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**ROMANIAN AIR FORCE – 20  
YEARS IN NATO**

**INTEGRATED TRAINING  
DRILLS FOR ALLIED  
FIGHTER JETS**

**CONTEMPORARY  
HISTORY**





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**ROMANIAN AIR FORCE – 20 YEARS IN NATO**

**#WEARENATO  
STRONGER TOGETHER**

FROM MIG 21 TO F-35

We would like to provide the readers with an overview of the current missions and challenges of the Romanian Air Force (ROU AF) and we want to highlight the efforts of the entire ROU AF personnel to fulfill their responsibilities, as we are now witnessing an unprecedentedly complex international security environment.

In the past decades we faced hybrid, conventional and asymmetric threats, combined and intertwined from the Baltic Sea to the Black Sea, from the North Atlantic to the Mediterranean, and from non-state actors or failed states. And as of 24 February 2022 we all witnessed the unprovoked Russian Federation war in Ukraine. This requires constant and profound growth within the ROU AF to meet the new challenges confronting the North Atlantic Alliance.

The ROU AF has adopted a dynamic approach to meet the modernization requirements and to integrate them into NATO.

Romania officially joined the North Atlantic Treaty Organization (NATO) by submitting the instruments of accession to the United States Department of State in Washington, D.C., on March 29, 2004.

The Romanian rising flag ceremony was held at NATO headquarters on April 2, 2004





We started the transformation process that touched upon all aspects of our Air Force and intended to transform our capabilities and to fulfill our missions while experiencing budget pressure for many years until 2016 when in recognition of the changed security environment, the National Defence Strategy (NDS), included a specific commitment to meet NATO expectations. This specifically targeted military modernization by allocating two percent of Romania's Gross Domestic Product (GDP) to defence spending starting from 2017 for a minimum of ten years. Nowadays we're talking about a defence budget of 2.5 % from GDP, the situation changed and we were content to include those new assets foreseen to be a part of our inventory.

We implemented the first two stages of the transformation process; the main downsizing stage (2003–2007) and the NATO and European Union (EU) operational

international peacekeeping efforts by participating in MINUSMA - the UN Integrated Multidimensional Stabilization Mission in the Republic of Mali, with an Air



In 2005, Romania has participated with forces and assets to EUFOR Operation ALTHEA. The Romanian contingent, consisted of four IAR-330 PUMA SOCAT helicopters and 110 flying and maintenance personnel

integration phase (2008–2015). Excellent progress was made towards generating an agile and adaptable force structure, which is better suited to today's security environment. This process is to be finalized in 2025 and translates into a full integration into NATO and EU.

The ROU AF has come a long way since April 2004. In this respect we would like to mention that we started our missions abroad as members of the North Atlantic Alliance in 2005 when we deployed four IAR-330 SOCAT helicopters into Bosnia for one year and the following year, in 2006, for the first time Romania became the lead nation of the Kabul Afghanistan International Airport (KAIA) for four months. In 2007 we deployed four MiG-21 LanceR aircraft to Lithuania to secure the Baltic Nations' airspace while performing the Air Policing mission and in 2008 we secured the NATO Summit in Bucharest together with our US allies. In April 2011 we took over once more the KAIA lead nation mission, this time for a full year until the end of March 2012. Romanian Air Force also supported

Force detachment consisting of 120 military personnel and 4 IAR-330 L-RM helicopters, during October 2019- October 2020. And last but not least when speaking about major international missions, in 2023,

Romania assumed leadership of Kabul International Airport in Afghanistan, as LEAD NATION, for four months, between 1st April and 1st August 2006



honoring the commitment to the concept of collective defence, ROU AF participated with four F-16 Fighting Falcon aircraft and 100 personnel to the extended Air Policing mission in the Baltic states and it is in our



2007: In recognition of its level of readiness, NATO accepted Romania's proposal and consequently four MiG-21 LanceR aircraft belonging to the Romanian Air Force executed Air Policing missions in Estonia, Latvia and Lithuania

intend to contribute to this mission in the near future too. But first and foremost changing the mindset of ROU AF personnel was critical, because of the implications on all the other aspects that come along with an Alliance membership; common doctrine, interoperability, increased role specialization, participating in multinational exercises and in coalition operations.

Since NATO accession transforming the Air Force has been done to accomplish the following objectives: achieve NATO's and EU's commitments; upgrade to new Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems and Force Structure, add new logistics support structures, and modernize acquisition programmes. Our main goals were to develop our Air Force to be capable of performing a broad spectrum of tasks such as transport, Search and Rescue (SAR), Non-Combatant Evacuation Operations (NEO), air traffic management, reconnaissance, and most importantly protection of national and allied airspace within NATO Integrated Air and Missile Defence System (NATINAMDS). Today, at the core of the ROU AF are our fighters (F-16 Fighting Falcon), helicopters (IAR-330 Puma), transport aircraft (C-130 H and B, C-27J Spartan, An-30), the Air C2 system, radars and air defence systems (PATRIOT and Hawk).

We will continue to increase our operational capability through the multirole fighter aircraft procurement programme, projected to achieve a final operational air capability represented by three multirole fighter squadrons equipped with 5th generation F-35 Lightning II Joint Strike Fighters (JSF), through a transition period covered by three F-16 squadrons. To date, in the first phase of the programme, we have acquired 17 F-16 Mid-Life Upgrade (MLU) aircraft from the Government of the Republic of Portugal, we have trained our pilots and technicians, and the first squadron was declared operational in 2019 and is performing Air Policing missions ever since. There are ongoing activities to continue the programme, we expect that by the end of 2025 to receive all 32 aircraft from Norway, first three arrived in December 2023, to train additional personnel and at the same time to facilitate

our national defence industry involvement to be prepared to perform maintenance and logistic services for our F-16 fleet. We started the programme to upgrade the IAR-99 aircraft to an advanced training platform. Now that we have the multirole F-16 aircraft in our inventory, the IAR-99 requires a reconfiguring of the avionics and flight control systems to transition pilots through to the F-16. This programme targets to upgrade 20 IAR-99 aircraft to a new configuration and its aim is to increase reliability of the on-board installations and systems and to extend the aircraft lifecycle. This upgrading programme involves the national industry capabilities. Our Air Transport fleet is able to sustain our Armed Forces operations and deployments as well as other national humanitarian relief needs. The four C-130 B aircraft established our initial airlift capability, which has been further improved by other four C-130 H models received from the US and the procurement of seven C-27J Spartan aircraft in the past years. The ROU AF operates five Puma helicopters squadrons in different configurations, from the gunship version to transport, Medical Evacuation (MEDEVAC) and Search and Rescue (SAR) and recently we started an upgrade programme for the last helicopters in our inventory to be upgraded. We managed to modernize all helicopters to have the updated platforms available for peace-time missions on national territory, to



support the central and local authorities in case of emergency situations, and to participate in international missions as a part of Romania's commitment. Another important major acquisition programme was triggered when the decision was made to procure the long-range surface-to-air PATRIOT missile systems. The aim of this programme is to equip the Air Force with seven PATRIOT missile systems, to include the missiles, the C2 elements, the initial logistic support and personnel training, in order to defend the national airspace and the vital and strategic military and civilian critical assets. The first four systems were delivered by the end of 2023 and plans are in place for the acquisition of additional three firing units in the next years. Moreover the Short Range Air Defence/Very Short Range Air Defence (SHORAD/VSHORAD) integrated weapon

systems are considered to be purchased as Romania is determined to fully implement the Integrated Air and Missile Defence (IAMD) concept. The radar units utilize several types of digital radar stations such as Fixed Radar Surveillance (FPS 117), Transportable Radar Surveillance (TPS-79) Gap Filler and TPS-77. Our aim is to establish a reliable and sustainable C4ISR system. The MiG-21 LanceR was the workhorse of the ROU AF for decades, maintaining Quick Reaction Alert (QRA) to address potential airborne threats. With its retirement in May

Romania assumed leadership of Kabul International Airport in Afghanistan, as LEAD NATION, for one year, between April 1st, 2011 and March 31st, 2012 as the first nation with an one year mandate for this mission



2023, this task has been taken over gradually by the F-16's, ensuring increased responsiveness and reactivity. We have already mentioned the human resource as an essential factor and we want

Romania supported international peacekeeping efforts by participating in MINUSMA - the UN Integrated Multidimensional Stabilization Mission in the Republic of Mali, with an Air Force detachment

to provide, as one of top priorities, well trained and equipped airmen and airwomen for the future challenges. With this in mind, officers, NCOs, airmen and civilian employees undergo a comprehensive training program throughout their careers,

Honoring the commitment to the concept of collective defense, Romania participated in 2023 with F-16 Fighting Falcon fighters, to the Air Policing mission in the Baltic states

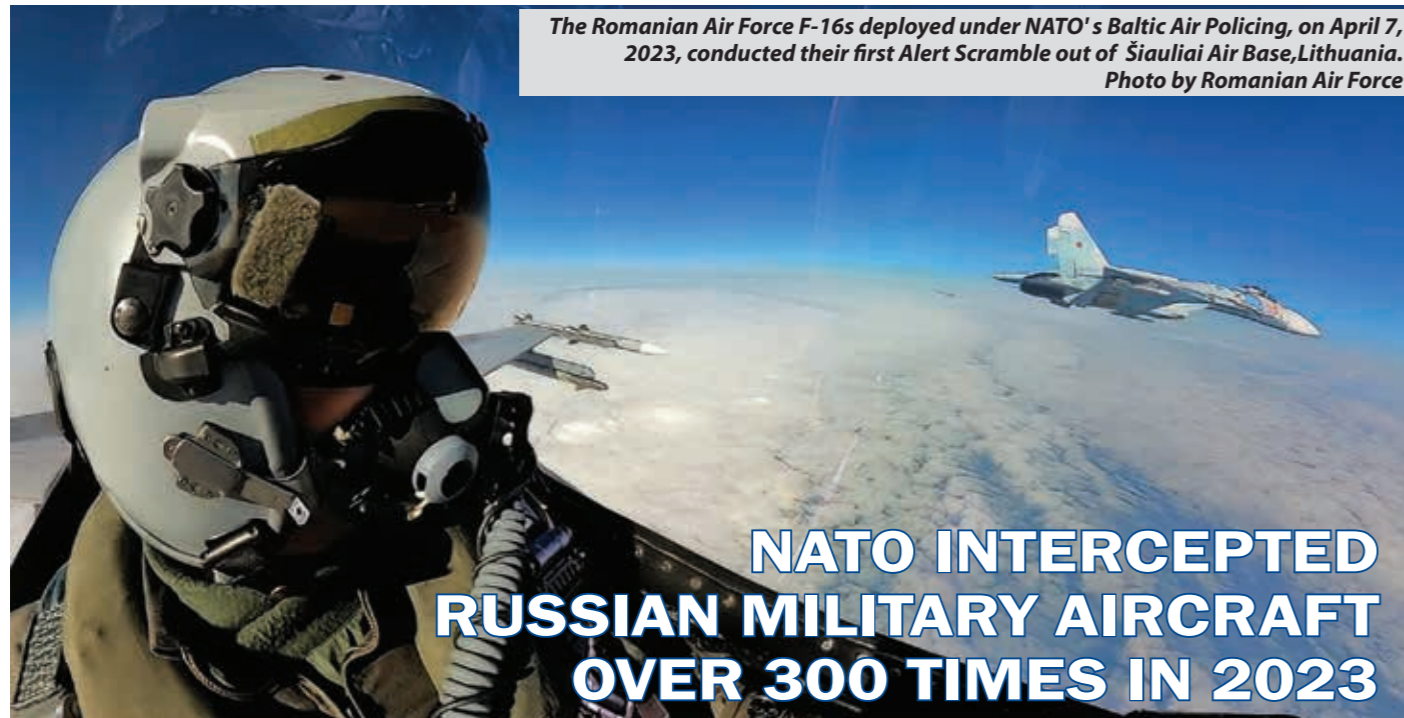
in country or abroad. We are continually reviewing the training methodology and the syllabus to enhance situational awareness, leverage knowledge and, at the end of the day, to have the right airmen taking the right decisions, to execute a mission in the most effective manner. We need to keep pace with the new security environment and hybrid challenges, academically and doctrinally, and our equipment needs to have the embedded flexibility to be capable of adapting to future demands. The enhanced Air Policing missions, enhanced Vigilance Activities

missions or Flexible Deterrence Options missions executed in partnership with our NATO allies and partners reinforced the cooperation and, at the same time, effectively contributed to the collective effort in managing the threats against Euro-Atlantic security. Our agile and deployable force structure, supported by the ongoing modernization and procurement programmes will further strengthen our Air Force and the deterrence and defence posture of the Eastern flank of the Alliance. To conclude, the ROU AF is effectively contributing to homeland and alliance security by safeguarding its airspace. We will continue to upgrade and consolidate our combat capabilities with the view of defending our national and rule-of-law values and respecting the commitments made by our country at the international level to bolster regional and Alliance security.

Story by Colonel Cristian Şolea – acting Director of the Romanian Air Force Staff  
Photo source: CER SENIN – Romanian Airforce Magazine archive







The Romanian Air Force F-16s deployed under NATO's Baltic Air Policing, on April 7, 2023, conducted their first Alert Scramble out of Šiauliai Air Base, Lithuania. Photo by Romanian Air Force

## NATO INTERCEPTED RUSSIAN MILITARY AIRCRAFT OVER 300 TIMES IN 2023

In 2023, NATO air forces across Europe scrambled well over 300 times to intercept Russian military aircraft approaching Alliance airspace, with most intercepts occurring over the Baltic Sea. NATO had standing air-policing missions that called for Allied jets to scramble when there were signs of Russian military planes approaching Allied airspace in unpredictable ways.

Along NATO's eastern flank, Russian military aircraft had a history of not transmitting a transponder code indicating their position and altitude, not filing a flight plan, or not communicating with air traffic controllers. The vast majority of aerial encounters between NATO and Russian jets were safe and professional. Breaches of NATO airspace by Russian military aircraft remained rare

and generally of short duration. "Russia's war against Ukraine created the most dangerous security situation in Europe in decades," said acting NATO Spokesperson Dylan White. "NATO fighter jets were on duty around the clock, ready to scramble in case of suspicious or unannounced flights near the airspace of our Allies. Air policing was an important way in which NATO

provided security for our Allies," he added. In the wake of Russia's war in Ukraine, NATO substantially reinforced its air defenses on its eastern flank, including with more fighter jets, surveillance flights, and ground-based air defenses. After repeated Russian strikes on Ukrainian infrastructure very close to NATO territory, Allies deployed extra fighter jets to Romania. In October, after subsea pipelines ruptured in the Baltic Sea, NATO sent additional capabilities to the region. Last year, NATO also held its biggest-ever air exercise, with over 250 aircraft training for the collective defense of the Alliance during "Air Defender 23".



"NATO fighter jets are on duty around the clock, ready to scramble in case of suspicious or unannounced flights near the airspace of our Allies. Air policing is an important way in which NATO provides security for our Allies," said acting NATO Spokesperson Dylan White. Photos by German Air Force, Royal Air Force, Belgian Air Force, Royal Danish Air Force



Photo courtesy Allied Air Command Public Affairs Office

NATO's Exercise 'Steadfast Defender 24' began on 24 January 2024. Planned to highlight and exercise NATO's ability to deploy forces rapidly from North America and other parts of the Alliance to reinforce the defence of Europe, it is the largest NATO exercise since the last 'Reforger' exercise near the end of the Cold War.

Running until 31 May, 'Steadfast Defender 24' is NATO's principal multi-domain exercise for 2024 and will consist of a series of national and multinational large-scale, live exercises conducted across various geographical locations. The exercise will involve around 90,000 personnel from the armed forces of 31 NATO allies plus Sweden and will take place primarily in Finland, Estonia, Germany, Greece, Hungary, Latvia, Lithuania, Norway, Poland, Romania, Slovakia, Sweden and the United Kingdom. More than 1,100 combat vehicles will be deployed for the manoeuvres, including 166 tanks, 533 infantry fighting vehicles and 417 armoured personnel carriers, according to a NATO fact sheet

There will also be more than 50 naval assets, including aircraft carriers, destroyers, frigates and corvettes, and more than 80 air assets, including F-35s, F/A-18s, Harriers, F-15s, helicopters and myriad unmanned aerial vehicles. The last equivalent large-scale NATO exercises were 'Reforger' in 1988, which involved 125,000 military personnel, and Exercise 'Trident Juncture 2018', which involved 50,000. "Steadfast Defender 2024' will be a clear demonstration of our unity, strength and determination to protect each other, our values and the rules-based international order," US Army General Christopher G Cavoli, NATO's Supreme

NATO's Exercise 'Steadfast Defender 24' began on 24 January with the US Navy dock landing ship USS Gunston Hall sailing from Norfolk, Virginia. Following a series of operations, the ship will traverse the Atlantic. Photo: US Navy



# STEADFAST DEFENDER 24



Text: Peter Felstead  
An article published on January 26 on the official website of ESD/European Security & Defence (www.euro-sd.com)

Allied Commander Europe, was quoted as saying in a NATO press release. The exercise is officially based on a fictitious Article 5 scenario "triggered by a fictitious attack against the alliance launched by a near-peer adversary", according to alliance officials. However, given that Russia has launched the largest conflict in Europe since the Second World War in invading neighbouring Ukraine, 'Steadfast Defender' will inevitably incorporate defence plans based on Russia's actions. "Russia's war of aggression against Ukraine will shape our understanding of conflict for years to come," a NATO official was quoted as saying in a US Department of Defense press release in the exercise. "NATO is observing the conflict in Ukraine closely in order to improve our readiness and refine our future training, capabilities and innovation."





# IT'S A FIRST!

## NATO AWACS ALL-FEMALE AIRCREW COMPLETE SORTIE IN SUPPORT OF ENHANCED VIGILANCE ACTIVITIES

For the first time ever, the NATO Airborne Early Warning and Control Force (NAEW&CF) conducted command and control (C2) operations on Friday, Feb. 9, 2024, with an all-female aircrew composition. The flight was a regular mission sortie for the multinational crew in support of NATO's enhanced Vigilance Activities (eVA). With the flight NATO AWACS highlights the women working in the Airborne Early Warning community and shines a light on female aviation.

"The purpose of this flight encompassed our operational mission safeguarding NATO's borders," said Captain Béatrice, Aircrew Training Squadron Flight Commander. She explained that it is normal for the E-3A AWACS to have women on the flight or serve as maintainers for the aircraft. "The flight demonstrates that the mission

and every position on board the AWACS can be executed by women," said Captain Ciara, Aircrew Training Squadron Simulator Operations Chief. "Showcasing the capabilities of the female crew will prove that women are able to perform in traditionally male-dominated occupations in equal capacity." The flight was organised by the NAEW&CF

Women's Initiative Team (WIT) who aim to champion equality and inclusion and was the first attempt of a crew comprised of female aviators representing various backgrounds highlighting the achievements of women in aviation. According to the 2020 Summary of the National Reports of NATO Member and Partner Nations, the average percentage of women in the armed forces of the NATO Alliance has more than doubled since 1998. As the Alliance's mission is to protect its one billion people, NATO believes that women play a vital role in all that is done to build a stronger Alliance that draws on the skills and talents of its diverse population.

"Everyone is unique and brings individual talents to the team, which benefits our operational effectiveness within NATO," said Technical Sergeant Maddie, 852<sup>nd</sup> Medical Dental Squadron Laboratory NCO In-Charge. "By recognising strength in diversity, we can unleash its potential and positively impact the culture at NATO." Since 2013, gender perspectives have been integrated in NATO defence planning, Strategic Intelligence Requirements, and in its work to counter terrorism. NATO believes every policy, program, or project can affect men and women differently, so understanding these differences can help improve the way work is pursued.

Story by AWACS Public Affairs Office



NATO Airborne Early Warning and Control Force crew members discuss the mission. NATO Photo by NATO Channel/Michael Linennen

## ALLIED AIR COMMAND CEREMONY MARKED SWEDISH ACCESSION TO NATO

Headquarters Allied Air Command (AIRCOM) celebrated the accession of Sweden to the Alliance in a flag-raising ceremony on Mar 11, 2024, formally recognising Sweden as the 32<sup>nd</sup> NATO member.

"It is a great honour to host this historic ceremony at AIRCOM," said General James B. Hecker, AIRCOM Commander. "AIRCOM has a longstanding and extremely valuable relationship with the Swedish Air Force and I am looking forward to seeing this grow further now that Sweden has become a full member of NATO. Sweden is a great addition to NATO and will make a tremendous contribution to collective security," General Hecker added.

The Commander of the Swedish Air Force, Major General Jonas Wikman, joined AIRCOM senior leaders and staff at Ramstein Air Base for a traditional flag raising ceremony, a visible sign to commemorate the accession.

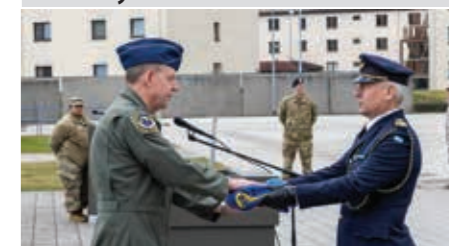
"It's been an honour to travel to Ramstein to mark this special occasion. Sweden has served as a partner nation, closely collaborating with NATO for a substantial duration. As a full NATO member, we are committed to meeting our mutual high expectations, prioritising the preservation of our freedom and security," Major General Wikman, added.

As a long-standing partner of the Alliance, Sweden already has a high degree of interoperability with NATO countries. In 1994, Sweden joined the Partnership for Peace (PfP). The PfP aims to build trust and facilitate cooperation between NATO and individual non-member countries in the Euro-Atlantic area. In 1997, Sweden also became a member of the Euro-Atlantic Partnership Council, which is a forum for political dialogue between all NATO members and partner countries.

With the Swedish accession, the Alliance welcomes the addition of the Swedish Gripen fighter jets, one of the most versatile modern platforms, along with Global Eye reconnaissance aircraft and the PATRIOT ground-based-air defence systems which will make a considerable contribution to collective security and defence.



Above: at 12:15 on March 11, the Swedish flag was raised at Allied Air Command and simultaneously across NATO military headquarters. Below: after welcoming Sweden to his command, General James B. Hecker, Commander of NATO's Allied Air Command, receives the Swedish flag from the Swedish Air Force Senior enlisted leader. Photos by Arnaud Chamberlin.



## SWEDISH GRIPEN CONDUCTED FIRST VISUAL IDENTIFICATIONS OVER BALTIC SEA AS NATO MEMBER

For the first time as a NATO member, Swedish JAS-39 Gripen jets launched under NATO arrangements to safeguard the skies over the Baltic Sea flying with German and Belgian quick reaction alert aircraft.

In the morning of March 11, Allied radar operators picked up an unidentified track over the Baltic Sea going from Kaliningrad to mainland Russia; the controllers at NATO's CAOC at Uedem subsequently coordinated the launch of Swedish NATO jets from Sweden and ordered Belgian F-16 fighter jets to launch from Šiauliai Air Base, Lithuania. Both Allies visually identified a Russian Tu-134 that was not on flight plan. Later in the day, another track of a Russian An-26 showed on NATO's radar screens and the CAOC alerted the German Quick Reaction Alert Interceptors at Lielvarde to launch and establish further details of the track. The Swedish JAS-39 Gripen jets were also launched and both Allies conducted a visual identification of a Russian military aircraft type An-26 and escorted the plane.

This mission was complete when the Swedish and German were assigned another task which involved another identification procedure

on the Russian Tu-134.

Upon professionally conducting these routine visual identification missions, the NATO jets from Belgium, Germany and Sweden returned to their bases.

This first real-world mission of Swedish Gripen occurred only days after becoming a NATO member. It is an impressive demonstration of the deep integration Swedish Air Force have achieved with NATO Air Policing forces and the close and smooth interoperability in support of safeguarding NATO over the Baltic Sea.

Allied fighter jets regularly take to the skies to intercept and identify Russian planes flying in international airspace near NATO territory. As a precaution, NATO command and control launch fighters to identify these planes and track their flight path while operating close to Allies territory or over Alliance operations. For the Germans this scramble has been the second since taking over the Air Policing mission at Lielvarde on March 1, while Belgian jets have been scramble roughly a dozen times since beginning their mission at Šiauliai on December 1<sup>st</sup>, 2023.



Swedish JAS-39 Gripen fighters conducted their first visual identification as a NATO member with Belgian F-16 jets over the Baltic Sea. Photo courtesy Belgian Air Force



The Swedish JAS-39 Gripen conducted the second visual identification, together with German Eurofighters, demonstrating their integration within NATO Air Power. Photo courtesy of the German Air Force





## LATVIA PREPARES NATO BALTIC AIR POLICING TAKE-OVER



In 2017, Lielvarde Air Base hosted exercise Ramstein Dust. For several weeks, a deployable NATO surveillance and control unit was integrated into Allied control arrangement out of Lielvarde. The Air Base will host NATO's Air Policing mission from March to the end of November 2024 and enable 24/7 readiness alert scrambles securing the skies in the Black Sea region. Photo courtesy Latvian Armed Forces

Since January 9, Latvia started preparing for taking over NATO's Baltic Air Policing mission. Due to runway works at Āmari Air Base, Estonia, the mission moved to Lielvarde from March to the end of November.

The Latvian Air Base got ready to host 24/7 Air Policing operations, as German Eurofighters were scheduled to deploy to Lielvarde for nine months and fly alert and training scrambles from there.

They were the first NATO jets stationed at Lielvarde for this mission. The German jets conducted test flights and familiarized themselves with the mission in February. Once certified by NATO, they carried

on with the collective mission and safeguarded the Baltic Sea airspace together with other Allies that operated out of Šiauliai Air Base, Lithuania. While the focus of the German support of NATO Air Policing was on Lielvarde Air Base, Āmari Air Base was used for a deployment of Germany's Deployable Control and

Reporting Centre which – from mid-March to the end of June 2024 – augmented NATO's surveillance and control capability in the Baltic Sea region. During that time, German Air Traffic Controllers were integrated into the Control and Reporting Centres in Estonia, Latvia, and Lithuania.

As of January 15, four F-35 fighter aircraft were scheduled to fly NATO Air Policing sorties out of Keflavik Air Base, Iceland, until mid-February. This was the fourth time Norway deployed their fifth-generation jets to this mission.

The Norwegian detachment conducted the first of three Allied fighter deployments to Iceland scheduled in 2024. Two Norwegian F-35s at Keflavik were on stand-by 24/7, ready to scramble to safeguard NATO and international airspace near Iceland. Sorties included training and alert scrambles, e.g., to identify unknown aircraft as a legitimate response to maintain the territorial integrity of the NATO Ally in the High North.

Under NATO Air Policing arrangements, which were overseen by Allied Air Command at Ramstein, Germany, all Allies collectively contributed to the mission across the airspace in Europe. At home, the Royal Norwegian Air Force kept a watchful eye on own and adjacent airspace. Their F-35s carried out this mission for NATO from Evenes Air Base, some 1400 kms north of Oslo, where they were ready to scramble 24/7/365.

Since 2008, NATO Allies continuously deployed fighter aircraft to Iceland on a rotational basis to provide and train interceptors ensuring the safety and security of the Icelandic airspace, integrating the Ally in the High North into NATO Air Policing.

## NORWAY BEGAN 2024 WITH AN F-35 DEPLOYMENT TO ICELAND



The first Allied fighter deployment to Iceland in 2024 is the fourth time Norway sends their F-35s to support the NATO mission here. Archive photo by Torbjorn Kjosvold



The Norwegian detachment also includes their own Force Protection component that will secure the F-35s Keflavik Air Base, Iceland. Archive photo by Ole Andres Vekve

## 20 YEARS OF EXCELLENCE: ITALIAN AIR FORCE CELEBRATED EUROFIGHTER TYPHOON MILESTONE

The Italian Air Force commemorated a significant milestone as they celebrated 20 years since the delivery of the first Eurofighter Typhoon. The official ceremony took place on March 18, 2024, at the Corrado Baccarini airport in Grosseto, the base of the 4<sup>th</sup> Wing of the Air Force.

The event honored the delivery of the first series Eurofighter Typhoon to the Aeronautica Militare, which occurred on March 16, 2004. As part of the celebration, the two-seater aircraft MM.55093 (TF-2000A) was adorned with a special livery, featuring a

unique and eye-catching design. The ceremony not only highlighted the technological advancements and achievements of the Eurofighter Typhoon over the past two decades but also underscored the strong partnership between Italy and the Eurofighter consortium in advancing aerospace capabilities. It served as a testament to Italy's commitment to maintaining a modern and capable air force, capable of meeting the evolving challenges of the 21<sup>st</sup> century.

Story and photos by Gian Carlo Vecchi



## ITALY PROVIDES CONTINUOUS SUPPORT TO NATO'S AIR POLICING POSTURE

F-35 fighters completed their deployment at Malbork Air Base, Poland, supporting the enhanced Air Policing and NATO's deterrence and defense mission on the eastern flank.

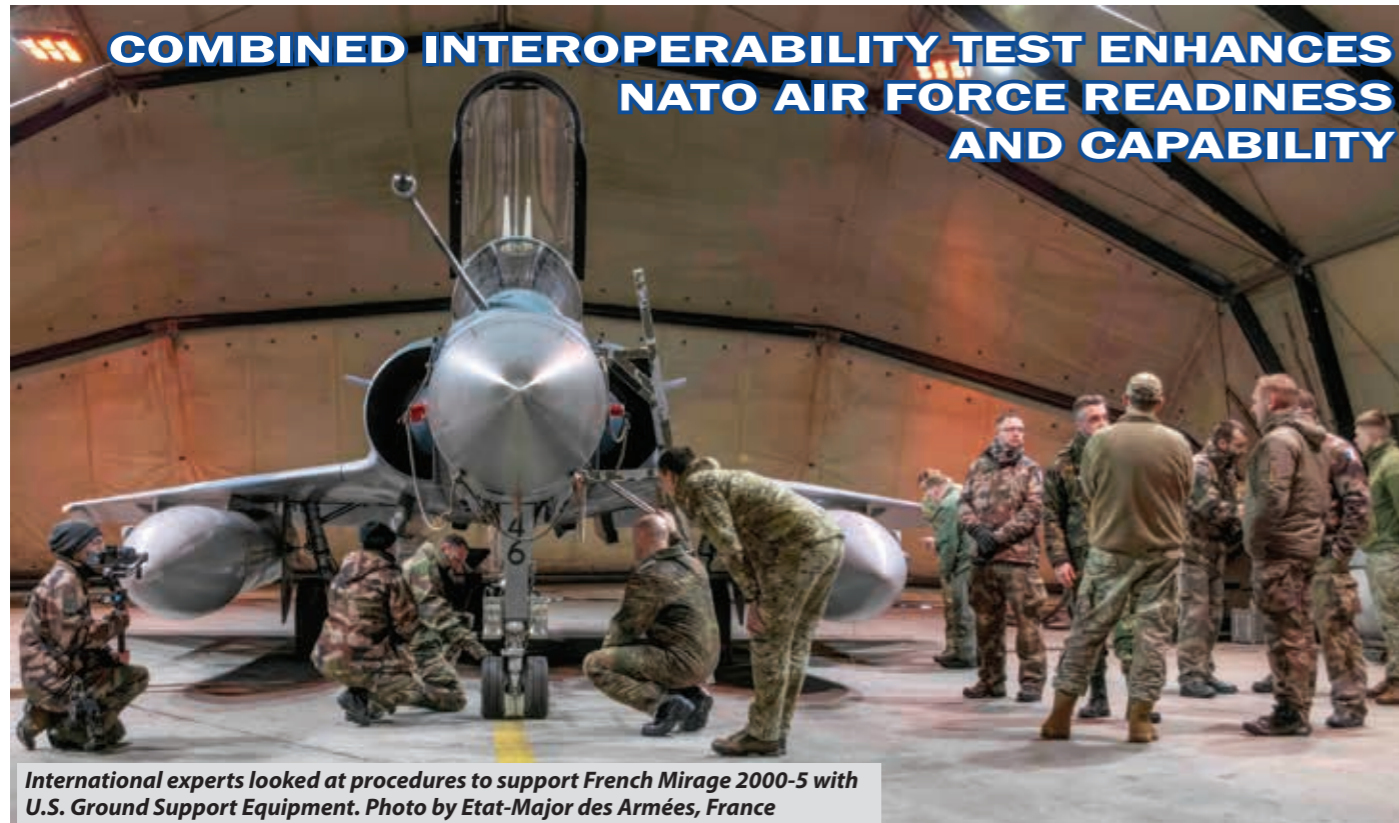
"Italy's commitment to the Alliance continued even in this rotational block. It made us proud to provide our service to the community of allied countries to ensure the right security framework on NATO's eastern flank," said the Italian Detachment Commander, Colonel Antonio VERGALLO. "The F35s, deployed here, were the most advanced weapon system which, in addition to carrying out the assigned mission of defending NATO airspace, represented an integrated system capable of offering invaluable opportunities for interoperability between fourth and fifth-generation aircraft in a multi-domain context," he added.

The modern fighter aircraft initially arrived at Malbork in September 2023 and, after a short break, redeployed to Poland in November 2023. The 150-strong Italian detachment – also known as Task Force Air 32<sup>nd</sup> Wing – and its four F-35s remained on station until mid-February when the Italian presence in NATO's enhanced Air Policing mission continued with a Eurofighter detachment.

Enhanced Air Policing was introduced as part of NATO's Assurance Measures introduced in 2014. At the time, the Alliance started implementing these Assurance Measures with the goal to demonstrate the collective resolve of Allies, demonstrate the defensive nature of NATO, and deter Russia from aggression or the threat of aggression against NATO Allies. For ten years, enhanced Air Policing missions were conducted in the Baltics and in Poland as a new normal underlining Allied commitment to deterrence and defense along the eastern flank, collectively safeguarding NATO airspace.







## COMBINED INTEROPERABILITY TEST ENHANCES NATO AIR FORCE READINESS AND CAPABILITY

International experts looked at procedures to support French Mirage 2000-5 with U.S. Ground Support Equipment. Photo by Etat-Major des Armées, France



The main goal of the equipment interoperability trial at Šiauliai Air Base has been to assess the interoperability of United States ground support equipment with NATO aircraft; experts seen with French Air and Space Force Mirage 2000-5. Photo by Etat-Major des Armées, France

Lithuania hosted a multinational equipment interoperability trial at Šiauliai Air Base from February 19 to 23 with the Belgian and French Baltic Air Policing detachments in close cooperation with representatives from Allied Air Command (AIRCOM), the European Air Group (EAG) and the US Air Forces in Europe.

“NATO’s force posture is designed to provide deterrence, improve resiliency, and survivability while generating combat power from geographically dispersed locations,” said Major Marco Coelho, Portuguese Air Force, head of the Aircraft

Engineering Section at Headquarters AIRCOM. “This requires a flexible and well-coordinated approach and involves both deploying forces and the receiving nations, to ensure Allies regain the agility and interoperability in how aircraft are supported,

maintained, and operated,” he added. “One of the main overarching principles to achieve this is interoperability,” Major Coelho added. “This describes the ability to act together coherently and effectively cooperate with other Allies and

Partners, including personnel, weapons, systems, and equipment,” he said. The main goal of the equipment interoperability trial that took place at Šiauliai has been to assess the interoperability of United States ground support equipment (GSE) with NATO aircraft – in this case Belgian F-16 and French Mirage 2000-5 fighters. Representatives of AIRCOM and the EAG coordinated the trial with participating Nations and observed the events on site in Lithuania. “Interoperable GSE will play a significant role in ensuring NATO Air Forces can generate sorties, conduct assigned missions, and be prepared to perform Agile Combat Employment (ACE) from forward locations,” explained Major Coelho. This trial is another step towards increased interoperability among Allies and enhance ACE capability. Similar interoperability checks have been recently performed during the Tactical Leadership Program (TLP) courses in Albacete, Spain, applying Tactics, Techniques and Procedures that are common among NATO and Partner air forces.

## MILITARY EXPERTS CONVENE AT THE DACCC TO DISCUSS AIR OFFENSIVE OPERATIONS

From February 5 to 9, the Deployable Air Command & Control Centre (DACCC) hosted the second iteration of the “Air Offensive Operation Conference” with a key focus on the integration of fifth-generation aircraft into the air campaign. More than twenty participants from several NATO Nations convened for discussions revolving around the deployment of highly manoeuvrable stealth platforms underscoring the growing significance of advanced air capabilities.

In his opening remarks, Portuguese Air Force Colonel Duarte Freitas, acting Director of the DACCC’s Deployable Air Operations Centre, addressed the key role of fifth-generation aircraft, such as the F-35 Lightning II, in shaping the future of air warfare. “These systems with their ability to seamlessly integrate with other assets provide us a decisive edge in contested environments. At the same time the integration of advanced sensors, network-centric capabilities, and stealth technologies enhance our effectiveness conducting joint operations,” Colonel Freitas added.

During the conference, the international audience of Air Command and Control experts shared insights into the challenges and opportunities associated with incorporating fifth-generation platforms. The participants explored collaborative efforts aiming to establish standardised communication protocols and interoperability frameworks to optimize the potential of cutting-edge fifth-generation aircraft. “As geopolitical tensions continue to evolve, we have to acknowledge the vital importance of maintaining a delicate balance between technological superiority

and global stability,” added Colonel Freitas. “Fifth-generation aircraft play a pivotal role in Counter Anti-Access/Area Denial (C-A2AD) strategies, showcasing advanced stealth and technological capabilities,” said Brigadier General David Morpurgo, Deputy Commander of the DACCC. “While offensive in nature, C-A2AD can be perceived as defensive when implemented by a collective security Alliance like NATO. This is because measures to neutralize an established A2AD architecture deter potential adversaries and remove the imitation on friendly forces’ ability to operate freely in a given region,” he went on to explain. “By creating obstacles and denying access, an Alliance aims to protect its own territory and interests, bolstering its defensive posture against potential threats.” “Conferences like this one are promising occasions to discuss collective and collaborative efforts among Allies, highlighting the potential for a new era in air warfare,” said General Morpurgo. “The integration of fifth-generation aircraft is expected to redefine strategic doctrines, emphasizing joint operations and multinational Alliances as the cornerstone of future air offensive campaigns,” he concluded.

## FIRST TIME, CZECH FIGHTERS PRACTICED REFUELLING WITH MULTINATIONAL TANKER AIRCRAFT



For the first time, Czech JAS-39 Gripen fighter pilots conducted dry-refuelling with an Multinational MRTT Unit (MMU) A-330 tanker aircraft in Czechia on February 13, 2024.

Close encounters in Czechia’s Giant Mountains, as Czech Air Force JAS-39 Gripen from Čáslav Air Base conducted air-to-air refuelling training with a huge A-330 Multi-Role Tanker Transport aircraft from the MMU, which operated out of its main base at Eindhoven, The Netherlands. The participants in this exercise trained the dry contact procedure that verified the Czech Air Force JAS-39 Gripen pilots’ ability to make close encounter with the tanker without actually refuelling. A Gripen pilot described the air-to-air refuelling procedure as very challenging. The manoeuvre requires a high degree of precision as the aircraft travels at a speed over 500 km per hour and the brim of the drogue is only several dozen centimetres from the jet’s cockpit. “In

the final phase, I have to carefully approach the tanker at walking speed. While the tanker crew unreel the hose with the drogue, I have to properly position the jet’s refuelling probe into it,” the pilot from Čáslav Air Base said. An experienced air-to-air refuelling instructor from the Czech 21<sup>st</sup> Tactical Wing made the very first contact with the A-330 and the second approach was conducted by the aircraft of Lieutenant Colonel Vladimír Málek, Commander of 211<sup>th</sup> Tactical Squadron. Other Czech fighter pilot will undergo similar training by the end of February. For the first time, Czech Gripen pilots simulated this manoeuvre designed to extend the range of fighter jets in operations with an A-330 MRTT. Previously, they have trained air-to-air refuelling with German A-400M, Italian KC-767, Swedish C-130 Hercules or USAF KC-135 tanker aircraft. “Refuelling with this aircraft is not significantly different from other tankers as the procedures are standardized and so is the

refuelling device. However, this aircraft is the largest of all the aircraft for which we are qualified. This slightly changes the perspective when you move around the tanker,” added Lieutenant Colonel Málek. Czechia has been a member of the Multinational MRTT Force or MMF programme since 2019. The project brings together six European countries, which provide a multinational multirole squadron of eight Airbus A-330 MRTT aircraft to enhance refuelling and transport capabilities and provide medical evacuation when needed. “As a member in the MMF, the Czech Armed Forces can use up to 100 flight hours per year for air-to-air refuelling, as well as for airlifting cargo and passengers and for medical evacuation. This enables us to hone our precision-flying skills and develop our planning and performance of air-to-air refuelling,” concluded Lieutenant Colonel Málek.



## NATO JETS KICKED OFF THE YEAR WITH THE FIRST TACTICAL FLYING COURSE IN SPAIN



More than 30 jets from NATO and Partner air forces were ready to conduct the first multinational Flying Course and apply NATO tactics, techniques, and procedures at the Tactical Leadership Programme (TLP) in Albacete, Spain. Photo courtesy TLP

In total, 650 participants - including 39 pilots, intelligence officers, and Ground-controlled interception (GCI) controllers who were scheduled to graduate from the course - conducted multinational flying operations with 34 fighter jets simulating friendly and opposing air forces. The Czech Republic, France, Greece, Italy, Spain, and Partner Switzerland provided jets for the flying part, and NATO and French Airborne Warning and Control System (AWACS) aircraft controlled the missions. Italy, Spain, and the United States participated with helicopters and air extraction teams.

Spanish MQ-9 Predator unpiloted systems, Italian personnel recovery experts, and joint terminal attack controllers from the United States and Spain, as well as tactical transport aircraft and refueling aircraft, enabled a theatre-realistic training environment. The ground-based anti-aircraft threat was simulated by several systems of the Spanish Army and Navy and the PLYGONE tri-national electronic warfare tactics range in Germany. "Preparatory training started on January 22, laying the theoretical and doctrinal foundations for the participants in the first week, and we conducted simulations in our MACE simulator," said Lieutenant Colonel Luca C. Restelli, lead of the flying course. "The second and third week offered ample opportunities for participants to improve leadership and flying skills as well as interoperability at the tactical level," he added. "We used our Modern Air Combat Environment (MACE) simulator to support the course's virtual phase and the follow-on Live-Virtual scenarios," he concluded. "During synthetic and live missions, participants developed the tactical leadership skills necessary to plan, brief, fly, and debrief fully integrated multinational formations," he stated. "Each day a different crew

led the others through all phases of missions that grew in complexity during the course. At the TLP, we exposed participants to a wide variety of missions that simulated different types of real-world scenarios, updated frequently to incorporate modern warfare tactics and integrate new weapon systems," he concluded. "The TLP is a multinational headquarters based at Los Llanos Air Base, Albacete composed of military and civilian personnel from ten NATO nations participating in the Programme," said Colonel Alberto Martínez Ruiz, Commandant of the TLP. "Our main objective was to increase the effectiveness of Allied and Partner air forces in the fields of tactical leadership and conceptual and doctrinal initiatives in support of NATO's Strategic Commands and National Defence Forces," he added. To achieve its goals, the TLP adheres to a five-pillar strategy based on integration of 4<sup>th</sup>, 5<sup>th</sup>, and X<sup>th</sup> Generation platforms, adoption of the Agile Combat Employment concept, live-virtual-constructive training, state-of-the-art Contested-Degraded Operations environment and introduction of Joint All Domain factors in challenging air scenarios. \*\*\*

From January 22 to February 9, 2024, the Swiss Air Force participated with four of their F/A-18 fighter jets in the multinational Tactical Leadership Programme's (TLP) Flying Course 24-1 in Albacete, Spain. "The aim of the multinational air operations exercise was to strengthen the defense capability of the Swiss Air Force through international cooperation," said Major Adrian "Guzzi" Guerrazzi, the F/A-18 detachment leader at Albacete. A total of 36 members of the Swiss Army conducted training flights demonstrating interoperability with six NATO member nations who brought more than 30 combat aircraft, various ground-based systems and more than 650 military members to the multinational training facility some 230 km southeast of Madrid. "We were there to hone our defence capability through international cooperation," said Major Guerrazzi. "In the multinational TLP course, pilots were trained in complex missions for the challenges of the future. The course included 12 missions, three of which were carried out in a synthetic environment. Flying missions included a wide range of scenarios that a modern fighter jet pilot had to deal with," he added.

"The planning of these complex missions with a stringent timeline was closely monitored by the experienced TLP Staff," explained Major Guerrazzi. "This provided a unique high-pressure learning environment for the participants. The execution was closely observed and valuable learning objectives were evaluated during the debriefing," he concluded. Due to geographical and demographic circumstances as well as the resources available in Switzerland, the Air Force could not train all relevant scenarios domestically. It was therefore particularly dependent on training opportunities with partner nations. "These enabled members of the army to apply and deepen existing knowledge in a new environment and gain important insights for future capability development," added Major Guerrazzi. \*\*\*

Switzerland's participation was part of the international Partnership for Peace (PfP) cooperation programme. NATO established the PfP programme in 1994 to enable practical bilateral cooperation with individual Euro-Atlantic partner countries. It allowed partners to build up an individual relationship with NATO, choosing their own priorities for cooperation, in which Nations could decide on how close they cooperated with NATO and its members. Switzerland joined the PfP programme by signing their Framework Document in December 1996.

## SPANISH-TURKISH COLLABORATION DURING AIR DEFENCE TRAINING DRILLS AT INCIRLIK



Turkish Air Force F-4E fighter aircraft simulated conducted approaches into the area of responsibility of the Spanish PATRIOT Battery near Adana. Archive photo by Turkish Air Force

On January 24, the Spanish Army PATRIOT detachment was joined by Turkish Air Force fighter jets to conduct an air defense exercise out of its deployed site at Adana. For the first time, the 19<sup>th</sup> Spanish PATRIOT detachment deployed under the NATO Support to Türkiye mission collaborated with the Turkish Air Force at Incirlik Air Base, testing the operators of the battery's engagement control station.

"Initiated during a visit of Commander Allied Air Command in 2023, the Turkish Air Force proposed bilateral training exercises with the Spanish PATRIOT Unit deployed in Incirlik under this NATO mission aiming to protect Turkish installations in the area," said Lieutenant-Colonel Alejandro Fresno Calvo, commander of the PATRIOT detachment. "The common goal was to contribute to further improving interoperability and proficiency skills of both parties," he added. "During the event, Turkish Air Force F-4E fighter aircraft from 111<sup>th</sup> Konya Squadron conducted approaches into the area of responsibility of the Spanish PATRIOT Battery near Adana," Lieutenant-Colonel Fresno Calvo said. "Exercises

like this one were great training opportunities for my Spanish team to further improve relations with the Turkish Air Force and they showcased Allied cooperation and solidarity," he concluded. The current training event with the in-place Spanish PATRIOT detachment was a continuation of similar drills which were first conducted with the predecessors in November 2023. NATO's Support to Türkiye Mission augmented Turkish air defense capabilities, through the PATRIOT ground-to-air guided missile defense system. This system was integrated into NATO's air defense network and contributed to protecting the Turkish population and territory.

Since January 2015, a Spanish Army PATRIOT battery has been stationed at Adana near Incirlik, Türkiye, to augment Turkish air defence capabilities. Photo by Spanish PATRIOT Detachment



The mission began in 2013, following the decision of NATO Foreign Ministers to accommodate a request for support made by the Turkish government. Initially, US, German, and Netherlands PATRIOT batteries deployed to protect against the missile threat posed during the war in neighboring Syria. Spanish troops joined NATO's deployment in January 2015 and have since been stationed at Adana with one PATRIOT battery. The deployment locations were decided jointly with Türkiye as the host nation in close coordination with Supreme Allied Commander Europe (SACEUR) who held operational command of the mission and delegated operational control responsibility to Allied Air Command at Ramstein Air Base.



Inside the battery's engagement control station, Spanish operators are identifying, tracking and engaging the airborne threat simulated by Turkish Air Force F-4E fighters. Photo by Spanish PATRIOT Detachment







## FOR THE FIRST TIME F-35 JETS SAFEGUARD BENELUX AIRSPACE

The Netherlands began flying their F-35s under NATO Air Policing over the BENELUX States on January 25, 2024 in a further step to integrate fifth-generation assets into standing defensive missions. Two Royal Netherlands Air Force F-35 fifth-generation fighter jets together with two F-16s are now on standby to ensure the protection of the airspace over Belgium, the Netherlands and Luxembourg (BENELUX) ready to perform 24/7 quick reaction alert (interceptor) duties.

Jets from the Netherlands and Belgium were taking turns, flying from their national bases, to ensure security of the BENELUX airspace. Until May 9, the Netherlands jets will assume this mission with their modern F-35s for the first time. The jets are ready within minutes to launch under NATO Air Policing rules to respond to unidentified aircraft or other situations in the airspace over the three western Allies.

The F-35s are flying out of Leeuwarden Air Base, the Netherlands, controlled by the Air Operations Control Station at Nieuw Milligen which is integrated into NATO-wide Air Policing arrangements via the Allied Combined Air Operations Centre at Uedem, Germany. The Netherlands deployed their F-35s to NATO's enhanced Air Policing mission in Malbork, Poland, in 2023, and the modern jets

regularly fly during training with other Allies and Partners. The Belgian Air Force has provided interceptors for the BENELUX Air Policing before, their F-16 fighter jets are stationed at air bases Kleine-Brogel and Florennes. The mission in Belgium controlled by the Control and Reporting Centre at Beauvechain and also integrated into NATO arrangements. Since January 2017, BENELUX Air Policing for the airspace of Belgium, the Netherlands and Luxembourg means that the Belgian Air Component and the Royal Netherlands Air Force are taking turns to ensure QRA (I) fighter jets are available 24 hours a day, 7 days a week and 365 days a year under NATO's Integrated Air and Missile Defense System.



## FRENCH AND SWEDEN CONDUCTED JOINT DEPLOYMENT TRAINING

A Swedish JAS-39 Gripen (photo left) flying alongside a French Mirage 2000-5 during the flight from Lithuania to Sweden. One goal of ACE deployments is to practice interoperability between air forces. Photo by French Air and Space Force

### French Mirage 2000-5 fighter jets deployed to a Swedish base to practice Agile Combat Employment (ACE) in a NATO-Partner environment.

During a short-term deployment from January 29 to February 1, 2024, two French Air and Space Force Mirage 2000-5 fighters conducted a deployment applying ACE procedures to the Swedish Satenas Air Base. A Lithuanian C-27J transport aircraft (photo right) supported the deployment, ensuring airlift of required crew and material. France had been supporting NATO's Baltic Air Policing mission with four Mirage 2000-5 aircraft operating out of Šiauliai Air Base, Lithuania, together with Belgian Air Force F-16s. The goal of the ACE deployment to Sweden was to temporarily extract the Mirage 2000-5 aircraft from their Air Policing role to operate in an expeditionary mode out of a remote airfield and to cooperate with the Swedish Air Force ground and air crews.



## NATO AIR FORCES IMPROVE SKILLS FLYING TOGETHER OVER LITHUANIA



Deployed fighter detachments and Host Nation air bases are working together demonstrating NATO commitment to collective deterrence and defence

French and Belgian fighter jets conducted flying training over Lithuania during their Baltic Air Policing deployment at Šiauliai Air Base. Photos by Arnaud Chamberlin

Allied aircraft from Belgium, France and Lithuania flew training missions above Lithuania on January 23, conducting close formation flights and aerial combat drills to demonstrate capabilities and hone flying skills. A Lithuanian Air Force C-27 transport aircraft took off from Šiauliai Air Base and conducted training missions with Belgian F-16 and French Mirage 2000 fighter aircraft. The flight was used to enhance aircrew readiness and execute combined missions under NATO's Baltic Air Policing.

"Integrated and combined training events of deployed NATO fighter detachments are an excellent opportunity for Allied aircrew and are beneficial for aircraft controllers who make sure the training is conducted safely and professionally," said Air Commodore Michael Carver, Deputy Chief of Staff Operations at Allied Air Command in Ramstein, Germany. The Belgian F-16s are currently leading NATO's Baltic Air Policing mission, and the French Mirage 2000 augment the mission. Both detachments are temporarily deployed in Lithuania securing the skies over the three Baltic Allies. "Belgium was the first deployed NATO member in the Baltic States. Twenty years later, our

presence is even more important in the light of current events. We are proud to be here as a reliable member of the Alliance to ensure the security and stability at NATO's boundaries," said Commandant Laurant Wuillaume, Belgian Detachment Commander. "In addition to the Air Policing mission, the opportunity to train with our Allies enhances every day the interoperability and procedures between all members which increases the preparation to react to any potential threat," he added. "This type of flight emphasizes all the easy coordination between NATO assets and highlights the specific skills required for such precise flying," said Lieutenant Colonel Georges, commander of the French Mirage

2000 detachment at Šiauliai. The Baltic Air Policing mission is one example of NATO's regional security arrangements. For 20 years, Allies have collectively worked together to preserve the integrity of the airspace above Estonia, Latvia and Lithuania. On 29 March 2004, the first NATO fighter jet – a Belgian F-16 – touched down at Šiauliai Air Base to begin 24/7/365 Quick Reaction Alert Duties under NATO's new Baltic Air Policing mission. NATO's Combined Air Operations Centre Uedem, Germany, has been responsible to lead the mission under the NATO Integrated Air and Missile Defence System or NATINAMDS. Seventeen Allies have since taken turns to safeguard and preserve the integrity of the Baltic States' airspace by deploying fighter detachments to Šiauliai, and – since 2014 – also to Ämari, Estonia. From March to November 2024, NATO jets will conduct the mission out of Lielvarde Air Base, Latvia, while Ämari Air Base is undergoing runway repair work.



# SEMPER VIGILANTES

ROMANIA HOSTED INTEGRATED TRAINING DRILLS FOR ALLIED FIGHTER JETS

**On March 6, the Romanian Air Force deployed one of the C-27J transport aircraft for a combined training mission with F-16 fighter jets from Romania and Türkiye, based at Fetesti Air Base and the French Rafale aircraft, stationed at the moment in the Air Base joined the mission**

In the morning of the training day, Romanian and Turkish F-16s conducted interception training with the transport aircraft that took off from Otopeni Air Base; the activity's goal was to enhance skills of both the jet and transport aircraft pilots. In the afternoon, at Fetesti Air Base, the Turkish F-16s conducted training scrambles simulating a scramble from fighter preparation to take-off for an intercept. After taking off, they were joined by Romanian F-16s and French Rafale fighters for a session of air-to-air combat drills over the Romanian Black Sea coast near Constanța.

About 50 international media had the opportunity to observe the demonstration – some of them flew to Fetesti onboard the C-27J aircraft and witnessed at first-hand how NATO interception procedures are executed.

Fetesti Air Base – Romania's 86<sup>th</sup> Air Base – is home to a squadron of F-16s and also hosts the F-16 Training Centre for Romanian and other partner pilots. Until the end of March, the Air Base hosted a Turkish Air Force (Türk Hava Kuvvetleri) detachment deployed with four F-16 jets for NATO's enhanced Air Policing missions; the jets flew sorties alongside the Romanian colleagues to safeguard NATO airspace on the eastern flank.

The French Rafale detachment was deployed to Fetesti for a five-day Agile Combat Employment (ACE) during which jets participated in

combined training with regional air and ground forces supporting NATO's force posture on the Black Sea shores in Romania. These joint exercises are aimed at enhancing the capacity for quick reaction and deterrence, while also bolstering the interoperability between the two air forces. The versatile and advanced capabilities of the Rafale aircraft were crucial in these training missions. With their state-of-the-art technology and multi-role capabilities, they are well-suited for a wide range of operational scenarios, including air superiority, ground support, reconnaissance, and aerial combat.

*"We are very pleased to host the one-week French Agile Combat Employment (ACE) of Rafale fighter jets at Fetesti in addition to the Turkish and Romanian F-16 detachments. This is another chance to demonstrate our professional skills as a Host Nation including for short-duration expeditionary deployments,"* said Captain Cornel Pavel, Romanian Navy, deputy head of the Information and Public Relation Directorate of the Romanian Ministry of Defence.

Several NATO Allies conduct ACE deployments across Europe to practice expeditionary capabilities projecting a force package at short notice with minimum own support relying on services provided by the receiving airfield. The ACE concept is a force multiplier for NATO's Air Forces as it increases agility, interoperability, readiness, survivability and continuity of air operations.

**Main photo: "Forțele Aeriene Române" and "Türk Hava Kuvvetleri" Vipers  
Photos by Adrian Sultănoiu**



*"Forțele Aeriene Române" F-16s*

*"Armée de l'Air et de l'Espace" Rafale*

*"Türk Hava Kuvvetleri" F-16s*







## NATO AERIAL COMBAT DRILLS OVER ESTONIA

Allied aircraft from Poland and France conducted aerial drills over Estonia on February 13 and 14 practicing close formation flights and aerial combat drills with a Polish transport aircraft.

The Polish Air Force C-295 transport aircraft and Polish F-16 fighter jets took off from Āmari Air Base for training sorties in the airspace above Estonia. They were joined by French Mirage 2000 fighters and conducted aerial combat maneuvers – so-called 2v2 drills.

“The training enables our pilots to integrate with their French counterparts,” said Lieutenant Colonel Michał Zloch, commander the Polish F-16 detachment. “Beside ensuring 24/7 readiness

for Air Policing sorties for the Alliance over the three Baltic States, we are glad that training opportunities like these arise and we regularly exploit them also with our French and Belgian colleagues. Moreover, such integrated training is also beneficial for aircraft controllers who make sure the training is conducted safely and professionally,” he added.

Both Poland and France are currently flying their fighter jets in support of NATO’s Baltic Air

Policing. While Polish F-16s are deployed to Āmari, Estonia, French Mirage 2000-5 are stationed at Šiauliai, Lithuania. The Polish transport plane was at Āmari for a short-duration transport mission to support Allied training and help fighter pilots hone readiness and interoperability.

For ten years, Estonia has supported NATO’s enhanced Baltic Air Policing mission with seamlessly hosting Allied fighter detachments at Āmari. The addition of the base to the regional air posture was in response to Russia’s illegal annexation of Crimea in 2014. It

has been key to demonstrating NATO’s resolve to deter and if necessary defend Allied territory against potential aggression. From March 1, due to runway works at Āmari, NATO moved the enhanced Air Policing detachment to Lielvarde, Latvia, where German Eurofighters are scheduled to take the mission over from the Polish F-16s.

*Photos above by Arnaud Chamberlin: Polish F-16 fighter jets were joined by French Mirage 2000-5 fighters and conducted aerial combat maneuvers – so-called 2v2 drills*



NATO aircraft from the United States Air Force and the Royal Netherlands Air Force integrated during aerial drills over Poland supported by a NATO Airborne Early Warning and Control Force (NAEW&FC) plane, enhancing interoperability on February 15, 2024. U.S. Air Force F-35A Lightning II and KC-135 Stratotanker flew out of bases in the United Kingdom and integrated with the Royal Netherlands Air Force F-35A fighters and a NATO E-3A from the NAEW&FC Allies to conduct a find, fix, track, and target (F2T2) exercise over Poland.

F2T2 exercises require participating members to execute multi-domain operations by employing intelligence, surveillance, and reconnaissance assets to locate and communicate potential target locations to other aircraft with capabilities to strike the targets in an established time limit.

Participants accomplished all training objectives for the exercise. The successful execution of this exercise demonstrates the close cooperation between U.S. and NATO Allied forces, builds on previous efforts to enhance NATO interoperability, and furthers our shared commitment to global security and stability.

According to the Royal Netherlands Air Force pilots who participated in the combined drills, Allied air forces must be prepared to be deployed quickly in a world that is rapidly changing and where safety cannot be taken for granted; integrating and practicing with NATO Allies during air operations is therefore of great importance.

*Photo left: An F-35A Lightning II latches on to a boom to receive fuel from a KC-135 Stratotanker during integrated flying training in support of NATO’s collective defence within the European theatre.*

*Archive photo by Jessica Sanchez-Chen*

## NORDIC RESPONSE 24 – COLLECTIVE DEFENCE EXERCISE IN NORDIC ENVIRONMENT

Military staff from 13 NATO Allies and Partners prepared their participation in exercise Nordic Response 2024, part of the Steadfast Defender exercise series, in Norway, Finland, and Sweden. For the first time, NATO set new defense plans into reality, proving their executability and NATO’s warfighting transformation. This marked a new era of collective defense and proved NATO Allies’ solidarity, unity, and strength. The Steadfast Defender 24 series of exercises is the largest in decades.

For the first time, NATO set new defense plans into reality, proving their executability and NATO’s warfighting transformation. This marks a new era of collective defense and proves NATO Allies’ solidarity, unity, and strength. The exercise clearly demonstrates NATO’s ability of rapid, transatlantic reinforcements and the execution of multi-domain operations over several months across Europe. From the Arctic to the Eastern Flank of the Alliance, over 90,000 forces from 31 Allies takes part in the exercise and conduct effective defensive operations.

The Nordic Response exercise was hosted by the three Nordic countries and focused on collective defense. Overall, more than 20,000 soldiers participated in the exercise. Exercise participants deployed their personnel and equipment to the exercise area, and the Nordic Response execution phase ran from March 3 to 14, 2024. The exercise had its focal point in northern Norway, Sweden, and Finland, as well as in the corresponding airspace and sea areas. There was particularly high activity at sea with over 50 registered submarines, frigates,

corvettes, aircraft carriers, and various amphibious vessels. In the air, more than 100 fighter jets, transport aircraft, maritime surveillance aircraft, as well as Allied helicopters and Special Forces aircraft operated under Nordic Response 24. On the ground, thousands of soldiers defended and protected Nordic territory with various artillery systems, tanks, tracked vehicles, and other land vehicles.

The German Air Force’s contribution to exercise Nordic Response provides air transport, low-level flying and Special Forces airdrop capabilities with an A400M transport aircraft and support crews operating out of Rovaniemi, Finland.

NATO’s Intelligence, Surveillance and Reconnaissance Force (NISRF) has provided real-world data for Alliance decision makers for five years. During exercise Nordic

Response, the Force’s RQ-4D remotely piloted aircraft provides this unique support enhancing multinational training in the High North.

Also, NATO AWACS took part in Exercise Nordic Response 24 from February 26 to March 15. The team of 15 different NATO nations operated the two E-3A aircraft out of the airbase in Rygge, Norway. The E-3A aircraft is often referred to as NATO’s ‘eyes in the skies’. This is due to its capability to detect air and sea movements hundreds of kilometers away. This data was shared with NATO commanders to provide them with a shared understanding of activities that took place in areas of particular concern.

*Story by Allied Air Command Public Affairs Office and NATO Airborne Early Warning and Control Force Headquarters*



*Canadian Operations Aviation Squadron (SOAS) arrived at Rygge Air Base, Norway, with Bell CH-146 Griffon helicopters airlifted by a C-17 strategic transport aircraft, getting ready for exercise Nordic Response. Photo by: Fabian Helmersen / Norwegian Armed Forces*



*Swedish Air Force NH 90 helicopter and troops during medical evacuations training. Photo by Felix Sundbäck*



*A NATO E-3A AWACS is landing at Rygge Air Base, Norway during Exercise Nordic Response 2024. Photo courtesy Onar Digernes Aase, Norwegian Armed Forces*



*A NATO RQ-4D Phoenix remotely piloted aircraft during a mission; The High-Altitude Long-Endurance aircraft usually operate at a flight level above 50,000 feet – well above civilian air traffic. Archive photo courtesy NATO ISR Force*

*U.S. Marine Corps F-35B Lightning II jets with Marine Fighter Attack Squadron (VMFA) 542 parked prior to flight operations for Exercise Nordic Response 24. The exercise is the unit’s first overseas operational exercise as an F-35B Lightning II jet squadron. Photo by Orlanys Diaz Figueroa*





## FRENCH SCRAMBLE FOR VISUAL IDENTIFICATION OF RUSSIAN AIRCRAFT OFF ESTONIAN COAST



In the morning of February 21, 2024, two French Mirage 2000-5 took off from Šiauliai Air Base under NATO orders to conduct a visual identification of a Russian Il-78 that was flying over international waters off Estonia's Baltic Sea coast.

NATO air controllers observed the track of the Russian four-engine air-to-air refueling aircraft flying out of the Kaliningrad exclave with a northerly heading and ordered the French Mirage 2000-5 fighter jets to launch and conduct the identification to establish facts of the flight. The French fighter pilots approached the Russian aircraft under standard procedures, conducted a routine identification and escorted it before returning to

the NATO Air Policing base at Šiauliai. NATO and the Allies collectively protect the airspace above all member Nations. Alert scrambles and intercepts like this one are regularly conducted under Baltic Air Policing and demonstrate permanent situational awareness and readiness to deter and if necessary defend every inch of NATO territory.

Photo by French Air and Space Force



## U.S. BOMBERS OPERATED IN SWEDEN FOR BOMBER TASK FORCE 24-2



Photo by Jake Jacobsen

Two U.S. Air Force B-1B Lancer strategic bombers arrived in Luleå-Kallax Air Base, Sweden, for Bomber Task Force 24-2, on February 23, 2024 for integration and interoperability training with European nations.

During the deployment, the bomber crews and support personnel will integrate with the Swedish Armed Forces, NATO Allies and other international partners to synchronize capabilities and assure security commitments across the U.S.

European Command area of responsibility. The U.S. routinely demonstrates its commitment to NATO Allies and partners through BTF missions. Through these missions, U.S. Air Forces Europe – Air Forces Africa enables dynamic force

employment in the European theater, providing strategic predictability and assurance for Allies and partners while contributing to deterrence by introducing greater operational unpredictability for potential adversaries.

The bombers and their crews were operating as part of the Bomber Task Force deployment 24-2. The objectives of this particular

mission were to exercise multinational cooperation, demonstrate collective deterrence, and test air defence capabilities. To achieve this, the B-1s flew as a simulated adversary and received intercepts from various NATO fighter aircraft across the Arctic, North Sea, and the Greenland, Iceland, and U.K. gap. All training objectives were met.

## BRITISH RAF EUROFIGHTER TYPHOONS ARRIVED FOR NATO ENHANCED AIR POLICING MISSION IN ROMANIA



Eurofighter Typhoon aircraft of the British Royal Air Force (RAF) landed on Monday, March 25<sup>th</sup>, at Mihail Kogălniceanu Air Base 57, in Constanța county. The British detachment, comprising approximately 200 military personnel, including pilots and technical personnel, arrived with the mission to carry out Enhanced Air Policing missions in collaboration with the Romanian Air Force under NATO command, for a period of four months.

This marked the fifth rotation of the British Royal Air Force at Mihail Kogălniceanu, following those executed in 2017, 2018, 2021, and 2022.

The enhanced air police missions, conducted jointly with NATO partners since 2014,

aimed to ensure the integrity of allied airspace. These missions involved patrolling and monitoring the airspace of NATO member states or partners to identify, intercept, and neutralize any unauthorized aircraft or

potential threats to national or regional security. Within the framework of Enhanced Air Policing, NATO allies collaborated to ensure a swift and effective response to potential threats, thus bolstering solidarity and cohesion within the North Atlantic Alliance.

RAF and Romanian Air Force cooperation played a vital role in strengthening NATO's collective defense strategy in

the Eastern European region. Both air forces engaged in joint training exercises, interoperability programs, and operational deployments to enhance their capabilities and readiness. Joint training exercises focused on various aspects of air combat, while interoperability efforts aimed to standardize procedures and technical specifications.

Story and photo by ROU AF Public Affairs Office

## GERMAN JETS LANDED IN LATVIA FOR NATO ENHANCED AIR POLICING MISSION



German Eurofighter taxiing to position at Lielvarde Air Base. For the coming months, five of these jets join NATO's enhanced Air Policing mission. Photo by Florian Herrmann

Five German Air Force Eurofighter jets touched down at Lielvarde Air Base in Latvia on February 26, 2024 where they will support NATO's enhanced Air Policing for the Baltic States in the coming months.

"We are looking forward to this mission; for the first time, NATO is using Lielvarde for the Baltic Air Policing mission and we will provide the interceptors for the mission," said Lieutenant Colonel Swen Jacob, German detachment commander.

"Now that the jets have arrived, our detachment is ready for the final inspection of the set-up at Lielvarde by NATO's Combined Air Operations Centre (CAOC) from Uedem. From Friday on, we will be available for mission execution. Closely integrated with the Host Nation Latvia, our Belgian and French colleagues deployed in Lithuania and the air controllers at the CAOC and the regional Control and Reporting Centres, we will demonstrate NATO's commitment to collective deterrence and defence," he added.

"Together with Latvia's outstanding supportive team at Lielvarde, and by contributions from Estonia, the members of an advance party of our German Air Force have prepared the base for the arrival of the jets, in harsh Baltic winter conditions – it was a truly multinational build-up," explained Lieutenant Colonel Jacob. Due to runway works at Āmari Air Base, Estonia, the NATO mission temporarily moves to Latvia and from March 1 on, the German Eurofighters will be ready to take off to safeguard the skies in the Baltic Sea region. They will augment NATO's Air Policing capability Belgian F-16s and French Mirage 2000-5s provide at Šiauliai, Lithuania.

Besides the Eurofighters, the German contribution to NATO's Baltic Air Policing includes a deployable Control and Reporting Centre that has been set up at Āmari, Estonia. This unit is integrated into the Air Surveillance and Control network in the region.

In the morning of March 1, only hours after going "on status" for conducting NATO Air Policing out of Lielvarde Air Base, Latvia, two German Air Force Eurofighter jets took off for the first ever alert scramble out of Latvia to meet two Russian military aircraft flying close to NATO territory off the Latvian coast over international waters.





# ROMANIAN PILOTS STARTED THEIR FLYING PROGRAM AT EFTC: STRENGTHENING NATO INTEROPERABILITY AND OPERATIONAL EXCELLENCE



The first flight of a Romanian pilot within the European F-16 Training Center (EFTC) occurred on Monday, January 15. The flight utilized an F-16 aircraft made available by Koninklijke Luchtmacht (The Royal Netherlands Air Force), with guidance from a seasoned instructor provided by Lockheed Martin.

Presently, ten Romanian pilots are actively immersed in a comprehensive training program at the European Training Center, complemented by hands-on experience in the F-16 simulator of the Romanian Air Force. Their training trajectory aims for the coveted "Mission Ready" level, ensuring a high level of readiness and competence in operating F-16 fighter aircraft. The EFTC stands as a vital international hub for F-16 pilot training, playing a pivotal role in

fostering increased interoperability among NATO allies. Simultaneously, it contributes significantly to the establishment of common operational standards, strengthening the North Atlantic Alliance's capacity to address complex challenges, particularly in the Black Sea region and Eastern Europe.

Under the collaboration agreement, the Romanian Ministry of National Defense extended its support by providing essential training facilities and host nation support at the 86<sup>th</sup> AFB in Fetesti. The Royal Netherlands Air Force plays a crucial role by supplying F-16 aircraft for training purposes, and Lockheed Martin assumes responsibility for providing skilled instructors and maintenance expertise. Currently, Romanian pilots stand as the exclusive trainees at the European F-16 Training

Center.

This collaboration exemplifies the strength of the partnership between Romania, the Netherlands, and Lockheed Martin, emphasizing the collective commitment to enhancing the capabilities of the Romanian Air Force and contributing to the broader goals of NATO.

As these pilots progress through their training, the European F-16 Training Center continues to be a cornerstone in the pursuit of excellence in aerial operations, reinforcing NATO's preparedness to face challenges in the rapidly evolving security landscape.

*Story by Adrian Sultănoiu based on information provided by ROU AF Public Affairs Office Photo: Florentina Rebeaga*



# PATRIOT BATTERY ACHIEVES OPERATIONAL CAPABILITY IN SWIFT DEPLOYMENT, UNDERSCORING COMMITMENT TO DEFENSE READINESS



A battery of the Romanian Air Force's 74<sup>th</sup> PATRIOT Regiment conducted a deployment exercise on March 13, 2024 proving its operational capability and resilience und underscoring readiness to engage potential airborne threats. The 1<sup>st</sup> Battalion of the PATRIOT Regiment executed the deployment of a Patriot battery as a part of their continuing training and exercises programme. Following the alert for the battery's combat team, the unit conducted a 200-kilometre deployment road move. Simultaneously, all of the regiment's fire units executed moves into different deployed sites, showcasing their skills to establish operational readiness in a well-coordinated and synchronised manner.

The exercise involved all deployment processes from receiving the mission, swift team mobilisation, compliance with operational protocols, seamless integration into and connection to the national command and control system. "This deployment not only underscores the unit's readiness and adaptability, but also represents the culmination of an extensive training process, marking one of the final objectives in their training stages," said Captain Traian Brehui, deputy commander of the 1<sup>st</sup> battalion. "Our mission entails the defence of a specific objective or force, requiring us to arrive at a designated time, following

a specific route, armed with a prescribed striking power – this is what we successful performed in today's exercise," he added highlighting the significance of the mission.

Captain Brehui emphasized the team's preparedness for all operational conditions, with morale at an all-time high, reaffirming their commitment to maintaining optimal readiness. "The successful deployment of the PATRIOT battery underscores the Romanian Air Force's steadfast commitment to enhancing defence capabilities and safeguarding national and NATO airspace," he concluded. "With their exemplary performance, the team sets a benchmark for operational excellence and demonstrates readiness to respond effectively to any potential threats," he added.

*Story by Allied Air Command Public Affairs Office Photos by Adrian Sultănoiu*



*This deployment, executed with meticulous adherence to established protocols, exemplifies the Romanian Air Force's agility and readiness in responding to potential threats and crisis situations. By swiftly deploying the Patriot battery within precisely defined timeframes, the Romanian Air Force has demonstrated its capability to maintain operational effectiveness even under demanding circumstances. Additionally, this deployment highlights Romania's commitment to strengthening partnerships and collaboration within NATO and other international security alliances, thus contributing to collective defense efforts and regional stability*





# STRATEGIC INSIGHTS UNVEILED:

## NATO EXPERTS ELEVATE ROMANIA'S AIR POWER READINESS IN KEY MILITARY DOMAINS

On February 22<sup>nd</sup> and 23<sup>rd</sup>, 2024, the Romanian Air Forces Staff hosted a pivotal visit by experts from the NATO Center of Excellence in Air Power, particularly the Joint Air Power Competence Center. This unprecedented engagement convened top-tier stakeholders, including command teams from major units from Air Force, alongside specialists from the Land Forces Staff and the National Defense University.

During the visit, JAPCC experts delivered in-depth briefings on cutting-edge military developments and strategic concepts in crucial areas:

### 1. Multi-Domain Operations (MDO): A Revolutionary Shift in Military Strategy.

Multi-Domain Operations mark a revolutionary shift in military strategy, emphasizing seamless integration across air, land, sea, space, and cyberspace domains. This approach empowers commanders to create strategic dilemmas for adversaries by leveraging the full spectrum of military capabilities in a meticulously coordinated manner.

### 2. Integrated Air and Missile Defense (IAMD): Safeguarding Against Aerial Threats.

Integrated Air and Missile Defense stands as a critical pillar for protecting forces and assets from airborne threats. This concept involves the fusion of sensors, weapons systems, and command and control elements to detect, track, and neutralize incoming airborne threats, including aircraft and ballistic missiles. Effective IAMD ensures the safeguarding of critical infrastructure and forces against evolving air and missile threats.

### 3. Space Domain in Modern Conflicts: Navigating the Frontiers of Warfare.

The Space Domain has become increasingly vital in modern conflicts, serving as a pivotal enabler for communication, navigation, surveillance, reconnaissance, and intelligence gathering. However, this domain is now contested, with adversaries developing capabilities to disrupt or deny access to space assets. Understanding the implications of space domain operations and safeguarding space-based assets are imperative for maintaining military superiority.

### 4. The Use of Helicopters in Future Conflicts: Versatility Takes Center Stage.

Helicopter Operations in Future Conflicts play a pivotal role, thanks to their versatility, agility, and adaptability in diverse environments. From troop transport and

reconnaissance to close air support and medical evacuation, helicopters offer unparalleled flexibility on the battlefield. As warfare evolves, helicopters will remain indispensable assets for executing a wide range of missions with precision and efficiency.

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**This exchange of knowledge and expertise underscores a steadfast commitment to lead in military innovation and collaboration within the NATO alliance. It ensures heightened readiness to address emerging challenges and threats in an ever-evolving security landscape, solidifying Romania's position at the forefront of air power readiness.**

*Story by Adrian Sultănoiu based on information provided by ROU AF Public Affairs Office  
Photo: Alexandru Aioanei*

## SPANISH AIR FORCE DETACHMENT STRENGTHENS NATO'S EASTERN FLANK



On February 29, the rotation ceremony of the Spanish Air Force Detachment took place at the 102<sup>nd</sup> Radiolocation Company Schitu unit of the 76<sup>th</sup> Research, Surveillance, and Reconnaissance (CSR) Brigade "DACIA".

Accompanied by Ambassador José Antonio Hernández Pérez-Solórzano, Brigadier General Pedro Belmonte, the representative of the Spanish Air Force, Colonel Relu Boraciu, commander of the 76 CSR Brigade, and other distinguished civil and military officials participated in the event.

Commencing on October 22, 2022, as part of endeavors to fortify security and bolster the eastern flank of the North Atlantic Alliance, a detachment of the Spanish Air Force was deployed on Romanian soil. This detachment boasts state-of-the-art equipment, including an upgraded radar with the capability to

*"Collaboration with Romanian partners cannot be better than it is currently. As soon as we arrived here, we were warmly welcomed by both the Romanians and the soldiers of the Romanian Air Force. Everything is proceeding smoothly; our adaptation was seamless, and now that our radar is operational, we can affirm that our activity is highly effective. We are confident that our presence in Romania contributes to the security of the Alliance. We firmly believe that we provide tangible support for the defense of Romania's airspace, while concurrently contributing, in these challenging times, to the defense of all NATO allies." – Brigadier General Pedro Belmonte, the representative of the Spanish Air Force*



detect threats at extended distances. In close collaboration with the Romanian Air Force, the Spanish detachment executes surveillance and monitoring activities of the airspace on the eastern flank of the Alliance, wherein

Romania is wholly engaged as a member. Consequently, this initiative stands as a substantial contribution to reinforcing defense and security capabilities in the region.

*Story and photos by Adrian Sultănoiu*



A delegation led by Brigadier General David Pritchett, Chief of the Alabama State National Guard (TAG ALNG), visited the 57<sup>th</sup> Air Force Base Mihail Kogălniceanu on March 4, 2024, as part of their cooperation with the Romanian Air Force.

Major General Leonard-Gabriel Baraboi, the Deputy Chief of Staff of the Romanian Air Force, was present at the event. The visit, spanning from March 3 to March 8, is aimed at strengthening ties between the Alabama State National Guard and the Romanian military.

During the visit, Colonel Nicolae Crețu (commander of the 57<sup>th</sup> Air Base) outlined the short, medium, and long-term objectives of the air base, emphasizing the crucial role played by the partnership with ALNG in establishing, operationalizing, and maintaining base capabilities.

## ALABAMA STATE NATIONAL GUARD DELEGATION VISITED ROMANIAN AIR FORCE BASE

The distinguished visitors were briefed on the 57<sup>th</sup> Air Base's role in the current security landscape, including challenges in integrating plans and operations with allied detachments deployed at the base. Discussions also focused on the rapid development of the base's capacity to host allied forces, particularly aimed at bolstering the eastern flanks and enhancing deterrence measures. Additionally, the agenda included meetings with command teams from allied detachments stationed at Mihail Kogălniceanu base, as well as a liaison team from the French military.

*Story and photo: Narcisa Tuță*





# EAGLE STEEL 24



The EAGLE STEEL live firing exercise, executed in January, in Turda region under the organizational leadership of the NATO Forward Land Force Battlegroup, with France spearheading the effort and collaborating with the Romanian 814<sup>th</sup> Tank Battalion, showcased an impressive demonstration of multinational military cooperation. The event saw a robust participation of diverse armored vehicles, featuring the spotlight on French Leclerc, Belgians Piranha, and Romanian T55 tanks.



EAGLE STEEL not only showcased the collaborative synergy between French, Belgian, and Romanian armored units but also underscored the indispensable role of the Air Force in contemporary military exercises. The integration of air support, particularly the successful testing of casualty handling and evacuation procedures, introduces a crucial dimension to the training, ensuring that armed forces are well-prepared for the multifaceted challenges of modern warfare

This exercise stands as a testament to the commitment of NATO member states towards collective training and interoperability. Over 180 allied troops were deployed, symbolizing a united effort to fortify regional security. More than 50 armored vehicles, including the aforementioned tanks, were actively engaged, emphasizing the substantial scale and comprehensive nature of the exercise. What distinguishes EAGLE STEEL is not solely the ground forces' prowess but also the pivotal role played by the Air Force in this dynamic training scenario. The exercise reached a milestone by incorporating, for the first time this year, a simulated casualty handling and evacuation operation executed by a Romanian helicopter from the 71<sup>st</sup> AFB Câmpia Turzii. This development underscores the seamless integration of air support into the exercise, highlighting the significance of a holistic approach in modern military operations. The inclusion of air support elements not only elevates the exercise's realism but also underscores the commitment of participating nations to constant innovation and adaptation in the face of evolving security challenges. The simulated casualty handling and evacuation exercise, facilitated by the Romanian helicopter, demonstrated the impeccable coordination between ground and air forces, underscoring the critical importance of joint capabilities in navigating complex operational scenarios.

Story by Adrian Sultănoiu based on information provided by HQ MNDSE Public Affairs Office. Photo courtesy: French Contingent Public Affairs Office

# ROYAL EAGLE 24.1

FRENCH MILITARY CONDUCTED DYNAMIC LIVE-FIRE EXERCISES IN ROMANIA WITH NATO ALLIES



The French military, as part of the NATO Battle Group stationed in Romania, recently executed a series of live fire exercises at the Capu Midia Range, with a primary focus on engaging offshore targets. This robust military endeavor showcased a diverse array of cutting-edge equipment and technologies, underscoring the military's preparedness and adeptness in navigating complex tactical landscapes.

Among the technological assets employed during the exercise were high-precision missiles integrated into the Multiple Launch Rocket System (MLRS), furnishing the French military with a potent means of striking designated targets with pinpoint accuracy. Additionally,

the inclusion of 155mm CESAR howitzers augmented the arsenal, delivering enhanced levels of precision and firepower, thereby enriching the tactical repertoire. Furthermore, the exercise encompassed tactical maneuvers featuring 20mm

guns mounted on armored vehicles, heightening the agility and adaptability of the participating forces. This combination of state-of-the-art technologies facilitated the creation of a dynamic and immersive training environment tailored to simulate real-world operational conditions. The intensive training program for the French troops unfolded within the framework of the "Royal Eagle 24.1" exercise, under the watchful eye of Major General Dorin Toma,

commander of the S-E Multinational Division, and Colonel Viorel-Eugen Bitan, commander of the Military School. Notably, the collaborative efforts extended to include American and Portuguese soldiers, who actively participated in the exercises, reinforcing the solidarity and cohesion inherent within NATO forces while fortifying partnerships across the alliance.

Text and photo: Anca Medrea







The iconic blurred image originates from footage shot at Edwards Air Force Base on January 20, 1974

## From Near Disaster to Global Dominance: The Unforgettable Journey of the F-16 Fighting Falcon

In the quest for a new aircraft, the United States Air Force embarked on a strategy during the Vietnam War that prioritized larger, faster, and longer-range capabilities. The focus was on penetrating enemy territory from extended distances and neutralizing adversary aircraft before breaching their controlled airspace. This strategic shift aimed to prevent a recurrence of China's involvement in the Korean War.

However, the Air Force found itself configured for a conflict that deviated from its preparedness. Directives were received to engage in a limited war against communist forces in Vietnam. The larger, less agile, and more expensive aircraft, which had been the primary focus of development efforts, proved ineffective in potential air-to-air confrontations. Compounding the issue, the F-4 Phantom equipped with AIM-7 and AIM-9 air to air missile systems experienced success rates below 20 percent. This rendered the Phantom inadequate against the swifter and more maneuverable MiG-17, MiG-19, and MiG-21 fighters, causing frustration among highly trained U.S. pilots.

The turning point in fighter jet development unfolded with the emergence of the so called "Fighter Mafia," an informal assembly of seasoned military aviators, experts, technicians, and defense analysts. United by a shared passion to elevate American

aeronautical technology to rival Russian MiG aircraft, John Boyd, a pilot and engineer, took a pivotal role in this endeavor. Boyd developed a theory quantifying jet aircraft performance variables, emphasizing propulsion, weight, aerodynamic drag, wing area, and more. Crucially, he demonstrated to the Air Force's leadership that the MiG-21 surpassed any

aircraft in the U.S. fleet in maneuverability. This realization led to the initiation of the Lightweight Fighter Jet Program in 1972.

The program's core objectives sought the development of a smaller, more affordable, and less complex fighter aircraft capable of establishing and maintaining air dominance. Specifications included a maximum weight



The prototype YF-16 (#72-1567) was rolled out at Fort Worth on December 13, 1973 and was air freighted by C-5A to Edwards AFB on January 8, 1974. Photo source: Getty Images



The aircraft's official first flight took place on February 2, 1974, again with Phil Oestricher at the controls. He reached 400 mph and 30,000 feet. Photo source: U.S. Air Force

of 20,000 pounds, high maneuverability, rapid acceleration, extended range, and capability to operate at speeds between Mach 0.6 and 1.6 at altitudes ranging from 30,000 to 40,000 feet. The stipulation was that each aircraft must cost less than \$3 million.

Out of five design submissions, the General Dynamics YF-16 and the Northrop YF-17 emerged as the finalists. The YF-16, utilizing cost-effective practices, demonstrated exceptional high-performance capabilities at an unusually low initial cost. A notable strategy involved incorporating parts from other aircraft with active production lines, such as the Pratt & Whitney F-100 turbofan engine used in the F-15 development. This not only reduced the cost per flight hour by nearly half but also minimized the threat to the F-15 program.

The YF-16 prototype encountered a critical moment during high-speed ground tests when it almost crashed, posing a potential

threat to both the pilot and the entire development program. Pilot Phil Oestricher averted disaster by opting for an unplanned first flight on January 20, 1974, at Edwards Air Force Base. This incident marked a pivotal juncture in the YF-16's journey toward becoming a groundbreaking and cost-effective fighter aircraft. In a surprising turn of events, the aircraft experienced a roll oscillation with such significant amplitudes that the left wing and the right stabilizer alternately struck the runway surface. Phil Oestricher, fought desperately to regain control as the situation became increasingly dire, with the YF-16 veering to the left. Recognizing the peril of speeding into the vegetation near the runway, Oestricher made a quick decision to increase speed, attempting to lift the plane into the air. The outcome of this decision was uncertain, with Oestricher persistently struggling for control, awaiting the point where there was sufficient lift for flight. Eventually, he succeeded

in getting the plane airborne and managed to fly for six minutes before landing.

While the accidental takeoff concluded successfully, the potential outcome could have been drastically different. At the time, Oestricher's aircraft represented the sole YF-16 in existence, and a crash might have led the U.S. Air Force to lose interest in this particular aircraft type.

The official maiden flight of the YF-16 took place on February 2<sup>nd</sup>, 1974, with Phil Oestricher once again at the helm.

The YF-16 emerged triumphant in the Lightweight Fighter Program on January 13, 1975, as announced by the Secretary of the Air Force. The decision was fueled by the YF-16's lower operating costs, extended range, and "significantly better" performance, particularly at supersonic speeds, compared to the YF-17. Notably, the use of the Pratt & Whitney F100 engine, the same as the F-15, provided an additional advantage over the



The YF-16 and YF-17 flying side by side, date unknown. Photo source: U.S. National Archives



YF-17. Secretary McLucas revealed the USAF's plan to order a minimum of 650, potentially up to 1,400 F-16 aircraft for production.

Initial orders from the United States Air Force comprised 15 development aircraft for the flight test program, later reduced to eight aircraft. Modifications were made to the YF-16 design for the production model of the F-16, including a 10.6-inch fuselage extension, alterations for the housing of the AN/APG-66 radar, wing area increased from 26 m<sup>2</sup> to 28 m<sup>2</sup>, and the addition of two weapons pylons. These modifications resulted in a 25% increase in the F-16's weight over the YF-16.

General Dynamics commenced the manufacturing of FSD (full-scale development) F-16s in late 1975 at the United States Air Force Plant 4 in Fort Worth, Texas. The first F-16A rolled off the assembly line on October 20, 1976, and made its inaugural flight on December 8 of the same year. The aircraft entered operational service with the USAF on May 16, 1980, with the 34<sup>th</sup> Tactical Fighter Squadron, 388<sup>th</sup> Tactical Fighter Wing, stationed at Hill AFB, Utah.

On July 21<sup>st</sup>, 1980, the F-16 was designated the "Fighting Falcon." Pilots and crews often colloquially referred to it as the "Viper," drawing parallels to its perceived resemblance to a snake and the fictional fighter "Colonial Viper" from the television show Battlestar Galactica, which aired around the F-16's entry into service.

In June, 1975, four European partners, known as the European Participation Group, signed a contract for 348 aircraft at the Paris Air Show. These were allocated as follows: 116 for Belgium, 58 for Denmark, 102 for the Netherlands, and 72 for Norway. Two European production lines, one in the Netherlands at Fokker's Schiphol-Oost facility and the other at the SABCA plant in Gosselies, Belgium, reportedly produced 184 and 164 aircraft, respectively. Norway's Kongsberg Vaapenfabrikk and Denmark's Terma A/S also contributed with parts and subassemblies for European Participation Air Forces (EPAF) aircraft.

Joint European production officially commenced on July 1, 1977, at the Fokker factory. Starting in November 1977, Fokker-produced components were shipped to Fort Worth for fuselage assembly, then flown back to Europe for final aircraft assembly at the Belgian plant on February 15, 1978. Deliveries to the Belgian Air Force commenced in January 1979. In June 1979, the Royal Netherlands Air

mid-2000s. There was also a possibility of establishing a sixth F-16 production line in India had it selected the F-16IN for its multirole fighter acquisition.

The F-16 underwent continuous enhancements and modifications during its production. A notable modification introduced pitch control to mitigate issues with departing controlled flight at high angles of attack.

**The 412<sup>th</sup> Test Wing unveiled two F-16s assigned to the 416<sup>th</sup> Flight Test Squadron adorned with special tail flashes to celebrate the Fighting Falcon's 50 years of service. Photo source: U.S. Air Force**



Force received its first delivery of the F-16, followed by deliveries to the Royal Norwegian Air Force by SABCA and the Royal Danish Air Force by Fokker in 1980.

Over the subsequent decades, Turkish Aerospace Industries (TAI) played a pivotal role in F-16 production, manufacturing 232 F-16 Block 30/40/50s for the Turkish Air Force under license during the 1980s and 1990s. Additionally, Turkey produced 46 F-16 Block 40s for Egypt in the mid-1990s and 30 F-16 Block 50s since 2010.

Korean Aerospace Industries contributed to the KF-16 program, producing 140 F-16 Block 52s from the mid-1990s to the

Although initially overlooked during development, tests at Langley Research Center identified a potential problem. Flight tests on the YF-16 were inconclusive, but subsequent tests on FSD aircraft highlighted a legitimate concern. Consequently, the horizontal stabilizer area was increased by 25% on Block 15 aircraft in 1981, later extended to older aircraft as an upgrade.

The 1980s witnessed the implementation of the Multinational Phased Improvement Program (MSIP) to enhance the F-16's capabilities, manage technological risks, and ensure the aircraft's continued value. Executed in three stages, MSIP facilitated the swift



**The initial Romanian F-16 aircraft to touch down at 86<sup>th</sup> Air Force Base was the dual-command plane registered with the number 1610, on September 29, 2016. Photo source: CER SENIN – Romanian Air Force Magazine archive**



**In close formation with NATO allies, the "Vipers" of the Romanian Air Force stand as a stalwart assurance, actively bolstering collective security in this era fraught with challenges. Photo source: CER SENIN – Romanian Air Force Magazine archive**

introduction of new capabilities at a reduced cost and lower risk compared to traditional modernization programs.

In 2012, the U.S. Air Force allocated \$2.8 billion to upgrade 350 F-16s while awaiting the F-35 platform's entry into service. A pivotal upgrade included the Automatic Ground Collision Avoidance System (A-GCAS). Lockheed Martin secured multiple contracts to upgrade F-16s for foreign operators, incorporating enhancements such as Raytheon's Central Display Unit, replacing analog flight instruments with a digital display.

Designed in the 1970s, the F-16 has proven to be an exceptionally capable platform, with over 4,500 units built and utilized by 25 countries, including nine NATO members. Continuously improved over 35 years in various "Block" variants, the F-16 is poised to maintain operational relevance for years to come. To sustain the capabilities of existing aircraft, a consortium of five countries (Belgium, Denmark, Norway, the Netherlands, and the United States) initiated the Mid-Life Update (MLU) program in the early 1990s. Portugal joined in 2002, with the first modernized F-16A aircraft delivered in 2003. Under the MLU program, the Portuguese Air Force incorporated the Falcon UP structure strengthening initiative, upgraded engines to the F100 variant -PW-220E, and introduced modern weaponry such as AIM-120 AMRAAM, Joint Direct Attack Munition-JDAM, Joint Stand Off Weapon-JSOW, and Rafael Litening II containers.

The MLU program evolved through successive versions (M1 to M7), focusing on technological advancements and system modernization. Initial upgrades included features like a Block 50-style cockpit compatible with night vision systems (NVIS),

two color multifunctional displays, a Wide Angle Head-Up Display, a modular mission computer, a modernized APG-66(V)2 fire control radar, digital maps, GPS/INS hybrid navigation systems, advanced friend-foe identification systems (AIFF), electronic warfare management systems (EWMS), and the capability to use targeting pods and the Joint Helmet Mounted Cueing System with electronic displays. Subsequent iterations (M2 to M7) continued to enhance various systems, armaments, and capabilities, ensuring the F-16 remains a formidable and technologically current platform.

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### VIPERS FOR ROMANIA

The inception of the multi-role aircraft program in 2014 aimed to bolster the national defense system, fostering a generational shift in various aspects of the Air Force—technological, infrastructure, human resource development, and mentality.

Technologically, the transition from the third to the fourth generation thrusts Romania into the league of nations boasting a credible air capability, with the potential for future advancements into the fifth generation of combat aircraft. For the Romanian Air Force, this marked a pivotal and obligatory step, as recent technical innovations brought swift transformations and upheavals within the air defense system. The digital revolution, advancements in communication systems, and the evolution of fighter aircraft triggered shifts in air force interoperability, emphasizing a move from achieving and maintaining air superiority to prioritizing information superiority and its strategic exploitation.

In September 2014, the initial cohort of Air Force personnel commenced an extensive

learning and training program at Monte Real Air Base in Portugal, offering promises of professional satisfaction amidst the intensity of training.

On September 29, 2016, six F-16 planes took off for Romania from the 5<sup>th</sup> Monte Real Air Base, marking a significant milestone in the program.

The official commencement of Air Police missions by the Romanian Air Force F-16 Fighting Falcon multirole aircraft occurred on March 14, 2019, at the 86<sup>th</sup> Air Base "Flight Lieutenant Gheorghe Mociorniță."

The procurement of an additional five F-16 Fighting Falcon aircraft, along with the associated goods and services, reinforces Romania's security by ensuring the continuous execution of national/NATO airspace defense during peacetime and crisis situations through Permanent Combat Service - Air Police (SLP-PA) under NATO command. This acquisition aligns with Law 237/2019, which focuses on enhancing the aerial operational capability as part of the initial transition stage within the "Multirole Aircraft of the Air Force" program. The contract signed on November 4, 2022, entails the purchase of 32 more F-16 aircraft from Norway.

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**In reflection, with over 4,500 F-16s built, the incident leading to the first unscheduled flight on January 20, 1974, could have altered the trajectory of air forces worldwide. The cancellation of the YF-16 program might have reshaped the landscape of global air power significantly.**

*Story by Adrian Sultănoiu based on information from open sources and Romanian Air Force Magazine archive*





# HOW DOES DEPLOYMENT AFFECT MILITARY FAMILIES?

Being in the military is among the most demanding and stressful professions (Harms et al., 2013), and it's no secret that military life often involves deployments away from family for extended periods. While this dedication requires passion and courage, it presents unique challenges distinct from civilian life. Concerns surrounding deployment affect military families, with the consequences extending beyond the physical separation itself.

Deployments, even if brief, bring significant changes to family dynamics. Maintaining knowledge and control over these changes is crucial to ensuring the stability and functionality of military families (Voicu & Mărineanu, 2016). Research on military personnel and their families consistently demonstrates high levels of resilience during and after deployments (Bonanno et al., 2012; O'Neal et al., 2018; Saltzman et al., 2011; Wiens & Boss, 2006). However, studies highlight the adverse effects of deployments, especially when they are frequent and unpredictable, impacting all family members (Skomorovsky & Bullock, 2017; Van Winkle & Lipari, 2015). Partners of deployed military personnel are particularly vulnerable to mental health challenges such as depression, anxiety, and insomnia compared to partners of non-deployed military personnel (Donoho et al., 2018; Mansfield et al., 2010; Steenkamp et al., 2018). Moreover, a parent's deployment can exacerbate stress for the remaining parent, negatively affecting children's behavior (Lester et al., 2016; Padden et al., 2011; Skomorovsky & Bullock, 2017). Military personnel's partners, often facing deployments or high-risk missions, confront significant challenges. They must cope with extended periods of uncertainty and worry about their loved one's safety, never knowing when or if they'll return. The burdens aren't limited to active military personnel; families also grapple with emotional, social, and day-to-day challenges both before and after deployments, as they prepare for the absence of a crucial family member.

**The emotional dislocation cycle**, as outlined by Pincus et al. (2001), comprises three main phases: pre-deployment, deployment, and post-deployment or reintegration (Gewirtz et al., 2011; Mohan & Arora, 2013). The pre-deployment phase involves anticipating separation-related stress and tension. During deployment, families endure prolonged separation and the challenges of single parenthood. The post-deployment phase presents its own set of hurdles, as families work to readjust and restore balance in parenting and family roles.

**The pre-deployment phase** typically starts with notification of deployment and concludes with the departure of the service member (Tomforde, 2015). While partners may prepare differently, logistical preparations—such as financial planning and home maintenance—are common (Tomforde, 2015). Emotional preparation during this phase involves grappling with

feelings of fear and uncertainty (Collins et al., 2017; Sahlstein et al., 2009). **During deployment**, initial feelings of loneliness and fear for the military/partner's safety are common (Tomforde, 2015; Warner et al., 2009). The transition often necessitates assuming new roles within the family unit (Yablonsky et al., 2016), with stress levels fluctuating throughout the process (DeVoe & Ross, 2012; Tomforde, 2015). **Upon the military's return**, the reintegration or post-deployment phase begins. Partners must once again navigate role redefinitions and task division, alongside managing complex emotions and fostering intimacy (Bowling & Sherman, 2008; Pincus et al., 2001). Furthermore, for children of deployed parents, behavioral issues may persist or escalate after redeployment (Borah & Fina, 2017). Maternal anxiety also significantly impacts children of deployed parents (Palmer, 2008; McFarlane, 2009; Gates et al., 2012; Sayers et al., 2009; Creech & Misca, 2017). Moreover, the reintegration process following deployment presents additional challenges for affected families, including the reestablishment of roles, routines, and adjustment (Walsh et al., 2014). Despite the resilience of many families, young children may be especially vulnerable to stressors associated with parental deployment and family transition.

**Yet... what can military personnel and their families do to manage deployment?** (practical recommendations to implement):

- 1. Assess your family's readiness** to accept your extended deployment:
  - a) Is the family prepared for your absence, which could last weeks or even months?
  - b) Are they ready for the uncertainties of your working environment?
  - c) Are family members or friends willing to help with your family duties while you're away?
  - d) Are there any family or relationship issues that might hinder your focus during deployment?
  - e) Do you have a stable and supportive family environment to return to after completing the mission?
- 2. Juggling parenting and household responsibilities** can be draining. Maintaining regular activities throughout the deployment cycle is crucial, as clear rules and boundaries protect both children and parents during the transition period. The partner at home may feel overwhelmed dealing with unruly behavior, often leading to frustration. Implementing „The Three Rs“ (rules, routines, and rituals)

helps maintain family stability amidst the stress of deployment (Sheppard, Malatras & Israel, 2010). Establishing and sticking to routines, especially with children, is vital for maintaining overall family function.

### 3. Sustaining a healthy lifestyle:

- a) Adopting healthy eating habits.
- b) Engaging in regular physical exercise.
- c) Practicing relaxation techniques.
- d) Using alcohol, coffee, or other stimulants responsibly.
- e) Cultivating hobbies and interests.

Additionally, stress and family responsibilities associated with deployment can impact partners' willingness to engage in healthy behaviors like exercise (Mailey et al., 2018).

### 4. Seeking support from others:

- a) Maintaining contact with others can alleviate stress for both the deployed service member and their family members.
- b) Children and adolescents benefit from peer support.
- c) Connecting with other families who have experienced deployment can provide valuable support.

### 5. Developing stress management skills:

- a) Building assertiveness.
- b) Improving communication with others.
- c) Addressing conflicts promptly.
- d) Learning problem-solving techniques.
- e) Enhancing time management skills.
- f) Exploring relaxation methods, with support available from unit psychologists.

### 6. Considerations for returning military personnel:

- a) Respect the routines and schedules established by the family while you were away. Ease into your role gradually and enjoy the „guest“ status for a while.
- b) Avoid overstepping boundaries, especially regarding discipline with the children. Allow time for the household rules and routines to take effect.
- c) Anticipate that intimate relationships may feel awkward initially. Foster open discussions rather than accusations of infidelity. Expect your partner to have changed, becoming more understanding, independent, and confident.

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