the difficulties to access and remain in space, the benefits of its use are immense. Many activities of our daily life would be impossible without the support of the satellite network in space, and the situation is no different from the security and defence point of view. Without satellites, many weapon systems would simply not work, and both decision-making and the movement and deployment of forces would be dramatically slowed down.

Satellites have three essential uses for defence. First, observation and surveillance, either optical or by radar. Second, supporting telecommunication systems. Finally, the latest development is to use them for geographic positioning, enabling a receiver on the Earth’s surface to know its geographic location at any time by connecting to several satellites.

A fourth potential capability, which fortunately has hardly been developed, is the deployment of weapons, in particular nuclear weapons, in space. The danger of orbital nuclear weapons, initially developed both by the United States and the Soviet Union in the 1960s, had a lot to do with the signing of the Outer Space Treaty of 1967 which, since then, has considerably constrained what can be done in space from a strategic viewpoint.

In general, the Treaty established three basic principles that have since become the cornerstone of space exploration and strategy:
—Outer space is a global commons of all Humanity.
—Outer space should be used for peaceful purposes, and the deployment of nuclear armament, weapon tests, the conduct of military exercises or the establishment of military bases, facilities and fortifications are all strictly prohibited.
—States are accountable for their activities in space and maintain sovereignty over the objects they place there.

CONFRONTATION WELL BEYOND THE EARTH’S ATMOSPHERE
The increasing role of satellites in security and defence inevitably led nations to consider how to neutralize enemy satellite networks in a potential conflict. However, the solutions are still expensive and technically complex. There are several alternatives to neutralize a satellite. The easiest one is electronic warfare, jamming the reception of their broadcasts. This might be relatively easy with satellites located in very high orbits sending weak signals, such as geographic positioning satellites (located at approximately 20,000 kilometres) or geostationary communication satellites, with orbits synchronized with the Earth’s rotation, located at about 35,000 kilometres. However, there are numerous countermeasures to tackle jamming, usually focused on increasing the power of the broadcasted signal.

The physical destruction of a satellite is a more expensive and difficult measure, although it is also definitive. This requires sending a missile up to a height of hundreds or thousands of kilometres, with a guidance system enabling it to intercept a relatively small object moving at a speed ranging from 11,000 to 27,000 kilometres per hour. Even when the target is a self-owned satellite, the location of which is perfectly known at all times, the technological challenge is huge. So far, four countries have successfully conducted anti-satellite (ASAT) tests. The United States destroyed two of its own satellites, in 1985 and 2008. China successfully completed an ASAT test in 2007, destroying an inoperative satellite. India was the next power to prove its capabilities in 2019, with
the destruction of a satellite located at an altitude of 300 km. Russia is considered to have significant ASAT capabilities, in some cases from projects inherited from the Soviet Union. However, there is no evidence of the real destruction of satellites in orbit, although there is proof of missile flight with an ASAT mission, such as the PL-19 Nudol. In any event, so far it has only been possible to destroy self-owned satellites located in low orbits. Intercepting an alien satellite, without controlling its movements, involves a more complex challenge. If, in addition, they are geographic positioning or geostationary telecommunication satellites, placed in very high orbits, the issue becomes even more complicated and expensive, thus raising the question as to whether it is worth attempting physical destruction.

The obvious response to the limitations of the anti-satellite systems on Earth is to have available platforms located in space. These are the so-called “killer satellites”, capable of manoeuvring between orbits and eliminating a large number of enemy satellites at the cost of a single launch. However, so far there have been more killer satellites in fiction literature than in reality. In 2018, the United States accused Russia of testing one of them upon verifying the strange behaviour and manoeuvrability of the Kosmos 2521. However, there is no definite evidence suggesting that it was an ASAT satellite programme.

Something similar occurs with the U.S. X-37 orbital test vehicle, also capable of manoeuvring between orbits, and which could be used to capture enemy satellites. The possibility of capturing satellites instead of destroying them is particularly interesting since it prevents the production of fragments, which is very common in physical destruction and could pose a serious risk to other spacecraft.

Nevertheless, the greatest challenge ASAT weapons have to face is the progressive miniaturization of satellites, as this also involves a significant reduction in launch costs. The production of microsatellites, of which a complete fleet can be put into orbit in a single launch, may render efforts to physically destroy them economically unviable. In some cases, a space launch is not even necessary, and microsatellites can be put in orbit from a fighter at very high altitude, as in the Spanish Pilum programme. Although an ASAT system could jam, destroy or remove most of a microsatellite fleet, it would not cost much to place another fleet into orbit to replace the previous one.

ECONOMIC AND COMMERCIAL OPPORTUNITIES

One of the most important aspects left unclear by the Outer Space Treaty was the right to explore commercial resources in space. Although it established that a state cannot claim sovereignty over a celestial body, nothing is stipulated concerning the commercial exploitation of the mineral resources that this body may contain. In recent years, several states have taken advantage of this legal gap to claim their right to exploit resources in space.

Today, the economic exploitation of space resources still faces the problem of high costs. However, an increasing number of states and companies believe that the relationship between costs and potential gains is starting to balance out. In a few years, the commercial exploitation of some high-value mineral and energy resources could well be profitable. This is the case of lunar helium 3, which has in-
teresting potential as a fuel for fission reactors, and of platinum, a high-value metal with broad industrial applications. In addition, the presence of water or building materials, such as iron, in some asteroids and comets, could facilitate both the construction of infrastructures in space and the survival of human crews during long stays outside our planet.

In 2015, the United States launched the Commercial Space Launch Competitiveness Act, which authorized U.S. companies to exploit commercial resources in space. Luxembourg soon followed the idea, putting itself forward as the lead nation promoting space initiatives of a commercial nature, whilst Russia, India and China established their own national regulations. The commercial exploitation of resources located in space might lead to a real economic and technological revolution, although it also has the potential to rekindle geopolitical tensions as a result of the competition to access resources.

**SPACE COMMANDS AND FORCES**

When military satellites were first sent to space, the question arose as to which service of the Armed Forces should be in charge of the operations in this new environment. The air force was the best suited due to a simple matter of physical continuity, and in fact, talk of aerospace power soon began. Another possibility was to integrate space operations with the also burgeoning strategic missile forces, which was the solution adopted by the Soviet Union.

Over the years, operations in space developed a personality of their own, in many cases leading to the establishment of specific military structures. A “Space Command” to coordinate all the activities carried out by the armed forces in space was usually established, even though it did not have the organic command of the resources. This was the solution applied by the United States in 1982 with the establishment of the US Space Command, a strategic-level independent unified command.

After the collapse of the Soviet Union, Russia went a step further, establishing its “Space Force” in 1992. This was an independent branch from the Russian Armed Forces. However, the Space Force did not last long as an independent entity, and was integrated into the Strategic Missile Force in 1996. It became an independent force once again in 2001 after Vladimir Putin came to power. However, it was once more integrated into the Air Defence Forces in 2011, and reincorporated with the Air Force in 2015, as part of the new Aerospace Force.

The eventful history of the Russian Space Force clearly illustrates the difficulties of establishing an independent space force. Its primary mission, maintaining and protecting the fleet of satellites, is more technical than operational and requires fewer but very specialized personnel. It is often more cost-effective to integrate such personnel and all their support system, education and training into an already consolidated service than to establish a new one and maintain it as a separate structure. One of the major criticisms of President Trump’s recent decision to establish a Space Force as an independent service is that it generates unnecessary bureaucracy. Despite the criticism, the force has already been established, although its exact composition and specific missions have yet to be determined.

The establishment of the Space Force has also rekindled the debate on the militarization of outer space. This is a controversial issue as it seems to go against the traditional trend that considers this environment a demilitarized space and a global commons of Humanity. No one wishes to be left behind in the event of a confrontation in space that may neutralize satellite fleets. However, it is no secret either that such a confrontation would have catastrophic potential should it ever occur.

The idea that outer space should be a peaceful environment and a global commons of Humanity, which all nations should have access to and benefit equally from, was one of the key issues of the Outer Space Treaty, and this is precisely the spirit that should remain. Nevertheless, the Treaty needs to be reviewed to be better adapted to current technological possibilities, and establish regulations to contain competition between nations, thus preventing a conflict of potentially devastating consequences.
Francisco Xavier Balmis, PHYSICIAN AND SOLDIER

Operation Balmis against COVID-19 commemorates the man who headed the first humanitarian mission in history

In the mid-18th century, the Spanish Crown still occupied vast territories on the four known continents and ruled over about 25 million souls. Under the reign of the Bourbons, Spain had regained a leading position in international politics, while the Enlightenment was paving its way into a society steeped in a religious fervour contrary to the ideas then in vogue in European Royal courts.

In this context, the military institution was one of the main drivers of Hispanic progress, a seedbed of innovation where many intellectuals contributed with their experience and dedication to the cultural development of the country.

AN UNPARALLELED VOYAGE
The scientist Francisco Xavier Balmis, a military physician, had the honour of heading one of the most amazing philanthropic feats of all times, a quixotic venture on the eve of the Napoleonic invasion and the collapse of the Hispanic world.

This future physician, whose family was traditionally linked to the practice of medicine, was born in Alicante in 1753, the same year his father obtained his degree in surgery.

Following in his father’s footsteps, young Francisco Xavier passed his admission exam for a post as a resident doctor at the Military Hospital in his home town at the age of 17, studying under surgeon Ramon Gilabert.

At that time, King Charles III had approved a conscription ordinance (ordenanza de quintas) and Balmis...
was forced to declare himself exempt from military service in several drafts for different reasons, among them, his marriage to Josefa, daughter of the physician Tomás Mataix, with whom he had a son in 1775.

That year, however, he participated as a physician’s assistant in the expedition headed by Alejandro O’Reilly against Algiers, the failure of which involved the loss of many human lives. First on the North African coast and later in Alicante, where the wounded were disembarked, Balmis gained experience in this profession and was promoted through the medical ranks until he obtained his surgeon’s degree at the Royal Court of Medicine in Valencia in 1778.

**ENLISTED IN 1779**

A year later, he enlisted in the Spanish Navy as a second assistant surgeon and served in the Infantry Regiment in Zamora, one of the regiments assigned to the siege of Gibraltar during the War of Independence of the United States of America. Shortly afterwards, as a military surgeon, he crossed the Atlantic for the first time with the reinforcement troops that would end up tipping the balance in favour of Spain and its allies, giving rise to the birth of the American giant.

In New Spain (the Americas), completely detached from his family, Balmis fully developed his scientific vocation. He worked as a surgeon at the Hospital in Xalapa and, in 1786, he was appointed surgeon-major at the Amor de Dios Military Hospital in the capital of the viceroyalty, where he graduated in Arts from the University of Mexico (1787).

Temporarily separated from service, he devoted himself to the study of botany. He travelled around New Spain’s territory in search of native plants with medicinal benefits and, as director of the venereal disease ward at San Andrés Hospital —merged with the Amor de Dios Hospital since 1790—, Balmis experimented and was persuaded of the benefits of agave and begonia roots to cure certain sexually transmitted diseases.

He had to momentarily stop his research because the Viceroy ordered him to return to Spain to fulfil his marital obligations, since his wife had written to the Monarch declaring the state of abandonment in which her husband had left her.

In 1791, Balmis set off for the Peninsula to resolve his marital affairs, an opportunity he seized to take a great number of plants with him for the Botanical Garden of Madrid.

The 1790s, halfway between Europe and America, were the years of his recognition and social rise. Once his therapeutic treatment was approved in Mexico, he was commissioned to carry out his experiments in three hospitals of the Spanish Royal Court. There, he was forced to defend himself against his detractors by means of a document that was widely distributed in the Old Continent and in which he scientifically demonstrated the effectiveness of the medicinal plants he worked with.

He soon gained recognition. In 1795 he was appointed honorary physician to the royal chamber of King Charles IV and, after graduating in medicine from the University of Toledo (1797) and studying at the Royal Academy of Medicine and Practical Surgery in Madrid, he became a full member of the Academy of Medicine of Madrid. Meanwhile, he returned to New Spain in 1794 and 1797, this last time as a physician to the royal chamber of the Viceroy’s wife, with whom he returned to the Peninsula in 1799.

Shortly before that, in 1796, the Englishman E. Jenner had discovered the vaccine against smallpox, a milestone that received wide coverage all over Spain at the beginning of the 19th century. Balmis soon became one of its supporters and helped to distribute the vaccine by translating into Spanish the work of Frenchman Jacques L. Moreau on the benefits of vaccination, which he also prefaced in 1803.

Feeling confident about the possibility of eradicating a disease that caused the death of nearly 20 per cent of the population, Balmis convinced the King to bring the vaccine to his domains in America. A project that was submitted and approved by the Board of Physicians of the Royal Chamber, among which were also servicemen Antonio Gimbernat, Leonardo Galli and Ignacio Lacaba.
Thus the green light was given to the Royal Philanthropic Vaccine Expedition, and Balmis was entrusted to lead it. The port of departure chosen was La Coruña and the means of transport, the corvette María Pita.

**SALVANY, SECOND IN COMMAND**

Balmis was accompanied by the Catalan military surgeon José Salvany, Deputy Surgeon of the venture, two physician assistants, including his nephew Francisco Pastor; three nurses, 22 orphan boys from Santiago de Compostela to inoculate and preserve the vaccine during navigation, and finally, Isabel Zendal, the rector of the orphanage, to look after the children.

The expedition set sail on November 30, 1803, and vaccinations began in Tenerife. In February 1804, it continued to Puerto Rico and then to Caracas. There, Balmis subdivided the expedition; and took charge of the northern part of the continent, while Salvany went south.

This latter mission was confronted with adverse geography, endless forests and high peaks, which ended up costing Salvany’s life (1810). He died two years before the completion of a mission that reached the limits of Patagonia.

Balmis sailed to Veracruz after stopping in Havana and The Yucatan, and reached the capital of New Spain in August 1804. From Mexico City, he spread the vaccine throughout the viceroyalty before embarking on a voyage from Acapulco to the Philippines with 26 other boys. From Manila, he went with part of the expedition to Macao and Canton to distribute the vaccine in China. He finally returned via Santa Elena and Lisbon to Madrid, where he arrived in September 1806.

**RECOGNITION**

Balmis was paid tribute when he returned and resumed his work on the eve of the Napoleonic invasion. Loyal to King Ferdinand VII and since his goods had been confiscated by Joseph I, he settled in Seville and later in Cadiz, from where he returned to America (1809) with the task of assessing the results of the royal expedition and proposing improvements.

Upon his return to the Peninsula, as always loaded with exotic plants, Balmis settled in Madrid and continued with his scientific occupations until his death in February 1819.

His was a feat praised by Jenner himself, who wrote “I don’t imagine the annals of history furnish an example of philanthropy so noble, so extensive” as the Royal Philanthropic Vaccine Expedition, known forever as the Balmis Expedition.

**For more information on the world of Balmis**

The websites of the Royal Academy of History, the National Library and the Royal Botanical Garden, which has a copy of his treatise on the benefits of the agave and begonia roots, also contain references to Balmis.

**HOMAGE WEBSITE**

The Balmis Chair of Vaccinology at the University of Alicante offers extensive information on the website balmis.org. Another reference point is the Isabel Zendal Association, caretaker of the boys who were carriers of the vaccine on the expedition.

On the occasion of the 200th anniversary of this feat, the Military Health Magazine devoted its issue no. 60 to this milestone and the Spanish Defence Magazine (RED) published several articles on this event. Some novels have also been written about this mission, such as “Guardian Angels” by A. Arteaga.

**Germán Segura**
In order to combat smallpox, Balmis asked King Charles IV for permission to take the vaccine overseas. He set off from La Corunna (1803) on board the María Pita and arrived in Tenerife, Puerto Rico and Caracas. To expand activities, he sent Salvany to the south. He then went to Havana and New Spain. Balmis reached Mérida, Veracruz and Mexico City, while Gutiérrez Robredo covered Celaya, Zacatecas, Durango, Guadalajara and Valladolid; and F. Pastor arrived in Merida, Tabasco, Chiapas, Guatemala and Mexico City. They departed from Acapulco to Manila (Philippines), having achieved wide coverage of the vaccine. He went to Macao and Canton (China) and, just like Elcano, he returned via the Indian Ocean. He stopped in Santa Elena, Lisbon and arrived in Madrid in 1806.

In the Philippines, A. Pastor and P. Ortega vaccinated in the belts of Mindanao, Misamis, Zamboanga and Cebu. From Cartagena, Salvany brought the treatment to Panama via Portobello, to Buenos Aires and Patagonia. He separated from the team and reunited with them at different stages to continue his work. He vaccinated in Ocania, Santa Fé de Bogotá, Popayán, Quito, Trujillo and Lima. From here on, there were two roads, one to the interior: Arequipa, La Paz, Cochabamba; and the other, along the coast, to Santiago de Chile and Tierra de Fuego (1812).
A few weeks ago, I finished reading the splendid and latest great biography of Sir Winston Churchill—1470 pages!—whose author, Andrew Roberts, offers us a very detailed study of his life and of the military, literary and political career of one of the greatest public figures of the 20th century.

While reading this book, which I highly recommend, many facts caught my attention. Throughout this article, I would like to discuss one of those events I was personally unaware of until I read Roberts’ book: the first decoration that Winston Churchill wore on his chest was Spanish; it was none other than the Cross of the Order of Military Merit with Red Ribbon.

I imagine this detail will have come as a surprise to you—or at least to many of you—as much as it amazed me. I was completely ignorant of this fact, and this made me turn to archives and libraries so that I would be able to share these paragraphs with you, which I sincerely hope you will find of interest.

After his period at Sandhurst, Second Lieutenant Churchill was posted to His Majesty’s 4th Hussars Regiment on April 1, 1895. However, his military career in a unit of enormous prestige, but not deployed at that time, was far from fulfilling. This fact, together with his fondness for adventure, literature, journalistic chronicles, and—why not mention it—money, encouraged him to look for an adventure in war in order to gain experience and even earn some money from his war reports. In the summer of 1895, Churchill wanted to make the most of his long leave—ten weeks—to carry out his plans and saw the Cuban War of Independence as a unique opportunity.

ON CUBAN SOIL
He persuaded his regimental peer, Lieutenant Reginald Barnes, to join him in his Caribbean adventure and convinced His Majesty’s then British Ambassador to Madrid, Sir Henry Drummond-Wolf, who had been a good friend of his father’s, to get him the necessary military and diplomatic safe-conducts so that he could be attached as an observer to a Spanish unit deployed on the island.

Churchill succeeded in his objective and left for Cuba, via New York, with the aforementioned purpose—the Daily Graphic had hired him as a war correspondent—and two assignments from the British military intelligence services: on the one hand, to write a report on the striking power and penetration of the new rifles—the 1893 Mauser that had succeeded the 1871 Remington—and bullets—smokeless gunpowder cartridges—used by the Spanish Army in its campaigns on the island; and, on the other hand, to study the counterinsurgency tactics applied by the Spanish Army in Cuba which, incidentally, were used to a certain extent by the British forces during the Boer War in South Africa.
On November 17, 1895, Churchill and Barnes boarded a train from New York to Tampa, Florida, and from there they sailed on the steamer Olivette to Havana, where they arrived on November 20.

Once in the Cuban capital, Churchill and Barnes were welcomed —once again thanks to Drummond-Wolf— by the Captain-General (Governor) of Cuba, General Martínez Campos. After the customary greetings, the latter granted them their wish and attached the two young British officers to the General Staff of a mobile military column under the command of Major-General Alvaro Suárez Valdés, which was then deployed in Santa Clara. Once Churchill and Barnes achieved their goal, they immediately set off for Sancti Spiritus by train. This was a village located in the centre of the island, from where they reached —with a mounted military column—, the fortifications of the combat outpost in Arroyo Blanco.

It is worth mentioning that Suárez Valdés was actively involved, as a Major-General, in the campaigns in Holguín, La Habana, Matanzas, Capellanías and Ingenio Viejo, and his clashes during those years with Antonio Maceo’s and Máximo Gómez’s men deserve special mention. And it was precisely against Gómez’s men that Suárez Valdés’ mobile column was operating in those days.

Churchill had his baptism of fire on December 2, (however, Colonel Martínez Viqueira, one of the few authors who mention these events, maintains that the attack took place on November 30, Churchill’s twenty-first birthday. The decoration seems to have been awarded on December 2, although given that the skirmishes lasted at least 36 hours, it is difficult to pinpoint exactly when Churchill was considered worthy of winning the cross).

During a journey between Arroyo Blanco and La Reforma, when they were about to reach the village of Guayos, his column was caught by surprise by rebel fire. Churchill himself put it this way: “On that day for the first time I heard shots fired in anger, and heard bullets strike flesh or whistle through the air”. The first ambush lasted more than ten minutes and during that time Churchill and Barnes were under continuous rifle fire. For the next 36 hours, as the column marched forward, the mounted unit was under constant enemy fire. The firing did not subside during the time needed for the column to drive the rebels from the positions into which they had entrenched themselves.

Churchill and Barnes only remained on the island for 24 days —they left Havana on December 14— but no doubt these were very full days: in experience, emotions, writings and also in combats. Not even Churchill himself in his wildest dreams could have imagined before arriving in the
Caribbean the intensity of the little over three weeks he spent in Cuba attached to a Spanish Army unit.

**RECOGNITION**

And the icing on the cake of that fortnight was the proposal and award of the Cross of the Order of Military Merit with Red Ribbon. The proposal for the award was submitted, with Martinez-Campos’ approval, by General Valdés on December 6—a few days after the ambush—and ratified on January 25, 1896. The Cross of the Order of Military Merit was the first decoration that Churchill wore on his chest. This was no small feat. When I read the paragraphs that Roberts devotes to these events in his biography, I was eager to find out more about them and went to our magnificent —and often not sufficiently recognised—Military History and Culture Institute, whose director, Major General Bohigas Jayme, provided me with a copy of the Decoration Certificate awarded to Lieutenant Churchill, the original of which is kept in the General Military Archives of Segovia.

This certificate justifies the award on the following terms: “To British Army Lieutenants Winston Spencer Churchill and Reginald Barnes. Having informed His Excellency the District Commander General of the distinguished conduct observed by them during the action that took place in Guayos on the 2nd day of December, I have awarded the Cross of the Order of Military Merit, First Class, with Red Ribbon, free of charge to Hussars Lieutenants of the British Army, Messrs. Winston Spencer Churchill and Reginald Barnes, in recognition of their assistance together with the Army forces in the combat held against the rebels in Guayos on the 2nd day of this month of December. I state this by Royal Order for your information and use. May God bless Your Excellency for many years. Madrid, January 25, 1896. Signed by the General in Chief of the Army in Cuba.”

The Cross of the Order of Military Merit with Red Ribbon was not the only Spanish decoration Churchill earned. In 1914, when he was already Lord of the Admiralty, the government of King Alfonso XIII granted him the Cuban Campaign Medal (1895-1898). However, unlike the previous one, this award was a mere act of protocol.

From Churchill’s writings on these events—some in his war reports in the Daily Graphic, others in his memoirs of youth (My Early Life) and others in his correspondence with his mother—I would like to conclude by drawing your attention to a paragraph that shows Lieutenant Churchill’s feelings towards the Spanish Army and that Martinez Viqueira highlights: “Though not very many men were hit, the bullets traversed the entire length of the column, making the march very lively for everybody... These men had marched that day about 21 miles over the worst possible ground carrying their kits and ammunition, and had in addition been fired at for the best part of four hours. They are fine infantry”. Fine infantry. The Spanish. The faithful.
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