



## Mitchell Institute for Aerospace Studies

1501 Langston Boulevard

Arlington, VA 22209

<http://www.mitchellaerospacepower.org>

### **Lt Gen Deptula Remarks to Hellenic Air Force, 8th Air Power Conference *The Value of Aerospace Power in the 21st Century, 27 April 2023***

#### **Introduction**

I'd first like to thank my gracious hosts at the Hellenic Air Force for the opportunity to speak to you today. I'm honored by your offer to visit Greece in the spring and to enjoy the legendary hospitality of the Hellenic people.

Unfortunately, the world that we face today is anything but hospitable. This morning, we'll address that by reviewing the current and emerging security environments; how aerospace power fits in those environments; and then offer some perspectives regarding the future of airpower. So, let's jump right in.

The global war on terror may end up being remembered as the "Age of Mass Distraction" where we, collectively in the West, allowed our attention to be diverted from the existential dangers of our time. We now find ourselves locked in competition with authoritarian regimes in Europe and Asia, attempting to keep pace with adversaries that are extremely capable and well-resourced.

I believe allied nations have a distinct window to make the necessary investments to deter and, if necessary, win against the growing threats in Europe, the Pacific, and elsewhere. Let's start our examination in an area I know you are all tracking closely, the war in Ukraine. As I speak to you today, war rages on the continent. The return of large-scale, state-on-state, conventional violence to Europe was a possibility that many had relegated to the 20<sup>th</sup> Century and the brutal regimes of Hitler and Stalin. Yet here we are in 2023 facing a renewed assault on international law, norms, and values as Vladimir Putin continues his war of unmitigated destruction, committing untold atrocities against Ukraine.

Thankfully, the Russian president's aggression and evil ambitions have not gone unchecked. The support from the West has been swift, decisive, and unified. Political, moral, and material support from inside and outside NATO has fortified the courageous defense by the Ukrainian Armed Forces. What happens this spring and summer may very well define the remainder of the conflict. If the Ukrainian military, buttressed by Western support, can mount a successful offensive, we may see significant gains in the east and south. Ukrainian success will galvanize Western support and may force the conditions for a resolution of the conflict on favorable terms.

Alternatively, a failed offensive, or gains by Russian forces, will only embolden Mr. Putin and work to grind down Western support. Neither time nor manpower is on Ukraine's side. With a population of 43 million versus Russia's 142 million, Ukraine cannot win a war of attrition against its larger foe. Putin will win that fight, regardless of how incompetent his military leadership is. It's a matter of simple math.

So, we must be clear-eyed in our assessment. The political outcome regarding the future of Ukraine will absolutely be decided by the military situation. It is in our vital interests that the authoritarian government of Putin is thwarted. Continued Western military support to Ukraine will be instrumental in making this a reality—particularly by providing modern Western airpower. More on this point later.

While a grave threat, from a U.S. perspective, Russia is not our chief competitor. That distinction belongs to China, who apart from aligning itself closer with Putin's regime, is taking an increasingly aggressive stance in Asia. China seeks to upend the international system that ironically was essential to its current rise in power. The Chinese Communist Party under President Xi seeks a world where China dominates the Indo-Pacific through exploitive economic practices, "wolf-warrior" diplomacy, and increasingly belligerent military activity, all under the guise of its "civil military fusion."

China is not only growing more aggressive in its dealings with the United States, but also with its neighbors in the South China Sea, southeast Asia, and the larger Pacific. Most concerning is China's military ambitions regarding Taiwan. Many postulate that reunification of Taiwan with the mainland is an essential element of Xi's "national rejuvenation" effort. His timeline to be ready for execution by 2027 conveniently aligns with the end of Xi's unprecedented third term. With the West failing to sufficiently modernize its forces for the last three decades, we must keep this timeline in mind. We must rebuild our collective capabilities and capacity to deter this threatened aggression.

What's frightening is that the PLA is on a path to make a forced reunification reality. Through prioritization of its Air and Rocket forces over its traditional land army, the Chinese have reached near-parity with the United States and our allies in Asia. The democracies of Asia will need to accelerate their procurement of advanced weapons to mitigate the growing Chinese threat of an invasion or blockade of Taiwan. Efforts to jointly train and integrate also remain crucial. To this point, it's tremendously positive to see allied air forces equip with the same 5th generation aircraft—the F-35—but we must also ensure we can seamlessly share information to truly fight in a unified fashion.

And while Ukraine is half a world away, failure to defend Ukraine would send a disastrous signal to China—that aggressors can ultimately win if they can outlast the U.S. and its allies. This is all the more reason to ensure Ukraine has the weapons it needs to turn the tide against the Russian invasion.

Beyond the risks posed by China and Russia, the free world must continue to manage the persistent regional threats from Iran and North Korea. The fundamentalist Iranian regime continues to sponsor and export terrorism in the region, funding militia groups around the Middle East, to include Hezbollah in Lebanon and Hamas in the Gaza Strip. Additionally, Iran has increasingly tied itself to Putin's regime through a steady supply of Shahed drones and accompanying training for use against Ukraine. This emerging alliance will present difficulties not only in Europe, but in the Middle East and the Mediterranean as well.

North Korea likewise remains a constant threat to its Asian neighbors. Just last month, North Korea conducted another series of missile tests stating that the missiles could carry nuclear payloads. The regime of Kim Jong-Un is increasingly unpredictable, isolates itself with limited avenues for communication, and is obsessed with regime preservation.

And both threats reside within a larger landscape that features the constant threat of terrorist attack from both state and non-state actors.

The threats aligned against all of us are numerous, varied, and capable. What's needed to prevail against these actors, whether they be peer actors or regional players, is a robust array of military capabilities that fit into a larger governmental approach to deny our adversaries the alternate world order they seek. It's my contention that air and space will be the key domains to deter our adversaries and achieve victory against the revanchist, authoritarian powers of the 21<sup>st</sup> century. So, let's explore "how" today, as well as what's ahead in the future.

### **Aerospace Power in the Current Geo-political Situation**

Aerospace power will be **the** most important deciding factor in deterring Chinese aggression in the Pacific, and it could be the key in halting the Russian invasion in Ukraine. Let's start with Ukraine.

Without either side achieving air superiority, the war in Ukraine has devolved into an artillery slugfest that resembles World War I. Airpower is the one asymmetric advantage that can break this stalemate—it's the only way to fundamentally give Ukraine a decisive advantage over the Russians. To do that will require Western powers to stop asking, "What will happen if we provide airpower?" and ask, instead, "What happens if we do not?"

Fighters flying at 600 miles per hour can affect operations across southern, eastern, and northern Ukraine in minutes with multiple effects, delivering precision weapons and enabling lethality that tanks, artillery, and ground forces cannot accomplish alone. Fighter aircraft enable a military to optimize the combined arms equation, allowing ground forces to exploit the advantages that only airpower can create. UAVs, like the MQ-9 Reaper, afford a powerful sensor-shooter construct that can keep Ukraine's finite supply of pilots out of harm's way. Ukraine has made the most of their Soviet-era combat aircraft, but combat losses and spare parts shortages are taking a

toll. Ukraine must transition to Western combat aircraft or face a future without aircraft—and lose more than her eastern provinces as a result.

The F-16, F/A-18, Gripen, and Rafale are all available in sufficient quantities in Europe today, but only if the United States has the courage to lead support by providing fighters to Ukraine. The sooner these aircraft are in the hands of Ukraine's capable combat-experienced fighter pilots, the greater Ukraine's chances of success.

I mentioned earlier that Ukraine cannot win a war of attrition against its larger foe as they do not have the same amount of war material or manpower to match what Russia can put into the fight. Ukraine needs to strategically outmatch the Russian military, and **that is what modern airpower can do.**

The Ukraine Air Force, to its credit, has been determined in its defense, bravely flying less capable and fewer fighters into disadvantageous engagements to keep Russian attackers at bay. At the same time, they've tempered Russian air efforts with an amalgamation of anti-aircraft systems, from American Stinger missiles to SA-20s from Slovakia.

As the significantly weaker of the two air forces, Ukraine has done what it can to deny Russia control of the skies. While the inability for Russia to seize air superiority has been key to the survival of Ukraine, the inability of Ukraine to achieve air superiority has resulted in Russian ground assaults that have brutalized the Ukrainian population. Western airpower could fundamentally alter the calculus in the fight for the survival of Ukraine. The current Western coalition formula of slowly approving weapons, and then waiting to see if they are effective and then repeating the process is guaranteed to result in Russian success.

So, while we see U.S. F-16s retired to storage, we need to ask: why not send them to Ukraine? The same holds true for UAVs. The U.S. Air Force plans to retire 48 MQ-9s this year. Those should be sent to Ukraine, not sitting in desert storage. Several Western air forces have similar aircraft adjustments being made and all could do better to share our resources. By providing Ukraine with capable Western aircraft, the West can increase Ukraine's probability of success in reversing Russia's aggression.

If there was ever an example since WWII of a nation fighting against all odds for the freedoms that our own nation regards as fundamental, it's the people of Ukraine. We should support them to the greatest degree possible with what will give them an advantage over the Russians—modern Western airpower—and do that as rapidly as possible.

The clearest and most relevant lesson coming out of Ukraine for Western nations is air superiority is job one if there is any hope of succeeding in conflict.

The primacy of air power is also evident when confronting the threat of China in the Western Pacific. The Pacific is an aerospace and maritime-centric theater. Without additional resources

for defense budgets overall, we must then get serious about prioritizing our limited defense resources to make sure that we are ready to win in those domains. Allied Air Forces in the Indo-Pacific region must continue to increase the survivability of personnel and aircraft to succeed in any contingency involving China. Allies must use their extensive network of dispersed, multi-national bases, to make their aircraft agile, survivable, and lethal.

Winning will require the ability to negate Chinese actions from a variety of survivable bases, while acting inside the Chinese targeting cycle, leaving them a step behind. Optimizing U.S. airpower in time to affect President Xi's objective of forcing reunification of Taiwan with China will require increasing production of both the F-35 and the F-15EX to the maximum rates possible, as soon as possible, and retaining all the F-22s in the current inventory.

Our greatest advantage in any peer fight will be the ability to operate at will inside contested airspace, and that's the capability that 5<sup>th</sup> generation fighters deliver.

While not entering the U.S. Air Force until later in the current decade, the long-range, high-payload, and highly stealthy B-21 bomber will prove a substantial deterrent against Chinese aggression, and if necessary, a key element in winning any fight. Accordingly, the B-21 must be fielded in sufficient numbers to deal with potential major regional conflicts not just in the Indo-Pacific, but in Europe as well. The B-21 will allow our air forces to rapidly respond to Chinese aggression from locations outside the reach of Chinese conventional attack; organically close kill chains; and survivably strike multiple targets inside A2/AD airspace with a mix of stand-off and stand-in munitions.

Finally, as the war in Ukraine has made abundantly clear, we must focus on increasing production of precision munitions in sufficient numbers to support our partners in Europe while keeping the CCP at bay in the Pacific. This means multi-year procurement contracts, funding above min sustainment rates, and large stockpiles that can be accessed quickly in times of conflict.

With respect to the role of airpower in the Mediterranean region, it is likely to evolve due to several factors. Although it's difficult to predict the exact trajectory of these changes, I offer five trends and potential developments that may shape the future role of airpower in the region:

1. **Technological Advancements:** The development and deployment of advanced aircraft, unmanned aerial vehicles, and air defense systems will likely enhance the capabilities of regional actors. These advancements may lead to a greater emphasis on airpower as a tool for power projection, intelligence gathering, and deterrence.
2. **Regional Power Dynamics:** The Mediterranean region is characterized by a complex set of geopolitical relationships and rivalries. The role of airpower will be influenced by the evolving power dynamics between the major regional actors. Shifts in alliances, military build-ups, and

regional tensions could result in increased emphasis on airpower as a means of asserting influence and maintaining a balance of power.

3. **Emerging Security Challenges:** The Mediterranean region faces numerous security challenges, including terrorism, migration, and maritime security.

The role of airpower can evolve to address these challenges, with countries potentially deploying air assets for surveillance, counterterrorism operations, and border security. This could lead to increased cooperation and coordination among regional actors in the use of airpower for collective security.

4. **Multipolarity and Competition:** As the global geopolitical landscape becomes more multipolar, competition among major powers will likely intensify, and the Mediterranean region may become an arena for such competition. Regional actors might invest more in airpower capabilities to counterbalance the influence of external powers, such as China and Russia. And finally, five:

5. **Space and Cyber Capabilities:** The increasing importance of space and cyber capabilities could also shape the role of airpower in the Mediterranean. As countries invest in satellite systems, anti-satellite capabilities, and cyber warfare, the ability to disrupt or neutralize an adversary's airpower assets may become a critical element in the strategic competition. In turn, this could drive the development of more resilient and sophisticated airpower capabilities.

### **Air Power in the Future**

OK, we've addressed the security environment and the role of airpower today, so now let's take a look at how airpower may fare in the rapidly evolving security environment of the future.

Today we can identify progression in some technological developments that hold great potential for the advancement of airpower in the future. Here are the ones that I believe will result in significant new airpower capabilities that will shape its future:

**Uninhabited aerial vehicles:** Over the last two decades we've witnessed the acceleration of the use of remotely piloted aircraft or RPA—better known as “drones.” RPA will transition to a much more autonomous ability to assist airmen in the accomplishment of their mission tasks across the spectrum of airpower operations.

Secretary of the U.S. Air Force Frank Kendall has made it a top priority to rapidly field “autonomous collaborative platforms” or “ACPs” to offset serious force structure shortfalls and build a war-winning force. The U.S. 2024 defense budget request includes a significant funding request for a new ACP variant, known as collaborative combat aircraft (CCA), which will partner with inhabited systems for air dominance missions. A single pilot will be capable of controlling a small number of CCAs in a variety of roles, be it as a traditional wingman,

dedicated weapons platform, jammer, or decoy. Large numbers of relatively low-cost CCAs could help offset serious airpower force structure shortfalls.

**Fast space:** This idea explores whether government and private sector partnerships can create a virtuous cycle of launch cost reductions of between three and ten times lower than today's costs. Doing so could enable completely new approaches for allied aerospace forces to defend our coalitions; protect our interests; and enhance opportunities to exploit the unique global advantages of the ultimate high ground of space.

**Hypersonics:** Hypersonic weapons offer advantages in four broad areas. They counter the tyranny of distance and increasingly sophisticated defenses; they compress the shooter-to-target window; they rise to the challenge of addressing numerous types of targets; and they enhance future joint and combined operations. Within each of these themes are other advantages which, taken together, may dramatically improve airpower projection.

**Artificial intelligence (AI):** AI will enable a variety of new military concepts of operation. One that's currently being exploited is the collaborative combat aircraft idea I just mentioned, which allows for automated control of uninhabited aircraft in a variety of roles dramatically expanding the capability and capacity of manned aircraft. However, AI is the key that will allow its wisest application to be executing our observe, orient, decide, and act, or OODA, loop, faster than an enemy can execute theirs.

**Directed energy:** Today, with modern airpower operating inside the atmosphere, we can impose kinetic effects at the speed of sound or multiples thereof. However, imagine the ability to impose kinetic effects at the speed of light. The realization of the routine employment of directed energy weapons will truly be game-changing for our air forces.

**The ubiquitous and seamless sharing of information:** Any assessment of the likely landscape of future conflict must recognize no matter what type of engagement, the outcome will increasingly be determined by which side is better equipped and organized to gather, process, disseminate, and control information. Inside of the U.S. Department of Defense, it's the basis of the joint all domain command and control effort. This vision represents an evolution whereby individually networked platforms transform into a broader system of systems enterprise integrated through domain and mission agnostic information linkages.

**Finally, cyber operations and electronic warfare:** The intersection of cyber operations and electronic warfare will grow, and in doing it so will play an ever-increasing role in contributing to airpower capabilities.

## **Conclusion**

There are other promising technologies that we are yet to imagine but are sure to hold breakthroughs just as dramatic. The future of airpower will require the free nations of the world to continue to develop the aerospace systems that will guarantee our victory in future conflicts.

The free world must outpace our competitors in the key technologies of the future. Harnessing the innovation, freedom, and diversity of our democratic societies, we can set the standards and lead the globe on not just technology, but also the necessary concepts to capitalize on those technologies. While the cost of modernizing and training our air forces may be high, the alternative is likely defeat in the battlespace and the loss of our freedoms and way of life at the hands of an aggressor.

More than tactics, strategies, or operational concepts, the fights of the future will require the full commitment and dedication of our free, democratic societies. The Hellenic Air Force has always been ready for this level of commitment. From the inception of the service in the early 20<sup>th</sup> century, to its brave stand against fascism in the Second World War, to the vaunted ally that it is today, we know that the Hellenic Air Force is ready to face the challenges ahead of us.

Make no mistake, autocrats' ambitions do not end at Ukraine and Taiwan. I know that the men and women in this room are ready to stand in solidarity with our allies to stop these events from coming to pass. Greece is the ancient birthplace of democracy, and I have no doubt that it will continue to lead the way to a bright, free future.