



▲ The official Ramstein Flag 2025 patch, with in the upper right corner the flag of the province of Friesland (Frisia) where Leeuwarden Air Base is located.

# Where NATO's **Airpower** Takes Shape

Twice a day almost 100 fighters and support aircraft from fifteen nations took off from twelve locations in six countries to train together in complex and challenging scenarios. This is NATO's largest aerial warfare exercise of the year, this is Ramstein Flag 2025 and *Ben Gorski, Paul Gross, and Patrick Roegies* were in attendance.



**T**his year's Ramstein Flag (RF) took place from March 31st until April 10th, hosted by the Royal Netherlands Air Force (RNLAf) at Leeuwarden Air Base and was the second edition. The first edition of RF took place in 2024. During the premier edition the center of operations was Andravida Air Base in Greece, hosting all aircraft apart from air to air refueling assets. RF 2024 was evaluated as very successful by NATO AIRCOM, and planning for the 2025 edition started as early as mid-2024 with the Initial Planning Conference.

In contrast to 2024, RF25 saw the assets spread over twelve locations in six countries. The choice for this alteration was made to add to the realism of the exercise. Or as Air Marshal Johnny Stringer, Deputy Commander of NATO allied Air Command stated: "By operating out of different NATO locations, the exercise created a realistic scenario in which multinational units had to cooperate under high time pressure, spread over a vast geographical area. "This mirrors the conditions we would face in a conflict on the eastern flank or elsewhere". He added "It allows us to test the logistics chain, command structures, and information sharing between allies in a simulated combat environment."

Air Commodore Marcel 'Bo' van Egmond, RNLAf commander of the Air Combat Command, proudly hosts RF25 at Leeuwarden Air Base. "It is an honor for The Netherlands to lead such a high-end multinational exercise. This is not just about flying jets—it is about deterrence. And deterrence requires preparation, presence, and interoperability."

Van Egmond emphasizes how close modern conflict has come to NATO's borders. "Ukraine is only a 90-minute flight away." The commodore also points to the value of planning and executing together across nations. "Pilots are like world-class

▲ A Swedish Gripen connects with a tanker as French Rafales form up in the background. This multi-nation refueling train demonstrates the cohesion of allied forces. NATO AIRCOM





Spanish Air Force EF-18 Hornets fly in formation above the clouds during Ramstein Flag. Spain brings advanced strike and escort capabilities to the exercise. NATO AIRCOM



▲ A French Air and Space Force Rafale B taxis out for a mission during Ramstein Flag. French participation showcases multirole fighter capability in NATO's largest tactical air exercise. NATO AIRCOM

athletes—individually excellent. But we must become a world-class team. That means learning each other's playbooks." He highlights how multinational planning, flying, and debriefing improves cohesion across NATO. Looking ahead, he hopes future editions of the exercise include more airspace to the east, particularly into Germany, and better integration with ground-based air defenses. "More realism means more readiness. We are strong now—but we can always improve."

## Strategic Lines of Effort to exercise goals

NATO AIRCOM has recently defined five Lines of Effort (LOE), based on the current real-world situation. These LOE include Counter-Territorialism, Counter Anti-Access/Area Denial (C-A2AD), Integrated Air and Missile Defense (IAMD), Agile Combat Employment (ACE), and Control of the Air Domain.

Lieutenant Colonel Willem van Kampen of the RNLAf and Lieutenant Colonel Martin Friis of the Royal Danish Air Force bring operational context

to the exercise's high-level strategy. They work directly with AIRCOM, translating modern battlefield lessons—especially from Ukraine—into what NATO must prepare for. Van Kampen: "RF is not just a flying event. It is designed to train the entire NATO air enterprise across these five LOEs." Friis adds: "These are the building blocks for modern warfare".

The RF25 organization led by key figures such as General James Hecker and Air Marshal Johnny Stringer translated AIRCOM's five LOEs into no less than nine Exercise Objectives for Ramstein Flag 25.

A main objective, connecting all others, is interoperability of flying air defence assets with Surface & Sea Based Air and Missile Defence (SBAMD). "We don't want fifteen countries pursuing fifteen different goals," van Kampen says. "We align early and train smart." A key example is interoperability—ensuring forces understand each other's systems and tactics. Van Kampen explains this using a metaphor: "If everyone speaks their own language, we hear each other, but we do not understand. With interoperable systems, we all speak the same tactical language".

Friis elaborates: "We train interoperability not just to fly together—but to actually fight together." One example: integrating air defense units and fighters in the same zone. "Traditionally, airspace would be divided. Now, we deliberately overlap the zones. That means ground and air units fire in the same area. That has one obvious drawback—if you do not coordinate, you could shoot each other." The goal is to remove the metaphorical 'fence' around each unit's bubble. "If you have a fence outside your house," van Kampen says, "it limits people from entering. If you want freedom of movement, you must take that fence away."

Integrated Composite Air Operations (COMAO) mission planning and execution was also a main objective. This objective mainly concerned working effectively and efficiently with the current mix of 4th and 5th generation aircraft. Friis: "The F-35 brings amazing sensors, but not many weapons because it needs stealth. A 4th generation aircraft like a Eurofighter brings more firepower. So, we train to use them together, make one see, the other shoot

Another objective, directly translated from AIRCOM's LOE, was to exercise the ACE concept, at Leeuwarden and other air bases. ACE is a proactive and reactive operational scheme of maneuver, executed within threat timelines, to increase survivability while generating combat power. When applied correctly, ACE complicates the enemy's targeting process, creates political and operational dilemmas for the enemy, and creates flexibility for friendly forces.

▼ Two F-35As from the Royal Netherlands Air Force, operating out of Leeuwarden Air Base, cruise in formation over open water. Ben Gorski



◀ A Turkish Air Force F-16 from 151 filo connects with the boom of a KC-135R tanker during aerial refuelling operations. Ben Gorski

▶ Two Danish F-35As from Eskadrille 727 fly in tight formation over the Netherlands. Andrew Hummel



A well-known aspect of ACE is the use of alternative locations for flying operations, like highway-strips. Asked why this aspect of ACE was not part of RF25 Air Commodore Marcel 'Bo' van Egmond stated: "During this edition of RF25 this was not a part of the operations, but it could well be that we do it in the next edition".

## Combat Phases and Tactical Execution

RF is structured around escalating operational scenarios. The first three days are dedicated to establishing Integrated Air and Missile Defense (IAMD) in what is called a "semi-permissive" environment—simulating a contested airspace where some enemy threats remain. Midweek transitions focus on Counter Anti-Access/Area Denial (C-A2AD) missions, where blue air strikes enemy surface-to-air missile (SAM) positions, command centers, and radar installations. The final days shift to supporting ground forces under simulated NATO Article 5 scenarios.



◀ RAF Typhoons operated from their homebase RAF Lossiemouth in Scotland and were regular customers of A330MRTT tankers from the MMU. Paul Gross

▼ Turkey's E-7T Peace Eagle AWACS aircraft lands after a command-and-control mission. Its real-time battlefield management capability is vital for coalition airpower. Ben Gorski

Participating fighters work in coordinated mission packages. Electronic attack (EA) aircraft provide jamming support while SEAD/DEAD platforms locate and neutralize enemy radars. "We replicate layered threats. Some jets blind enemy SAMs: others punch holes through their coverage," says a mission commander.

Joint Terminal Attack Controllers (JTACs) and simulated Forward Air Controllers direct strikes on behalf of ground troops. These are the most complex scenarios in the exercise, involving rapid deconfliction of aircraft, munitions, and joint fires.

## Draken International Joins the Fight

Draken International, a U.S.-based civilian defense contractor, played a pivotal and disruptive role during RF25. Known for its specialization in threat emulation, NATO contracts Draken to simulate advanced adversarial electronic warfare capabilities—making them a vital component of the exercise's Red Force.

"We're the Red Force," says one Draken mission lead. "Our job is to simulate enemy jamming—breaking into NATO comms, spoofing radars, disrupting sensor networks." Their Falcon 20 jets, equipped with powerful electronic warfare pods, are seen buzzing around the exercise area, deliberately injecting chaos into an otherwise organized NATO command structure. "We literally play music over their radio nets sometimes. That is us," he adds with a smirk.

While Draken is often associated with Red Air, their involvement here focuses squarely on electronic attack. "We are not dogfighting. We are sowing confusion and assessing the other side's ability to respond," the mission lead explains. Their effectiveness, however, is





# Exercise Report

► A Danish F-35A receives fuel from a Turkish KC-135R during a mid-air refueling operation over the North Sea. NATO AIRCOM



▲ Proud host of Ramstein Flag was Commodore Marcel van Egmond, commander of the Royal Netherlands Air Force Air Combat Command (ACC). Paul Gross

► The Romanian Air Force F-16's participated in both Ramstein Flag exercises. In 2024 from their homebase Fetesti, in 2025 from RAF Fairford. Paul Gross

▼ The Greek participation consisted of four Block 72V F-16's. Patrick Roegies

not just airborne. "The real value is in the debrief," says one of their EW officers. "Recognizing you are being jammed is the first challenge. Fixing it in real-time—that is where we evaluate their resilience."

As one NATO officer concluded, "They're a red cell with a PhD in disruption."

## Future Focus

Commanders, planners, and aircrews walk away from RF25 with more than just flight hours. They leave with tested tactics, confirmed interoperability, and a deeper understanding of what it takes to fight as one alliance. The greatest strength of the exercise is its integration—of platforms, nations, roles, and systems. Lt Col Friis said "More than anything, we trained to trust each other." Van Egmond echoes this sentiment. "This is deterrence in action. We do not hope for war, but we prepare for it. And we do that together."

Looking ahead to RF26, organizers aim to expand airspace, increase participation from new NATO members, and deepen joint integration with land and maritime forces. More advanced simulations, faster information-sharing networks, and greater logistical agility are also high on the wish list. For now, Ramstein Flag 2025 proves that NATO's strength does not lie in any one nation's aircraft or arsenal—but in how seamlessly they can all work together. **AN**



▲ With its position and anti-collision lights glowing brightly, Eurofighter 30+71 prepares to depart into the night. Jos Knol

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