

# Arizona 2022 Defense Priorities



Arizona is home to over twelve hundred aerospace and defense contractors, from major industry leaders to the small mid-size suppliers, as well as ten military installations: six major active-duty installations (Davis-Monthan Air Force Base, Fort Huachuca, Luke Air Force Base, Marine Corps Air Station - Yuma, Yuma Proving Grounds, and US Naval Observatory - Flagstaff Station) and four National Guard facilities in central, northern, and southern Arizona. These operations create and support over ten thousand jobs and generate nearly \$11.5 billion in economic impact to our state economy from the facilities themselves and other economic activity generated by their presence.

Because of Arizona's massive defense presence, when US Senator John McCain became Chairman of the Senate Armed Services Committee in 2015, he prioritized opening clearer lines of communication between Congress and America's defense industry, including creating a pool of localized knowledge he and his colleagues in Washington could reach back to for on-the-ground insight.

So the then-Chairman tapped the shoulders of local leaders, like us, to close the gap. With his passion for the cause serving as a driving drumbeat, our collective goal was threefold: (1) build coalitions that enable companies and regional communities to come together as allies rather than competitors, (2) work hand-in-hand with Arizona's congressional delegation, as well as state and local elected officials, to inform policy from the bottom up, and (3) serve as a model for other industries and states on overcoming localized silos to identify mutually beneficial solutions.

And so was born the Arizona Defense Coalitions: two industry-focused, the Mesa Industry and Defense Council (MIDC) and West Valley Defense Alliance (WVDA), and even more dedicated to our military installations, the Yuma 50, Northern Arizona Military Affairs Council (NAMAC), and Southern Arizona Defense Alliance (SADA).

Together, we present the following priorities on behalf the Arizona defense and industry community. We invite and welcome any opportunity to discuss these recommendations more at length.

**Julie Engel**, president and CEO of the Yuma 50 and the Greater Yuma Economic Development Corporation.

*The Yuma 50 serves as a united effort between community, civic leaders, businesses, organizations, and military support groups dedicated to supporting Yuma Proving Ground and Marine Corps Air Station.*

*Email: [jengel@greateryuma.org](mailto:jengel@greateryuma.org)*

**Julie Pastrick**, president and CEO of the Northern AZ Military Affairs Council and Greater Flagstaff Chamber of Commerce.

*NAMAC is a community and business organization that promotes economic development around Northern Arizona military installations such as Camp Navajo and US Naval Observatory Flagstaff to attract private investments, create jobs, and sustain base operations.*

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**Lynndy Smith**, chairwoman and co-founder of the West Valley Defense Alliance and senior leader at cyber protection firm Acronis SCS.

*Made up of community and business leaders within the defense, aerospace, energy and information technology industries, the West Valley Defense Alliance serves as a united voice for the AZ defense community to promote economic development and pro-defense/ industry legislation.*

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**Robert Medler**, president and co-founder of Southern Arizona Defense Alliance and senior leader at Western Growers.

*SADA is a broadly based group of local and regional businesses and community leaders who have come together to help support and preserve our military presence in Southern Arizona.*

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**Sally Harrison**, president and CEO of the Mesa Industry and Defense Council (MIDC) and Mesa Chamber of Commerce.

*MIDC is a network of over 40 large and small companies in defense, aerospace, mining, energy, construction, and IT who work directly with community and elected officials to provide a united voice for the region's success.*

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## Military Installation Priorities

### Camp Navajo

Camp Navajo is the largest National Guard training facility in the state and the largest military installation in Northern Arizona. Camp Navajo has hosted numerous joint training events and is seeking joint national training capability accreditation. The installation has four missions: (1) Operate a National Guard training site (2) Provide command and control of the Arizona Army National Guard force structure in Northern Arizona (3) Provide depot-level storage services to various DoD customers (4) Operate under the New Strategic Arms Reduction Treaty guidelines for ballistic missile storage.

- Related Defense Alliance: NAMAC
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### AZARNG Camp Navajo Range Modernization

As the US Army continues its effort to pivot from 20-years of counter-terrorism and counter-insurgency warfare to near-peer, great power competition, it is vital that concurrent and proportional investments are made in Army National Guard training sites to ensure our Citizen-Soldiers are capable of conducting Multi-Domain operations. The Arizona Army National Guard, as part of the Operational Reserve of the United States Army, operates three primary training sites within the State of Arizona: Buckeye Training, Camp Navajo, and Florence Military Reservation.

To be ready for a National Training Center rotation or deployment mobilization, Army National Guard training sites must have the infrastructure and facilities to support local training with modern weapon systems. The training sites in Arizona, particularly at Camp Navajo, not only serve the 5,300 men and women within the Arizona Army National Guard but supports the joint warfighters by hosting training opportunities with units from the Army, Air Force, Marine Corps, Special Forces, and allied nations. Investing in Camp Navajo is an investment in the Joint Force and ensuring the Arizona Army National Guard is a modernized force capable of conducting Multi-Domain Operations.

### Establishment of a Space National Guard

The US Space Force was established to consolidate and align military space warfighting organizations and assets under one chain of command to ensure proper service-level focus on the organizing, training, and equipping of space-focused forces. Despite this clear direction from the White House and the 2020 National Defense Authorization Act, more than 70 percent of America's space warfighting capabilities fall outside the organizational purview of the Space Force because they reside in the Air National Guard, which reports to the Air Force. Congress needs to create a Space National Guard to eliminate the misalignment of mission and resulting dysfunctions spanning authority and budgetary issues to readiness.

The Air National Guard (ANG) has been conducting space missions for over 25 years. There are currently 14 space operations units, none of which are in Arizona. These would be the only units that would transfer into a Space National Guard (SNG). Establishment of a SNG is crucial to preserving operational readiness and combat effectiveness by appropriately aligning the Reserve Component with the nation's Space Service and avoiding the disconnects that are occurring by being misaligned from a parent-Service. Arizona is perfectly situated to house a branch of the SNG, due to it being where many space professionals call

home and ideally situated to support this mission. Arizona is already home to the U.S. Naval Observatory – Flagstaff Station (NOFS), and because the state is so supportive and conducive to space operations NOFS has engaged with the Arizona National Guard’s training site at Camp Navajo to host space operations there. It would not take a great leap to tie those opportunities in Arizona into an SNG if the Space Force mission so required.

### Davis-Monthan Air Force Base

Davis-Monthan Air Force Base is home to 11,000 airmen from 34 unique mission partners, which support four combatant commanders around the globe every day. The 355th wing is the host unit for the installation in addition to its primary mission of deploying, employing, and sustaining combat search and rescue and attack air power in support of combatant commanders anywhere in the world. Additionally, Davis-Monthan AFB is home to 12<sup>th</sup> Air Force, the 309<sup>th</sup> Aerospace Maintenance and Regeneration Group, the 55<sup>th</sup> Electronic Combat Group, the 214<sup>th</sup> Attack Group of the Arizona Air National Guard, 943<sup>rd</sup> rescue group of the Air Force reserve, and U.S. Customs and Border Protection, among many others.

- Related Defense Alliance: SADA
- POC: Robert Medler, [rmedler@wga.com](mailto:rmedler@wga.com)

### 214ATKG LRE Expansion

The 214th Attack Group, 162d Wing, operates the MQ-9 reaper aircraft in a Mission Command Element (MCE) mission from Davis-Monthan Air Force Base (D-M). The 214th also maintains a geographically separated Launch and Recovery Element (LRE) at Ft Huachuca, 75 miles away from D-M. The 214th Attack Group faces several challenges operating at two locations. MCE operations at D-M require a full complement of operators and maintainers, as does LRE operations at Ft Huachuca. As the LRE mission grows from demand and new capability, the costs of operations at Ft Huachuca are increasingly limiting. Constructing an MQ-9 hanger at D-M will increase operational efficiencies in both the MCE and LRE mission sets and will allow the 214th to support both the COCOM and the ANG Community through better training, more efficient manpower usage, and overall greater readiness while preserving Ft Huachuca’s “jointness.”

A number of potential solutions exist to address these issues, to include alternative locations at Morris Air National Guard Base and Silverbell Army National Guard Heliport, but the one with the greatest benefit and least cost is to co-locate LRE operations with the MCE at D-M. Not only does this greatly increase manpower and time efficiencies mentioned above, but personnel can be schedule for duty on both MCE and LRE missions concurrently, reducing manpower costs. This is also in line with Air Combat Command’s MQ-1/9 Culture and Process Improvement Program recommendation: “relocate LRE operations to main base of operations.” U.S. CBP had significant interest in moving to D-M for similar reasons. A symbiotic move can realize cost savings. Additionally, utilizing the ANG-owned Total Force Training Center (TFTC, formerly “Snowbird”) and the adjacent North Ramp near the existing MCE building will reduce the need for construction down to MQw-9 hangar space for approximately \$25-40M.

### Air National Guard

- Related Defense Alliance: SADA
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### *AZANG Cyber Force Structure*

Arizona requests the assignment of cyber operations force structure to the Arizona Air National Guard to provide a cadre of cyber warriors able to swiftly respond to state and federal missions. The Arizona National Guard is always a leading contender to receive a cyber mission during base selection but has not yet been assigned one to-date. The Arizona National Guard is uniquely positioned to recruit to cyber AFSC-related career fields due to a local job market that is rich in high tech, information technology positions, and despite its currently limited cyber force structure, the Arizona National Guard is recognized as a best practice within the National Guard.

Current Arizona National Guard cyber capabilities are limited to 8-10 Army National Guard (AZARNG) member Defense of Cyber Operations Element (DCOE) that focus on protecting the AZARNG internal network. The DCOE forms the backbone of the Arizona National Guard's Cyber Joint Task Force and works with private and public partners in the state to enhance mission readiness and can assist during cyber incidents. Despite this limited cyber force structure, the Arizona National Guard is recognized as a best practice within the National Guard. The Arizona National Guard could become a best practice throughout the entire Air Force and fully support the state and our nation's critical infrastructure if only properly resourced with a cyber mission.

### *Goldwater Air National Guard Base*

Goldwater Air National Guard Base is home to the 161st Air Refueling Wing. The mission of the 161<sup>st</sup> Air Refueling Wing is to provide core aerial refueling capabilities for the U.S. Air Force and the Air Guard.

### *Expand the 161st ARW KC-135 Fleet and prepare for KC-46*

The U.S. Air Force must take advantage of the City of Phoenix's offer to expand Goldwater Air National Guard Base at Sky Harbor International Airport to meet the vital pilot training demands in the Arizona area as well as the operational needs of Combatant Commands. Increasing the 161st ARW's KC-135 fleet size from 8 to 12 and selecting Goldwater ANGB as a future home for the KC-46 will meet those demands and the unprecedented offer by the City of Phoenix to expand an Air National Guard base in the heart of a major city. Expanding the KC-135 fleet at the 161st ARW from eight aircraft to 12 will meet this vital training demand, and makes sound fiscal and strategic sense

### *Morris Air National Guard Base*

The Morris Air National Guard Base is home to the Air National Guard's (ANG) premier F-16 fighter pilot training unit, the 162nd Wing, one of the largest ANG wings in the country.

### *162WG Main Gate Land & Construction*

The current main gate at Morris Air National Guard Base, home of the 162nd Wing, does not meet current Anti-Terrorism/Force Protection standards and cannot be upgraded in its current location. The existing location of the main gate creates frequent traffic congestion on Valencia Road, a major civilian thoroughfare. The current configuration poses traffic safety and security issues for security forces personnel, wing employees, and local residents. The actual construction project is currently on the FYDP as an FY24 project. The land acquisition required for construction of the Main Gate/Base Entry Complex was originally programmed in FY22 for Unspecified MILCON, but final cost of the land acquisition ending up exceeding Unspecified MILCON authority and will thus require specified MILCON authorization.

### *162WG Protect the 195th Fighter Squadron*

In July 2021, Air Force leadership meet and approved the discontinuation of funding of the 195th Fighter Squadron, one of the two squadrons within the 162<sup>nd</sup> Wing, in FY23 and beyond. Specific mention of the 195th Fighter Squadron divestment was in backup slides and may not have been actively discussed. Since this meeting, the Arizona National Guard has been working to remove the threat of divestment from the 195th. In FY2022, the Arizona Air National Guard scored a victory to delay the defunding and secured the recapitalization of the 195th's F-16 fleet, among some of the oldest jets in the inventory, from Block 25/32 to Block 30. The threat of divestment continues in FY24, however, and would have a devastating impact to the 162nd Wing and on training commitments to pilots from the U.S. and Foreign Military Sales partners. The resulting cuts from divestment would leave the MXG a total of 68 personnel, which would leave the 162nd Wing unable to operate either Fighter Squadron, the Alert Mission, or the AATC.

### Silverbell Heliport/Western Army National Guard Aviation Training Site (WAATS)

Silverbell Army Heliport is located in Marana, AZ at the Pinal Airpark and is home to the Western Army Aviation Training Site (WAATS). WAATS it is one of the Army's premier aviation training locations for attack and scout helicopters, and it is home to a state-of-the-art flight simulator complex. Although it is primarily a training facility for the Army National Guard, WAATS trains personnel from all three components of the U.S. Army; the regular Army, the Army Reserve, and the Army National Guard as well as allied countries in Europe and Asia.

- Related Defense Alliance: SADA
- POC: Robert Medler, [rmedler@wga.com](mailto:rmedler@wga.com)

### AZARNG Silverbell Heliport/Western Army National Guard Aviation Training Site (WAATS) Growth

Silverbell Army Heliport (SBAHP) is located in a premiere area that is conducive for aviation training. It has ideal weather, infrastructure, and is in proximity to multiple military training areas. Currently, the state of Arizona and the Arizona Army National Guard (AZ ARNG) are pursuing a 400-acre expansion to SBAHP's current footprint which would double its size. SBAHP and the WAATS have long provided aviation training support to our foreign partners. This includes training in the AH-64 Apache, UH-60 Blackhawk, and the UH-72 Lakota aircraft. AZ ARNG has maintained a strong relationship with the Republic of Singapore under the Peace Vanguard FMS partnership. Based on current aviation training shortfalls, AZ firmly believes that it can provide additional capacity to support multiple countries. Increased FMS training at SBAHP strengthens foreign relationships, increases partner wartime capacity, improves the local economy, and aids in supporting industry aircraft sales, including Arizona based Boeing AH-64E production.

The AZ ARNG remains postured to increase its aviation force structure. The Army's Aviation Restructuring Initiative in the previous decade resulted in the AZ ARNG retaining an overage of highly qualified aviation personnel that exceeds current military and technician authorizations. AZ ARNG continually draws interest from aviation personnel seeking transfer into the state; however, the lack of available positions prevents the state from bringing them on board. The AZ ARNG is ideally suited to receive consideration for emergent aviation capabilities that are being explored by the Army. This includes reintroduction of an Attack Reconnaissance Battalion, assessment for placement of any MQ-1C Gray Eagle or other UAS capability, as well as supporting the collective training requirements for Future Vertical Lift.

## United States Marine Corps Air Station Yuma

Marine Corps Air Station Yuma (MCAS Yuma) is a United States Marine Corps air station. It is the home of multiple squadrons of AV-8B Harrier IIs and F-35B Lightning IIs of the 3rd Marine Aircraft Wing, Marine Aviation Weapons and Tactics Squadron 1, Marine Operational Test and Evaluation Squadron 1, and Marine Fighter Training Squadron 401, an air combat adversary squadron of the 4th Marine Aircraft Wing of the Marine Corps Reserve.

- Related Defense Alliance: Yuma 50
- POC: Julie Engel, [jengel@greateryuma.org](mailto:jengel@greateryuma.org)

## YUCO Fairground Relocation

Despite the near-term safety benefit of leveraging the \$5M from State of AZ to reorganize the fairgrounds footprint to get the Midway immediately out of the designated clear zone, we still strongly believe the ultimate goal should be relocation. Rationale = Safety.

## FTHL Habitat Mitigation/Compensation

We must execute at least some compensation in immediate vicinity of the local sub-species. Regardless of location, there is a compensation requirement for the damage done by construction of the secondary border barrier.

## Airspace/Range Modernization

Working to expand airspace options, and range systems, to properly employ new and emerging weapons systems such as the F-35 and long-range precision surface systems.

## Align Basic Allowance for Housing (BAH) and Locality Pay with local costs

## Milcon projects of significant importance to MCAS Yuma

- P-591 Water Treatment Plant
- P-538 New Bachelor Enlisted Quarters

## The United States Army Yuma Proving Grounds

Yuma Proving Ground (YPG) is a United States Army proving ground, a census-designated place, and one of the largest military installations in the world. It is a subordinate command of the Army Test and Evaluation Command. Its mission is to plan, conduct, assess, analyze, report, and support developmental tests, experiments, production tests, and integrated developmental/operational tests; and provide training support to Army, sister services, Department of Defense, U.S. Government, international, and commercial customers in accordance with Army Modernization Priorities.

- Related Defense Alliance: Yuma 50
- POC: Julie Engel, [jengel@greateryuma.org](mailto:jengel@greateryuma.org)



## Range Modernization

- Advanced Range Tracking and Imaging System (ARTIS)
- Range Radar Replacement Program (RRRP)
- Highway 95 expansion

## Workforce Modernization

Support training and education programs that keep people on the technological cutting edge.

## Exceptions to all-electric fleet

The Department of the Army is interested in converting its non-tactical vehicles (i.e. vehicles used on post) to an all-electric fleet. YPG has put in an exception to policy request for hybrid vehicles instead of electric due to concerns that electric vehicles lack the power to run peripherals and a/c for sustained periods for our personnel who spend all day conducting tests in extremely remote locations on our ranges during the summer.

## Industry Priorities

### Acronis SCS Cyber Protection

Acronis SCS is an American cyber protection and edge data security company exclusively dedicated to meeting the unique requirements of the US public sector. Their innovative and comprehensive cyber protection, backup and disaster recovery, anti-ransomware, and enterprise file sync and share software solutions ensure operational assurance and data security across America's federal, state and local government, education, healthcare, and nonprofit computing environments.

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### *Return to normal congressional order*

Continuing to fund the government through Continuing Resolutions is preventing companies from receiving funding for projects and programs that they are working on. Going forward, next year Congress must prioritize passing a full appropriations package on time in the fall. Operating under a patchwork of Continuing Resolutions for the last few years has prevented Acronis SCS from securing federal contracts on time, including our most recent in delay in securing a contract with the Navy.

It is also extremely important that as COVID-19 turns into an endemic, Congress returns to the normal legislative process that previously existed. Prior to COVID, the NDAA included a long amendment process that allowed small companies to receive specific funding for programs that were vital to them. Unfortunately, with the current passage of the NDAA there was not an amendment process, resulting in small companies' priorities being overlooked in favor of those of large national companies. For example, Acronis SCS worked closely with both HASC and SASC staff for months ahead of passage of the NDAA in hopes that we would get our key legislative priorities included in the bill, however the lack of amendment process prevented these from being added.

#### *Ensure the maximum available market within the federal public sector for its zero-trust products*

Acronis SCS advocates for establishing a legal requirement, beginning in FY23, that the Cybersecurity and Infrastructure Security Agency (CISA) (1) be made the lead agency responsible for the government-wide implementation of zero-trust principles, supporting efforts by federal civilian agencies to host implementation guidance, reference architectures, capability catalogs, and training modules; (2) generally serve as a civilian government knowledge management center of excellence for zero trust; and (3) coordinate and share best practices with the recently established Department of Defense Zero Trust Program Office.

This requirement would help the US government make sure that identity management and zero-trust initiatives are comprehensively implemented across the government over the long run, rather than just as a collection of disjointed technical security projects over the next few years. The National Security Telecommunications Advisory Committee's (NSTAC), the committee of major industry representatives that was tasked with advising President Biden on policy initiatives that would ensure the availability and reliability of the nation's telecommunications services from the national security and emergency preparedness perspective, has already recommended this type of legal requirement.

For CISA to be the lead agency, and for others to cooperate with them, there must be some form of financial capability along with the ability to directly impact the management decisions that get made at each agency, especially large agencies with multiple subagencies. In the past we have seen that the practice of responsibility without budget authority has doomed similar enterprise-wide management-reform type initiatives within the DoD, and it is important that this practice does not doom the movement to zero trust.

#### *Improve the way the Department of Defense works with commercial technology innovators*

The DoD needs to improve the way it does work with commercial technology innovators in a way that engenders collaboration and cooperation. The DoD must move past their aggressive and draconian measures that penalize commercial companies for collaborating with those who do not currently engage with businesses with the DoD. The DoD should focus on how continuing access to technological advancements for companies in the commercial sector will improve security for the United States overall.

#### *Refine and expand adoption of the Common Criteria certification*

The government should expand requirements for Common Criteria certification of software products across federal acquisition pathways. This certification, already required for a product's inclusion on the DoD's Information Network Approved Products List, is a trusted methodology for evaluating software security features. Though certifications alone cannot guarantee software supply chain security, when vendors earn Common Criteria validation from the National Information Assurance Partnership, they provide added assurance to government customers that evaluation of their software was performed in a thorough, consistent, and comprehensive manner. Additionally, requiring software vendors to provide software bills of materials (SBOM) and evidence of secure software development lifecycles (SSDLC)s as part of their Common Criteria evaluation process to further incentivize software security best practices and enhance transparency across the defense industrial base.

#### *Arizona Consortium*

The Arizona Consortium was established directly as a result of the coronavirus pandemic by a group of like-minded companies with a shared desire to improve the resiliency of their communities in the face of

stark biological threat. The Arizona Consortium focuses on some of the hardest hit areas of South Phoenix by working with local businesses to create and implement individualized reopening solutions.

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#### *Fund cutting edge research and prototyping activities for science and technology programs*

The NDAA authorized an increase of more than \$3 billion in funds for these programs at universities, small businesses, defense labs, and industry, including in critical areas such as artificial intelligence, microelectronics, advanced materials, 5G, and biotechnology. It is important that this funding is included in the upcoming appropriations package.

#### *Support the development of advanced manufacturing capabilities and train a world-class manufacturing workforce*

The NDAA authorized an increase of more than \$25 million for industrial base programs, and the upcoming appropriations package must include this funding. This increase in funding will allow companies to support innovation of diversity and getting products to market, ensure the supply chain is fully prepared, and allow for an increase Public Private Partnerships through facilitating inclusion of smaller suppliers

#### *Streamline the regulatory process*

The regulatory processes and procedures in the FDA are currently limiting innovation and need to be reviewed and reworked. Additionally, the process must be made timelier and allow for peer reviews, so that innovation is not stunted.

### Canyon Aeroconnect

Canyon stands as one of the world's leading suppliers of avionic-standard aircraft communications, navigation and audio/intercom systems. Canyon's products have been widely adopted and proven in-service across a wide range of civilian, paramilitary and military fixed-wing and rotorcraft applications. Over the years, they have become known as the benchmark in aircraft tactical communication and audio equipment for Air Ambulance, Law Enforcement, SAR, EMS, Electronic News Gathering, Military and Marine applications.

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#### *Return to regular Congressional order.*

Continuing to fund the government through Continuing Resolutions is preventing companies from receiving funding for projects and programs that they are working on. Not only is this detrimental for the companies who rely on these contracts, but it is also preventing our warfighters and frontliners from receiving the technology they need to successfully complete their missions. Going forward, Congress must keep this in mind and prioritize passing a full appropriations package in the fall.

#### *Fund innovative communications technology*

The helicopters that the military currently uses do not have the tactical radio set up to allow them to communicate with different emergency responders, such as police departments, US Customs and Border

Patrol, and the US Drug Enforcement Agency. This can lead to devastating consequences, such as when after Hurricane Katrina, military helicopters that were sent to aid in search and rescue missions were grounded because they could not communicate with other responders. Canyon Aeroconnect has developed radios that solve this problem and allow for these different helicopters to communicate. Funding innovative communications technology that allows for easy communication between all military and civilian emergency helicopters will result in more lives saved and ensure that military helicopters can easily provide aid in emergencies.

#### *Manufacture first in class aerospace communications products in the USA*

For years the US has said they favor companies and products that are made in America, unfortunately, on paper this is not happening. Many of the main competitors for small businesses are foreign companies who are able to produce their products at a cheaper rate than many domestic companies. The US must finally follow through on this stance and prioritize awarding contracts to US companies that build their products domestically.

#### *Improve the IT/Tech workforce*

It is getting increasingly harder to find, retrain, and relocate high quality technical engineers. Canyon Aeroconnect has an older workforce and has trouble finding and recruiting young talent. The government can help alleviate this problem by beginning to focus on developing programs to train young people who are interested in joining the IT workforce.

#### *Cosant*

Cosant's mission is to help organizations reduce their risk and protect their reputation, understanding that security must align with an organization's objectives and culture. Cosant takes great pride in promoting ourselves as business enablers, not obstacles to your organization's mission and vision. Cosant was founded to address a gap in cost effective IT and Cyber Security leadership available to middle market organizations.

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#### *Streamline and Clarify CMMC Guidance*

At the end of 2021, the DoD replaced CMMC with CMMC 2.0, which has resulted in confusion over what companies should be doing to comply, who will be auditing companies' compliance, and which companies will have to be audited. Some companies, especially cybersecurity consultants, are even going as far as canceling their business with the DoD because it is too costly to comply. With the new CMMC guidance, there has been a disconnect between different federal agencies about what is happening, only adding to the confusion, and it is essential that they are on the same page. Without a full CMMC requirement, companies are under and unprepared for cyberattacks and this will continue until there is a full CMMC 2.0 implementation, which is currently two years away. To alleviate the risk of cyberattacks, the DoD and Congress must work together to provide clear and concise communication with companies who need to be CMMC 2.0 compliant, especially for those who need an audit, and need to focus on how to speed up implementation without risking security.

## Pantheon Chemical

Pantheon Enterprises is a chemical manufacturer with the mission to innovate and develop high performance, cost-effective and environmentally safe products for a variety of industries. Today, Pantheon products are used by governments, commercial enterprises and consumers who share their desire to promote human health and safety, protect ecosystems and environments, and improve working conditions.

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### *The government needs to address how it assesses its system for reappropriating and sequestering funds*

Companies are at the mercy of government appropriators who haphazardly decide which projects receive funding and how much they receive. Additionally, companies can face further delays when funding is indiscriminately reappropriated to other defense projects or issues. Just because the money was originally appropriated to a company for a demonstrated and necessary purpose, does not mean that company will receive the funding. Pantheon Chemical has faced long delays where multiple projects, which highly benefit the government, have been held up because the funding awarded was arbitrarily reappropriated to other projects. Additionally, a good system does not exist for dialogue between small businesses and the government to discuss the effects of reappropriating funds.

### *The Federal Government should prioritize innovation over legacy systems*

The government has created many programs to support small businesses, however in practice many of their actions are inconsistent with the rhetoric of advancing small businesses. This issue is especially noticeable when it comes to legacy systems, which tend to favor older and larger companies over smaller and newer companies. Prioritizing legacy systems and specifications also impedes advancements in technology. Instead, the government should focus on companies who are creating innovative technology, not just on companies who have the money to spend on lobbyists.

### *The Government needs to streamline the product approval process*

Pantheon Chemical has faced issues with government procurements even when they create innovative products that solve known problems. To ensure that the government can procure the best products available, each federal agency should have a specific point person at the helm of each agency to streamline the approval process. This would allow for a more efficient procurement and approval process, instead of the current process where companies are often bounced around in a never-ending circle between departments.

## Prime Solutions Group

Prime Solutions Group, Inc. (PSG) is a professional engineering services company with a legacy in Intelligence, Surveillance & Reconnaissance technology. Leveraging deep experience and expertise in synthetic aperture radar processing, core skills in complex system-of-systems engineering, and cutting-edge applied research and development in image-based machine learning, PSG helps solve the 21st century challenges faced by both private industry and government organizations.

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#### *Congress must pass a full appropriations bill instead of operating under Continuing Resolutions*

The delay in passing a full appropriations package caused severe staffing challenges, and most importantly delay in much needed mission capability for warfighters needing to leverage latest technologies emerging with defense and commercial sensors. PSG has been on hold for a Marine Corps program since last October, costing them \$900,000. Since Congress's failure to pass a budget in October, PSG has faced a total impact of \$1.9 million. PSG is calling on the Government to pass a full appropriations package on time in the Fall.

#### *Support the reauthorization of the Small Business Innovative Research/Scientific Technology Transfer (SBIR/STTR) programs*

SBIR/STTR funding allows the small business ecosystem to contribute to national security. These programs allow small businesses to do 100x the work of larger companies in the defense industry by working with partners and academics to transition technology to defense. These programs were reauthorized in the 2017 NDAA and will expire on September 30, 2022. It is essential to both small businesses and the defense industry that these are included in the upcoming NDAA reauthorization, and that the reauthorization is passed before the expiration. PSG has benefited from these programs and has used them on classified federal defense programs.

#### *Prioritize process for awarding Arizona DoD projects to local Arizona defense contractors*

Although Arizona is home to numerous military bases and defense projects, PSG has found that it has been hard to contract locally, often losing instate projects to out of state competitors. This is not only a problem in Arizona, but a national problem that defense contractors in all states encounter. The government should prioritize a process for awarding instate DoD projects to local defense contractors. Policies that encourage the large defense industry to seek local businesses to partner with is beneficial to the entire defense ecosystem in the state.

#### *Cybersecurity Maturity Model Compliance (CMMC)*

Everyone is concerned by cybersecurity. Recognize the burden put on industry and especially small businesses with CMMC directives. PSG has spent over \$200K in the past year to remain compliant. Despite those expenses we are continually beaten down with rate structure pressure.

#### *Rio Tinto*

Rio Tinto is a mining and metals company operating in 35 countries around the world, with 12 mining sites in North America, including Resolution Copper in Arizona. Their purpose is to produce the materials essential to human progress, including Aluminum, Copper, Minerals, and Iron Ore. Rio Tinto is proud to help the US achieve its mission of boosting domestic mining of critical minerals and other metals essential to national security.

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### *The US needs to prioritize domestic minerals to support domestic manufacturing*

As of 2022, the Interior Department has designated 50 minerals as critical to the economy and national defense, as part of a strategy to break America's dependence on foreign materials. The US Geological Survey's 2017 Mineral Commodity Summary found that the US is now heavily import-dependent for 50 key minerals, directly impacting America's military which requires 750,000 tons of minerals each year to stay up and running. One of these key minerals is copper, the second most widely used material by the US Department of Defense (DOD), which has the most critical co-products than any other metal or mineral, and is used in military ships, weapons and other technologies.

However, there can be no vibrant, evolving effort to recover these niche critical minerals and metals without a thriving domestic policy climate for copper and the other mainstay metals. The minerals and metals Rio Tinto produces play a key role in national defense, and the government must work to support prioritizing, supporting, and manufacturing these key metals and minerals. Rio Tinto's North American footprint can help bolster the domestic supply chain and serve as model for future production in the US. The Resolution Copper project in Superior, Arizona is a proposed copper mine in a region with a long history of mining. It has the potential to supply up to one-quarter of the nation's total copper demand, providing a homegrown source for American manufacturers of this important metal. When fully operational, the project will support roughly 3,700 direct and indirect jobs, adding an estimated \$61 billion to Arizona's economy over the project's 60-year estimated life.

### *Sonoran Technology*

Sonoran Technology and Professional Services is an information technology and services company specializing in the defense and space industries and is dedicated to delivering transformational training and technical solutions to a host of customers. They are constantly looking for new technological methodologies and concepts to increase efficiency, improve results, minimize risks, and reduce cost to the warfighter.

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### *Return to regular Congressional Order*

Funding the government through multiple Continuing Resolutions is detrimental to defense contractors because it prohibits them from hiring new employees and completing and/or procuring projects. As a result, projects that were supposed to be procured in Q1 most likely won't be bid on until Q3 or Q4, costing small companies large financial losses.

### *Provide more Guidance on CMMC*

The DoD must provide further information on the CMMC timeline and on the certification process, including details about which companies will need certification and who will certify them.

### *Increase funding for Veteran Business Programs*

The Boots to Business, an SBA program that is part of TAPS, provides entrepreneurial education and training to service members separating from the military. Programs like these ensure that veterans have all the resources they need to start their own businesses.

### *Improve Marketing and Advertisement for the DoD SkillBridge Program*

Very few employers are aware of the great program. The DOD SkillBridge program is an opportunity for Service members to gain valuable civilian work experience through specific industry training, apprenticeships, or internships during the last 180 days of service. SkillBridge connects Service members with industry partners in real-world job experiences. For Service members SkillBridge provides an invaluable chance to work and learn in civilian career areas. For industry partners SkillBridge is an opportunity to access and leverage the world's most highly trained and motivated workforce at no cost. Service members participating in SkillBridge receive their military compensation and benefits, and industry partners provide the training and work experience.

### TEK

TEK Systems is an IT service management company that accelerates business transformation for their customers. They bring real-world expertise to solve complex technology, business and talent challenges, and are specialists in planning, implementation and real-world applications.

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### *Update IT Systems*

The current air defense systems, as well as other IT systems are outdated and woefully inadequate for combat in any major battle. Due to the legacy IT systems in the US military footprint, interdependency issues between servers are common and these systems must be upgraded to function at the highest capacity.

### *Increase IT training to allow the workforce to keep up with demand.*

Demand in the IT sector has grown by 50%, however during this time IT jobs have only grown by 10%. The federal government can help with this issue by providing funding for training courses and programs that can prepare those in the IT sector for specific defense IT positions. The government could also partner with private sector companies to host these programs. For example, Microsoft has a program where they provide IT training and then hire the top candidates from each class.

### TYR Tactical

TYR Tactical set out to revolutionize tactical equipment for the Next Generation Warrior. All three of their brands, which include TYR Tactical, Huron, and Revere K9, undergo extensive field testing, utilize state-of-the-art textiles, and are purpose-built with your comfort in mind. As an industry leader in the United States, Canada and Denmark, they remain committed to upholding the highest standards of product quality and integrity.

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*Better define “best value” when awarding contracts.*

Soldier worn equipment needs to be thoroughly trialed and chosen based on performance first, in the bigger picture the cost difference between lowest bidder and highest bidder is nominal when you consider all the factors addressed above. Vague language is used on importance of sub factors and no definition exists to measure factors against each other and are usually left to the interpretation of procurement team. Often, smaller manufactures lose contracts to the incumbent company even though they have the cheaper and higher performing product.

*Increase funding for soldier worn equipment*

Soldier worn equipment is the last to be funded and the first to be cut. Planes, vehicles, ships, radios, weapons, etc. are all massive expenses and all supported by large companies, and as a result they take priority in terms of defense spending. For example, 4% of one F-22 would outfit the military’s entire ballistics protection equipment. There must be more emphasis placed on protecting the individual soldier and the equipment they wear. The USMC tends to prioritize awarding soft armor contracts based off of price instead of performance. Prioritizing saving dollars over saving the lives of soldiers is an extreme disservice to our military.

*The Federal Government Needs to Honor Patent Protection*

The government must honor and acknowledge patent protections and stop its current practice of building “government designs”. Private businesses develop the best and highest quality gear and the government must focus on protecting that intellectual property instead of stealing it.

*Create a process for transitioning Special Operations Forces combat proven items to regular forces*

Special Operations Forces (SOF) do not only serve as a strategic asset to the US Government but are also a proven test bed for innovation and equipment development. This process should continue, but more effort needs to be placed on transitioning equipment from SOF to regular forces. While there are mechanisms in place for this transition already, they currently only function in the Special Operations commands, there is no mechanism to quickly transition SOF equipment to regular forces. The SOF procurement cycle takes approximately 2 years from conception to program of record, while the current Army procurement cycle takes 5+ years to complete on simple items.

## Western Rare Earths

Western Rare Earths is an exploration company focused on the development of its Rare Earth and Scandium assets, which have the potential to be some of the largest rare earth deposits in the United States. The mission of Western Rare Earths is to supply Critical Materials for Renewable Energy, Green Tech, Electric Vehicles, National Security, and a Carbon-Reduced Future. In March 2021, Western Rare Earths announced plans for a rare earths mining operation in La Paz County, Arizona, the first rare earths mine in Arizona and only the second in the county, which is currently estimated to open in 2026.

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### *Support existing programs and legislation on critical minerals and rare earths*

In January, Senators Cotton and Kelly introduced the Restoring Essential Energy and Security Holdings Onshore for Rare Earths (REEShore) Act to promote domestic production of rare earth elements and reduce dependence on China by directing the Departments of Defense and Interior to establish a strategic reserve of these elements by 2025. If there is a supply chain disruption, the reserve should meet the needs of the U.S. military, defense industrial base, critical infrastructure and tech sectors for a year. Additionally, the legislation would require DoD contractors to disclose the country of origin of rare earths used in military systems and prohibit the use of rare earth metals from China in sensitive military platforms by 2026. We are asking Senator Sinema to support the REEShore Act, as well as future legislation that supports the domestic mining and production of critical minerals and rare earths.

### *Increase government funding for mines and processing plants*

If the current legislation in Congress passes, the country would have to double its current supply of rare earths in 10 years just to have enough for the demand for cars. To make sure that the industry can supply this demand, the complete supply chain, beginning with mines and processing must occur domestically instead of in China. It is very expensive to build mines and even more expensive to develop a processing plant next to one, as a result it is difficult for a mining company to finance both independently, particularly given the difficulty in finding early-stage investors willing to back big high-risk projects. To ensure these mines and associated processing plants can be built, the government must increase the amount of funds available for these projects. This could be done either through direct USG funding or via other available mechanisms such as revising the charter of the Export-Import Bank to allow, on a priority basis, the Bank to lend to domestic mining companies working to bring to market the mines necessary to provide strategic materials and clean, new processing. Such USG funding would likely make the private investment market more interested in providing funding as well.

### *Streamline the permitting approval process for opening new mines*

Due to the current permit process and restrictions, it takes between 5-8 years to open a new mine. There is only one mine for rare earths in the US, so currently, end-users are relying on foreign mines and processors to supply the defense industry's current need. Legislation, such as the REEShore Act, that address rare earths cannot be achieved until the process of opening new mines is expedited. Currently there is a disconnect between the vision of legislation calling for strategic independence and the timeline that it would take to accomplish the intended goals. Additionally, current restrictions coming out of the Department of Interior are making it harder to open projects on federal lands. The American industry is already a world leader in environmental, safety and governance matters, and works together with the USG to ensure full compliance with all operational and developmental standards. However, the Government must prioritize shortening and expediting the permit approval process to allow the industry to meet the government's expectations. Possible examples of this could be giving special consideration to specific elements that are vital to national defense or by streamlining permitting for projects that have less than 100 parts per million of thorium, or by prioritizing mines that are not radioactive, like the one Western Rare Earths is opening in La Paz County.

## Education Priorities

### Arizona State University

The ASU Knowledge Enterprise advances research, innovation, strategic partnerships, entrepreneurship and international development at Arizona State University. The Knowledge Enterprise is a new model for the 21st century global research university — one that takes a transdisciplinary, solutions-focused and entrepreneurial approach in all of its activities. Building on a legacy of discovery in areas ranging from space exploration to sustainability to human origins, ASU has become one of the fastest-growing research institutions in the United States.

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#### *Support ongoing efforts to establish a DoD Mission Accelerator Center (MAC) Southwest regional pilot program*

ASU is currently working with Congress to establish a DoD MAC southwest regional pilot program in Tempe to launch an enduring military-civic innovation partnership based on industries of the future in collaboration with university, industry, and national security partners; that enhance regional and local economies dynamic capacity to accelerate technology and create an agile workforce for national security. The goal of the MAC is to create an interconnected and collaborative defense innovation network of Southwest entrepreneurs, venture capitalists, academics, and local and federal partners in support of the Department of Defense and regional economic development. This model builds on the success of ongoing local efforts and investment from the National Security Innovation Network (NSIN), Luke Air Force Base Spark Cell and Army Intelligence Center of Excellence to develop and accelerate dual-use startups. The MAC will expand the operating model, the breadth of the technology focus areas and establish the programmatic structure to operationalize innovation. This request also leverages an existing NSIN program with MAC locations in other regions of the country, such as the Pacific Northwest.

#### *Increase funding for Microelectronics*

#### *Expand the Western Range Complex*

Collaborate with other ranges for future electronic warfare testing and training to provide for more military missions in Arizona.

### The University of Arizona

Headquartered at the University of Arizona's Sierra Vista campus, the College of Applied Science & Technology (CAST) specializes in innovative, online programs that prepare students for the most in-demand 21st-century jobs. The National Security Agency (NSA) designated their Cyber Operations program as a Center of Academic Excellence in Cyber Operations (CAE-CO), allowing them to join a highly exclusive group of only 24 Cyber programs in the nation. The NSA's CAE-CO designation indicates that the program meets and exceeds the most demanding academic and technical requirements for Cyber degree programs in the country. The Defense Intelligence Agency (DIA) and Office of the Director of National Intelligence (ODNI) designated their Intelligence and Information Operations Program as the #1 Intelligence Community Center of Academic Excellence (IC CAE) in the nation. The IC CAE designation

recognizes that the convergence of Intelligence, Information Warfare, and Cyber within the program is helping to prepare a diverse and exceptionally well-educated cohort of students for entry into the Intelligence and Law Enforcement Communities.

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*Appropriation and authorization for \$6 million from the DoD Readiness and Environmental Protection Integration Program for the Riverstone Effluent Project*

The Riverstone Effluent is one of several projects developed or planned by the Cochise Conservation and Recharge Network. Formed in 2015, these projects currently help, or are planned to help, replenish groundwater by storing high quality treated effluent and accelerated stormwater runoff underground in locations where it can most benefit the flows of the river and the regional groundwater aquifer. Most of these sites also include conservation easements that permanently restrict high volume pumping and/or large-scale developments.

The Riverstone Effluent project is planned for an 1,811 acre parcel adjacent to the San Pedro Riparian National Conservation Area on the west side of the San Pedro River. The goal for the site is to reuse high-quality effluent from the City of Sierra Vista's wastewater treatment plant. The location of Riverstone Effluent Project represents a unique opportunity to enhance flows in a critical stretch of river. Nearly two decades of wet-dry mapping show that this site is at the start of the longest perennial reach of the river. Groundwater modeling suggests that effluent recharge at the site will not only raise groundwater levels but may increase downstream baseflow in about 15 miles of the San Pedro River and connect sections of the river that no longer flow year-round.

The purchase of this large property was the result of the strategic partnership between the Nature Conservancy, Fort Huachuca, and the U.S. Army's Compatible Use Program. This land had previously been slated for development and now the lands and waters are permanently protected. Cochise County has subsequently assumed ownership and management of the property and is now working with Sierra Vista to design and develop effluent recharge facilities on it.

The initial engineering for the recharge project in 2021 is jointly funded per an agreement between the Nature Conservancy, Cochise County, and the City of Sierra Vista. Now, \$6 million is needed to construct the effluent recharge project.

### *Create a Cybersecurity Workforce Development Program*

The cybersecurity workforce has been experiencing rapid growth demand, leading to a critical shortage of cybersecurity professionals across the globe. Cybersecurity unemployment rates in the United States have been at 0% for the past six years, and the total number of unfilled cybersecurity jobs has been rising despite the increase in cybersecurity education workforce development programs across the country. From 2019 to 2020, the number of unfilled cybersecurity jobs increased from over 350,000 to over 521,000; this is an indication that the cybersecurity workforce problem continues to worsen. Current estimates place the gap at over 600,000 unfilled jobs. Moreover, with the increased work from home requirements driven by the COVID-19 pandemic, along with the continued shift to a more technical workforce driven by the 4th Industrial Revolution (4th IR), the need to expand the cybersecurity workforce will only become more critical.

The cybersecurity workforce will not be able to manage the proliferation of technology without an increasing awareness and change in behavior with consumers who use these technologies. In addition to developing the workforce, developing a stronger culture of cybersecurity from preschool through adulthood is a complimentary and necessary focus of the workforce development system. This requires a commitment to applied research in areas related to education, behavioral science, government and public policy, and usability (trust in automation, human machine teaming, human – computer interaction, etc.). CAST is already working in all these areas. However, current funding does not allow the college to move at the speed of change. Funding workforce development in CAST would accelerate existing initiatives and create space for new initiatives that will secure University of Arizona as the nation's leader in 4<sup>th</sup> IR and cybersecurity education, research, and public service.

### *New Horizons of Phoenix*

New Horizons provides computer training and certifications for those looking to further or begin a career in IT. Ranked in the top 5% of the industry for training quality and customer satisfaction, they offer an extensive selection of vendor-authorized training and certifications for top technology providers. Being an authorized partner ensures that their students have the highest quality training materials and train on the latest products and technologies available.

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### *Reformat Transition Assistance Programs to Better Prepare Veterans for IT Jobs*

When military members are transitioning out of the military, they go through the Transition Assistance Program (TAPS) which provides them with information about job and education opportunities, among other things. However, the information that service members are being provided is not always the most up-to-date or accurate. For example, it has been reported that TAPS programs are telling members that there are plenty of work from home jobs in the tech and IT sectors, which is not always the case. These programs have also put a focus on veterans obtaining a college degree in order to get a job, causing many veterans to move to other states. As a result, defense contractors are having a hard time finding qualified candidates to fill IT roles, even though the state has many available tech jobs. To address this issue, TAPS representatives must become more aware of the changing tech landscape in the state and be aware of

what requirements are needed to provide quality candidates to companies, including information on the benefits of choosing certification programs over a traditional degree.