





DefenseNews The top priorities in global security







WHAT CAN THE WORLD EXPECT IN 2024?



WASHINGTON — This year saw the continuation of Russia's war against Ukraine, renewed conflict between Israel and the militant group Hamas, and escalating tension between China and the Philippines.

So what comes next?

This edition of Defense News' Outlook project offers several forecasts for the year ahead. It includes interviews, essays and forward-looking articles, plus an infographic that details major U.S. defense contracts on the horizon.

The authors and interviewees cover some of the most significant issues, including the civil war in Yemen, the upcoming U.S. presidential election, the state of America's workforce and more.

Radha Plumb, the Pentagon's deputy undersecretary of defense for acquisition and sustainment, is focused on expanding the department's suppliers at home and abroad

Meanwhile, Russia is digging in for a long war in Ukraine by ramping up production within its own defense-industrial base, according to two analysts with the Center for Strategic and International Studies. The West must follow suit, they say.

Similarly, it's up to likeminded nations to work together, lest the international rules-based order fall apart, Lithuania's defense minister argues in his essay.

And then there's the matter of Sino-U.S. relations. Rep. Mike Gallagher, who chairs a House panel focused on China, tells Defense News deterring aggression in the Indo-Pacific region should be the priority, closely followed by support for Ukraine and Israel.

For its part, Australia is focused on regional security, although its minister for the domestic defense industry says the nation must prepare for the possibility of war — yet another in 2024.

CHRIS MARTIN MANAGING EDITOR

WHAT'S INSIDE

PAGE 3

Jill Albertell

is the President of Pratt & Whitney's military engines business

PAGE 5

Pentagon's commercial tech arm to ramp up role in military innovation

PAGE 8

Four factors shaping European defense in 2024 and beyond

PAGE 11

From Trump to congress, republican defense orthodoxy crumbles

PAGE 14

Radha Plumb

is the U.S. Deputy undersecretary of defense for acquisition and sustainment

PAGE 16

Eight contracts to watch in FY24

PAGE 17

Rep. Mike Gallagher (R-Wis.)

is Chairman of the select committee on the strategic competition between the United States and the Chinese communist party

PAGE 20

Pat Conroy

is Australia's defense industry minister and its minister for international development and the pacific

PAGE 21

Del Toro aims to reinvigorate US shipping to strengthen fleet

PAGE 24

What books are US Army, Congressmen reading?

PAGE 25

Russia is gearing up for a long war. Will the West follow suit?

PAGE 2

Robert Martinez Jr.

is the international president of the International Association of Machinists and Aerospace Workers

PAGE 28

What China's increasing use of military over diplomacy means for us

PAGE 30

David Norquist

is president and CEO of the National Defense Industrial Association

PAGE 32

Arvydas Anušauskas

is the defense minister of Lithuania

PAGE 33

Byron Callan

is a managing partner of the research firm Capital Alpha Partners

PAGE 34

US faces hurdles next year for Guam's missile defense, experts warn

PAGE 36

Will rocket cargo work? Data collected in 2024 may hold the answer

PAGE 38

Gerald Feierstein

is distinguished senior fellow focused on U.S. Diplomacy at The Middle East Institute

PAGE 40

Unified network promises US Army rapid connectivity, cybersecurity

ADAPTIVE TECHNOLOGIES UNLEASH NEW ADVANCES FOR PRATT & WHITNEY'S CURRENT AND FUTURE FIGHTER ENGINES

China's rapid progress modernizing its military is well understood. Continued efforts to bolster their 5th generation fighter inventory reinforce the need for the U.S. to pursue increased 5th generation advancements here in the U.S. and across the globe with the Joint Strike Fighter, a program with 18 allied participants worldwide that will benefit from the 5th generation technologies on the F-35 Lightning II. It also reinforces the need for continued focus on the development of 6th generation fighters, an effort referred to as Next-Generation Air Dominance.

The engine that powers any fighter is a crucial decision at the heart of every aircraft procurement. Maintaining air superiority doesn't just happen automatically. Government and industry partners must focus and prioritize limited dollars on investing in the right technology at the right time to create the most impactful operational advantage.

Next year, Pratt & Whitney's Military Engines business will continue to develop and implement new technology advances to boost our engines'

capabilities in a wide variety of ways. One particular area of focus for my team will be the further development of adaptive engine technology for 6th generation fighters. That work is based on the adaptive technologies currently used on 5th generation fighter engines, a fact that's often underappreciated or overlooked entirely.

The most relevant example can be found on our F135 engine, which powers the F-35. Today's engine uses adaptive technologies in its FADEC, or full authority digital engine control, which means it leverages digital computing to change aspects of the engine's performance based on real-time data. This is one of the critical technologies that makes the F-35B's short-takeoff and vertical landing capabilities possible.

Regarding the future of the F135, this month we completed our preliminary design work on the F135's Engine Core Upgrade (ECU), which was fully funded in the President's FY24 Budget earlier this year. We'll begin the formal preliminary design review process in January 2024. In addition to improving the engine through ECU, we'll also insert additional adaptive enhancements to the engine's FADEC.

Specifically, we'll be introducing new hardware and software capable of delivering 10x greater processing capability. This will improve the F135's ability to further utilize adaptive control laws, allowing the F-35 to better optimize its mission throughout the flight envelope. We'll also introduce modularity to the FADEC's design



JILL ALBERTELLI President of Pratt & Whitney's Military Engines business

for quicker adoption of future capabilities. These improvements keep us on track to fully support Block 4 enabled F-35s starting in 2029.

What does this mean for 6th generation fighters? It's hard to talk about in an unclassified space, but we're making significant progress on our design for the U.S. Air Force's Next Generation Adaptive Propulsion program. We've completed a fully digital preliminary design review on our NGAP offering, something we've only recently been given permission to talk about publicly. Our design showcases the full promise of adaptive technologies.

Across the globe, 2023 has proved we live in an increasingly dangerous world. At Pratt & Whitney, we understand our role in developing solutions that help defend against and deter aggression, and we're committed to delivering advanced capabilities to our customers in 2024 and beyond. DN



OUTLOOK EBOOK 2024

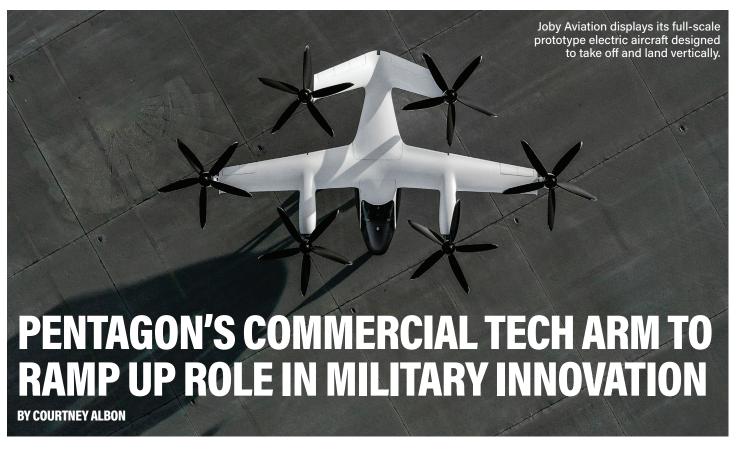
WHAT'S POWERING THE F135 ENGINE CORE UPGRADE?



Pratt & Whitney's F135 Engine Core Upgrade (ECU) leverages the combined strength and expertise of RTX to deliver the fastest, lowest-risk option, with tens of billions in lifecycle cost savings. The F135 ECU is a variant common solution that will be supported by the existing global sustainment network; and will deliver meaningful capability by the end of the decade. It's the smart decision for the F-35.

Learn more at F135enginecoreupgrade.com





WASHINGTON — When Joby Aviation's first electric air taxi landed at Edwards Air Force Base, California, in late September, it was more than a traditional aircraft delivery.

The milestone was the culmination of years of work with the U.S. Defense Department's innovation community to determine whether an electric vertical-takeoff-and-landing aircraft — a previously unproven capability — could have utility for the military. It also served as a test case for how tailored acquisition processes can help nontraditional companies navigate the bureaucracy of the Pentagon.

That work started in 2016 when the Defense Innovation Unit, the Pentagon's commercial technology hub, awarded Joby a \$20 million contract to observe flight tests and gather data on the aircraft's electric propulsion system.

At the time, the Santa Cruz, California-based startup was focused on the commercial market for its aircraft and wasn't looking to partner with the government, according to Greg Bowles, Joby's head of government affairs.

"We didn't understand the importance of it," Bowles told C4IS-RNET. "Initially, we were worried about the complication it would cause."

The company started building a relationship with DIU, and this first contract not only helped fund early testing but also showed private investors that the Pentagon saw promise in the company's work and the electric vehicle market more broadly, which ultimately helped attract more than \$2 billion in private capital, Bowles said.

It also led to more opportunities with the Defense Department. In 2017, Joby flew its first full-scale flight demonstration, becoming the first company to transition an electric vertical-takeoff-and-landing, or eVTOL, aircraft to flight. In 2020, the Air Force's technology cell, AFWERX, granted the vehicle its first airworthiness certification through the service's Agility Prime program.

Meanwhile, the company is working to earn Federal Aviation Administration certification next year and to launch its commercial air taxi service in 2025.

Bowles said the company's early work with DIU did three things. First, it helped secure a footprint for Joby in the U.S. And second, it made it clear to the company there is a path forward to work with the Defense Department.

It also helped the firm overcome the so-called valley of death — the often terminal phase between when a project starts and when it is adopted and fielded by a military service. While it's too soon to say how the military might use the aircraft in the future, Bowles said the company will likely explore whether it can support logistics and transportation missions.

"DIU and [Agility Prime] together have kind of shown us a pathway to work with the government that doesn't take us directly over the valley of death. I think it kind of takes us around the valley of death," Bowles said. "It's a more tailored approach that works well for companies that are looking to kind of bring new technologies into existence."

Joby's experience exemplifies what has been the mission of DIU

since its creation in 2015: to connect Silicon Valley technology companies with Defense Department users, helping those businesses avoid the pitfalls of government contracting and procurement and while allowing the department to take advantage of commercial products.

That mission has evolved over time — from an experiment in building inroads with commercial firms to an established organization with a proven model for prototyping and buying technology. And it's about to evolve again.

Driven by concerns that China's military is better at harnessing its domestic innovation sector, U.S. lawmakers are proposing major increases to DIU's budget — from \$70 million in fiscal 2023 to about \$1 billion in fiscal 2024. And Pentagon leaders are calling on the organization to play a bigger role in helping the department field more commercial capabilities and to do so on faster timelines.

Doug Beck, a former Apple executive and a captain in the U.S. Navy Reserve, came on as DIU's director in April and has been crafting a strategy for its next evolution, dubbed DIU 3.0. Beck told C4IS-RNET the idea is to take the types of capabilities the organization has fostered, prototyped and transitioned to military users over the last eight years and "deliver a strategic impact."

That means ensuring the technologies DIU pulls in can be directed toward the actual problems combatant commands and armed services are trying to solve, plus validating that the resulting capabilities are more than prototypes and therefore can be manufactured and fielded in large numbers.

"If you show up with some great tech and you have a couple prototypes floating around or flying around, that doesn't deliver strategic impact," he said in an interview. "You only achieve strategic impact once you scale to a level that makes a difference."

Executing on this next evolution, Beck said, will take resources, collaboration and buy-in from the armed services, the innovation community, senior Pentagon leaders and Congress — all of which have been lacking for the organization since its inception.

"Right now, we need to make progress," he said. "We need to put points on the board, and we need to institutionalize the change."

SILICON VALLEY BEACHHEAD

When former Defense Secretary Ash Carter created DIU in 2015, his vision was for the organization to serve as a "beachhead" in Silicon Valley, according to Bob Work, who served as deputy secretary of defense during Carter's tenure.

"It was a horizon-scanning operation for the Department of Defense," Work told C4ISRNET. "It was supposed to allow us to hear what they were developing, and it was supposed to allow them to hear what we were developing."

But DIU got off to a rocky start. Its first director, George Duchak, had extensive experience fostering technology within the department, but lacked knowledge of Silicon Valley and the broader commercial tech community. The organization was also staffed and led by the undersecretary of defense for research and engineering, whose office wasn't providing the attention Carter believed DIU deserved.

In his 2019 book "Inside the Five-Sided Box," Carter, who died in

2022, wrote that after the organization's first year, he realized DIU needed a fresh start.

"As the techies would say, I realized it was time to declare a 'fast failure,' " Carter wrote.

He gave the unit a direct reporting line to his office and hired a new director, Raj Shah, who led the organization from 2016 to 2018. Within its first three months, the rebooted organization logged five successful projects and had another 22 in the works. By the end of Shah's tenure, it had grown to include offices in Boston, Massachusetts, and Austin, Texas.

Shah also helped DIU take advantage of rapid acquisition authorities, allowing the organization to put companies on contract within 60 days, which Work said was previously unheard of. As of 2022, due in part to its contracting speed, DIU had transitioned 52 projects to the battlefield backed by multiyear production contracts from the military services worth up to \$4.9 billion.

That speed helped address concerns from commercial companies about cumbersome DoD processes, but it didn't solve all of DIU's challenges. Its next director, Mike Brown, was vocal about the need for the department to reform its budgeting process to make it easier for firms to work with the government.

Brown, who left the department last year, had additional concerns about a lack of support for DIU from senior leaders and what he called a "glaring weakness in modernizing DoD." By the time he started in 2018, the office had returned to its original reporting structure within the Office of the Under Secretary of Defense for Research and Engineering.

Brown and others have also pushed for a larger budget share for DIU, which relies largely on other Pentagon agencies for funding. Following a \$10 million appropriation in FY17, the office's annual research and development funding hovered between \$20 million and \$35 million between FY18 and FY22 In FY23, Congress appropriated nearly \$70 million for DIU.

ELEVATING INNOVATION

Beck said DIU is making progress on some of the bureaucratic and cultural issues it's faced in the past. Over the last year, Pentagon leaders took steps to give the organization more responsibility and influence — notably with Defense Secretary Lloyd Austin's decision in April to have DIU directly report to his office.

"The 3.0 mission — you cannot do it buried. It wouldn't work," Beck said. "We needed to be a direct report to the secretary to do this."

Austin and Deputy Defense Secretary Kathleen Hicks also made DIU a member of the Deputy's Innovation Steering Group, which oversees DoD efforts to rapidly field high-tech capabilities to address high-need operational problems. Beck also chairs the Defense Innovation Working Group, which directly supports the steering group by vetting capabilities for it to consider.

These moves give DIU a key role in the department's innovation process, Beck said.

"We're at the heart of those things," he noted. "The innovation steering group — before I got here, DIU wasn't even at the table for that meeting."

In that capacity, DIU will play a central role in an ambitious departmentwide effort called Replicator, which aims to field thousands of autonomous systems within the next 18 to 24 months. The initiative is the first test of the Deputy's Innovation Steering Group's innovation process.

DIU also helps coordinate the department's innovation community and is deepening its partnerships within the services' acquisition offices and the combatant commands. Having a degree of authority and being embedded in those places, Beck said, will help with what he views as one of DIU's greatest challenges: resistance to change within the Pentagon.

"There are a lot of people in leadership who understand the imperative, who see the direction of the future, who are prepared to take some risk and move out," he said. "There are still a lot of people out there for whom the way we've always done it — it's safe. ... That takes time to change sometimes."

Because Replicator is tied to an operational imperative — jump-starting the DoD's innovation machine to better compete with China — Beck sees it as a way of making inroads and deepening partnerships with the services and the acquisition community. For those resistant to change and skeptical of DIU's role in it, Replicator could provide a way for senior leaders to push through that hesitation.

NEAR-TERM CHALLENGES

Since changing culture and deepening partnerships with the services won't happen over night, Beck said, he needs to make nearterm progress on two more immediate obstacles: people and money.

The organization in recent months hired two senior executive service-level deputies, a civilian role that is equivalent to a military general or flag officer rank. DIU has never had a senior executive service official on its staff, and Beck said he counts these hires as a significant win.

There are other key roles he must fill, but the organization lacks the hiring authorities to move forward. Beck said he's working with Congress to get approval and has plans to have the right people in place by 2025, but he needs to bridge that gap until then.

"It's all the nitty-gritty nuts and bolts of getting that stuff done and pushing it through a system that is not used to working at this kind of speed," he said.

From a budget perspective, DIU has received help from Congress in recent months. In June, the House Appropriations Committee proposed boosting DIU's budget to \$1 billion in FY24

Attached to that funding would be the management authority for a "hedge portfolio" made up of innovative, commercially available systems like drones, satellites, agile computing and communication nodes, and artificial intelligence capabilities.

The proposal echoes the work of Brown and retired Rear Adm. Lorin Selby, who in recent years advocated for a "hedge strategy" that would enable the Pentagon to field large swaths of off-the-shelf, networked capabilities to augment the military's major weapon systems.

Rep. Ken Calvert, R-Calif., chairs the House Appropriations Committee's defense panel and championed the hedge portfolio legislation. He told C4ISRNET that funding is key to DIU's ability to execute on programs such as Replicator.

"Nothing works if you don't provide the resources to do this," he said.

The fate of that proposal is unclear, as lawmakers are poised to consider a compromise bill in the coming weeks. Calvert said he talked to his counterparts in the Senate and there's some openness, but "sometimes change is hard."

However, he said, "it's what we must do in order to make sure that we get capability out there as soon as possible."

PROMISING STEP

National security experts and former DoD officials say actions by defense leaders and lawmakers are promising and indicate a growing recognition of the importance of DIU's role within the department. But without deeper reforms, some worry that any near-term successes may be short-lived.

Pete Modigliani, vice president of the Washington, D.C.-based national security advisory firm Beacon Global Strategies, stressed the importance of DIU having the resources and support it needs from within the department. Those improvements, he said, must be coupled with changes to the way the DoD writes requirements for and buys new capabilities.

"When folks like DIU come in and say, 'Hey, we've found some great companies with some novel technology that are going to have great defense capabilities,' the acquisition professionals often aren't able to react. ... The system constrains them," he told C4ISRNET. "They can't integrate it without breaking all these things that they spent years putting together."

Bill Greenwalt, a nonresident senior fellow at the American Enterprise Institute think tank, said the proposal from House appropriators is a promising step toward supporting the organization's role in scaling commercial technology, but it's likely not enough.

He said in an interview that to better leverage commercial technology to counter China, funding increases must be coupled with reforms to the Pentagon's budgeting process.

"We have to kind of step back and [recognize] our entire budgeting and acquisition system is not conducive to competing against a real peer competitor who is taking advantage of commercial technology at a much faster rate than we are," Greenwalt said. "This is like putting a Band-Aid on a mortal wound."

Work, who is now a senior fellow for defense and national security at the Center for New American Security think tank, told C4ISRNET he's concerned about how some of the Pentagon's deeper cultural issues and resistance to change could play out in the budget process.

For example, Work said, if the department pulls money from other projects to fund Replicator — which it appears poised to do — that could spark pushback from the services.

"People who get money taken away from them can go to Congress, they can go to the secretary of defense — there's all sorts of things they can do to gum up the works," he explained. "That's a big thing because this is going to cost money." DN

company Rheinmetall works on 155mm ammo meant for Ukraine.

FOUR FACTORS SHAPING EUROPEAN DEFENSE IN 2024 AND BEYOND

BY RUDY RUITENBERG

PARIS — War is officially on Germany's agenda. The prevention of it, that is, and the country's defense during one, if it ever came to be. But in a nation haunted by the militaristic ghosts of its past, the recent demand by Defence Minister Boris Pistorius that Germans should ready themselves for the possibility of actual war still came as a shock.

Semantically, the adjective "kriegstüchtig," first floated by the minister in an October interview with German TV station ZDF, lives somewhere between becoming "war-capable" and "war-proficient," nuances guaranteed to make Germans uncomfortable. Formally, it is now part of the ministry's nomenclature that makes up the latest written guidance for the future of Germany's armed forces.

Critics quickly seized on the term, construing it as warmongering or lamenting the lack of a more pronounced defensive focus. But what has become clear is that the fighting in Ukraine and the Gaza Strip, combined with an upcoming U.S. presidential election, could define Europe's trajectory no matter the semantic bickering about

what is, or isn't, war.

Defense News asked European analysts about what the year 2024 will hold for the continent. Pervasive in the interviews was a sense of urgency in the face of Russia's assault on Ukraine and the fallout for the continent. Russia's delayed but now-massive buildup of its arms industry has experts worried President Vladimir Putin's war machine will be trigger-happy toward its neighbors long after the fighting there stops.

A technician of the German defense

"Today we are in a situation where we need to make real decisions, not discuss the need for making decisions," Hanno Pevkur, Estonia's defense minister, told his colleagues at a November meeting in Brussels.

LETTING GO?

While the European Union has long had a defense agenda, it has struggled to meet a key prerequisite: a sense of unity among its members on questions of war and peace, held together by a shared threat perception.

Mechanisms like the European Defence Fund or Permanent Struc-

tured Cooperation security initiative aim to grease the wheels of defense cooperation between member countries, hoping years spent on cooperative development projects spur a sense of shared ownership.

But overall, the idea that there is a unified military mindset in the EU is "highly questionable," with many countries considering European defense first and foremost a matter for NATO and therefore the United States, said Yannick Quéau, the director of the Brussels-based think tank GRIP.

In that sense, pressing a defense-minded spirit onto an organization molded for maximizing peacetime potential may ultimately be a bridge too far, other analysts said.

"The heterogeneity will only increase," said Christian Mölling, deputy director of the Berlin-based German Council on Foreign Relations' Research Institute. He pointed to a future round of EU expansion, including applicant Ukraine, that would further stretch common defense objectives.

The bloc's genes are that of an institutional administrator — effective at regulating markets or resolving health and energy crises, but not at organizing a common defense, according to Mölling. "We may have to say goodbye to the idea of the EU as an actor in defense."

Lucio Caracciolo, the editor of Italian geopolitics publication Limes, argued there's no point holding out for Europe to emerge as a united player on the world stage.

"It's impossible — Europe is not a geopolitical player; there are too many different interests at play," he said. "While the Baltics, Scandinavia and Poland are hostile to Russia, Germany will want to rebuild the Nord Stream 2 pipeline to Russia the moment there is a cease-fire" in Ukraine, he added.

Explosions damaged the gas pipeline linking Russia and Germany in September 2022.

GREAT EXPECTATIONS

France and Germany will have to show significant progress in 2024 with their marquee defense projects to uphold the promise that close European allies can translate their goodwill into weapons — although it would take almost two decades, analysts said.

On the table are a sixth-generation suite of air weaponry called the Future Combat Air System, or FCAS, and a new tank called the Main Ground Combat System. Both have shaky histories because leaders in Berlin and Paris saw their political ambitions of next-gen weaponry, made in Europe by two lead nations, held up by industrial infighting.

"It would be good if we can end this back-and-forth lobbying about whether or not we're going ahead with the project," said Quéau, referring to periodic news stories about one or the other partner considering to call it quits. "There has to be a more clearly stated political commitment at [a] very high level."

But without such a decision in 2024, "we'll fall further behind," he added.

The Franco-Germany tandem has failed to light any sparks, and Russia's war in Ukraine, paradoxically, has sucked a lot of oxygen out of efforts to advance defense cooperation.

"The Franco-German [cooperation] has been stalled for some

years now," said Hélène Masson, a senior research fellow at the Paris-based Foundation for Strategic Research. "At the same time, the war in Ukraine has led to more bilateral and multilateral cooperation between countries sharing security challenges and supporting Ukraine," with Poland "particularly active" in building a web of defense and armaments partners.

In addition, EU members seeking closer ties with European defense heavyweight Britain, which is no longer in the union, and with the United States already are used to constructing a patchwork of bilateral and multilateral initiatives outside bloc channels.

"The draw of Atlanticism is prevalent," Masson said. "This environment makes the Franco-German [partnership] increasingly difficult to sustain."

"The two countries are partners, sure, but they're also competitors in numerous areas, which makes the situation more complex," she added. "Each is seeking to consolidate their position through cooperation: France in the fighter aircraft segment, Germany in the field of land armaments."

WILDCARD USA

After leaning on the U.S. for security guarantees for decades, Europe may find fewer friends in Washington if former President Donald Trump is reelected next year and implements his brand of isolationism

Though the election isn't until Nov. 5, 2024, and Trump has ample legal trouble that could create an uphill battle in the presidential race, polls show him as the presumptive Republican nominee to go against incumbent President Joe Biden.

Given Trump's disdain for NATO, and Europe in particular, a Trump victory could upend the continent's security calculus. He famously threatened at the alliance's 2018 summit in Brussels to withdraw from NATO over laggard European defense spending and has since made plans to follow through if given the chance, Rolling Stone reported in October.

Meanwhile, U.S. lawmakers floated legislation over the summer that would make it harder for a president to pull the country out of the alliance, requiring a two-thirds majority in the Senate. The measure is now part of conference negotiations between both chambers of Congress.

Notably, in 2018, experts pointed out American withdrawal mechanics may not matter: If adversaries have reason to believe a U.S. commander-in-chief would wobble on NATO's mutual-assistance pledge, their appetite for military adventurism would increase exponentially.

Indeed, some in Europe say Trump's return to office could be the one thing capable of catalyzing Europe's defense ambitions.

Yohann Michel, a research analyst in Berlin with the International Institute for Strategic Studies think tank, said big-ticket defense projects could see a boost.

"The French-German FCAS fighter program and the European main battle tank program were both spurred by Trump's first term, and could consolidate and strengthen if he returns," he said. "Trump would make the EU face up to hard choices, but the question is: Will

it have the means to make those choices if we still don't have enough ammunition to supply Ukraine or ourselves?"

Gaspard Schnitzler, a senior research fellow at the Paris-based French Institute for International and Strategic Affairs, agreed.

"From a cynical point of view," a Trump reelection would be a good thing for European defense, with countries no longer able to count on U.S. aid therefore forced to strengthen EU defense, he said.

Dick Zandee, a defense analyst at the Clingendael Institute, based in The Hague, said there wouldn't be much of a silver lining.

"I'm not sure that even if the pressure is that high, we'll be able to solve our problems. And there is a guy watching in Moscow, and he will make use of every situation to test us," he said, referring to Russian President Putin.

PLANT-BASED DEFENSE

Orchestrating a ramp-up in ammunition production — for both Ukraine and EU members — may be the bloc's best hope in finding its defense groove over time, analysts said.

Though the production rate for materiel like 155mm artillery shells and mortar rounds is lagging, companies plan to expand their output as well as build or restart production plants. The process is expected to take years, but the to-do list is clearly defined, according to experts.

"Ammunition is really a key constraint for a lot of European militaries," said Ed Arnold, a research fellow for European security at the Royal United Services Institute in London. "We just don't have enough ammunition. So forget about the end use of what mission this might be on, and what we want to do with it. It's got to exist on the shelves first. That is quite expensive initially, to reopen production lines."

"But there's no real alternative," he added.

Estimates in Europe vary on the number of years it would take Russia to reconstitute its forces after the war in Ukraine ends. While Estonian intelligence estimates four years, Arnold expects it to be at least a decade.

"So the Europeans have a bit of time, but considering how long all of these things take, it's actually not a lot," he said.

An estimate by the German Council on Foreign Relations pegs the time horizon as somewhere between six and 10 years.

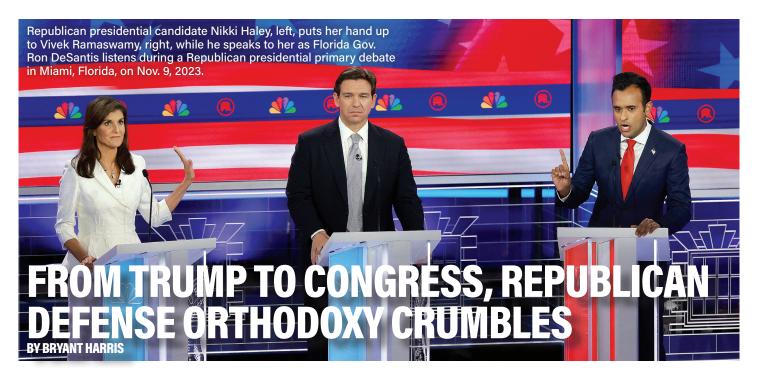
According to Mölling, one of the think tank's analysts, European governments should prioritize production of tried-and-true equipment at the expensive of some development-heavy programs. Mass stockpiling, he said, is the new yardstick for deterrence.

But bottlenecks remain. For example, the entire industry faces a shortage of raw materials and components, with Europe's aeronautics sector having to replace Russia as the supplier of 40% of its titanium, according to French analyst Schnitzler.

An EU strategy for the defense industry, initially scheduled for November, was pushed to the first quarter 2024, "but delayed for a good reason," Schnitzler said. The European Commission will use the time for consultation with member states, industry and think tanks to reach a consensus proposal, he explained.

Amid the strategic urgency, the process is still rife with political drama. "The commission is walking on eggshells because some member states consider that it exceeds its powers," Schnitzler said. DN

Rudy Ruitenberg reported from Paris; Tom Kington from Rome; and Sebastian Sprenger from Cologne, Germany



WASHINGTON — An exasperated Nikki Haley, a former South Carolina governor and U.N. ambassador, laid into Vivek Ramaswamy — a former biotech CEO with no experience as an elected official — over his lack of foreign policy credentials during the first Republican presidential primary debate in August.

Haley accused Ramaswamy of seeking to appease U.S. adversaries while abandoning Washington's security partners.

"He wants to hand Ukraine to Russia," she said. "He wants to let China eat Taiwan. He wants to go and stop funding Israel."

Ramaswamy's retort was brief and personal. "I wish you well in your future career on the boards of Lockheed and Raytheon," he said.

The disdain between the two presidential aspirants has been on full display in every debate since — part of a heated presidential primary that remains overshadowed by former President Donald Trump. At its core are two competing visions within Republican politics about the future of America's role in the world.

Haley champions the party's traditional Reaganite "peace through strength" orthodoxy that backs large defense budgets and military support for friendly countries, while Ramaswamy's vision echoes Trump's "America First" school of thought.

Trump, the unquestioned front-runner in the race despite his numerous federal and state indictments, has so far declined to participate in any debates this cycle. Still, he looms large over the party's future, from the presidential primary to the halls of Congress to the conservative institutions laying the groundwork for what they hope is his eventual return to office.

In the process, America First fiscal hawks are crowding out the traditional Reaganite Republicans in the party's biggest shift since the beginning of the Cold War. These world views aren't simply philosophical; they have significant consequences for U.S. support of allies and partners abroad, future defense spending levels, Penta-

gon acquisition policy and scrutiny of its financial management, and whether or not the White House uses the military as a tool to quell domestic opposition.

"This is the biggest change in the Republican Party's foreign policy thinking since probably the 1940s," Michael O'Hanlon, a senior fellow at the Brookings Institution think tank, told Defense News, pointing to Trump's 2016 election attacks on former President George W. Bush's wars in Iraq and Afghanistan.

"We were really seeing not just a temporary, tactical political change, but a historic change in how the Republican Party thought about defense; instead of just instinctively wrapping themselves in the flag and always thinking more was better, but starting to question some of the basic national security management of the United States, even including their own Republican presidents."

AMERICA FIRST

While Trump as president initially championed large military budget increases, a growing contingent of America First fiscal hawks in Congress are calling for a more skeptical examination of Pentagon spending, sidelining traditional Republican defense hawks.

Mainstream conservative institutions are also calling for more scrutiny of the defense budget, especially the massive amounts of Ukraine spending, even as they reportedly draft executive orders to deploy the military inward against demonstrators on U.S. streets starting on Day 1 of a second Trump term.

"For the first at least 24 months of his presidency, [Trump's] military budgets were getting stronger and he had positive things to say about the military," Thomas Spoehr, the former director of the Heritage Foundation's Center for National Defense, told Defense News. "Then at the two-and-a-half year mark, that suddenly started to change."

Trump proposed a \$677.1 billion budget for fiscal 2018, \$726.8 billion for FY19, \$761.8 billion for FY20 and \$753.5 billion for FY21.

"The military budgets started to become relatively flat, and the president was much more critical of the military, especially its leadership," said Spoehr, a retired Army lieutenant general. "He was also very critical about how the [Defense Department] was managing a lot of its acquisition programs — probably some of the criticisms [were] warranted, others not so much."

For instance, he derided former Defense Secretary Jim Mattis as "the world's most overrated general" after Mattis resigned in protest of the president's plan to withdraw American troops from Syria — something Trump eventually walked back following Turkish attacks on U.S.-supported Kurdish forces in the northeast of the war-torn country.

Additionally, Trump repeatedly lambasted the Navy for using an Electromagnetic Aircraft Launch System, or EMALS, on Ford-class carriers, saying the service should return to using "goddamned steam" catapults.

A 2017 assessment from the Pentagon's Cost Assessment and Program Evaluation office found the EMALS would cost \$814 million more than initially estimated when the contract began in 2004. But if the Navy had switched to steam catapults per Trump's wish, it would have incurred billions more in additional costs, as it would necessitate a redesign of the nuclear-powered aircraft carriers.

Trump noted on Fox News in July that as president he told European leaders "I will not protect you from Russia" if they were "delinquent" on NATO contributions. He also opposes U.S. economic and military aid to Ukraine as it fights Russia's invasion.

Much of the conservative establishment has adopted the former president's stance. Indeed, Spoehr resigned as Heritage's defense director because he didn't agree with the think tank's opposition to Ukraine aid. He has since been replaced by Robert Greenway, a former special forces officer who served as the senior director for Middle Eastern and North African affairs on Trump's National Security Council.

During a Heritage Foundation podcast in September, Greenway stressed the need to balance a strong defense budget with weeding out "waste and abuse."

"We have to have transparency; we have to have efficiency; and we cannot spend, as many presidents have said, like drunken sailors," Greenway said.

The base defense budget now stands at \$857.9 billion, accounting for slightly more than half of all discretionary spending. Total defense spending for FY23 came to \$893 billion, including \$35.4 billion in Ukraine aid.

Meanwhile, the Heritage Foundation is the lead think tank on Project 2025, a coalition of at least 80 conservative institutions with close ties to Trump that seeks to outline the agenda for a Republican president.

Project 2025 has issued a nearly 900-page blueprint detailing conservative policy priorities across the federal government, should a Republican retake the White House. The coalition is also developing draft executive orders to invoke the Insurrection Act, allowing Trump

or a future Republican president to deploy the military against civil demonstrations, The Washington Post reported in November.

Additionally, the coalition advocates for firing up to 50,000 nonpartisan, career federal workers across the government and replacing them with conservative loyalists. It's unclear how many would come from the Defense Department's more than 700,000 civilian workers.

Neither the Heritage Foundation nor Project 2025 responded to Defense News' requests for comment.

Trump's former acting Defense Secretary Christopher Miller wrote the Defense Department section for the Project 2025 transition blueprint. The section refers to the department as "a deeply troubled institution," pointing to "wasteful spending, wildly shifting security policies [and] exceedingly poor discipline in program execution," among a litany of other issues.

It labels Russia's invasion of Ukraine as a threat, but points to China as "by far the most significant danger" to the U.S. from abroad while highlighting "ill-advised military operations in the Greater Middle East, the atrophy of our defense industrial base, the impact of sequestration and effective disarmament by many U.S. allies."

The Project 2025 transition document doesn't make recommendations on a defense budget top line, though it emphasizes greater burden-sharing with partners and allies. But Miller released a memoir in February that argued the U.S. should cut military spending by 40% to 50% to "end American adventurism and retool our military to face the challenges of the next century."

O'Hanlon said a cut of that magnitude "could be a recipe for absolute catastrophe," arguing "you've basically given up on the competition with China over being able to protect Taiwan."

"Anyone who looks at Pentagon waste over the years, we know full well there's a lot of it. But if you take a meat cleaver and cut the defense budget, you're cutting off the muscle along with the fat," O'Hanlon said.

Meanwhile, Trump-aligned Republicans in the House have highlighted the Defense Department's bookkeeping troubles, convening a House Oversight and Accountability Committee hearing in July titled "Addressing Financial Accountability in the Department of Defense," where they made several of the same points on the budget as progressive Democrats.

Rep. Glenn Grothman, R-Wis., who chairs the committee's national security panel, noted the Pentagon has never passed an audit, failing six consecutive times.

"The U.S. spends more on defense than China, Russia, India, Saudi Arabia, the U.K., Germany, France, South Korea, Japan and Ukraine combined," Grothman said. "The American people work diligently to earn every dollar, but it seems the [Defense Department] has become a master of squandering those funds without batting an eye."

Luke Strange, the government relations director at the conservative American Enterprise Institute, told Defense News that raising defense spending would "require more political will in both chambers as the top line kicks up toward \$1 trillion."

"That's a number members have at the back of their minds that's going to require a justified harder look at the way acquisition is done and giving members some assurance that they're getting better value

for defense dollars if they're going to spend that amount of money," he said.

REAGANITE REPUBLICANS

Senate Minority Leader Mitch McConnell, R-Ky., has continued to champion increased defense spending and support for Ukraine, but also found himself at odds with the GOP-controlled House.

McConnell has argued most Ukraine military aid goes to U.S. defense contractors, not abroad, as the Pentagon backfills equipment it sent Kyiv from its stockpiles.

"The emergency investments we've made in the U.S. defense-industrial base as a result of Russia's war on Ukraine are doubling production capacity of 155mm artillery rounds," he said in November. "They're driving a 40% increase in production of long-range precision fires, and nearly doubling capacity for air-to-air missiles."

But even Senate Republicans supportive of Ukraine overruled him in September. That forced the leader to back down from a potential standoff with the House GOP amid its insistence on dropping \$6 billion in Ukraine aid in order to pass a stopgap funding bill that would avoid a U.S. government shutdown.

Still, McConnell has convinced most Senate Republicans to work with Democrats as they try to pass a defense spending supplemental intended to circumvent the \$886 billion national security spending cap in the May debt ceiling agreement.

The initial House Republican votes against the \$113 billion worth of economic and military aid to Ukraine spread across four packages in 2022 were largely limited to members of the right-wing Freedom Caucus. Congress has yet to pass any additional Ukraine aid this year; a growing bloc of House Republicans, including some defense hawks, are opposed to more funding due to a lack of clear end goals as the war atrophies into a stalemate.

At 81, McConnell is much older than many of his America First colleagues in the House. He froze up at two separate press conferences earlier this year following separate falls in Finland and Washington, raising questions about his health and whether anyone else will be the standard bearer for Reaganite Republicans.

When Rep. Mike Johnson, R-La., became House speaker in October, Republican defense hawks took some solace in the fact he represents a military-heavy district and sat on the Armed Services Committee.

But the narrow Republican House majority has necessitated Johnson walk the same tightrope as his predecessor Rep. Kevin McCarthy, R-Calif. — balancing the demands of fiscal conservative and defense hawks.

Johnson voted against previous Ukraine aid packages, further stymying President Joe Biden's efforts to persuade Congress to pass another \$61 billion tranche of assistance for Kyiv. He also opted to offset Biden's \$14.3 billion request for Israel military aid amid the war in the Gaza Strip with an equal amount in cuts to the Internal Revenue Service, prompting the House to pass it mostly along party lines — only for Senate Democrats to ignore it.

And during his own short-lived speakership, McCarthy repeatedly shot down the prospects of the House passing additional defense

spending beyond the top line in the debt ceiling deal. During that time, he also took jabs at ballooning defense spending.

Asked by a reporter whether he thought aliens were responsible for the recent spate of military UFO sightings, he quipped about the Pentagon budget.

"I will continue to see, but I think if we had found a UFO, I think the Department of Defense would tell us because they probably want to request more money," McCarthy said, according to The Hill.

Despite dropping Ukraine aid from the stopgap funding bill, a small group of Freedom Caucus-aligned Republicans ultimately ousted him from the speakership for relying on Democratic support needed to pass the bipartisan measure.

"[McCarthy] made all sorts of commitments which were at odds with growing defense spending and aid to Ukraine," Spoehr said. "What you're seeing is a man trying to keep his promises to these people in order to become speaker."

Seamus Daniels, a defense budget analyst at the Center for Strategic and International Studies think tank, cautioned that "the balance between fiscal hawks and defense hawks in the Republican party fluctuates overtime."

"The thing to take away going into this election is that there is this focus within the Republican Party on reducing the deficit. But what we've seen is that could certainly change if the Republican Party takes the White House, and there may be less of a focus on the deficit," Daniels told Defense News.

In the meantime, many Democrats have sought to portray Republicans as weak on defense, marking somewhat of a reversal of roles between the two parties in the decades following the Cold War.

"Both parties have been hawkish on national security. And of course ever since Vietnam, Republicans have used national security as a bludgeon against Democrats," O'Hanlon said.

When Democrats held both chambers of Congress in 2021 and 2022, they worked with Republican hawks to pursue large plus-ups to Biden's defense budget proposals.

The White House and Democratic appropriators have dinged House Republicans as weak on China for declining to fully fund all seven munitions the Pentagon asked to buy using multiyear contracts, a mechanism usually reserved for procurement of big-ticket items like ships.

Still, Republican appropriators funded multiyear buys for five of the seven requested munitions. They had concerns about funding multiyear contracts for the Navy's Standard Missile-6 and Air Force's Advanced Medium Range Air-to-Air Missile because of previous cost variations and delays during earlier contracts for those munitions with RTX, formerly Raytheon Technologies.

Democrats have typically demanded parity between defense and nondefense discretionary spending in yearly budget negotiations.

"There is a wariness among the GOP's fiscal conservatives of defense being used as this pry bar to open up the federal cash box," Spoehr said. "The realization of that really didn't take hold in fiscal conservatives until the last two or three years, and I think that is at the root of a lot of this skepticism that you see among certain members of the House GOP." DN

PENTAGON'S ACQUISITION DEPUTY PLUMB TALKS STOCKPILES, INDUSTRIAL BASE

WASHINGTON — The conference table at the center of Radha Plumb's Pentagon office has two large maps sitting underneath a glass plate. One is of Taiwan, and the second Ukraine.

There's hardly a better image of the demands faced by her staff. As deputy undersecretary of defense for acquisition and sustainment, Plumb is responsible for helping solve some of the Defense Department's most vexing problems, from increasing industrial capacity to reforming the arcane Foreign Military Sales process.

Those tasks also involve supporting U.S. allies and partners - notably Ukraine, Taiwan and Israel.

The job has stretched the U.S. military's stockpiles and challenged its ability to refill them; the White House has requested a \$106 billion supplemental to address these problems.

Plumb spoke with Defense News on Nov. 7 about that funding request, U.S. security assistance and the Pentagon's relationship with Capitol Hill. This interview was edited for length and clarity.



RADHA PLUMB is the U.S. deputy undersecretary of defense for acquisition and sustainment

Australia, the United Kingdom and the United States]. That lets us have a different version of industrial base expansion.

The third big area is a consistent demand signal to industry. A lot of folks would think: "You have a large base budget, you buy lots of stuff in the department — that should be a signal to industry." But what industry actually pays attention to is contracts. The faster we get things on contracts and the more predictable the funding can be, the better off we are.

We're also working with Congress on a bunch of things that let us provide a longer-term, more consistent signal — multiyear procurements, economic order quantities, advanced procurements and a bunch of industrial base capacity expansion. At the end of the day, that's what we're looking to measure - surge capacity, but also resilience to unexpected events in the outside world.

"Consistent" and "predictable" do not come to mind when thinking about the appropriations

process this year. To what extent does that process affect your ability to send a consistent demand signal?

It's not good. Many of us who have been doing this for a while are used to having these continuing resolutions. We're seeing increased delays and higher levels of churn. The problem with continuing resolutions is we can't do new contracts, at the very least. That means subcontracts to suppliers can't happen. Ultimately it means you can't hire a workforce. That means if you have supply chains where there are cross-dependencies, you're growing exponentially in delays rather than linearly.

For example, for 2024 we have some counter-unmanned aerial system investments planned, with a planned delivery in the 2024-2025 time frame. Let's say we delay the continuing resolution; we get a 90day delay. That 90 days means once the appropriation is received, we need to notify Congress. That'll add another month. You're now 120 days in. Then you've got to finish negotiating the contract, award the contract and then start making the advanced procurements. That's four to eight more weeks. Then you add onto that the subcontract, so that's another two to four weeks. That assumes that the delays, which maybe the prime contractors can absorb, don't hit subcontractors particularly hard because they need the cash flow. We're looking at 90- to 200-day delays in key systems that we know we need for the safety and security of warfighters — [all of which happened] because we just can't get to a deal on appropriation.

What is your focus as we enter a new year?

We're focused on three big areas. The first is our industrial base. The conflict in Ukraine revealed fragility in that industrial base. Where we're focused is really demonstrating that it has responded shock-

Take 155mm artillery rounds as an example: We doubled production in the last 12 months. We're looking to get to the point where we produce 80,000-100,000 by the end of 2025. And we're doing that on lots of systems — Guided Multiple Launch Rocket Systems, Patriots, Iavelins.

The second big area is production diplomacy. We've made use of our allies and partners through a range of activities over the last several years, and it's clear there's a lot we can do with them. Under Secretary of Defense for Acquisition and Sustainment Bill LaPlante has focused on his role as the national armament director with both the Ukraine Defense Contact Group and NATO, but also more broadly on co-development, co-production and co-sustainment. We have a partnership with Japan on the glide phase interceptor [for hypersonic defense], looking at co-development and the pre-deployment phase. In co-production, we're working with Australia on the Guided Multiple Launch Rocket System. And on co-sustainment, we're also working with Australia on a range of capacities and building on some of the work for AUKUS [the trilateral security agreement between

The president's supplemental request includes \$50 billion for the defense-industrial base. What would that mean for the U.S. economy and the rate of production?

The first thing it looks like is a strong signal to the industrial base that we are going to continue to invest in these capabilities to buy back both U.S. readiness as well as support allies and partners. That continued drumbeat of investment allows industry to put its own skin in the game in terms of capital investments. The signal value is incredibly powerful, especially right now, to feel like this is not caught up in D.C. turmoil.

The second piece of it is the dollar flow. That means that industry literally starts building factory lines, moving in machines and hiring for its workforce; that has community benefits. We're starting to look at where those dollars are flowing geographically because there is an economic infusion happening in many states across the country, particularly across the Midwest and the South. That has a meaningful economic impact right now in those local communities.

The place America is in manufacturing didn't happen overnight, and we're not going to get out of it overnight. Part of getting us into a resilient and robust manufacturing state of play involves making sure we can build those communities and those local investments so that you have the workforce, you have the people and you have the capital infrastructure.

The Defense Department has said supporting Taiwan and Ukraine is not a zero-sum game. But with Israel now at war, how has the situation changed?

Can we do all of these conflicts simultaneously? Absolutely. There's some overlap in systems or some underlap in systems, and the two things that revealed are, one, that we really do need this manufacturing investment. I don't want to sugarcoat the fact that there is fragility there.

The other piece is that in all of these conflicts, there is this high-tech/low-tech combination. Take Ukraine as an example: You've got trenches being dug out with mortars. You've also got a complex electronic warfare environment. In Israel, there is a range of tactics that look very familiar to folks who lived through all of the counterterrorism operations in the past, with a lot more targeting and specialized techniques. That's a reminder for us in the department that our strategy is to increase production, but it also has to be about encouraging advanced techniques.

Talk about the upcoming National Defense Industrial Strategy and what it might contain.

What the strategy is intended to do is connect high-level policies to specific actions that the department is going to take, and then [help

determine] how we want to measure progress.

Defense Secretary Lloyd Austin tasked a tiger team to make recommendations for improving the Foreign Military Sales process. What has come of that?

On the acquisition and sustainment side, we have two big areas we've been working on. One looks at procurement award lead time, where we're looking to set baseline metrics and then track contracting cycle timelines more closely to try to improve responsiveness. We've collected the data and we're setting the baselines. The goal in the next 12 months is to [determine whether the procurement lead time impacts FMS or is not a real cause of delay].

The second big area is aggregate demand work. What has been happening to date prior to the FMS tiger team is we sent our demand signal to industry. Other countries have their demand signal that pre-negotiates with industry, and the industry aggregates it all up. But everyone has a piece of information, and no one has the total information. We're working with our partners in the Defense Security Cooperation Agency and our prime industry partners to basically create an aggregate demand picture in a set of priority munition areas that are relatively high-demand areas.

[That group] is identifying the high-demand areas, some of which are related to air defense and key munitions, and then figuring out the process to get that aggregate demand — the key being you don't want to wait all the way until you have a formal letter exchange, but you don't want to do it too early and skew the demand process.

We're entering a year when U.S. military stockpiles will probably experience extreme demands. What is the state of those stockpiles?

Thinking about the stockpile is thinking about it from the supply side, but the way I'd rather think about it is on the demand side. We know that our partners have demands for certain kinds of capabilities. A lot of the work our acquisition and sustainment team does with our partners in policy and with the combatant commands is [about fulfilling a materiel need] by looking across the range of systems we have in our stockpiles, and what is hot on production lines, and where can we rapidly increase production and reprioritize deliveries to meet the aggregate demand.

Stockpiles are a thing we manage strategically to maintain readiness. You've heard everyone from the president on down to Dr. LaPlante say we're going to prioritize the readiness of our forces. But we have a lot of tools at our disposal to meet different demands. **DN**

Noah Robertson

EIGHT CONTRACTS TO WATCH IN FY24

Mark your calendar: There are several major U.S. defense competitions expected in fiscal 2024, with just these eight estimated to be worth a total of \$61.9 billion.

Software and data specialist Deltek, which keeps tabs on major government contracting programs, has created this list of the largest competitive opportunities worth watching.



Air Force

Contract Name: Comprehensive Construction and Engineering **Expected Solicitation Date:**

February 2024

Anticipated Value: \$15 billion

This contract calls for the full range of methods, technologies and supporting activities necessary to conduct

design-build or design-bid-build construction at Air Force installations and others worldwide.



Army

Contract Name: Information Technology Enterprise Solutions 4 Services **Expected Solicitation Date:**

March 2024

Anticipated Value: \$12.1 billion

The Army is seeking a range of services and solutions for enterprise infrastructure as well as infostructure goals with information technology services worldwide. This effort would replace the Information Technology Enterprise Solutions 3 Services program.



Transportation Command

Contract Name: Charter Airlift Services in Support of the Civil Reserve Air Fleet

Expected Solicitation Date: May

Anticipated Value: \$9.8 billion

This program will use aircraft resources of American air carriers to support Defense Department airlift requirements in an emergency. In return, those airlines are afforded access to day-to-day business under this and other contracts with the department and the General Services Administration.



Air Force

Contract Name: Contract Field

Team Maintenance

Expected Solicitation Date: May

2024

Anticipated Value: \$8 billion

The potential deal involves maintaining active weapon systems worldwide. The contracted team would also perform modification, inspection and repair of active systems, such as aircraft, vehicles, aerospace equipment, missile systems, engines, ground support equipment, and communications and cryptologic equipment.



Air Force

Contract Name: Enterprise Cyber Capabilities

Expected Solicitation Date:

February 2024

Anticipated Value: \$5.3 billion

The original solicitation for this contract was canceled in September 2023. An analysis is ongoing to determine next steps to fulfill cyber requirements. which include building, operating, supporting, defending and engaging in cyberspace to give the military an information advantage over adversaries.



Air Force

Contract Name: Defense Air Force Strategic Transformation Support **Expected Solicitation Date:**

February 2024

Anticipated Value: \$5 billion

This program provides advisory and assistance services to several Air Force offices and federal agencies with the goal of improving strategic transformation efforts.



Missile Defense Agency

Contract Name: Missile Defense Agency Integration and Operations for Enterprise

Expected Solicitation Date: July 2024

Anticipated Value: \$4.6 billion

This program is meant to help the government meet its missile defense objectives and involves five technical areas, including information technology.



Army

Contract Name: Design, Development, Demonstration, and Integration II Information Integration, Data Exploitation, And **Enhanced Warfighter Capabilities** (Domain 2)

Expected Solicitation Date:

January 2024

Anticipated Value: \$2.1 billion

This effort would help Army Space and Missile Defense Command as well as Army Forces Strategic Command procure missile defense and space technology, among other systems.

REP. MIKE GALLAGHER PREVIEWS PLANS TO DETER CHINA FROM INVADING TAIWAN

WASHINGTON — Rep. Mike Gallagher, R-Wis., became chairman of the House Select Committee on the Chinese Communist Party in January, framing Sino-U.S. competition as a new Cold War.

His committee in May advanced a series of bipartisan recommendations for Congress to enact in hopes of deterring China from attacking Taiwan — which Beijing considers a rogue province and has threatened to take back by force. Those recommendations included fixing the \$19 billion Taiwan arms sale backlog, establishing the Taiwan reserves stockpile, implementing multiyear munitions procurement, passing cybersecurity legislation for Taiwan and more.

Gallagher sat down with Defense News to discuss the status of those recommendations, the United States' beleaguered munitions-industrial base, Beijing's actions in the South China Sea, his plans for the committee to visit Taiwan and whether he would also visit China.

This Oct. 26 interview was edited for length and clarity.

The cybersecurity bill recommended by the China-focused committee is part of the fiscal 2024 National Defense Authorization Act, which is still under debate. But where do the other recommendations stand within the House? What more needs to be done?

I think the latest count was at seven of the 10 in our attempt for Taiwan to have some form of representation in the NDAA. Obviously, the NDAA is not yet done. I'm a conferee. My hope is that we can keep it seven of 10 in the NDAA, or at least make meaningful progress therein. There are some things, like multiyear procurement and appropriations, that need to be adjudicated via defense appropriations.

The supplemental is also an opportunity to advance in the direction of some of our recommendations. Of the \$106 billion, there's really only \$2 billion geared toward Taiwan. That's woefully insufficient. I mean, honestly, that's kind of a joke. And it's not even Taiwan-specific — I assume because there were elements of the administration that didn't want to anger China by specifically saying \$2 billion in foreign military financing was for Taiwan.

We still have until the end of the year to finalize our other policy recommendations and other areas beyond military competition.

The president used his drawdown authority within the past year



REP. MIKE GALLAGHER (R-WIS.) is Chairman of the Select Committee on the Strategic Competition Between the United States and the Chinese Communist Party.

and a half, mostly for Ukraine, but also for Taiwan and Israel. The types of munitions sent by the U.S. differ, but there is overlap. For instance, the government sent Ukraine Harpoon missiles, which then need replaced in U.S. stocks. The U.S. industrial base has a lot of production constraints, so at what point can U.S. military stockpiles no longer sustain this level of drawdown, and which region should get priority?

The Indo-Pacific is our priority theater. I don't mean to suggest it's an either-or choice because we need to continue to provide lethal assistance to Ukraine to help them beat the Russians. Israel's a priority as well. But the Indo-Pacific has to remain our top priority because a collapse of deterrence in the region would have the potential to make the ongoing war in Ukraine and the emerging war in Gaza look tame in comparison.

One solution, which I unsuccessfully tried to push, but I'm hoping to revive, that would rebuild our entire arsenal of deterrence is to maximize production rates of all the critical munitions and long-range precision fires. My list probably looks similar to the list the undersecretary of defense for

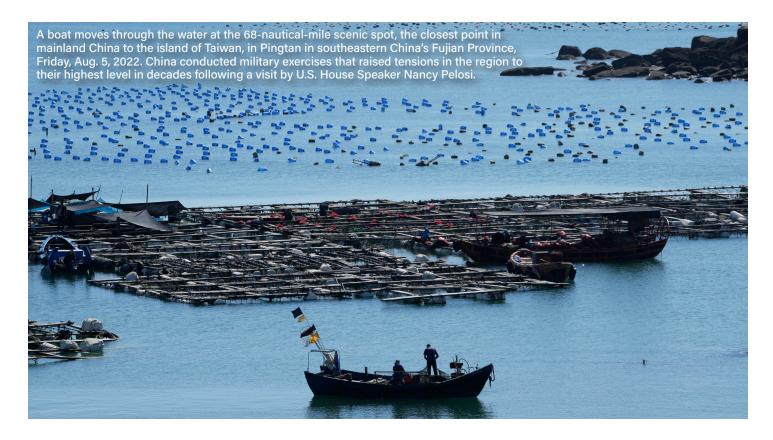
acquisition and sustainment, Bill LaPlante, would come up with in the Pentagon. The Long Range Anti-Ship Missile would be at the top of my list, and the Joint Air-to-Surface Standoff Missile, the Joint Direct Attack Munition Extended Range, the Standard Missile-6, the Naval Strike Missile, etc.

You could agree on the most critical munitions that you need to stockpile, and then you need maximum production rates and to provide certainty over the course of the Future Years Defense Program.

We have an opportunity right now to make a generational investment in our ossified and broken munitions-industrial base. We're not there yet, notwithstanding the brittleness of that base that Ukraine has revealed.

Some Republican defense hawks asked you to run for speaker of the House after Rep. Kevin McCarthy was forced out of the role, but you turned them down. Why?

I think my highest and best use to not just the Republican caucus, but the country, is as chair of the Select Committee on the CCP and working on issues related to the U.S.-China competition — on the hard power component specifically. The mission I've given myself in Congress is to deter a war with China and to prevent World War III. That's the most pressing national security challenge. I want to give



that everything I got, and the speakership is something I've never considered. My focus is on winning this new Cold War with communist China.

On Oct. 22, Chinese ships collided with a Philippine military supply vessel in the South China Sea. You've called for additional measures to support the U.S.-Philippine defense treaty, which would include establishing a more secure and permanent foothold in the contested Second Thomas Shoal. What does that look like? What should President Joe Biden do?

We've talked about the supplemental before. There's some thinking that of the \$2 billion in foreign military financing, half a billion could be used for the Philippines.

At a broader level, we need to ensure the Marine Corps' vision of having small teams of Marines running around southern Japanese and northern Philippine islands with autonomous Joint Light Tactical Vehicles, armed with Naval Strike Missiles. That would create serious dilemmas for the Chinese People's Liberation Army planners.

If you think about our stand-in forces, our biggest asymmetric advantage is our submarines. By adding that, things can get really exciting. That's something we could accomplish within the next five years before the 2027 timeline emerges [the year President Xi Jinping hopes the People's Liberation Army will be ready for a possible Taiwan attack].

What basing and access agreements would that require? I don't know, and I give the administration credit for some of the basing and access agreements they've gotten with the Philippines and with

Japan in recent years. It did seem like under the previous administration, the Philippines was sliding out of our orbit or the alliance was weakening, and they were trending more toward the Chinese Communist Party. Now, that seems to have changed and things are headed in a much better direction. But it's important that we maintain our presence there and that our funding is consistent.

I do like that we're saying an attack on Philippine forces in the Second Thomas Shoal would trigger our mutual defense commitments. It's important that we signal that, but we've got to be prepared to back that up.

As the Biden administration expands basing agreements and security cooperation with Pacific allies, China's talking point is that this is a Cold War mentality. You've framed U.S. relations with China as a new Cold War. Does this framing make diplomacy and de-escalation more difficult?

I don't think so. To clarify, my view is that China and Russia have been waging a Cold War against us for quite some time. It at least started in 2012 when having unsuccessfully tried to make specious legal claims for disputed territory related to the Philippines, China began its aggressive and unprecedented island-building campaign and the militarization of that campaign. We can either recognize that fact and wage a counter-effort aggressively, or we can lose this thing because of our lack of urgency and ignorance. This is not to say the new Cold War is identical to the old; I find the analogy useful both for the similarities and the differences it illuminates.

This is a whole-of-society effort. It's going to require us to modern-

ize our national security bureaucracy. This isn't just two militaries competing, but two separate ideologies and two separate ways of organizing governance. It's as much of an ideological competition as it is a military-economic competition.

The economic side of it is where I think the differences really emerge. We never had to contemplate some form of selective economic decoupling from the Soviet Union because our economies didn't interact.

That's what makes it more complex and in some ways more difficult than the old Cold War. We've woken up to the fact that we are unacceptably dependent on China for the production of certain things: critical goods — certainly the pandemic was a wake-up call in that respect, advanced pharmaceutical ingredients, critical mineral processing, subcomponent parts for solar panels, electric vehicle batteries. [The U.S. needs to] figure out how to wean ourselves off that dependency, restore some level of economic sovereignty, or at a minimum stop fueling our own destruction by allowing the outflow of U.S. capital to China in certain advanced technological and military sectors.

What about the flurry of diplomacy in recent months?

I've been critical of what I call "zombie engagement" by the Biden administration. The problem isn't engaging in diplomacy per se; it is pausing defensive action to just sit down at the table and talk with high-level Chinese Communist Party officials. These talks seem to go on and on and on, or we commit to working groups and then nothing happens. Thus far, we've had multiple Cabinet-level officials go to Beijing with really nothing to show for it.

There are still some in the administration who believe we have to pull our punches with respect to China because we don't want to anger them and thereby jeopardize their willingness to work with us on reducing climate emissions. That's a naive view of the world. I don't think Xi Jinping cares about commitments made at [the climate change conferences]. I want to make sure that when we are engaging in diplomacy, it's backed by a credible military deterrence.

Senate Majority Leader Chuck Schumer, D-N.Y., recently led a bipartisan congressional delegation to China. It sounds like you aren't inclined to do that.

I'm genuinely interested in talking to the senators that went on that trip to hear how it went. I'd be curious if they thought it was productive or if it was just kind of sitting in nondescript, gray rooms getting a lecture by wolf warrior diplomats. So I'm not hostile to the idea; I would want it to actually be meaningful and productive.

There are some other trips to the Indo-Pacific we have prioritized that we're trying to do. But the congressional schedule keeps changing because we depose speakers and then argue about it for weeks.

Before McCarthy was ousted as speaker, he had backed off his initial pledge to emulate former Speaker Nancy Pelosi by visiting Taiwan. But he did meet Taiwanese President Tsai Ing-wen in the U.S. After Pelosi's visit, China ratcheted up drills around Taiwan and suspended cooperation on countering fentanyl trafficking. Did McCarthy make the right choice by meeting Tsai in the U.S. instead of in Taiwan?

I defended Speaker Pelosi's visit to Taiwan. It's entirely in keeping with precedent and is the intent of the Taiwan Relations Act. I understand the CCP threw a fit about it, but they also threw a fit at the idea of President Tsai meeting with Speaker McCarthy and members of the committee on American soil. So no matter what we do, they'll claim it's a provocation, and so we can't be intimidated by that rhetoric. I thought former Speaker McCarthy handled the whole situation brilliantly.

For our committee, that trip out to California to meet with President Tsai at the Reagan Library in a bipartisan fashion was incredibly powerful. Speaker McCarthy set a very bipartisan tone. The interaction with President Tsai was very robust, meaningful and a very good outcome.

Separately, I went to Taiwan myself. We're hoping to take the committee to Taiwan, and I think that will be a very useful thing to do. **DN**

Bryant Harris

AUSTRALIA'S MILITARY MUST PREPARE FOR CONFLICT IF DETERRENCE FAILS

Australia's national interest lies in a region that is open, stable, peaceful and prosperous. At the ASE-AN Defence Ministers' Meeting Plus in mid-November and at meetings throughout the Pacific, I've been clear that Australia is committed to working with our partners to build and defend a region that is peaceful, places the Association of Southeast Asian Nations at its core, respects sovereignty, and operates by agreed rules.

The Australian government is working with its partners to bring about a strategic environment that is characterized by a regional balance, where no actor concludes the benefits of military action outweigh the risks.

But if diplomacy and deterrence do not deliver, we need the military capability to defend ourselves and our interests, in concert with our partners, as we have throughout our history. That means prioritizing capabilities that will discourage anyone from taking actions against our national interests.

In support of this objective, the government has laid the blueprint for investment in a more focused force able to hold any potential adversarial forces at risk and at a greater distance from Australia's shores.

As a middle power, Australia cannot rely on mass — or overwhelming force — to deter. We need to focus instead on capabilities and partnerships that deliver an asymmetric advantage.

Our acquisition of conventionally armed, nuclear-powered submarines through the AUKUS partnership is integral to achieving this goal. Submarines are, at their core, an asymmetric capability designed for deployment anywhere — including potentially hostile waters — to generate uncertainty and increase the threat of costs for an adversary.

Nuclear-powered submarines provide a formidable deterrent effect; no other platform matches their stealth, endurance, mobility and mix of capabilities. They will enhance our ability to defend Australia and its national interests, as well as contribute to the security and stability of the Indo-Pacific region.

Clearly our future nuclear-powered submarines will be highly capable in conflict, making Australia a more difficult and costly target for anyone who wishes us harm.

Acquiring, operating and sustaining — and eventually building — nuclear-powered submarines will be the most transformative indus-



PAT CONROY
is Australia's defense industry
minister and its minister
for international development
and the Pacific.

trial and technical endeavor in our nation's history. We've started by putting in place the international agreements we need to get this endeavor underway. AUKUS partners signed the ground-breaking Agreement for the Exchange of Naval Nuclear Propulsion Information in November 2021.

And we are working openly and transparently with the International Atomic Energy Agency and in consultation with our AUKUS partners to develop safeguards and a verification approach that will ensure Australia continues to meet our nuclear nonproliferation obligations and commitments under the Treaty on the Non-Proliferation of Nuclear Weapons, the Treaty of Rarotonga and our safeguards agreements with the International Atomic Energy Agency.

Building the workforce to construct, operate, maintain and sustain these submarines has already begun. Australia is working with its AUKUS partners, state and territory governments, industry, unions, education and training institutions, and the scientific and technical sectors to build the workforce we need to succeed.

We are also embedding Australian industry in U.K. and U.S. nuclear-powered submarine construction and sustainment programs.

To kick-start supply chains, we're exploring opportunities for Australian industry to supply Australian-made materials and components to U.K. and U.S. submarine programs, and creating pathways for Australian industry to carry out maintenance activities on U.S. Virginia-class and U.K. Astute-class submarines during their rotational presence in Australia.

Given the strategic challenges we face, the importance of building a strong and resilient Australian defense industry has never been clearer. Australia needs an industrial base in priority areas for self-reliance. This will include leveraging our close allies and partners' technology and industrial bases, to their benefit as well as ours.

AUKUS is about expanding the industrial base and building robust and resilient supply chains for all AUKUS partners. Investing in conventionally armed, nuclear-powered submarines will transform both the Australian Defence Force and Australia's defense industry, which is a critical partner of our military and is essential to our national interest.

Most important of all, it will make Australia safer and more secure. DN



DEL TORO AIMS TO REINVIGORATE US SHIPPING TO STRENGTHEN FLEET

BY MEGAN ECKSTEIN

WASHINGTON — The U.S. commercial maritime industry has long been shrinking.

From 1953 to 2016, the number of shipyards capable of building large, oceangoing military and commercial vessels declined from 30 to six, and their annual output declined from 60 to seven, according to an analysis of U.S. shipbuilding records.

Now, Navy Secretary Carlos Del Toro is raising the alarm, warning that the service won't be able to fulfill its mission without a strong commercial counterpart.

A thriving maritime industry would mean more trained builders and maintainers the Navy could tap in the event of a crisis; more dry docks and construction facilities the service could leverage; and more investments in innovative tooling, technology and processes to build ships faster and cheaper.

And, chiefly, it would mean a larger fleet of American-built ships the military could call into service if a war broke out. Del Toro wants to see this commercial maritime might become a reality through an emerging initiative he's calling "maritime statecraft."

He introduced the idea in a September speech at Harvard University, saying it "encompasses not only naval diplomacy but a national, whole-of-government effort to build comprehensive U.S. and allied maritime power, both commercial and naval."

Del Toro told Defense News in a Nov. 13 interview the decline in commercial maritime capability "has exposed ourselves, as a nation, to shipbuilding, sealift and economic trade vulnerabilities."

According to 2022 CIA estimates, China has 7,362 merchant ships, or commercial vessels engaged in carrying goods. The United States has 178.

If war broke out, the United States could call 60 American merchant ships into service through its Maritime Security Program to supplement about 100 government-owned merchant ships that were mothballed but could return to service. They would help move military vehicles and materiel into a theater.

But China, which the Pentagon considers the greatest threat to

U.S. security, has a far greater ability to compel private companies to support the military, and it has a significantly larger fleet of commercial ships to lean on.

Del Toro said the United States can no longer afford this imbalance.

"Maritime statecraft, basically, is a Department of the Navy effort to drive not just our own initiatives but a whole-of-government awareness, advocacy and action to rebuild the comprehensive maritime power of the nation in order to meet the challenges and opportunities we're going to face as a maritime nation in the 21st century," the secretary said.

REBUILDING AMERICAN SHIPPING

After decades of fewer yards building fewer ships, the American maritime industry requires revitalization and modernization, Del Toro explained. To achieve this, he said he's working with his counterparts across the government to identify what the shipbuilding industry needs and how government can help.

In mid-November, he called a meeting with several other entities at the first-ever Government Shipbuilders Council in Baltimore, Maryland. Participants included the Army, the Office of the Secretary of Defense, the Coast Guard, the Maritime Administration, and the National Oceanic and Atmospheric Administration.

Days before the meeting, Del Toro said he hoped it would be the start of a "conversation about a whole-of-government vision for maritime statecraft."

For example, he explained, the Maritime Administration successfully partnered with the Philly Shipyard to deliver the first national security multimission vessel on time and on cost in September.

Del Toro said other government agencies could leverage this program.

He also pointed to a tool left unused since the Reagan administration: "construction differential subsidies" to incentivize private companies to buy ships from American builders instead of cheaper foreign yards.

This provision of Title 46 of the U.S. Code, which allows the government to pay up to half the cost difference, hasn't received funding since the early 1980s. But Del Toro said he and the Transportation Department's secretary still have the authority to grant these subsidies, as long as he and the homeland security secretary certify there's a national security need for a vessel.

"Initial funding, for example, for a single vessel — even if phased out over several years, since the accounts can be funded indefinitely — would send a powerful signal to shipbuilders that the program is being revived," Del Toro said, though he did not address whether or how this might be incorporated into the fiscal 2025 budget.

THE NEED FOR PRIVATE CAPITAL

Del Toro, himself a businessman, has been encouraging private investors to spend money on small- and medium-sized shipyards and their suppliers.

His pitch: This is a worthwhile investment that would help the U.S. commercial shipbuilding sector assist the Coast Guard and the Navy

in more rapidly building better and cheaper vessels.

While nothing concrete has come of these talks, Del Toro said he's encouraged by the fact investors are "intrigued."

He's also looking for foreign investment in U.S. small- and medium-sized shipyards. As examples, he cited Australian company Austal's purchase of its Austal USA yard in Alabama in 1999 and Italian company Fincantieri's purchase of its Fincantieri Marinette Marine shipyard in Wisconsin in 2009.

"We're still fully committed to the Jones Act," which calls for American-built, -owned and -operated ships to move goods between American ports, he said. "But having said that, there are opportunities, I believe, as we continue to expand the commercial and naval market-place — especially the commercial marketplace — for them to invest in some of our shipyards."

Noting Japan and South Korea previously bought shipyards overseas, and then modernized and automated the facilities to a degree that far surpasses the capability of many American yards, Del Toro said "encouraging them to make investments here could be a powerful statement, if the business case allows it."

LEVERAGING RENEWED MARITIME MIGHT

U.S. leaders have accused China of waging a governmentwide effort to threaten its neighbors at sea by using the People's Liberation Army Navy, the Coast Guard and its maritime militia fleet of fishing vessels to harass foreign sailors operating in their nations' exclusive economic zones while fishing, exploring the seabed for natural resources, and drilling for oil and gas.

Del Toro said the U.S. needs to be able to push back and help allies and partners deal with geopolitical, economic and climate-related challenges. He pointed to a 2020 incident in which Chinese ships harassed a West Capella drillship hired by Malaysia's state-owned Petronas energy company to explore undersea oil and gas reserves.

"The U.S. 7th Fleet's Task Force 76 began a remarkable prototype operation, pioneering a new approach to support our partners' civilian vessels in standing up to China's coercive maritime insurgency in the South China Sea," Del Toro said in his September speech.

After U.S. Navy, U.S. Marine Corps and Royal Australian Navy forces "maintained a persistent presence in determined support of a partner's sovereign, internationally recognized rights, China backed down," he added.

To wield this greater naval might, Del Toro said the U.S. Coast Guard needs a bigger budget for more ships and operations, particularly in the Pacific. The Navy's Military Sealift Command and the Transportation Department's Maritime Administration will also play an increasingly large role in naval diplomacy and maritime statecraft, he added.

Internally, he said, the Navy is focused on closing gaps in its ability to operate and sustain itself overseas. He noted the service wants to increase its ability for Navy oilers to refill their stores from commercial tankers at sea instead of returning to a fuel depot ashore.

Additionally, he expects the Navy to demonstrate its ability to reload vertical launching system cells at sea next year, with a shorebased demonstration in the spring at Port Hueneme, California, fol-

lowed by an at-sea demonstration in the summer.

Del Toro called these kinds of naval logistics "foundational" to the fleet's ability to remain at sea in contested waters and conduct missions under the maritime statecraft banner.

AN INITIATIVE WITHOUT FUNDING

Analysts praised Del Toro's approach, but agreed there's a lack of specifics.

Jerry Hendrix, a senior fellow at think tank Sagamore Institute, said the secretary set "the right aspirational goal." However, "none of this is real until it's in the budget, and I have not seen parallel statements from either [the deputy defense secretary] or [the defense secretary] on the maritime statecraft initiative."

"Additionally, we haven't seen anything out of the West Wing. Until a more senior sponsor comes alongside, this is an initiative without funding," Hendrix added.

Similarly, Brent Sadler, a senior research fellow in naval warfare and advanced technology at the Heritage Foundation think tank, said it's unclear who within the Navy will own this strategy.

"The secretary asked for academics to research and help refine the ideas; this is needed, but not enough," he explained.

Sadler added that Del Toro could start taking small actions now to implement maritime statecraft, particularly the naval diplomacy aspect.

He noted that using Navy and Coast Guard ships to protect allies' and partners' economic interests would reassure them they're economically better off siding with the U.S. rather than China. Beijing has leaned heavily on its Belt and Road Initiative to invest in foreign ports and infrastructure as a means of gaining access and influence.

Furthermore, Del Toro could embed staff at the U.S. government's International Development Finance Corp. to push for naval development projects, Sadler said, and could send Navy construction battalions to key Pacific island nations to improve ports, airfields and warehouses for fuel and ammunition storage.

"These would be seen quickly as bettering the local islanders' livelihoods through improved tourism [and] trade as well as a foundation for future military operations — win-win," he said.

Sal Mercogliano, who teaches at Campbell University and the U.S.

Merchant Marine Academy, agreed that, given the Chinese government's use of commercial and military assets for geopolitical purposes, the U.S. should do the same. Specifically, he said, growth in the commercial sector would generate a greater American presence overseas at a time when U.S. forces and other "hard power" fleets are focused on the Pacific theater but limited in how many ships they can keep forward deployed at any given time.

Mercogliano noted the secretary could follow up on his speech by attaching the Navy to the Maritime Administration's National Security Multi-Mission Vessel program and ordering several more ships, which include large and reconfigurable spaces, to serve as hospital ships or tenders.

The secretary could also build on the success of that vessel's acquisition model by leveraging it for new classes of sealift ships, the professor added.

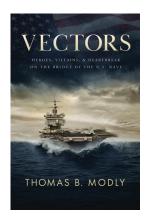
And, Mercogliano said he'd like to see a written strategy that looks at both commercial and naval shipbuilding sectors — something law-makers want, too. A November Congressional Research Service report notes "Congress has requested the executive branch formulate a national strategy toward achieving a competitive maritime industry four times in the last decade, most recently in December 2022 ...and has requested three Government Accountability Office reports on the subject."

Del Toro told Defense News he is already taking action, noting the Government Shipbuilders Council meeting would craft a path forward for government spending in the maritime sector in 2024 and beyond.

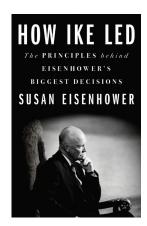
He added that he hopes activities already happening in the background will yield results in 2024, including visits to foreign shipyards and to small- and medium-sized yards in need of investment, as well as efforts to encourage large shipbuilders to outsource more work to smaller builders.

"We ask our allies and partners, both internationally and domestically, to think with us strategically and work with us and the Congress to be able to revitalize the commercial shipbuilding industry in this nation so that it can continue to contribute in even greater ways to a greater naval capability across our country," Del Toro said. DN

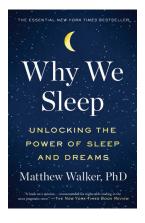
WHAT BOOKS ARE ARMY LEADERS, CONGRESSMEN READING?



Rep. Rob Wittman, R-Va., a member of the House Armed Services Committee, said he is reading "Vectors: Heroes, Villains, & Heartbreak on the Bridge of the U.S. Navy." The book, by former acting Navy Secretary Thomas Modly, offers insight into "idiosyncrasies that happened within the Pentagon and within the service branch," Wittman said.



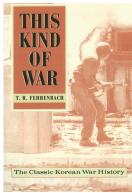
Doug Bush, assistant secretary of the U.S. Army for acquisition, logistics and technology, said he is reading "How Ike Led: The Principles Behind Eisenhower's Biggest Decisions" by Susan Eisenhower. The granddaughter of the former president doesn't just write about his decision-making process, but why he took certain actions in office.



Gabe Camarillo, undersecretary of the U.S. Army, said he is reading "Why We Sleep: Unlocking the Power of Sleep and Dreams," by Matthew Walker. The New York Times called it "a book on a mission," adding that "Walker is in love with sleep and wants us to fall in love with sleep, too. And it is urgent."

Camarillo also said he is reading "Showtime: Magic, Kareem, Riley, and the Los Angeles Lakers Dynasty of the 1980s," by Jeff Pearlman. Real-life characters include basketball players Earvin "Magic" Johnson and Kareem Abdul-Jabbar; basketball coach Pat Riley; and team owner Jerry Buss.





Rep. Mike Gallagher, R-Wis., chairman of the Select Committee on the Chinese Communist Party, said he is reading Rush Dosie's "The Long Game: China's Grand Strategy to Displace American Order." It examines what China wants, whether Beijing can achieve its goals, and how the U.S. could respond. He had also recently reread "This Kind of War: The Classic Korean War History," written by T.R. Fehrenbach and touted as an account of the conflict written from the perspective of those who fought it.

3ORALIKUS/GETTY IMAGES

RUSSIA IS GEARING UP FOR A LONG WAR. WILL THE WEST FOLLOW SUIT?

Russian President Vladimir Putin may have expected a quick victory when launching his invasion of Ukraine, now almost two years ago. But with as many as 300,000 Russian troops killed or wounded and thousands of Russian weapons expended on the battlefield, Russia is now gearing up for a long war.

The Russian government proposed a new budget that shows the Kremlin is mobilizing its economy for a long war of attrition. Defense spending in the new budget will account for 29.4%, or nearly one-third, of Russia's total budget expenditure in 2024.

"The budget's structure shows that the main emphasis is on ensuring our victory — the Army, defense capability, armed forces, fighters. Everything needed for the front, everything needed for victory, is in the budget," explained Russian Finance Minister Anton Siluanov.

But there are questions not only about whether the Kremlin can find the cash to fund such spending but also whether Russia's defense-industrial base will be able to deliver.

The Kremlin started the war with a formidable arsenal, greatly outnumbering Ukraine's air, land and naval capabilities, which initially led many Western observers to believe that Ukraine would be quickly overpowered by the Russian military. Yet Russian losses in the war — both in terms of human casualties and materiel — have also been staggering, forcing Russia to pull aging equipment from its warehouses. The first several months of the invasion demonstrated that significant numbers of Russian-stockpiled equipment used in Ukraine were older and of lesser quality.

Furthermore, replacing equipment is challenging because higher-end Russian weapons systems, including main battle tanks, aircraft and missiles, have traditionally depended on critical components imported from the West, such as optical systems, bearings, machine tools, engines and microchips. The allied sanctions and export controls have constrained Russia's access to these items, thus impacting the Kremlin's ability to manufacture advanced weapons and equipment to supply its armed forces.

"Everything needed for the front, everything needed for victory, is in the budget."

Russian Finance Minister Anton Siluanov

However, committed adversaries adapt. Russia has demonstrated a remarkable degree of adaptability to Western sanctions. It has established sanction-evading supply chains spanning several regions



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and continents, from Europe to the Indo-Pacific. It has found alternative suppliers such as China, which has sold millions of dollars' worth of semiconductors, drones and other types of dual-use goods to Russia since 2022.

Russia is also pressing ahead with efforts to increase the domestic production of military hardware, including tanks, rocket launchers, artillery and missiles by more than twofold and, in certain cases, by tenfold — at least according to representatives of Russia's state-owned defense conglomerate Rostec.

The Kremlin's efforts also have limitations and potential pitfalls, ultimately impacting the quality of what Russia can produce. The United States and its allies are continuing to actively target Russia's sanction-evading efforts by constantly expanding the sanctioned individuals and entities lists.

Moscow's pivot to Beijing as an alternative supplier, while undeniably concerning, has its own challenges. According to U.S. Deputy Secretary of the Treasury Wally Adeyemo, China does not yet produce the advanced semiconductors Russia's defense-industrial base requires, and about 40% of the less advanced microchips China sold to Russia have been defective.

Furthermore, the shift toward a war economy creates domestic risks to Putin's government. While increases in state spending on

ALEXANDER NEMENOV/AFP VIA GETTY IMAGES

Outlook 2024



defense have stimulated the economy, that has come at a cost to the budget. The weakening of the ruble makes importing critical components, whether through China or the black market, more expensive. Inflation is rising, stoked by high-priced imports, a pronounced labor shortage and a dramatic increase in government spending on the war.

In addition, Russian arms sales are declining significantly. Russia's military-industrial base has refocused inward by prioritizing supplies for its troops in Ukraine. But this means the defense sector is now bringing in much less revenue and is a major drain on the Kremlin's stretched budget. The Kremlin has started drawing down its rainy day fund to keep factories running. Thus, Russian spending will be all guns and little butter.

These limitations could create internal vulnerabilities on the Russian home front that Moscow will closely watch. The Kremlin put off another round of mobilization to boost manpower for the war, despite being stretched by Ukraine's counteroffensive because of concerns of public backlash. The Russian government will be wary that a sluggish economy paired with high casualties could cause public support for a war of choice.

Ukraine's ability to strike Crimea and Russian cities through its indigenous production of drones is another cause for concern. While the Kremlin's strong autocratic rule may insulate Russian leadership from the whims of public opinion, it can nevertake its own stability for granted, as demonstrated by Yevgeny Prigozhin's mutiny and the march toward Moscowthis summer by his mercenary group Wagner.

Nevertheless, the Kremlin will be able to mass produce weapons, especially low-cost yet tactically effective weapons, such as explosive drones and gliding aerial bombs. This may give Russia an advantage as the war enters 2024, given Western defense production has not ramped up anywhere near the same degree.

With Moscow's commitment to its war effort, the only way Kyiv will be able to maintain its defenses and retake captured territory from Russia will be through the uninterrupted delivery of Western military aid to Ukraine in 2024. Putin remains focused on reorienting Russia's economy to support its defense-industrial base.

The onus is now on Ukraine's international partners to do the same. $\mbox{\sc dn}$

'BUY AMERICAN' POLICIES STRENGTHEN NATION'S DEFENSE, WORKFORCE

As the leader of our nation's largest U.S. aerospace and defense labor union, the International Association of Machinists and Aerospace Workers, I will always be dedicated to the principles that are the bedrock of our country's strength: high-quality U.S. jobs, a robust national defense and a thriving domestic defense-industrial base. These principles are the essence of our mission to safeguard and empower the American workforce.

Our defense programs fortify national security, drive technological innovation and stimulate local economies. Through these programs, we have cultivated a network of highly skilled workers, engineers and support staff who contribute to creating cutting-edge defense equipment that is second to none. These dedicated men and women exemplify the spirit of American manufacturing, producing technology that keeps our military personnel safe and our nation secure.

We recently released a report with a path forward toward a more resilient aerospace and defense industry. One of the central recommendations was to substantially reinforce "Buy American" requirements to ensure that American tax dollars are not only reinvested in the American economy but also prioritize union workers in the federal procurement process.

We recently achieved a significant milestone in our pursuit of these values by urging members of Congress to support initiatives aimed at strengthening domestic content requirements for major defense programs. This rallying call, led by Rep. Donald Norcross, D-N.J., has garnered widespread bipartisan support.

The core of our nation's defense and economic vitality hinges on our Buy American policy, which embodies our deepest values.

For decades, the International Association of Machinists and Aerospace Workers, or IAM, has tirelessly worked to reinforce domestic content requirements, ensuring that American manufacturing assumes a central role in confronting our nation's challenges. This endeavor is not just about bolstering the domestic defense-industrial base; it's about creating and sustaining hundreds of thousands of high-quality manufacturing jobs within the United States.

By prioritizing American-made products, we invest in the livelihoods of American workers, thus empowering families and communities across our great nation.



ROBERT MARTINEZ JR.
is the international president of
the International Association of
Machinists and Aerospace
Workers.

But our commitment extends even further. Our brave men and women in uniform, who dedicate their lives to protect our freedoms, deserve nothing less than the best tools available. By enhancing domestic content requirements, we guarantee that our armed forces have consistent access to the highest quality equipment, enabling them to safely and effectively accomplish their missions. We owe it to our military personnel to equip them with the best the United States offers.

As a U.S. Navy veteran and former aircraft assembler at Lockheed Martin's facility in Fort Worth, Texas, I know firsthand the importance of defense manufacturing on our nation's security.

The support for Buy American is not confined to the IAM; it resonates throughout the labor movement. The American Federation of Labor and Congress of Industrial Organizations, or AFL-CIO—the largest federation of unions in the United States—stands shoulder to shoulder with us in advocating these policies. It emphasizes Buy American policies, reflecting our shared values and ensuring that government procurement aligns with U.S. labor, environmental, and health and safety

standards. By reinvesting taxpayer dollars in domestic products, we forge jobs that support families and communities in cleaner, safer American factories.

The Union Veterans Council has also wholeheartedly endorsed Buy American, underscoring the pivotal role that domestic manufacturing plays in providing our troops with the highest-quality defense products. Our veterans, who understand the significance of American-made equipment in safeguarding our national security, speak from a place of profound experience.

The united endorsements of the IAM, AFL-CIO and the Union Veterans Council underscore the urgency of strengthening domestic manufacturing and our shared commitment to fortify our nation and workforce.

In the face of recent global challenges, we must bolster our domestic capabilities and safeguard our national interests. By unwaveringly supporting Buy American policies, we invest in the future of our nation, enhancing our economy, defense and workforce. This is the path to a stronger, more secure America, and it is one that we must wholeheartedly embrace. **DN**



WHAT CHINA'S INCREASING USE OF MILITARY OVER DIPLOMACY MEANS

BY NOAH ROBERTSON

WASHINGTON — In August 2022, after former House Speaker Nancy Pelosi visited Taiwan, China's military did the talking.

It lobbed ballistic missiles around the island, some landing just inside Japanese waters. More than 20 Chinese aircraft flew across the midpoint between the mainland and Taiwan, a move once considered taboo. The People's Liberation Army staged elaborate military exercises, rehearsing the parts it could play in an actual invasion.

There were two key aspects of the response: One, the PLA flouted norms — and has kept doing so in the time since — that had kept the Taiwan Strait stable for decades. And two, while China's government had multiple ways to signal its displeasure at the visit, it chose its military.

This is a new hallmark of Chinese foreign policy under President Xi Jinping, according to the Pentagon's annual assessment of China's military strength.

"The [People's Republic of China] has increasingly turned to the PLA as an instrument of statecraft to advance its foreign policy objectives," the report noted.

In other words, when China senses a problem abroad, it's now more likely to use the military to solve it. This approach, say Pentagon officials and outside analysts, has been in the works for years and speaks to the PLA's weight class.

China has spent decades bolstering its military with the goal to fully become a "world class" force by 2049. That offers challenges for the U.S., which has spent recent years shoring up alliances and partnerships in the vast Indo-Pacific region.

While the U.S. may soon encounter Chinese forces in more areas around the globe, it's also concerned about China's desire to unite Taiwan with the mainland, since Beijing considers the island nation a rogue province. And a foreign policy reliant on military force could make an invasion more likely.

"If you go back to 2016, the military element was part of what has been a diplomatic, economic, information, influence and military pressure campaign against Taiwan," a senior Pentagon official said on the condition of anonymity in order to speak candidly. "What we've seen in more recent years is the military playing a more outsized role in that pressure campaign."

'A MORE PRECISE HAMMER'

Nearly every world power, if not all, uses its military for statecraft — not least the United States. Take for example the two flotillas America rushed to the Middle East after Israel declared war against Hamas in the Gaza Strip in October.

China may have longed for such a capability, but lacked the military strength.

Then came Xi Jinping.

Since he took office in 2012, the Chinese president has steered massive amounts of money into the military. It now spends the second-most money on defense with a budget of about \$230 billion in 2022, according to the Pentagon report; only America's defense spending exceeds that amount, with the Defense Department's fiscal 2022 budget reaching \$740 billion.

In October 2022, Xi reaffirmed his goal for the PLA to be capable of unifying Taiwan with the mainland by 2027. By 2035, its modernization effort is to be "basically complete," the Pentagon noted.

Among the trends noted in the Pentagon's report are a rise in China's ballistic missile arsenal, the addition of 30 ships in the People's Liberation Army Navy fleet, and a growth in the People's Liberation Army Air Force's combat aircraft fleet.

And last year, the Chinese military continued its trend of holding increasingly more military exercises with Russia, one of America's leading adversaries. The Pentagon anticipates the PLA will host more joint drills with foreign partners in the years ahead.

China's military is also "very likely" working to grow the number of overseas logistics facilities after the first such base in Djibouti in 2017, the report noted.

"We're going to have to be prepared for PLA presence, ultimately, in locations where we're not used to having them," the Pentagon official said.

Closer to home, China's military has shown assertiveness in the South China Sea and around Taiwan. The Pentagon has recently released videos showing Chinese jets buzzing past U.S. and allied aircraft in the region. In one example, a Chinese J-11 fighter flew within 10 feet from an American B-52 bomber at night. There were more than 180 of these "coercive and risky" intercepts against American aircraft in the last two years — more than occurred in the previous decade, according to the Pentagon.

This is part of a larger effort by Beijing to use the military as a regional bouncer, per U.S. assessments.

"They're leaning on the PLA more to try to intimidate, to coerce, to increase risk, and thereby make the U.S. ... and other countries think twice about conducting actions that we have every right to conduct," the Pentagon official said.

So far, this midair activity has amounted to only close calls. In part, that reflects China's newfound capabilities. For example, in 2001, one of its aircraft crashed into a U.S. surveillance plane, leading to a short-lived diplomatic crisis.

But today, China's pilots are more skilled and its aircraft more advanced, allowing them to fly closer to adversaries while avoiding a collision, according to Rod Lee, director of research at the U.S. Air Force's China Aerospace Studies Institute.

"They can use the military maybe not as a scalpel, but it is a more precise hammer than it used to be," Lee told Defense News.

According to Meia Nouwens, a China expert at the International Institute for Strategic Studies think tank, Beijing may increasingly find diplomacy less appealing when it comes to its relationship with Taipei.

"It just seems like perhaps they're more willing [to use the PLA] because they have the capability to do so, but also because there are fewer options left for them to explore," she said. ${\tt DN}$

NDIA'S NORQUIST EXPLAINS THE HARM OF A CONTINUING RESOLUTION

WASHINGTON — During his 30 years as a financial and national security expert in the public and private sector, David Norquist has seen the U.S. government's budget process devolve from a fairly reliable funding method to a nearly perennial source of dysfunction.

In all but one of the last 15 budget cycles, the Pentagon was forced to rely on continuing resolutions — a stopgap measure that funds agencies at the same level as the previous year — for varying amounts of time.

Earlier this year, Congress passed a short-term spending bill set to expire Nov. 17. And if January rolls around without the government's overdue spending bill for fiscal 2024 in place, a full-year continuing resolution — with a 1% cut to all federal agencies, including the Defense Department — will kick in.

What most concerns Norquist, who now leads the National Defense Industrial Association, is the normalization of continuing resolutions. But the regularity of CRs, Norquist said, should not

obscure the harm and disruption they cause to the Pentagon and the defense industry — particularly as the U.S. tries to restock its weapons inventory and prepare for a potential fight against China.

Norquist, who has experience supporting Army intelligence, has served as the Pentagon's deputy defense secretary and comptroller, and held the role of chief financial officer in the Department of Homeland Security. He also worked as a professional staff member with the House Appropriations Committee's defense panel.

Norquist spoke to Defense News on Nov. 2 about temporary spending measures and the impact on military suppliers. This interview was edited for length and clarity.

How do continuing resolutions affect the Defense Department?

No new starts, no quantity increases, and typically the dollar amount is tied to the prior years, which means you don't usually get inflation [adjustments].

From 2016 to 2019, the department was very concerned about munitions, and every year it asked for an increase in Guided Multiple Launch Rocket Systems, and every year it got a CR. By having CRs each time, [the government has] delayed the ramp-up of production of a munition it already knew it needed, and now it's living with the consequences.

A CR does that across the board. Even at its cleanest, it puts a brake on the things that you know you need to do.



DAVID NORQUIST is president and CEO of the National Defense Industrial Association.

What does that mean for defense firms?

One concern that people have about the defense-industrial base is that the number of companies willing to do business with the U.S. government is continuing to shrink, and that's created a problem with competition. If you are a firm thinking about doing business with the government and you see this, why would you [work with the government]?

No one in the private sector freezes their behavior for three months, and then asks you to come back after that long wait and start producing the thing they negotiated with you months ago.

And it can be very disruptive. For one of the companies we work with, there's an uncertainty about how much money an agency is going to get under a CR and whether there would be stop-work orders. The company would have to lay off a significant number of its employees. Those employees would go collect unemployment compensation, and then when the bill is enacted, the government would say: "Can you bring your people back?" Well, they'd have to go find them and hire them, or train

new ones. You may have to wait on those new employees to get clearances, which means now you've got another delay.

This drives up the cost to the U.S. government because companies have to recover the workforce, or it simply drives firms out of the market who decide they just don't want this hassle.

Why else might companies choose to either drop out of the defense industrial base or opt not to join it at all?

This is a form of a barrier to entry that drives out those firms that you're most interested in getting into the business — and people in new technology areas who are used to moving much faster. Hightech firms are used to turning things in just several months, and now they're dealing with a government buyer that is putting on the brakes. That's not the world where they operate, and that's not how innovation works. And so you become a very unappealing customer.

What's the likelihood the U.S. government reaches the point in January when 1% cuts start to kick in?

There is a very high risk of the CR lasting until January. The intent of that 1% was to force people to reach an agreement before they went into the second quarter. We'll see whether it worked as intended. I'm always hopeful they will come to an agreement and resolve things earlier. But the track record is not necessarily positive.



How would that 1% cut impact defense?

It's a very labor-intensive, disruptive effect. It will have a significant effect on readiness and training of the force because that's one of the first places that it hits. It'll have an effect on a series of acquisition programs. Keep in mind we're looking at an environment where China's capabilities are growing, its inventories of missiles are growing.

This budget cut would go in the exact wrong direction for what everyone understands to be the pacing threat. You'll have firms that will exit; you'll have cost increases on systems because you're now buying an inefficient quantity; and you'll have parallel disruptions throughout the Defense Department in training, readiness and flying hours.

What defense programs would be most acutely affected by a full-year CR?

The Defense Department's budget talks about significant increases in missiles and munitions and in space. What a year-long CR would say is: "We understand that those are your most pressing challenges. Don't do anything about them. Act as if you're going to do what you did last year, which you already know is insufficient, and instead spend the money in the areas that you've decided are lower priority."

How does that affect the Pentagon's effort to bolster munitions capacity and recover its stockpiles, particularly after nearly two years of arming Ukraine?

It creates a real problem. The conflict in Ukraine showed us what wartime consumption looked like. The U.S. defense-industrial base was sized to peacetime consumption — for training purposes or to replace one retiring generation with another. It shows you that what

we currently buy is not the quantity the U.S. would need if it were involved in a conflict.

The department looked at the budget and said, "We need to be better positioned with long-range anti-ship missiles, precision-strike missiles, those types of platforms [if a conflict erupted]," and it asked for an increase.

A long CR would say: "We're going to extend and perpetuate a shortfall in the very munitions that we believe we need for the security of the United States."

[That also harms] your ability to deter — to convince somebody not to pick a conflict with you — because you're showing them you have a weakness that you're unable to close.

What do you think of new House Speaker Mike Johnson's chances of helping Congress avoid a long-term CR?

I have optimism that, having been selected by the full range of the Republican Party, he has a level of unity to be able to move bills, negotiate, and try to get things back into regular order that the GOP did not have when it was leaderless [following the ouster of former Speaker Kevin McCarthy] or when different [factions] were in conflict.

The goal is to try individually negotiating the appropriations bills. The return to regular order is not a bad thing. The question is whether people can reach solutions that are right for the country, can move through the House and the Senate, and get signed into law.

I spoke at the 2017 Defense News Conference, and this was the subject. It's a little bit sad that we are having the exact same conversation, with all of the same challenges and problems. "Groundhog Day" was a really funny movie, but it's not the way you run the Department of Defense or our nation's security. **DN**

DEMOCRACIES MUST STAND TOGETHER ON DEFENSE

Authoritarians, terrorists and their proxies are aligned against democracy and the rules-based international order. The barbaric attack on Israel by Hamas is the latest manifestation of this. Russia continues its brutal war against Ukraine and is prepared for a long one. Together with China's growing military power and assertiveness, the world is facing the most complex security environment in decades.

Simultaneous strategic dilemmas should be our main planning assumption. Excessive strategic focus on one near-peer state, priority theater or domain might mean that we are half ready or not ready at all to tackle all the shapes of tyranny acting in concert. Our response will shape the security environment for decades and generations to come. There is only one choice: to do everything it takes through unity and resolve. And there is only one way to do it: together within our alliances.

This is the choice Lithuania has firmly made. We invest heavily in our defense. We strengthen the

European pillar of NATO. We will continue supporting Ukraine as long as it takes. We build relationships with Indo-Pacific partners, recognizing that the security of our regions is interconnected. We do our part in defense both by acting independently and together with our European allies; the decision to deploy a permanent German brigade in Lithuania is the first visible proof of that.

However, the challenges of today can only be properly responded to by tip-of-the-spear U.S. leadership and U.S. forward basing. There is no substitute for that. Any U.S. isolation or neutrality in world affairs or erosion of military power in one strategic direction means an opportunity for nuclear authoritarians. This translates into bloody and costly regional wars, which escalate into strategic conflicts and, with a big bang, bring the U.S. back on the world stage to clean up the mess. The U.S. standing at the summit of democracies will remain in high demand in 2024 and the decade to come.

Do not underestimate Russia. Though it has not achieved its initial aims in Ukraine, Russia will continue the war of attrition and will restore its conventional military power sooner rather than later. Nuclear and other strategic elements are intact — modernized, fully integrated with conventional elements and well postured. For the first time after the end of the Cold War, some of these weapons are stationed outside of Russia — in Belarus, our neighbor.

The quality and even quantity of Russian conventional military capabilities, as well as Moscow's observable operational failures, are not the best indicators for the regime's strategic opportunism and related dangers. Let us bear this in mind in 2024 and beyond.



ARVYDAS ANUŠAUSKAS is the defense minister of Lithuania.

What do we need to do to ensure peace in the Euro-Atlantic area? In 2024, I would be looking for at least four success stories of unfinished business on the road between this year's Vilnius summit and next year's gathering in Washington.

First, NATO is strong, ready for collective defense and united with resolute U.S. leadership. NATO needs leadership that unites America internally as well its allies. As for the allied input, I expect visible progress of the Vilnius defense pledge — to spend at least 2% of gross domestic product on defense — as I do of input to the NATO force structure. It is critical for defense of every inch, as agreed.

Lithuania in 2023 spent about 2.76% of its GDP on defense, and the goal is to keep the pace of increasing the defense budget and effectively transforming it into real capabilities. War-mode thinking enables a fast modernization of the Lithuanian armed forces. We are developing our maneuver units, their lethality and firepower, but also purchas-

ing more UAVs and cyber capabilities as well as rapidly expanding host-nation support for enhanced allied readiness initiatives here.

Second, we need a visible boost of the defense industry and continued prioritization of front-line states. Russia is out-producing the West in some critical areas, such as the production of artillery rounds. A swift increase in the allied defense production capacity is critical to replenishing our stocks and modernizing while continuing the flow of military aid to Ukraine.

The United States is a key military supplier to Lithuania, with contracts worth 2% of our GDP. Yet, contracts will turn into capabilities no earlier than 2026-2029. We cannot allow Russians to reconstitute faster than our basic requirements, and this is especially acute for the front-line states.

Third, NATO is boosting its forward-defense posture with more brigades, ships, air defense and artillery units in place. Lithuania is increasing its force structure by developing a national division. Together with persistent rotations of the U.S. combined arms battalion and permanent German brigade in Lithuania, it will be the key pillar of combat-credible effects for deterrence and defense in Lithuania. To respond to a growing China challenge, we will need an integrated strategy and operational solutions. Our government has recently approved a strategy for cooperation on security issues with likeminded nations in the Indo-Pacific region.

Fourth, victory for Ukraine is paramount. The most important success story is needed in 2024, if we, democracies, want to be and remain at the top of our game. DN

BUDGETS, PRESIDENTS AND THE DEFENSE INDUSTRY: WHAT TO WATCH IN 2024

Most U.S. stocks where defense is a factor have underperformed in the S&P 500 in 2023. There have been some expectations, notably AeroVironment, Booz Allen Hamilton, and Kratos Defense and Security Solutions. In addition, most defense stocks in Europe, the Middle East and Asia have done far better than U.S. ones.

It's too soon to say whether this pattern can or will change in 2024, but it's worth reviewing some of the factors which will bear on U.S. defense sentiment in 2024.

Having written this while the U.S. was under a continuing resolution, the first factor will be the outcome of fiscal 2024 appropriations. There remains a wide cone of uncertainty over what Congress will get done. The most positive outcome for defense would be the enactment of FY24 appropriations at or above the administration's request, plus the supplemental request of \$106 billion.

worst cases.

The most negative could be a fraction of the supplemental request and continuing resolutions that last into May 2024 without changes to the Fiscal Responsibility Act of 2023. That act resets the FY24 budget to 99% of the levels appropriated in FY23 (that's base budget only, not emer-

gency spending).

The eventual outcome may be somewhere between the best and

The FY24 appropriations outcome will bear on long-term sales growth expectations. Per Bloomberg, estimates of consensus sales show mid-single rates of annual growth in 2025-2026 for larger U.S. contractors, and higher rates for smaller ones. Procurement as well as research, development, test and evaluation outlays — which mostly result from FY23 and prior fiscal year appropriations — show a peak growth rate of 15% in 2024. There is not a high correlation between percentage rates of change in outlays and Defense Department-related sales, but the two move in similar directions. The outlay data is supportive of consensus sales estimates.

But beyond 2024, it may be a different story. Investment outlays show 5% growth in 2025 and 0% in 2026, with those estimates reflecting the FY24 request but not a supplemental. Stocks tend to move up when analysts increase estimates, and down when the opposite happens, which is why Congress and FY24 is so important.



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There are bound to be sell-side analyst reports that trot out data showing U.S. defense stocks tend to do well in presidential election years. However, the 2024 election might be different, or at least reinforce some of the factors that have weighed on U.S. defense in 2023.

If former President Donald Trump wins the election, it could significantly alter expectations for U.S. commitments to alliances such as NATO and for support of Ukraine. Those changes could be positive for European defense in 2025 and beyond, but could entail changes to U.S. export prospects and possibly DoD top line expectations.

If President Joe Biden is reelected, there is still the possibility of split-party control of the House and Senate — and with it, the partisan entrenchment that has weighed on budgets in 2023.

Operating margins and cash flows are other factors that shape stock behavior. Arguably, operating performance has been pretty good in 2023 given the pressures industry has faced

from supply networks and labor. And while there have been pockets of execution issues, these have not been sweeping. Possibly these factors remain the same in 2024, but an issue will be the health of much smaller suppliers that are highly exposed to material inflation, labor issues and higher interest rates. Prime contractors might be able to manage these issues, but surprises are still possible.

Mergers and acquisitions may be limited to movement in small and midsize companies and continued portfolio shaping at larger firms. A change in the administration's views that would encourage more consolidation among the largest firms seems highly unlikely given concerns over loss of competition, innovation and market power.

A final factor to watch in 2024 is how the competitive landscape changes and whether smaller defense technology firms can win programs enabling them to scale. If that happens, growth expectations could be recalibrated as these private firms either go public or appreciation of their market potential is confirmed. If it doesn't happen, and funding sources dry up for defense technology, the competitive environment might be more benign. **DN**



US FACES HURDLES NEXT YEAR FOR GUAM'S MISSILE DEFENSE, EXPERTS WARN

BY JEN JUDSON

WASHINGTON — Pentagon leaders who consider China a growing threat say 2024 will be a key year for the Army to bolster defenses around Guam, one of the most critically strategic islands in the Indo-Pacific region.

During that year, the service plans to have in place a foundational capability to help stave off a potential attack.

The Missile Defense Agency and the Army are seeking a combined \$1.5 billion in the fiscal 2024 budget to begin preparing the island by moving assets into place and integrating capabilities. The effort is a test for the Army, which decision-makers have at times overlooked amid the focus on air and naval power in the Indo-Pacific region.

The Pentagon designated the Army earlier this year as the lead service overseeing the acquisition and execution plan for defending Guam. Success there could help cement the Army's air and missile defense role in the region, but experts say the timeline may prove too ambitious.

Mark Montgomery, a defense expert at the Foundation for Defense of Democracies, said the Army sought the lead role when the other services were more reluctant. However, the service may struggle to deliver as promised.

"We're talking about something that needs to be delivered fairly rapidly by a program executive that is not known for delivering fairly rapidly," Montgomery said.

DUE IN 2024

Guam, an island of nearly 170,000 people, sits in a vulnerable position, according to Brad Bowman, a national security analyst also at FDD.

"There's a real threat to Guam, not just because [China has] some vendetta against the island but because there's a lot of U.S. combat power there that would flow toward China in the case of a war in the Taiwan Strait," he told Defense News. "Guam would be a vital place through which additional U.S. forces coming from the United States, from Hawaii and elsewhere would be flowing and would play an important sustainment and logistics role."

The U.S. is trying to address that concern. Earlier this year, then-Missile Defense Agency Director Vice Adm. Jon Hill said the first wave of defenses will include radars, launchers, interceptors, and a command-and-control system.

All are slated to arrive on the island in 2024, according to Hill, who has since retired.

The Army requested \$638 million for FY24 for three Lower Tier Air and Missile Defense Sensors, multiple Patriot air defense systems, and an assortment of Mid-Range Capability missile launchers and Indirect Fire Protection Capability launchers. Additionally, the service plans to use the Northrop Grumman-made Integrated Battle Command System to connect the right sensors to the right shooters on the battlefield.

The Navy will provide technology and capability from its Aegis weapon system; the service holds jurisdiction over the sites where it will place the technology.

Additionally, FY24 funding requests are meant to cover the installation along the island's periphery of four high-end, solid-state, mobile AN/TPY-6 radars, which are new sensors that use technology from the Long Range Discrimination Radar in Clear Space Force Base, Alaska.

The Army is still working on a detailed strategy on how to build the architecture on Guam, Brig. Gen. Frank Lozano, program executive officer for missiles and space, told Defense News in late September, following a planning session on the island.

At the end of FY24, the Missile Defense Agency plans to conduct the first live-fire test of the Guam defense system with the initial capability established on the island, Rear Adm. Doug Williams, who is serving as the acting director, said in August.

HURDLES AHEAD

But experts warn the Army and MDA face a range of challenges, from relying on technology in prototype form to finding the right areas for equipment to integrating all systems.

Montgomery noted one of the earliest proposals for the architecture was to set up an Aegis Ashore system on the island, but the military wanted a more distributed system. Now the plan is to host radars on four or five fixed sites on the island and design them to be mobile, much like miniature Aegis Ashore systems. But moving a radar could take weeks.

This latest approach will be "a scientifically, technologically challenging event," Montgomery said.

Additionally, Montgomery added, the new AN/TPY-6 radar, meant to detect complex hypersonic and cruise missile threats, may not be ready for tests in 2024.

The Pentagon opted to use technology from the existing Long

Range Discrimination Radar in Alaska, but break it up into multiple panels to make the AN/TPY-6 radars, Laura DeSimone, MDA executive director, told Defense News in August. To achieve 360-degree coverage of the entire island, the agency needed to move away from single- or dual-face large structure antenna arrays.

Now, the Defense Department plans to put one of the early panels on the island "to do some integration with potentially one of the launchers and then knit it into a localized, little command-and-control node," DeSimone said.

When it comes to launchers, the military expects to use vertical launching systems like those with the Mid-Range Capability missile the Army fielded to its first unit this year.

Congress has approved funding to start buying the capability for Guam, but the tech isn't expected to arrive until late 2024 or early 2025. As a result, the Army and MDA might need to use a different launcher on a temporary basis for testing in 2024, Montgomery said.

Other elements for the Guam architecture still in prototyping phases include the Indirect Fire Protection Capability, a system that would provide cruise missile defense. This program is delayed and now involves a compressed test schedule as a result.

The Lower Tier Air and Missile Defense Sensor — another radar capable of detecting air and missile defense threats from 360 degrees — is also delayed and entered operational testing in November for a limited capability.

As a result of prototype delays, the Army should consider delivering a fielded system like the National Advanced Surface-to-Air Missile System used to defend the National Capital Region, Montgomery said, noting this might be a simple, less expensive and temporary solution.

Patriot air defense systems are also capable of defeating cruise missiles, but the Patriot force is among the highest in demand around the globe, and some are newly obligated to the Middle East to protect the U.S. and its allies amid the Israel-Hamas war. Additionally, each Patriot missile costs about \$3 million.

Tom Karako, a missile defense analyst at the Center for Strategic and International Studies think tank, said integration also poses a key challenge.

"The 360-degree air and missile defense requirements for Guam will force the missile defense community to get down to brass tacks about what exactly integration really means and what it will require," he said.

Once the Army comes up with its strategy for systems integration, then "site work, infrastructure development and testing can get underway in earnest," Karako said. "The more time ticks by, the closer the Chinese cruise missiles get." DN



WILL ROCKET CARGO WORK? DATA COLLECTED IN 2024 MAY HOLD THE ANSWER.

BY STEPHEN LOSEY

WASHINGTON — The U.S. Department of the Air Force's effort to one day launch equipment halfway around the world via space-bound rockets will go through a series of test flights in 2024 that could reveal whether the concept would even work.

And in about three years, the department should have enough data to make a decision on whether to operationalize Rocket Cargo or move onto something else, according to Greg Spanjers, the chief scientist of the Air Force Research Laboratory's Integrated Capabilities Directorate at Wright-Patterson Air Force Base in Ohio.

Rocket Cargo is one of the lab's so-called Vanguard programs, which aim to use cutting-edge technology to develop and deliver new capabilities troops can use on the battlefield. This program is studying the commercial rocket sector to see if the military could rapidly transport goods around the world, though the program does not itself fund the development of commercial rockets.

In 2022, the lab awarded a five-year, \$102 million contract to SpaceX so the former could collect flight data from the latter's Starship rocket program.

The effort hasn't always gone smoothly.

In April, one of SpaceX's Starship rockets exploded shortly after takeoff. While Spanjers said he didn't consider the launch a failure, as it met the company's goal of clearing the launch pad, the explosion happened too soon to collect usable data.

Spanjers, who manages Rocket Cargo for the Air Force, told Defense News in an Nov. 1 interview he hopes more test flights that could yield data will come soon.

SpaceX on Nov. 18 carried out a second test launch of a Starship rocket, but it exploded shortly after the stage separation phase. AFRL did not respond by press time to a query about how much data was collected before this rocket's explosion.

HOPES AND PLANS

Spanjers envisions the Rocket Cargo program one day carrying out one launch per day, on each launch pad, with about an hour's notice, and be able to carry 100 tons of cargo in a single rocket, as needed. But even this full capacity wouldn't be enough to replace traditional air logistics or maritime shipping, he added, though it could provide

an avenue for quickly transporting high-end cargo on relatively short notice.

By the end of 2024, he explained, the program wants enough flight data from Starship rockets going into orbit.

Next year, he said, the Air Force also plans to have a cargo bay mockup — basically the upper half of a Starship — it can use to refine the techniques for rapidly loading and unloading 20-foot containers from a rocket. That mockup is now in the final stages of construction by the engineering firm SES in Alliance, Ohio.

And by 2026 — though Spanjers said it could be done by 2025 — the Air Force expects the Rocket Cargo program to demonstrate the ability to rapidly launch rockets, bring large masses of cargo down from orbit, and rapidly load and unload cargo.

As one of SpaceX's first customers for its Starship rocket program, the Air Force is helping the company figure out what matters most to the Defense Department, Spanjers said, such as the ability to turn a rocket around quickly for repeated flights.

But the cargo capacity the Air Force has in mind would put a great deal of stress on the rockets' thermal protection systems, actuators and other components, he explained, and it's important for rocket producers like SpaceX to keep those needs in mind as they design rockets.

PRESSURE MOUNTS

Perhaps the most important piece of data the Air Force Research Laboratory wants to collect is information on how fast pressure drops when a rocket reaches space, and then the change in pressure when it reenters the atmosphere, Spanjers said. This will help the service learn how cargo might respond in the vacuum of space, and thus how to protect it.

"If our cargo hits [a] hard vacuum, that's a real problem because we don't want to make cargo that is specially designed to survive rocket transport," he said. "This rocket is big enough we could put Humvees in it. [But] if you take a vehicle and put it in a hard vacuum, all of the greases, the oils, the fuels — they're just going to vaporize instantly."

The lab is considering a few options regarding which sections of the rocket to pressurize and by how much, Spanjers said.

A container-testing process is under consideration to take place in large Air Force and NASA vacuum chambers by late 2024. Spanjers said the testing would likely start with small containers and then involve larger ones as SpaceX advances its own rocket development. He noted the Air Force plans to collect data on every Starship launch using both external and internal sensors.

"We have a great opportunity here to test right along with them," he said. "We'll get a lot of testing at a very good cost for the taxpayer."

The Air Force also wants to collect "vibe and shock" information that tracks how much turbulence the cargo on board a rocket must withstand during launch. But Spanjers doesn't expect vibrations to present a major problem. After all, he said, the Air Force regularly throws pallets of cargo out of the back of massive transport planes.

And as rockets get larger, he added, "the ride gets gentler."

Still, he noted, the lab's engineers need vibration data to ensure the containers — which five companies are working to create — will be able to carry military cargo and survive a space launch. The Rocket Cargo program also needs to show whether people can rapidly unload cargo from these containers in order to reuse them for the next launch, he said.

The lab also wants more data on how rockets' thermal protection systems work and how much mass can be safely brought down from orbit. More weight means more drag force, Spanjers explained, which then creates a significant amount of heat that must somehow dissipate.

"The amount of weight that SpaceX is seeking to bring down from space is well beyond anything we did on [the] Space Shuttle" program, Spanjers said. "I think it's about a factor of five higher than anything we've ever brought down from orbit before."

Spanjers said the U.S. rocket sector has recently made several advancements that hint at the feasibility of the Rocket Cargo concept. For decades, he noted, the country carried out three or four rocket launches per year. But by last year, he said, that swelled to 100 launches — mostly carried out by SpaceX — and next year it could top 150, about one every other day.

And twice in the last few months, Spanjers said, SpaceX has been able to reuse a launch pad two and a half days after a rocket took off from there.

In addition, Space Systems Command in September carried out a rocket launch from Vandenberg Space Force Base in California 27 hours after receiving launch orders. This marked a record for tactically responsive space launch.

"If you go back a year or two, it took somewhere between four months and four years to launch a rocket," Spanjers said. "These are pretty significant achievements we're making in creating launch operations that look a lot more like airplane operations."

Spanjers added that the Air Force lab plans to go through several rounds of "build, break, build, break" experimentation until it finds a design that works.

"These [science and technology] challenges that we're talking about here, these are not trivial," he said. "Nobody's ever tried to put a Humvee on a rocket before." DN

HOUTHIS RISE IN PROMINENCE AMONG IRAN'S 'AXIS OF RESISTANCE'

A major question in trying to understand the Houthis' goals and ambitions in fighting Yemen's civil war is the extent to which they have coordinated with Tehran to support Iran's larger regional objectives. The assessment has generally been that the Houthis have retained a large degree of independence from Iran.

Although their links to Iran, including military assistance and training from Iran's Revolutionary Guard and Hezbollah, have been well established over the years and have deepened since the outbreak of the civil conflict in 2014, their willingness to follow Iran's lead on matters beyond Yemen's borders has not been established.

Until now.

A month after the Hamas terror attack on Israel, the Houthis have raised their profile as members of Iran's "axis of resistance."

"We are in complete coordination with our brothers in the axis of resistance," said Abdul Malik al-Houthi, the leader of the rebel movement. Since then, in furtherance of al-Houthi's declaration,

the Houthis have joined Hezbollah and other pro-Iranian militias in launching attacks presumably against Israeli targets.

To date, none of these efforts has been successful. The U.S. Navy destroyer Carney reportedly shot down multiple missiles and drones launched by the Houthis on Oct. 19, apparently targeting Israel. Additional Houthi drones apparently struck the Egyptian Red Sea towns of Taba and Nuweiba a week later, and the group subsequently fired additional missiles and drones toward Israel's Red Sea coast.

Although Houthi capabilities to strike Israel itself are limited, the Israeli Navy was forced to deploy Saar-class corvettes off of Eilat to



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guard against additional Houthi attempts.

Despite its limited capacity to strike Israel, unlike Hezbollah or other pro-Iranian groups along Israel's northern border, the Houthis do have the capacity to pose a significant security threat in the event that the conflict expands beyond Gaza. While they have been engaged for many months in talks with Saudi Arabia to end Saudi engagement in the civil conflict, none of the issues has been resolved, and the Houthis have threatened periodically to relaunch their missile and drone campaign against Saudi targets.

Renewed Saudi-Houthi conflict will be destabilizing regionally and could be a threat to global energy markets at a time when they are already under stress.

The Houthis have also demonstrated an ability to attack international commercial shipping off Yemen's coast, in the Bab el-Mandeb strait and beyond. Periodically over the course of the Yemen civil war, the Houthis have attacked both coalition naval vessels and commercial shipping using sui-

cide drone boats likely manufactured with Iranian assistance as well as Iranian-manufactured, Chinese-designed C-802 anti-ship missiles.

In addition to attacks on ships, the Houthis have also reportedly placed mines in the Red Sea. Following an attack on the U.S. Navy destroyer Mason in October 2016, the U.S. responded by launching a cruise missile against a Houthi coastal radar position.

Should the Houthis step up their campaign against either Saudi targets or targets in the Red Sea as the Gaza conflict continues, the potential for direct intervention by the U.S. against Houthi targets will expand. DN

WHAT WOULD HAPPEN IF CONGRESS STOPPED SUPPORTING ALLIES UNDER SIEGE?

The greatest threat to the defense sector and the broader U.S. economy now is an unlikely body: Congress.

A number of lawmakers — from both parties — are leading an effort to reduce spending and support to allies engaged in wars against our common enemies, instead of focusing on the long-term economic implications of losing those wars. By focusing on near-term dollars and cents, they are essentially ignoring the trillion-dollar impact their actions might have on the economy, which could reverberate over the next 20 years and beyond.

This is not an attempt to be dramatic; there are clear examples in history. What if the United States didn't enter World War II and the conflict with the Nazis because politicians decided we were in the middle of an economic depression and perhaps the was wasn't how we should spend our money?

But in the 1940s, spending on defense sector activities pulled the United States out of the Great Depression and funded new technologies and innovations that led to the economic expansion of the 1950s and 1960s.

A more isolationist U.S. would have resulted in a more limited economy without access to many overseas markets — including those that provided the cheap goods we imported to raise our standard of living. Likewise, the fall of the Soviet Union in the late 1980s and early 1990s opened international markets from behind the Iron Curtain, an era that saw rapid technological growth and earnings for U.S. companies.

We are now faced with a similar moment. A failure to continue to support Ukraine and its fight to survive the Russian invasion could threaten the U.S. economy. Already, two additional conflicts in the region have emerged; Serbia and Kosovo are on the verge of war, and Armenia has accused Azerbaijan of ethnic cleansing in the Nagorno-Karabakh region.

A destabilized Europe, from an economic standpoint, is not good



SCOTT SACKNOFF
manages the SPADE Defense
Index, a modified capitalizationweighted index made up of
companies operating in the
defense, homeland security and
government space sectors.

for the American economy. U.S. trade represents roughly 25% of gross domestic product, and total trade with the European Union totaled \$1.3 trillion in 2022.

Likewise, would a U.S. that ceased supporting Ukraine help Taiwan defend itself? Probably not. This could embolden China to take action on Taiwan and destabilize Asia.

A U.S. trade war with China, for example, could knock one-third off of Apple's market cap — a \$1 trillion hit by itself. And the impact of losing access to the advanced semiconductors produced in Taiwan would damage a number of other high-tech firms — as well as the U.S. military-industrial complex, which still procures a number of specialized chips from suppliers there.

Public opinion in favor of Ukraine aid still remains at greater than 60%. Yet some members on Capitol Hill are committed to reducing or eliminating the support the U.S. provides to Ukraine. This makes little sense. Most of the funds they allocate actually goes to American industry — and into the pockets of American workers building the equipment and weaponry the U.S. is providing.

Additionally, it is Ukrainian citizens doing the fighting and putting their lives at risk. Would Congress prefer for the U.S. to potentially have a direct conflict, and the associated causalities, if NATO Article 5 is triggered in a decade or two? That is where inaction now could lead.

Ultimately, eliminating support and staying on the sidelines could have significant ramifications to the U.S. economy. Having to operate in a destabilized world would cut access to many markets U.S. companies rely on and curtail future economic growth. Global stability keeps international markets open; the total value of international exports of goods and services in 2022 totaled \$3.01 trillion.

It's time for Congress to focus on the future and stop playing politics with the American economy. **DN**

UNIFIED NETWORK PROMISES US ARMY RAPID CONNECTIVITY, CYBERSECURITY

BY COLIN DEMAREST

WASHINGTON — The coming year will be one of great consequence for the U.S. Army and its goal of streamlining and insulating its sensitive networks, according to service leaders.

The Army describes 2024 as the time when its unified network and related operations, known as UNO, coalesce. The unified network of the future aligns the tactical links of deployed forces with the larger, less-mobile systems used at headquarters. It also reaches into the cloud, leveraging the digital ether to deliver data wherever it is most needed

The seamless combination promises global connectivity — reflecting the scale at which the Defense Department expects to fight its next wars — and fewer isolated pathways to monitor, ultimately promoting cybersecurity. But the end goal is dependent on the Army and its commercial suppliers checking many moving boxes.

"UNO is our way of seeing the network," Mark Kitz, the leader of the Army's Program Executive Office Command, Control and Communications-Tactical, told C4ISRNET in an interview. "What is our radio configuration? What is our cybersecurity posture? Where are all my routers and my firewalls? UNO is a program to consolidate all of those configurations into one core platform."

The office, which is tasked with developing, deploying and supporting soldiers' communications gear, spearheads UNO maturation. The organization took control of Program Executive Office Enterprise Information Systems' network-heavy assignments at the start of October. They included the integrated enterprise network, base emergency communications system, wideband enterprise satellite systems, and enterprise identity, credential and access management.

"Identity and access management is a huge emphasis, for both tactical and enterprise, and we both have disparate efforts," Kitz said.

"If we understand there is a vulnerability on the network, we understand where to go, what to do, how to close it, how to mitigate it very quickly and at speed."

> - Lt. Gen. Maria Barrett, Commanding General, U.S. Army Cyber Command

"How we consolidate that and get to a holistic network is going to be a fun endeavor for me for the next year."

Improved networking and enhanced digital defenses are among the half-dozen modernization priorities the Army defined years ago. Others include revamping aged aviation capabilities and improving missile defense technology.

Pressure to succeed with comprehensive connectivity mounted at this year's Association of the U.S. Army convention in Washington, where Army leadership named the network the No. 1 focus area.

In the wake of the conference, Kitz's office published a request for information for UNO. In it, the Army highlighted its latest approach: competitive prototyping jump-started by existing commercial methods.

Responses to the RFI are due in December and could lead to multiple deals.

"Any Fortune 500 company has a really diverse network they've got to operate. Maybe they're not configuring radios, but they've got routers, they've got range extension, they've got all of these capabilities in their network that is really diverse," Kitz said. "So what I'm trying to do is [identify] what is a logical starting point for our program. How do I leverage commercial? How do I leverage what Fortune 500 companies are doing and apply that to our military problem?"

The UNO pursuit is critical to realizing multidomain operations, the Army's ability to fight and win in any environment with the aid of allies, according to RFI documents.

"We've always wanted to just see ourselves very accurately so that we can understand when there is a threat," said Lt. Gen. Maria Barrett, the leader of Army Cyber Command. "If we understand there is a vulnerability on the network, we understand where to go, what to do, how to close it, how to mitigate it very quickly and at speed."

UNO employs a common suite of software and zero-trust principals. The latter, a relatively new cybersecurity paradigm, assumes networks are already jeopardized and, thus, calls for the constant validation of users, devices and virtual access. The Defense Department is expected to institute basic levels of zero trust across the organization by 2027.

The Army's zero-trust office and the service's Network Cross-Functional Team, among others, are contributing to UNO's realization, according to the force.

"The unified network is absolutely a game changer in terms of getting us further down there, converging all those federated, separate networks the Army has had and bringing them into a centrally delivered service provider, which will be Network Enterprise Technology Command, with Army Cyber [Command] taking a look at the cyber-security aspect of it," Barrett said.

"The network starts to continually converge, converge, converge," she added. "We get to see it, to include the tactical space, and now we can respond to threats at a speed that we haven't been able to before." DN