Introduction

As the world enters an era of great-power competition, the North Atlantic Treaty Organization (NATO) faces a renewed challenge from an old adversary. A Europe whole, free, and at peace is now at risk as Russian aggression challenges the traditional rules-based world order. Russia’s activities in and against Ukraine and Georgia, rampant intrusion on Western democratic processes and political discourse, blatant assassination attempts on NATO soil, support for rogue regimes in Syria and Iran, and military deployments and force accumulation in Kaliningrad and Crimea, as well as in the Sea of Azov, demonstrate that the threat is as real and compelling as it ever was.

NATO’s military strategy and doctrine have evolved in the land and maritime domains, and its recently released Joint Air Power Strategy seeks to do the same for the air domain. Moving forward, it is clear that the Alliance’s core tasks outlined in its 2010 Strategic Concept are unchanged. However, collective defense has risen to the forefront, ahead of crisis management and cooperative security. Executing this defense against the current threat will require actions measured in hours and days, not weeks and months, which means joint air power (JAP) will be the lynchpin to operations, in both peacetime and crisis, across the full range of military operations.

Strategic Context

The Russians are back, and that should give pause. In 2014, Russia rapidly invaded and annexed Crimea by skillfully employing a new, hybrid approach to warfare—with great effect, and with a speed that would have made a decisive NATO response difficult to achieve, even if Alliance leadership had desired to respond. Despite international criticism, Russia dismissed calls for restraint, and rejected diplomacy...
with a strategic narrative emphasizing historical claims to Crimea. It then deployed “little green men” to the Donbass region of Ukraine, adding another region to an already large list of Russian-inspired frozen conflicts in Europe: Transnistria, South Ossetia, Abkhazia, Nagorno-Karabakh, and Crimea. Exercises in the Baltic region, claims to the high north, combat deployments to Syria, and the recent seizure of sovereign Ukrainian vessels in the Sea of Azov make it clear that President Vladimir Putin will continue to seek opportunities to expand Russia’s influence and territorial control.

In areas where it is constrained by borders, Russia attempts to gain influence by creating anti-access/area-denial (A2/AD) environments and increasing its ability to project power, including airpower. The hallmarks of these environments are advanced long-range, surface-to-air missile systems like the S-400 integrated with sensors and associated command-and-control nodes. Currently, A2/AD environments in Europe extend from north to south, creating a new “Iron Curtain” from the Barents, Baltic, Black, and Mediterranean Seas—one that overlaps allied air space and presents a significant challenge to achieving air superiority in any conflict.

Furthermore, Russia has developed considerable airpower options in manned and unmanned systems, ballistic and cruise missiles, and increasingly capable electronic-warfare systems. These assets include Su-27 and MiG-35 fighters, Tu-22M3M bombers, and Su-34 fighter bombers, as well as unmanned platforms, which have been increasingly used in Syria and Ukraine for gathering intelligence, surveillance, and reconnaissance (ISR) data, as well as detailed battle-damage assessment. Russia’s ballistic- and cruise-missile systems include the Iskander and Kalibr, which provide long-range precision-strike capabilities to hold allied targets at risk, and can serve to intimidate and deter Alliance action in times of crisis. In the electronic-warfare arena, Russia is growing increasingly capable, as demonstrated by its use of jamming technology during NATO’s recent Trident Juncture exercise. In summary, Russia will continue to utilize the suite of airpower options at its disposal to militarize the Kaliningrad enclave and Crimean peninsula, in an attempt to intimidate NATO allies and partners.
In addition to the military actions detailed above, President Putin is skillfully blending and sequencing elements of Russia’s national power, enabling it to punch well above its weight—and to minimize the fact that Russia is a nation in decline. The combined gross domestic product (GDP) of NATO dwarfs Russia’s GDP ($36 trillion vs. $1.4 trillion), Russia’s population is in decline, and its energy-based economy is heavily dependent on the price of oil. An illusion of strength is underpinned by Russia’s declared “escalate to de-escalate” strategy, which signals a willingness to use tactical nuclear weapons to deter a NATO Article 5 response.

At the end of the Cold War, NATO nations hoped for a thaw in relations with Russia, that Russia would join the rules-based order, and that democracy and a free-market economy would take hold. However, the reality is that Russia under Vladimir Putin is not interested in any of these things. Now, more than ever, Russia is undeterred, unwilling to adhere to international norms and laws, and unapologetic. NATO must accept this reality and prepare for collective defense.

Tepid responses to treaty violations, violations of international law, and challenges to the traditional, rules-based order will only invite more aggressive behavior, and could actually invite conflict. Russia is a great-power threat, and its recent actions necessitate a timely, decisive response capacity within NATO, with airpower playing a major role.

Existing Gaps in Capabilities

NATO joint air power is critical to meeting the aspirations of the Alliance; air power is also the most flexible and responsive form of combat power available. Furthermore, it provides an essential element of deterrence by reducing the time and distance needed to respond to an emergent threat. If faced with allied air power, an adversary would have no chance to gather itself or press for peace on terms of its choosing.

NATO demonstrated its commitment to joint air power with the June 2018 release of its Joint Air Power (JAP) Strategy, which provided a comprehensive overview of the transatlantic operating environment and detailed the way joint air power supports NATO’s objectives. The new strategy articulates how JAP supports NATO’s three core tasks of collective defense, crisis management, and cooperative security. It also emphasizes operating jointly in a multi-domain fashion. Unfortunately, the strategy does not elaborate on the means with which to accomplish its declared ends, nor does it provide concrete, actionable recommendations to do so.

Over time, the Alliance has developed significant shortfalls in capability, capacity, and interoperability. In the absence of US military enablers, it would be difficult to generate full-spectrum, highly capable, deployable, sustainable, and interoperable forces. Without US military capability and capacity, it will be difficult to generate a NATO force with the full range of capabilities necessary to deter and defend. The Alliance, as postured, is overly reliant and dependent on the US military. Additionally, as new technologies emerge and become available to potential adversaries, the list of shortfalls is sure to grow, particularly in cyber, space, and missile defense. Most likely, even increasing funding to the currently agreed 2-percent-of-GDP target will not be sufficient to completely address current and emerging air-power requirements.

The lack of real and ready Alliance military power weakens deterrence, and could actually invite aggression. Adversaries may come to believe that NATO could not, or would not, invoke Article 5 for lack of capability or capacity. Today, aggressive adversaries are improving military capability and capacity, and employing unconventional means to pursue their goals. Only ready and real power can deter these diverse threats.

During the Cold War, the Soviet Union was the existential threat, the very reason for the formation of the Alliance. Allies feared the Soviet Union, so they translated the significant power potential represented by their economic production into real combat power through targeted investment. Deterrence was achieved by this acquisition of real power and, over time, replaced the Soviet incentive to wage war with the incentive to avoid it. Sustained credible deterrence maintained European security and stability until the collapse of the Soviet Union. Almost immediately after the collapse—unfortunately, but not unexpectedly—allies invested less in defense, and reprioritized their resources for domestic requirements.

Today, in the face of a resurgent Russia and a commitment to a new era of great-power competition, NATO allies are evolving their strategic approach to projecting military power. These developments are encourag-
ing, but there are several areas of emphasis that should inform future resourcing decisions.

Currently, NATO joint air power executes high-readiness standing missions (Air Policing, Ballistic Missile Defense, and Turkish Air Defense supplementation) with great effectiveness. The Air Policing mission protects NATO with a defense design using aircraft, sensors, and command and control (C2). Every minute of every day, two Combined Air Operations Centres (CAOCs), forty-five Control Reporting Centres (CRCs), hundreds of radars, and seventy Quick Reaction Alert (QRA) aircraft are on high-readiness alert, to protect the integrity of allied airspace and to ensure safety in international airspace around Europe’s periphery.

Air policing has served the Alliance well for decades; however, future threats could render it irrelevant. Russia has rejected opportunities to reset its relationship with Europe. Russia and other emerging threats have the capability and capacity to threaten NATO allies with military aircraft (manned and unmanned), cruise missiles, ballistic missiles, and hijacked civilian aircraft. Future threats could include conventional, chemical, biological, and nuclear warheads, contributing to a complex and dangerous environment.

Understanding this operational environment as thoroughly as possible will be critical if future crises are to be addressed with the needed level of effort. No established process or framework under the standing mission set will inform allied leadership of weak-

Czech JAS-39 Gripens train to intercept a Belgian A-321. Photo Credit: Adjudant Sebastien Raffin (French Army) / Allied Air Command
ening deterrence or impending critical developments. There are numerous complex threats to the members of NATO, and these affect each country in different ways. Without an agreed strategic-threat assessment and framework for addressing emergent threats, it will be difficult for the Alliance to determine when a crisis or attack could be imminent—or, indeed, what constitutes an attack when adversary actions occur in the hybrid or gray zone.

If deterrence fails and an adversary decides that action is in its strategic interest, rapid response will be imperative for preventing catastrophic escalation to the outbreak of armed conflict. Currently, NATO Allied Air Command has three permanent 24/7 command-and-control (C2) nodes: a theater-wide ballistic-missile-defense C2 cell, an air-policing CAOC for the north, and an air-policing CAOC for the south. These C2 nodes are structured and manned to accomplish their assigned missions, but are not capable of providing the full range of C2 required during a crisis. Furthermore, the time and effort required to stand up a CAOC in a crisis would steal valuable minutes and hours from actions required to address the threat.

Perhaps the most concerning and challenging gap in NATO’s current posture is that of readiness. Each nation has varying standards and practices for assessing the readiness of its forces to conduct combat operations. Furthermore, there are currently no agreed standards for maintaining minimum levels of critical supplies, such as munitions. Airfields across the battlespace are highly variable in their resiliency and defensibility in the face of high-intensity conflict. There are no crisis action plans available for rapid employment in the face of a rapidly escalating scenario with an adversary.

Initiatives

Increased funding, organizational adaptations, and better training are a good start. However, NATO can better leverage the asymmetric advantage of JAP through the following initiatives.

1. Replace the current peacetime standing mission of air policing with air defense

Currently, NATO executes a standing peacetime air-policing mission intended to guard sovereignty of airspace and monitor intrusions, rather than provide active defense in times of increased tension or crisis. The air-policing mission is limited to command and control, aircraft, and radars/sensors. Comprehensive air defense should include ground-based air-defense assets (GBAD) and airspace-control measures (ACM). Replacing the air-policing mission with an air-defense mission sends Russia the strategic message that NATO is prepared to defend Alliance airspace. This pivot in mindset will re-invigorate NATO as a defensive alliance.

To achieve this pivot in mindset at the operational level, NATO allies would add and integrate GBAD assets to the already significant network of aircraft, radars, and C2 used in air policing. In addition, ACM would be initiated as required. Allies could also update standing rules of engagement to enable the mission. This operational-level change during a peacetime air-defense mission would facilitate a faster transition to wartime operations when needed.

Tactically, NATO forces would address issues of interoperability, both with respect to the equipment and weapons systems allies use, and the tactics, techniques, and procedures (TTPs) they employ every day in peacetime. This significant shift in focus within the Alliance will minimize the inevitable fog and friction of war, if deterrence fails.

2. Create a strategic indications-and-warnings (I&W) system

NATO is a political military alliance in which civilians control the military and consensus is required. To facilitate rapid response to crisis scenarios, such as Russia’s aggression in Crimea, allied leaders need intelligence, indications, and warnings as early as possible to support swift political decision-making toward action. If matched by military readiness, this ability to act quickly and decisively, in itself, can enhance the credibility of the Alliance’s deterrence. A strategic I&W system would enable NATO civilian and military leadership to respond to adversarial challenges in hours and days, instead of weeks and months, and in a manner that reflects the leadership consensus view of the strategic risks to NATO. It is important to note that a full spectrum of strategic I&W requires a multidomain effort to collect joint intelligence, surveillance, and reconnaissance (JISR). JISR collection from air, space, and cyber is a critical shortfall today, and will only
be exacerbated in the future without strategic direction from NATO leadership.

The process of developing an I&W system should be incorporated into the North Atlantic Council (NAC) portfolio of work. After achieving consensus on current strategic threats, the NAC, in consultation with NATO Allied Command Operations (ACO) and Allied Command Transformation (ACT), would develop and approve a set of I&W. The I&W, reflecting the strategic intent of the leadership, would influence defense design in NATO military headquarters, and could inspire innovative multi-domain solutions to future threats.

The list of strategic ISR can be as long as needed, but should be focused. One example of an I&W would be the Russian military posture near the border of the Baltics and Poland (a force that an enhanced Forward Presence (eFP) unit might need to deal with on short notice). Another might be changes in the disposition of the surface-to-air missile systems in Kaliningrad. Over time, the collection of this data would establish a Russian “pattern of life.” Any radical deviation from routine day-to-day operations by the Russians would be readily apparent. Once alerted to that deviation, NATO leadership can react to the change or accept the risk.

Operationally, military commanders at every level of NATO would understand the Alliance’s priorities and the strategic intent underpinning them. Furthermore, an agreed I&W framework would eliminate uncertainty in critical periods, and form a baseline for developing courses of action across the spectrum of operations.

Tactically, I&W will provide renewed focus to standing peacetime missions and other NATO activities in a resource-constrained environment. Field units—particularly rotational forces in support of the eFP, Very High Readiness Joint Task Force, and NATO Response Force—will be able to train according to the baseline provided by an I&W system.

3. Create a peacetime standing Vigilance mission to collect JISR

Currently, there is no standing NATO peacetime mission designed to increase the effectiveness of collecting JISR. A robust and persistent effort from the air domain is needed to meet JISR requirements to monitor an aggressive Russia. The name of the new standing mission is negotiable, but “Vigilance” aptly describes the goal, which is threefold.

- A standing mission will help NATO air chiefs advocate for ISR capability and capacity within their armed forces. As defense budgets grow to 2 percent of GDP, resources should become available.
- NATO organizations would be inspired and obliged to create the capacity to process, exploit, and disseminate (PED) the JISR products.
- NATO and the allies would have to develop the JISR policy and guidance needed to execute the mission.

In sum, a standing Vigilance mission to support I&W and other JISR needs would prepare the Alliance to execute in wartime, and improve its ability to do so.

Operationally, a standing Vigilance mission would communicate NATO resolve to the Russians, making clear that the Alliance is committed to addressing Russia’s increasingly aggressive behavior. In peacetime, this mission will document Russian pattern of life around NATO’s periphery, and complement the standing air-defense mission. In times of rising tension, it will reveal nefarious intent, inspire prudent thinking and planning, and provide the foundation for more robust JISR activity. In a time of imminent crisis, it will inform military courses of action.

4. Create a standing full spectrum 24/7/365 Air Operations Center (AOC) to support Joint Force Air Component (JFAC) missions

Command and control (C2) is foundational to the effectiveness of joint air power, as the processes, infrastructure, and training needed to execute air-domain missions are very complex. Currently, NATO utilizes a core JFAC concept that calls for the standup of the AOC just in time to meet the needs of an upcoming contingency. However, the physical standup of a core JFAC AOC infrastructure is normally not fast enough to effectively address an evolving conflict. In addition, personnel tasked to support the AOC in this fashion require time to arrive, and to achieve the proficiency needed to
execute the mission. Therefore, the standup of a full-time 24/7/365 AOC in support of NATO JFAC missions would be more effective at meeting future requirements. The AOC would be ready to operate overnight.

Strategically, a standing AOC would better and more quickly integrate available joint air-power assets. Its very existence would strengthen deterrence and, if deterrence fails, it would reduce the risk to mission and forces, particularly in the early days of combat operations. A standing AOC would manage JISR assets and products, giving NATO leaders the information needed for faster and better decision-making as the crisis evolves into combat operations.

Operationally, in peacetime, a standing AOC could provide better C2 for the current standing missions of air policing and ballistic-missile defense (BMD), as well as accept and integrate new standing missions. Additionally, a standing AOC could be used to bring the air domain into the myriad NATO joint exercises executed every year.

Tactically, a standing AOC would train and educate allies in the intricacies of C2 for the air domain. Since most allies do not have organic AOCs in their nations, many personnel would be afforded the opportunity to learn about standing AOCs and execute the NATO AOC mission. These personnel could then use the AOC experience as they get promoted into NATO leadership positions.
5. **Increase readiness, increase readiness, increase readiness**

Readiness is the foundational requirement of NATO’s ability to respond to critical threats with the speed required. NATO’s “Four 30s” readiness initiative is an important first step in preparing allied forces to face emergent threats. However, even thirty days is too long to wait for air power to respond. The ability to respond to aggression with a concerted, joint air response, in hours instead of days, could be the crucial element of deterrence. There are various ways to deliver this ability.

First, NATO should develop, maintain, and routinely present to leadership a set of standardized readiness metrics for allied air forces. The old adage, “If it doesn’t get measured, it doesn’t get done” is completely relevant to the issue of readiness. Readiness metrics would also provide Alliance members with decisional tools for where to invest resources as they increase their financial commitments.

Second, NATO needs to establish and enforce requirements for a minimum number of precision-guided munitions and other weapons. These requirements should be easily attainable through basic operational planning, and the results could be shared proportionally among allies to share expenses.

Third, NATO should establish standards for and build defendable airfields capable of high-intensity combat operations. There is wide variability in the functionality, utility, and resiliency of NATO airfields across the theater, which presents challenges when it comes to logistics, locations of munitions, the ability to support necessary high-sortie rates, and other needs. A tiered system of installations, with escalating levels of viability, would be extremely helpful to planners during any crisis. An increased number of viable airfields will complicate any Russian attempt to target airfields during rising tensions and subsequent high-tempo combat operations.

Fourth, NATO should allow military planning prior to achieving political consensus on the use of military force. The speed of operations in future conflicts—particularly conflict with Russia—will require planning and ready forces, including air forces “ready to fight tonight.” Prudent planning will reduce fog and friction in the early days of a conflict, and will contribute to deterrence when exercised with enough transparency for adversaries to observe.

**Conclusion**

NATO has, slowly but surely, awoken to the renewed challenges resident on its eastern flank. The speed, flexibility, and mobility of joint air power are critical to maintaining deterrence in an era of great-power competition. A renewed focus on air defense, the creation of a strategic indications-and-warnings system informed by robust joint ISR, establishing a standing full-spectrum Air Operations Center, and committing to increased readiness represent starting points to enable NATO joint air power to better deter adversaries from challenging the Alliance, and to defend its members should deterrence fail. Once these initiatives are adopted, NATO will be better postured to meet its future challenges and continue more than seventy years of general peace in Europe.