

Ukrainian Crisis: NATO Order Of Battle



The map of the aviation assets involved in the military buildup. The bases of ISR assets are marked in red, while fighter and bomber bases are marked in blue. (Map edit: Stefano D'Urso/The Aviatorist; Photos: USAF, RAF, Polish MoD, Claudio Tramontin)

Let's Talk About NATO's Buildup In Response To The Ukrainian Crisis And All The Assets Involved In The Region.

In a situation reminiscent of the Cold War, the last few weeks have seen a continuous stream of military aircraft across Europe in response to the growing tensions around Ukraine and the fear of an imminent Russian invasion. NATO and partner nations quickly deployed additional fighters in support of the ones already performing air policing duties in Eastern Europe.

We prepared a map showing all the aircraft involved in the daily operations in response to the crisis, including those already deployed and the ones arrived recently in Europe. We decided to include in this Ukrainian crisis NATO ORBAT (Order of Battle) both ISR (Intelligence, Surveillance and Reconnaissance) and fighter/bomber assets, as ISR are currently doing the heavy work and keeping an eye on Russian forces around Ukraine all day long. Let's see in detail which are all the aircraft involved (except resident

nations forces).

Minot B-52Hs

One of the most visible aircraft to be deployed in Europe as the tensions begun to rise is the B-52H Stratofortress. Four strategic bombers were deployed to RAF Fairford on February 10, 2022 for another rotation of the Bomber Task Force (BTF) Europe. The Stratofortresses, belonging to the 5th Bomb Wing from Minot Air Force Base, North Dakota, arrived at an interesting time, but the USAFE-AFAFRICA command pointed out that the BTF 22-2 is a “long-planned” mission and not a consequence of the current situation around Ukraine.

A few days later, on Feb. 14, 2022, a B-52 performed a long-range mission to the CENTCOM area and back, logging about 23 hours and 30 minutes of flight. Needless to say, the flight got a lot of attention online by aviation enthusiasts from all around the world on flight tracking websites. During this long flight, the BUFF (Big Ugly Fat Fellow) integrated with RAF Typhoons, Israeli and Saudi F-15s and USMC F/A-18s during a long-range presence patrol. Multiple, shorter missions followed with the B-52s integrating with other partners across Europe.

On Feb. 21, 2022, shortly after 15.00LT, one of the four B-52H Stratofortress bombers deployed to RAF Fairford, UK, as part of BTF (Bomber Task Force) 22-2 carried out a quite unusual visit to Leoš Janáček Airport in Ostrava, Czech Republic.

The landing of the American bomber took place as part of a training flight of these two strategic bombers over Central and Eastern Europe: TYSON11, #60-0044, visited Ostrava, in the eastern part of Czech Republic, as the other aircraft, TYSON12, continued on its planned route outside the Czech Republic.

The Boeing B-52H Stratofortress (60-0044 #TYSON11) landed in Ostrava around an hour ago <https://t.co/JJiLE5HI0D> pic.twitter.com/YQOtVyJkL7

— Gerjon | @Gerjon_ February 21, 2022

The training flight was used to practice mutual cooperation between the air forces of NATO member states: in particular, the activity over the the Czech Republic was planned also to integrate the U.S. bombers with JAS-39 Gripen of the 21st Tactical Air Force Base ?áslav.

Lakenheath F-15Cs

F-15C and F-15D Eagles from the 493rd Fighter Squadron, part of the 48th Fighter Wing at RAF Lakenheath, deployed to Łask Air Base in central Poland on February 10 to enhance the “NATO’s collective defence posture and support the NATO Air Policing mission.” This deployment is significant as it might also be the last operational deployment of the “Grim Reapers”, as the units is scheduled to retire soon its F-15, ending the 45-year type’s presence in Europe.

As usual, in case of the NATO eAP (enhanced Air Policing) initiative, the US jets would be coordinated by the CAOC UE (Combined Air Operations Center in Ueden, Germany). This body is responsible for directing, tasking, and coordinating the assets deployed to Northern Europe, in peacetime, crisis, and conflict, as the NATO’s release specifies.

RAF Lakenheath and Seymour Johnson AFB’s F-15Es

15 F-15E Strike Eagles of the 336th Fighter Squadron, part of the 4th Fighter Wing at Seymour Johnson Air Force Base, North Carolina, have been deployed to RAF Lakenheath for some months to undergo training with NATO allies. Six aircraft were deployed for some weeks in January at Ämari Air Base, Estonia, to support the NATO eAP.

Following this deployment, eight Strike Eagle have been deployed to Łask Air Base Poland on Feb. 13, 2022, joining the eight F-15Cs of the Grim Reapers. A number of Seymour Johnson F-15Es remains at RAF Lakenheath, in addition to the local jets of the 492nd and 494th Fighter Squadrons of the 48th FW. An involvement of Lakenheath’s Strike Eagles has not been reported yet, contrary to the other units under USAFE command.

A specially colored F-15C deployed in Poland. (Photo: Polish MoD)

Spangdahlem F-16CMs

Eight F-16CM Block 50 of the 480th FS “Warhawks”, part of the 52nd Fighter Wing at Spangdahlem Air Base, Germany, arrived at Fetesti Air Base in Romania on Feb. 11, 2022, to support the enhanced Air Policing mission, joining Italian Eurofighter Typhoons already deployed in the country since December. Interestingly, the photos showed both training-configured and live, heavily loaded Vipers leaving their base in Germany for the deployment.

Aviano F-16CMs

Two F-16CM Block 40 Fighting Falcon aircraft belonging to the 555th Fighter Squadron of the 31st Fighter Wing, based at Aviano Air Base, Italy, took part in a mission over Eastern Europe carrying live weapons on Saturday Feb. 19, 2022. To our knowledge, this was the second time the Aviano’s Vipers flew with Live armament since the beginning of the Ukrainian crisis [first time, at least in daylight, was reported to be on Friday Feb. 18, 2022].

According to the NATO Allied Air Command, these F-16s were in standard eAP (enhanced Air Policing) but it's not clear when they were committed the NATO mission.

Anyway, the two F-16s operated inside Romania's airspace along with other NATO and U.S. assets for several hours before RTB (Return To Base). It's not the first time the F-16s from Aviano operate in the Black Sea region armed with live air-to-air weapons. For instance, in 2020, the Vipers of the 31st FW took part in a joint exercise focusing on realistic integration, operation and communication between surface and air assets to protect the maritime domain.

Another mission in the Romanian airspace was launched on Feb. 21, 2022.

Hill AFB's F-35As

Twelve F-35A Lightning II jets belonging to the 34th Fighter Squadron from Hill Air Force Base, Utah, have arrived at Spangdahlem on Feb. 16, 2022, to "bolster readiness, enhance NATO's collective defense posture and further increase air integration capabilities with Allied and Partner nations." Interestingly, the press release mentions: "The aircraft are equipped for a variety of missions to deter aggression and defend Allies should deterrence fail".

"The deployment of U.S. F-35As to Spangdahlem Air Base increases the defensive posture of the NATO Alliance and enhances our ability to operate together," said Gen. Jeff Harrigan, Commander U.S. Air Forces in Europe and Air Forces Africa and Commander Allied Air Command. "We are facing a dynamic environment and this deployment significantly enhances our support to NATO's defenses."

The deployment, coordinated with the German government involves pilots, maintainers and support personnel from the active duty 388th and Reserve 419th Fighter Wing, which, in total, operate 78 F-35A stealth aircraft at their homebase at Hill AFB. We did not find yet reports about F-35 missions over Eastern Europe.

USS Truman Carrier Air Wing

The Harry S. Truman Carrier Strike Group (HSTCSG) was ordered to stay in the Mediterranean Sea region rather than move on to the Middle East as initially planned amid raising tension with Russia for the situation in Ukraine. From Adriatic Sea, the carrier's Air Wing has taken part in "Neptune Strike 2022" and in a three carrier exercise during which HSTCSG integrated with the French carrier Charles de Gaulle's (R 91) Task Force 473 and Italian carrier ITS Cavour (C-550) strike groups.

Currently embarked with Carrier Air Wing One (CVW-1) are: the VFA-11 Red Rippers equipped with F/A-18F; the VFA-211 “Checkmantes”, the VFA-34 “Blue Blasters” and the VFA-81 “Sunliners” equipped with the single seater F/A-18E; the VAQ-137 “Rooks” flying the EA-18G Growler; the VAW-126 “Seahawks” flying the E-2D Hawkeye; the HSC-11 “Dragon Slayers” and the HSM-72 “Proud Warriors”, operating with the MH-60S and MH-60R respectively; the VRC-40 “Rawhides” flying the C-2A Greyhounds.

On Feb. 7, 2022 four Super Hornets, supported by two Greyhounds, landed at Aviano Air Base for a quick deployment in Italy before moving to Fetesti air base in Romania. There, they operated together with the local F-16s and other allied assets. According to unconfirmed reports, the Super Hornets returned to the USS Truman on Feb. 15, however recent photos show them still flying in Romania and other unconfirmed report suggest their stay there has been prolonged.

Italian Eurofighter F-2000As

The Italian Air Force took over responsibility from the Royal Canadian Air Force at Mihail Kogalniceanu Air Base, Romania, for NATO’s enhanced Air Policing in December 2021. Four Eurofighter F-2000A fighter jets arrived in Romania for a four-month deployment dubbed “Task Force Air Black Storm”, which will see them working alongside their Romanian MiG-21 counterparts. The Italian Typhoons have already carried out the Enhanced Air Policing Area South (EAPA-S) in Romania in 2019.

“Italian Air Forces have a wide experience in defending NATO’s sky. In Romania, the 140 servicemen and 4 Eurofighter Typhoon airplanes, which constitutes the Task Force Air Black Storm, enhance the personnel and aircraft of Romanian Air Forces which assures Air Policing Service”, said General Daniel Petrescu, Romanian Chief of Defence Staff. “Romania, a key ally on the Eastern flank, contributes to the defense of NATO’s air space in the Black Sea Region, and its contribution is being enhanced with additional British, Canadian, Italian, Portuguese and Spanish air capabilities, in a rotating system.”

Italian Eurofighter F-2000s in Romania for the Enhanced Air Policing Area South. (Photo: ItAF)

German Eurofighters

Three Eurofighter fighter jets of the Luftwaffe’s Taktisches Luftwaffengeschwader 74 arrived at Mihail Kogalniceanu Air Base, Romania, on February 17. In accordance with the “plug & fight” concept, the three German Eurofighters will operate within the Italian-led eAPA-S (Enhanced Air Policing Area South) mission, contributing, for a short period, to the QRA (Quick Reaction Allert) service, carried out jointly with mixed aircraft, personnel and pilots belonging to both Air Forces.

According to NATO Allied Air “within the concept of ‘Plug & Fight’ a small contingent of personnel and aircraft from one Ally conducts operations with another Ally by docking on existing structures, thereby further developing interoperability during a live deployment. A highly innovative concept, ‘Plug & Fight’ operations have been executed between the German and British Air Forces before in Romania as well as during Baltic Air Policing in Lithuania and Estonia.”

Spanish Eurofighter C.16s

Four Spanish Eurofighter C.16 fighter jets landed at Graf Ignatievo Air Base, Bulgaria, on Feb. 11, 2022, to support the NATO Air Policing mission and work out air-to-air manoeuvres with their Bulgarian allies. The Spanish Air Policing tasks will be performed until the end of March 2022, according to the NATO press release, in compliance with the plans and procedures of the NATO Integrated Air and Missile Defence System (NIAMDS).

Royal Air Force Typhoons FGR4

Four Typhoon FGR4s of the Royal Air Force joined the ones already deployed at RAF Akrotiri for counter Daesh operations, bringing the total to eight aircraft. The Typhoons landed in Cyprus on February 17 to begin patrols with NATO Allies in the skies over Eastern Europe. This is just a small part of the British effort to bolster defenses in Eastern Europe, which will see also the deployment of Apache attack helicopters, tanks and armoured fighting vehicles.

Charles de Gaulle Air Wing

The aircraft carrier Charles de Gaulle has been deployed on her 14th mission from February to April 2022, as part of Task Force 473 (TF 473). Demonstrating its interoperability with allied navies, the Carrier Strike Group (CSG) will integrate several foreign vessels in the Mediterranean during the Clemenceau 22 mission. In the past few days, the carrier’s Rafale M fighter jets, supported by the E-2D Advanced Hawkeye early warning aircraft, intercepted Russian Tu-22s, Su-30s and Su-35s in the Eastern Mediterranean Sea.

Au cours des derniers jours, interactions du @French_CSG ??, déployé en MEDOR pour #Chammal @CJTFOIR, avec des aéronefs russes, qui ont été détectés dès leur décollage de Lattaquié puis suivis en permanence par les unités du @French_CSG ??
pic.twitter.com/sEy7igkTzs

— Armée française – Opérations militaires (@EtatMajorFR) February 19, 2022

Portuguese F-16AMs

Four Portuguese Air Force F-16s from Esq 201 “Falcoes” and Esq 301 “Jaguares”, based at Base Aérea 5, Monte Real, deployed to Keflavik Air Base, Iceland, for a NATO Icelandic Air Policing detachment. The detachment will be operational from February 1 to March 30 and represents Portugal’s second time performing Air Policing in Iceland, after the first mission in 2012. The Portuguese F-16 also escorted the four B-52H as they arrived in Europe for their BTF mission.

Belgian F-16AMs

Four F-16 Belgian Air Force took over the NATO Baltic Air Policing (BAP) mission from Italy at Ämari Air Base, Estonia, on December, 1 2021. Both the 10th and 2nd Tactical Wings of the Belgian Air Force are covering this deployment with a team of 60 people. Belgium is at the sixth time leading the BAP mission and they have already augmented Baltic Air Policing at Ämari twice.

Polish F-16Cs

Four F-16 “Jastrz?b” aircraft of the Polish Air Force are deployed to Siauliai air base in Lithuania as part of the PKW Orlik 10 deployment since on Dec. 1, 2021. The Polish detachment is formed by around 150 soldiers, most of whom come from the Poznan-Krzesiny 31st Tactical Airbase. This is the third BAP rotation for the Polish Vipers. Previously the Polish Air Force had been deploying its MiG-29 Fulcrums to the area.

Danish F-16AMs

Four Danish F-16s arrived in Siauliai on January 27 to work alongside the Polish F-16s that deployed there in December 2021 to conduct Baltic Air Policing (BAP). The Vipers, belonging to Esk 727 and Esk 730, are expected to stay there until April 1 to assist with the NATO Air Policing role, following a decision by the Danish Government to provide the additional aircraft due to the current situation around Ukraine. This detachment came only two months after the Royal Danish Air Force completed its previous Air Policing operations in the Baltic states.

Greek F-16Cs train with US Navy F/A-18 during Neptune Strike 2022. (Photo: NATO)

RAF and USAF RC-135s

The RC-135s are operated in multiple variants by the Royal Air Force (RC-135W Rivet Joint) and the US Air Force (RC-135V Rivet Joint and RC-135U Combat Sent). While the British are flying their missions from RAF Waddington, the Americans are flying theirs from Souda Bay (Greece), but they share the same “target area” over Ukraine and the Black Sea, with some sporadic visits near the Russian bases in Syria.

Specialized in the SIGINT (Signal Intelligence) missions, the Rivet Joints and Combat Sents are building the electronic order of battle of the Russian forces by monitoring the emissions of radars, communications

nodes, electronic warfare systems, while also determining their locations and types. While they already flew almost daily missions over the Black Sea, their activity further increased during the last month.

USAF E-8C JSTARS

The E-8 Joint Surveillance Target Attack Radar System (Joint STARS) is the U.S. Air Force's airborne ground surveillance, battle management and command and control aircraft. Thanks to the AN/APY-7 radar, which can operate in wide area surveillance, ground moving target indicator (GMTI), fixed target indicator (FTI) target classification, and synthetic aperture radar (SAR) modes, the E-8C can provide targeting data and intelligence for attack aviation, naval surface fire, field artillery and friendly maneuver forces.

The E-8's radar can determine the approximate number of vehicles, together with their location, speed, and direction of travel. As it cannot identify exactly what type of vehicle a target is, tell what equipment it has, or discern whether it is friendly or hostile, the JSTARS data is crosschecked against other ISR sources operating in the area. An E-8C has been deployed last year to Ramstein Air Base in Germany and has been flying missions in Ukraine ever since,

USAF and NATO RQ-4s

The RQ-4 Global Hawk is one of the aircraft that are flying without pause as the tensions keep rising. Long duration missions are being flown from NAS Sigonella in Italy, where RQ-4B of the U.S. Air Force 7th Reconnaissance Squadron and RQ-4D of the NATO Alliance Ground Surveillance (AGS) are based. Both types have been tracked usually performing daily missions, with some days performing multiple missions to provide a continued surveillance.

USAF MQ-9s

The U.S. Air Force is operating MQ-9 Reapers both out of Sigonella and Campia Turzii, Romania. While the formers have been tracked a few times departing Italy for the Black Sea, it is not known if the latter are being flown in the area as reports about their activities are scarce. Both units only fly unarmed missions in Europe, but it is not known if any weapons can be embarked should the need arise.

JAS 39C Gripens escorting a B-52H during a recent training mission. (Photo: Försvarsmakten)

US Navy P-8s

The U.S. Navy routinely rotates P-8A Poseidons from various unit at NAS Sigonella. The P-8s usually fly ISR missions over the Black Sea and the Eastern Mediterranean Sea, but they are now seemingly concentrating on the Ionian Sea to provide protection to the USS Truman Carrier Strike Group. Multiple missions are being flown throughout the day to provide continuous surveillance, especially after numerous Russian ships entered the Mediterranean Sea this month.

US Navy EP-3E

The U.S. Navy's EP-3E Aries II has been designed for the intelligence-gathering role and optimized for the maritime and littoral domains. EP-3E's flights have been tracked out of Souda Bay to survey the Black Sea and to monitor Russian Navy ships that arrived there earlier this month after circumnavigating Europe and crossing the Mediterranean Sea. Of particular interest are six amphibious landing ships that might be used for an assault from the sea. The patrol route usually takes the Aries II close to Crimea's shores.

US Army RC-12X

The U.S. Army's RC-12X Guardrail Common Sensor (GRCS) has been deployed to Siauliai Air Base in Lithuania since 2019. About three or four aircraft are based there, flying missions almost every day with two aircraft at the same time to monitor the area around Ukraine and Kaliningrad. The Guardrail is a Special Electronic Mission Aircraft that provides Aerial Intelligence, Surveillance and Reconnaissance (AISR) capability, specialized for the SIGINT role.

US Army ARTEMIS

The ARTEMIS is the U.S. Army's first ever Manned Aerial ISR (intelligence, surveillance and reconnaissance) jet and was officially revealed on Aug. 6, 2020 by the Army's Program Executive Office. ARTEMIS is COCO (contractor-owned, contractor operated), with two modified Challenger 650s being built, N488CR c/n 6140 (LASAI AVIATION LLC, VA) and N9191 c/n 5312 (TENAX AEROSPACE LLC, MS), with different ISR lumps and bumps.

One of the most interesting things about ARTEMIS, is the fact that it is equipped with a High-Accuracy Detection and Exploitation System, or HADES, a sensor suite part of the Army Multi-Domain Sensing System (MDSS), "intended to address the Army's deep sensing requirement by providing platform agnostic sensors that support Multi-Domain Operations (MDO), including Large Scale Ground Combat Operations, and fill sensing gaps for Indicators and Warnings, Long-Range Precision Fire targeting and Situational Understanding."

At least one of the ARTEMIS aircraft is deployed to Mihail Kog?Iniceanu Airport, Romania, since 2020. The aircraft can often be tracked via its ADS-B transponder flying missions to the Black Sea region. The number of the missions increase during the last months, becoming almost daily.

Map edit: Stefano D'Urso/The Aviationist)

If you spot any inaccuracies or have an update, please let us know in the comments section or by sending us an email. We'll release a new, updated version of the map as soon as possible.



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Source: [Ukrainian Crisis: NATO Order Of Battle](#)