Association of the United States Army

Voice for the Army—Support for the Soldier June 2015

Installations

The Bedrock of America's Army

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Introduction

The United States Army continues to adapt to an evolving and unstable security environment. The future joint operating landscape will consist of diverse enemies who employ traditional, unconventional and hybrid strategies to threaten U.S. vital interests. Much of this complex environment is unknown—what *is* known is that the emergence of myriad global threats coupled with an unprecedented fiscal uncertainty poses significant challenges to national security now and in the future. Moreover, the increasing nexus among food, water and energy, as well as rising urban populations, heighten the competition for critical resources. Amidst these challenges, the U.S. military, and the Army in particular, must maintain strategic responsiveness—the ability to project power rapidly—to deter adversaries and signal the nation's commitment to allies and partners, thereby contributing to global and regional security and stability. Integral to sustaining this ability are unit and individual readiness—Soldiers, Department of the Army (DA) civilians, families, veterans and survivors—especially with so few Army forces forward-stationed.

Army installations are the bedrock of unit and individual readiness. Specifically, installations play four indispensable roles that ensure the Army's readiness: solidifying the Army's relationship with the civilian world through public and private partnerships; providing the infrastructure and technology to support force projection; undertaking initiatives that promote more resilient and efficient uses of energy; and providing the services that ensure a high quality of life for Soldiers, families, DA civilians, veterans and survivors. To build the installation of the future in this complex environment, installation professionals must harness a continuum of learning, adapting and innovating and Congress must provide full funding in a timely and predictable manner.

Background

Throughout their history, installations have responded to the evolving needs of the Army. During the Cold War, installations were not generally used as platforms for the Army's warfighting capabilities because the missions in that era allowed for longer mobilization times and more forces were forward-stationed.

The emergence of new, less predictable missions and threats in the 1990s, after the Cold War, required U.S. Army installations to become "flagships of readiness" with the capacity to mobilize quickly and respond to crises anywhere in the world through power projection. Operation Desert Storm in 1991, in particular, highlighted the need to accelerate deployability.

As a result, installation professionals were required to provide mission assurance, which is the process to protect or ensure the continued function and resilience of capabilities and assets—including personnel, equipment, facilities, networks, information and information systems, infrastructure and supply chains—critical to projecting and sustaining power quickly in any operating environment or condition. Mission assurance, in turn, required vital reach-back capabilities, enabling Soldiers deployed in distant theaters to quickly obtain the necessary resources, equipment, technologies, information and expertise from installations. The Army transformed its installations into power-projection platforms (PPPs) with extensive projection infrastructure and equipment prepositioning capability and the ability to strategically deploy one or more brigade combat teams and their enablers. Installation infrastructure—including airfields, seaports, railheads and ammunition plants/depots that could accommodate railcars, watercraft and aircraft such as the C-17—was upgraded and modernized. The Army now has 15 designated PPPs within the continental United States (CONUS), as well as 14 airfields, 17 strategic seaports, 11 ammunition plants and depots, 1,090 additional railcars and 2,500 additional containers.

In the past, social demands on the Army were relatively minor, as careers were short-lived and fewer junior enlisted Soldiers were married. However, during the Cold War and with the introduction of the All-Volunteer Force (AVF) in the early 1970s, the Army became a long-term career path and included more married Soldiers. These trends required more family support services as well as quality housing both overseas and at home. Today, in addition to supporting mission capabilities, installations provide the essential services, programs and infrastructure that support Soldiers and their families. Army installations now provide support services ranging from child-care programs and child-development centers to career training and opportunities for military spouses. Installations have become the foundation for guaranteeing the readiness of the force by supporting mission capabilities and providing a safe and healthy environment for Soldiers and their families.

Critical Partnerships

Public and private partnerships are a key conduit to leveraging resources that enhance readiness. Two major trends have transformed the way the Army approaches its partnerships. First, the evolving needs of Soldiers and their families in an era of new, more complex missions require a broader range of services. Second, Soldiers are depending more on surrounding communities to educate their children, protect their families and provide the infrastructure to fulfill their duties on the post. The lines dividing Soldiers and local communities have become blurred as more Soldiers and their families live, shop, work, play and go to school in their local communities and towns. In an era of increasingly limited resources, Army senior leadership has realized that nearby communities can play a key role in meeting the needs of Soldiers and their families and have begun forging mutually beneficial partnerships between installations and surrounding communities.

In 2008, the Secretary of the Army initiated the Army Community Covenant to foster and sustain effective state and community partnerships with the Army to improve the quality of life for Soldiers and their families at installations. The covenant is a formal commitment of support by state and local communities to Soldiers and families of the Army—active, Guard and Reserve. Partnerships forged under the covenant have helped reduce duplicative services and have resulted in significant cost savings at installations. Army installations have a long history of partnerships with state and local communities and these partnerships have taken many forms—mutual aid agreements, cooperative agreements, leases and memorandums of agreement/understanding are but a few. Significant Army community partnerships currently include:

- **The Presidio of Monterey and the City of Monterey, California:** Through this partnership—one of the Army's first public-to-public and public-to-private partnership demonstrations—the City of Monterey is providing a broad range of municipal services to Soldiers and their families. The Army is saving $1.5 million per year by purchasing firefighting, security guard, police, public works, utility and other municipal services from government agencies located within the City of Monterey.
- **Fort Gordon and the City of Augusta, Georgia:** Through the Army's partnership with the City of Augusta, Fort Gordon estimated that it has avoided $7.4 million in capital improvements and maintenance costs and realized an annual $47,500 in commodity cost savings per year while reducing system redundancy and increasing the reliability of service systems. The water/wastewater system has since been privatized under the Army's Utilities Privatization (UP) program and continues to realize significant cost savings.
- **Fort Meade, Maryland, and the Community Covenant Council:** Through the Community Covenant Council—a consortium of local service providers, nongovernment agencies, government officials and installation support professionals—the Army addresses issues facing Fort Meade Soldiers and families and works toward collaborative solutions.

These completed agreements demonstrate that community partners have the resident expertise to execute many installation support services. The municipal service partnerships have proven to be so successful in efficiency and cost effectiveness that the DA directed commands to continue to seek out partnerships to maximize cost savings and cost avoidance through shared services and to dialogue with their state and local governments to identify additional opportunities. The newest tool in the partnership kit is the Intergovernmental Support Agreement (IGSA), established under the 2013 National Defense Authorization Act (NDAA) legislation and updated in the 2015 NDAA. IGSAs are used to establish public-to-public partnerships only, not public-to-private. Not every partnership concept will result in an IGSA. However, IGSAs expand opportunities for

Partnerships Continuum

National Defense Authorization Act of 1995

Presidio of Monterey, CA:

- Special legislation to establish installation service partnerships
- Gold standard of partnering; led to pilot legislation

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National Defense Authorization Act of 2005

Five authorized municipal services:

- Refuse collection
- Recreation
- Facility maintenance and repair
- Library services
- Utilities

Two utilized:

- Fort Huachuca, AZ (library services)
- Fort Gordon, GA (wastewater treatment)

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National Defense Authorization Acts of 2013/2015

Intergovernmental Support Agreements (IGSAs):

- Expanded scope of partnerships
- Broader partnering opportunities with community counterparts

Source: U.S. Army Installation Management Command

installations to realize cost savings and to gain efficiencies in support services.

As of April 2015, the Army has three partnership concepts identified to Headquarters, Department of the Army (HQDA), and three IGSAs approved by the Assistant Secretary of the Army for Installations, Energy and Environment (ASA [IE&E]). These include the agreement between Fort Bragg, North Carolina, and the City of Fayetteville, which was the first to be awarded an IGSA within the Department of Defense (DoD); others are the Presidio of Monterey and the City of Monterey and Fort Leonard Wood and Waynesville, Missouri. The Army is working with the other military services and the Office of the Secretary of Defense (OSD) to ensure that public-to-public partnership authorities are properly interpreted and applied to maximize opportunities, both at the local and state levels.

Infrastructure

The Army has undertaken several initiatives to ensure that installations have the modernized infrastructure necessary to support unit and individual readiness. These initiatives focus on leveraging private-sector partners to increase the quality of facilities and address funding shortfalls:

- **The Residential Communities Initiative (RCI).** This initiative is the Army's primary military housing privatization program.[1] Through RCI, which began as a five-year pilot program in 1996,[2] the Army has partnered with several nationally recognized developers, property managers and financial institutions in 34 housing projects to build more than 86,000 homes for Soldiers and their families on 44 installations. RCI has been so effective in providing new and renovated units quickly and efficiently at a reduced cost to the Army that it now accounts for 98 percent of the Army's family housing inventory. Lessons learned from the initiative are being applied to the privatization of unaccompanied personnel housing and Army lodging. RCI is not only the Army's premier quality-of-life program for Soldiers and families but also solidifies its public-to-private partnerships. In addition, the Basic Allowance for Housing (BAH) provides eligible servicemembers with housing compensation approximating civilian rental costs in the areas where they are stationed.[3] The Fiscal Year (FY) 2015 budget, however, requires a 1 percent out-of-pocket expense for servicemembers for one year[4] while the FY 2016 budget proposal increases the expense by 4 percent over the next two to three years.[5] Thus, servicemembers would eventually pay an extra 5 percent of their own housing costs.
- **The Utilities Privatization program.** Through this program the Army divests the infrastructure systems of various utilities to private companies who upgrade and service the systems under guidelines based on Army requirements. Those companies are able to leverage their expertise and produce safer, more efficient and sustainable utilities services. The Army pays for these services through 50-year operation and maintenance contracts at amortized rates. To date, the Army has privatized approximately 41 percent of its total utility infrastructure portfolio, resulting in an estimated $57

[1] Association of the United States Army, "Installations as Flagships for Soldier and Family Readiness and Quality of Life," Torchbearer National Security Report, April 2007, p. 17, http://www.ausa.org/publications/torchbearercampaign/tnsr/documents/tnsr_04-07_install.pdf.

[2] Association of the United States Army, "Crisis in Military Housing . . . If Only the Walls Could Talk," Torchbearer National Security Report, September 2000, p. 8, http://www.ausa.org/publications/torchbearercampaign/tnsr/documents/200%20tb%20nsr%20-%20crisis%20in%20military%20housing.pdf.

[3] Association of the United States Army, "A Crisis in Military Housing: Basic Allowance for Housing Under Attack," Torchbearer Alert, October 2013, p. 1, http://www.ausa.org/publications/ilw/digitalpublications/documents/tba-bah/index.html.

[4] Association of the United States Army, "AUSA + 2nd Session, 113th Congress = Some Good News," Torchbearer Special Report, January 2015, p. 1, http://www.ausa.org/publications/ilw/digitalpublications/documents/gnf-2nd113th/index.html.

[5] "DoD Releases Fiscal Year 2016 Budget Proposal," News Release, United States Department of Defense Press Operations, 2 February 2015, http://www.defense.gov/releases/release.aspx?releaseid=17126.

million in utility savings per year and more than $2 billion in life-cycle operating cost savings.

- **The Facility Investment Strategy (FIS).** Organized in 2013, FIS addresses funding shortfalls at aging Army installations. These shortfalls prevent repairs from taking place on installations, resulting in major safety issues and threatening Soldier and family quality of life. FIS uses a complex algorithm to prioritize funding for specific projects and measures progress and outcomes through key metrics. The strategy's broader goal is to transform installations into cost-efficient, sustainable platforms that support the execution of assigned military missions.
    - Four overarching tenets guide the overall FIS strategy: sustaining required facilities; disposing of excess facilities; improving the quality of existing facilities; and building out critical facility shortfalls. FIS targets investments on "worst first" facilities in the following focus areas: energy/utilities; the organic industrial base; organizational vehicle maintenance; ranges/training support systems; reserve component readiness facilities; trainee barracks; and Army leadership-directed projects and emerging requirements.
    - FIS was appropriated a total of $3.7 billion for FY 2015 and the Army requested approximately $4.4 billion for FY 2016. The FY 2015 FIS appropriations helped the Army meet 86 percent of Base Operations Support (BOS) but only 68 percent of Sustainment, Restoration and Modernization (SRM) requirements, which were budgeted at $10.1 billion and $4.5 billion, respectively. As a result of FIS, 147,439 facilities at 154 installations have seen improvements to their infrastructure.

In addition to increasing the quality of facilities and addressing funding shortfalls, the Army is working to reduce its excess infrastructure. A recent Army assessment of excess capacity revealed an 18 percent facility overage at the active-component force structure level of 490,000. The Army estimates this level of excess costs $480 million per year in maintenance and energy consumption. As the Army continues force structure reductions to meet budget caps in the current law, it is likely that installations will continue to have excess facilities. As a result, the Army is addressing the excess through restationing and repurposing its assets and by demolition or disposal of facilities through the General Services Administration.

Energy

The Army's ability to accomplish its mission on a global scale depends on secure, uninterrupted access to installation power, energy and water. For much of its history, the Army functioned under the premise that low-cost energy and other resources would be readily available to support a wide variety of domestic activities and global operations. That premise no longer applies.

Installation resources face increasing pressure due both to threats and to increased competition for resources. Most Army installations are also dependent upon increasingly strained supply systems for electrical power and water and many experience constraints regarding land use through external encroachment. In the past ten years, there has been a four-fold increase in power interruptions on Army bases, from more severe and more frequent weather events to sabotage; there is also the looming threat of cyber attacks. Today, the growing complexity of the operating environment requires a more resilient Army installation—one that can anticipate, prepare for, withstand and adapt to a range of natural or man-made disruptions and then rapidly recover and reset for future operations across its entire mission spectrum. As a result, Army installations have developed initiatives to increase efficiency in energy consumption and resilience.

Initiatives that work to increase energy consumption efficiency and invest in renewable energy generation include:

- **The Net Zero Initiative.** Net Zero applies a holistic and integrated approach to managing energy, water and waste resources at Army installations. It brings a specific hierarchy of actions to each focus area.[6] These hierarchies represent a strategic approach that is not only consistent across installations but also allows for solutions that are tailored to specific situations.[7] Each hierarchy instills a culture of efficiency in which each Soldier bears responsibility for his or her resource use. After the success of the Net Zero Proof of Principal pilot at 17 Army installations, the Secretary of the

[6] Association of the United States Army, "U.S. Army Energy Security and Sustainability: Vital to National Defense," Torchbearer National Security Report, April 2011, p. 10, http://www.ausa.org/publications/torchbearercampaign/tnsr/documents/tb_energy_web.pdf.

Army decided to move all installations toward Net Zero.[8]

Successful Net Zero initiatives to date include energy efficiency and water conservation projects, renewable energy generation, water reuse/recycling, solid-waste service contracts incentivizing diversion, solid-waste composting and recycling and education and awareness training. Ultimately, Net Zero principles envision Army installations producing as much energy onsite as they use over the course of a year, using and reusing water more efficiently and diverting as much solid waste as possible. By increasing the efficiency of energy and water use and reducing solid-waste generation, Net Zero contributes to more cost-effective resource management and mission assurance.

- **Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs).** Since 1992, the Army has used these contracts to forge partnerships with private companies that implement energy and water projects to improve energy infrastructure and technology at installations. Improved energy infrastructure contributes to the Army's capacity to assure mission success. The Army pays for these services with the realized energy and water savings that accumulate over time. Examples of projects include energy-efficient lighting upgrades, building envelope improvements, central energy plant upgrades and modifications to energy-intensive process equipment. In FY 2014 the Army awarded 18 ESPC and ten UESC task orders, representing over $325 million in third-party investment at Army installations. These projects are expected to save 1.1 trillion British Thermal Units (BTUs) of energy and 250 million gallons of water per year. ESPC and UESC contracts provide an alternative means of financing energy-efficiency projects and help deepen relationships between the Army and private-sector partners.

Initiatives that work to increase energy resilience include:

- **Office of Energy Initiatives (OEI).** In October 2014, the Secretary of the Army directed the establishment of the OEI to centrally manage the development, implementation and oversight of all privately-financed, large-scale renewable and alternative energy projects that are ten megawatts (MW) and larger. The OEI mission is to improve the energy resilience of Army installations so they may continue to conduct their critical national security missions in times of limited access to electrical power from the grid due to natural disasters or other emergencies. Due to existing financial limitations, cooperation with private industry is the most suitable, expeditious and financially prudent method to bring large-scale generation stations online. In developing these renewable-energy projects, the OEI employs long-term contracts or leases with private developers to build facilities on Army land. In its current development portfolio the Army has more than 20 project opportunities representing over 550 MW of potential renewable energy generation at Army installations across the country. Two projects are operational: the recently commissioned biomass power plant that provides 100 percent of the electricity at Fort Drum, New York, and DoD's largest solar project to date, at Fort Huachuca, Arizona.

- **Energy Security and Sustainability (ES2) Strategy.** The ES2 vision is to enhance the Army's readiness and resilience through assured access to energy, water and land resources. Initiated by the Army's Senior Energy and Sustainability Council (SESC), ES2 mitigates uncertainty and complexity and enhances the Army's adaptability to rapidly deploy, fight and win whenever and wherever the nation is threatened. ES2 has three components: a ready force, resilient capabilities and secure resources. Each component is critical to support effective mission performance in the long term and provide leaders and installation professionals with a range of viable resource decision options.

As a result of these initiatives, installations are showing tangible results in achieving increased energy consumption efficiency and resiliency. These installations include:

- **Fort Campbell, Kentucky.** Fort Campbell boasts a Utilities Command Center where the Department of Public Works uses an automated Energy Management

[7] "Net Zero Progress Report: Net Zero Pilot Installation Initiative 2012," United States Army, Office of the Assistant Secretary of the Army (Installations, Energy and Environment), p. v, http://usarmy.vo.llnwd.net/e2/c/downloads/296777.pdf.

[8] Army Directive 2014-02, "Net Zero Installations," Policy Memorandum, Office of the Secretary of the Army, 28 January 2014, http://www.apd.army.mil/pdffiles/ad2014_02.pdf.

Control System to monitor heating and cooling digitally in about 500 on-post facilities. The backbone of the Utilities Command Center is the station manager, who monitors the terminal and communicates to technicians in the field about the status of each facility. The station manager can increase or decrease the temperature and turn on or off various systems while the technicians conduct diagnostics checks to identify any problems. When problems do occur, the Utilities Command Center dispatches a technician to the facility to quickly address the issue. The Utilities Command Center and the Energy Management Control System provide Fort Campbell a proactive and reliable solution to energy sustainability.

- **Fort Knox, Kentucky.** After 20 years of implementing green conservation technologies throughout its facilities, Fort Knox officially declared energy independence on 6 May 2015 in dramatic fashion by pulling the plug on its facilities during a public demonstration. As a result, Fort Knox showcased its ability to operate autonomously without reliance on outside power providers. The installation can provide its own power, heat, gas, water and wastewater elimination, all from on-post sources without any assistance from the grid. The installation retrofitted 1.57 MW of solar panels on roofs throughout the post, with an additional 10,000 panels generating 2.1 MW at a separate ten-acre site. The electricity cultivated from the solar farm is connected to the installation's internal grid and then supplied to the distribution system for widespread use. Fort Knox is recognized across the military for having set the gold standard for harvesting renewable power.

Soldier and Family Readiness

By 2007, Soldiers and families were experiencing the cumulative effects of war. Army senior leadership created the Army Family Covenant to strengthen and standardize Soldier and family programs. From 2007 to 2010, the Army doubled its investment in such programs, improving and eventually sustaining a quality of life commensurate with Soldier and family service and sacrifice. Unfortunately, in July 2013, DoD faced potentially severe budget reductions each year for ten years as a result of the 2011 Budget Control Act. The Chief of Staff, Army (CSA) directed a new commitment to reflect the Army profession, a culture of taking care of people and honoring the sacrifices of Army families.

This commitment upholds the Army's responsibility to provide high-quality programs and services that are components of a professional force dedicated for the long term. These programs and services enable readiness by helping Soldiers, families and DA civilians mitigate the unique demands of military life, foster life skills and strengthen resilience. The Army is committed to four tenets that set the framework for readiness now and into the future: maintaining trust, fostering adaptability and self-reliance, promoting resilience and honoring those who serve. This provides a platform from which commanders can scale and tailor programs to meet the needs of their populations while maintaining high Army standards.

To realize the CSA's guidance, Army installations are providing a balanced array of programs and services that help meet the needs of Soldiers, DA civilians, families, veterans and survivors. These programs and services enhance the Army's readiness and resilience by providing the security Soldiers and DA civilians need to carry out their missions. As a result of these efforts, the Army is able to recruit and retain skilled personnel and ensure that senior commanders have forces that are regionally aligned, versatile and responsive.

Soldier and family readiness programs and services seek the following intended outcomes:

- **Improved life skills.** These programs and services are extremely important for young and first-term Soldiers and families, who often lack substantial life experience and skills to navigate through the unique challenges of military life. These challenges include life-changing events such as a new relationship, a new job, a new post, financial stress and/or parenthood. Programs such as Army Family Team Building, New Parent Support, Financial Readiness and Employment Readiness give Soldiers and families the practical tools they need to attain life goals while building readiness, enabling self-reliance and preparing for a successful career in the Army.
- **Reduced risky behavior and increased help-seeking behavior.** The Army takes a holistic approach to addressing risky behavior with proactive and responsive programs that help Soldiers and their families face the challenges of military life. These programs help prevent risky behavior, promote help-seeking behavior and support those who exhibit high-risk

behavior. They include Family Advocacy, Total Army Sponsorship, Financial Readiness and a suite of Soldier Ready and Resilient programs. Through these and other such initiatives, the Army provides a critical safety net for Soldiers and their families, which ultimately helps maintain the Army's readiness.

- **Strengthened resilience.** Resilience is the mental, physical, emotional and behavioral ability to face and cope with adversity, adapt to change and recover, learn and grow from setbacks. Collectively, individual Soldier, unit and family resilience is necessary for the Army to maintain readiness. The Army provides several programs and services that enhance individual resilience, such as installation physical fitness centers, sports and intramural programs, Better Opportunities for Single Soldiers, Warrior Adventure Quest, Survivor Outreach Services and Soldier and Family Assistance Centers.
- **Balanced work–life.** The Army believes that Soldiers and their families must find a healthy balance between their professional and personal lives to optimize performance and maintain readiness. As a result, the Army encourages Soldiers to make time for family, friends, spirituality, growth, self-care and other personal activities in addition to mission demands. Proper work–life balance helps optimize Soldier performance by reducing stress and increasing morale in the AVF. Installations provide several programs that help promote work–life balance, such as recreation centers; child, youth, and school services; golf courses; clubs and restaurants; bowling centers, parks and recreation options; and open space for physical activity.
- **Easier transitions.** Transitions, whether permanent changes of station, deployments or entering or leaving the military, are an inherent part of Army life. These transitions are often a source of stress and anxiety for Soldiers and their families. To relieve this burden, the Army provides several programs that arm Soldiers and families with practical tools and information to ensure they are equipped to make informed decisions during times of transition. These programs and services include Soldier for Life (SFL), Relocation Assistance, Total Army Sponsorship, Army OneSource, Family Readiness Groups and Army Housing online user services.

The strength of the Army is built upon the readiness and resilience of every member of the Total Army—every Soldier (active, Guard and Reserve), civilian and family member. Army programs form a comprehensive readiness system that ensures that Soldiers and families have a high quality of life and are ready to carry out their missions. These programs provide the Army the readiness necessary to meet the requirements of national defense.

The Way Ahead

As the Army has evolved into a U.S.-based power-projection force, the functions performed by its installations have become increasingly critical for readiness of operational units. In addition, installations provide the goods and services that ensure a quality of life for Soldiers and families commensurate with the sacrifice of their service. By forging public and private partnerships, developing and maintaining infrastructure and technology, fostering energy resilience and efficiency and providing Soldier and family services, installations are the foundation of Army readiness.

For decades, Army installations tended to be isolated. Today, vibrant, growing communities with resources and services that complement or fill gaps in existing Soldier and family readiness efforts surround many Army installations. More than 65 percent of Army families live off the installation. This development provides collaboration and partnership opportunities to support Soldiers, civilians and families. Just as installations are readiness platforms, communities surrounding the installation become readiness enablers with a shared interest in ready and resilient Soldiers and families. The Army must continue to harness and nurture this shared interest as more Soldiers and families seek support near home and explore alternate support networks within their communities rather than on the installations. Partnerships such as those between Fort Gordon and the City of Augusta, Georgia, and between Fort Meade, Maryland, and the Community Covenant Council can help the Army provide programs and services to Soldiers and their families.

The future operating environment requires that Army installations achieve smaller footprints through infrastructure reduction and greater energy efficiencies, modularity and self-reliance. Several trends indicate ways in which future installations will work to reduce the footprint of infrastructure. First, sites for future installations will be based on protecting and safeguarding natural resources, transportation and logistical hubs and required lines of communication, thereby reducing their environmental impact. Second, future installations will apply technology that will incorporate modularity and sustainability in the design phase and enhance the facilities' ability to manage its own resources with increased self-reliance and efficiency. Finally, future installations will leverage the latest in communication infrastructure, such as fiber optics and Wi-Fi, to support Soldiers and families. A recent example of communications infrastructure includes the Army Reserve's Virtual Installation concept, which uses teleservice and the Internet to connect Reserve Soldiers to their Regional Support Centers across the country. The Virtual Installation program enhances quality of life, readiness, retention and recruiting for the Total Army.

Resilient and more energy-efficient installations will help the Army rapidly adapt to unexpected change and

continue critical operations in a resource-constrained environment. These installations at home and abroad are essential for a responsive Army force posture that operates with reduced mission and financial risk. Resource management initiatives and collaboration such as Net Zero, EPSCs, the OEI and the ES2 Strategy are positioning Army installations to enhance their current and future capabilities, readiness and performance. This strategic approach represents a turning point from a perspective in which the Army viewed resource considerations as constraints on operational effectiveness to one that considers the critical role of energy, water and land resources as mission enablers. The Army must exploit the benefits of resilience and energy efficiency in support of mission objectives in an era of limited resources.

To shape the Army of the future, installation professionals must also ensure that training ranges and areas remain viable and flexible enough to build cohesive, highly trained units and adaptive, innovative leaders. Ultimately, this provides for an operating force that is highly trained and ready to meet any contingency. As new technology and capabilities emerge for long-range precision strike systems (missiles), high-quality air defenses, cyber capabilities and long-range artillery and rocket systems—a greater demand will be placed on maneuver operations space. This will require adaptive leaders, critical long-range planning, leveraged partnerships and timely execution to ensure that the Army meets the requirements of Force 2025 and Beyond.[9]

A 2011 RAND study concluded that the concept of a military community is changing and the Army's sense of community is evolving. In the past, a group of people living in a geographic area defined community. Intimate events such as backyard barbeques, Family Readiness Group meetings and neighborhood get-togethers were commonplace. In the future, communities will increasingly incorporate groups of people linked virtually with common interests. Tomorrow's Soldiers, families and civilians will be the most "connected" generation in history. Social media, e-mail, chat software, information-sharing platforms and online gaming, coupled with a myriad of mobile devices, are quickly redefining how Soldiers and families receive information, obtain services and define their community. It is critical to understand this new community construct and harness it to support Soldiers, civilians and their families. This progress will drive the delivery of programs and services in the future. Soldier and Family Readiness professionals are anticipating and adapting the services they provide to keep up with the new generation of technology-savvy Army recruits. These newly-adapted services include an online Army Family Action Plan issue-submission process, Survivor Outreach Services, interactive online family readiness groups and financial readiness training (e.g., Army Gold). It is imperative that future programs and services be continually adapted to meet the needs of the future force.

Frequent deployments, permanent-change-of-station moves, dangerous missions and a unique culture combine to challenge Army families. Soldiers, DA civilians and their families quickly learn adaptability and self-reliance, often relying on a strong network of family, friends and resources to thrive. In the future, support efforts must uphold the Soldier for Life concept and continue to take a proactive and holistic approach to the military life-cycle career. The Army must prepare early and provide good information, enabling informed decisions and enhancing long-term self-reliance and readiness. The Army must make efforts to empower and provide resources for all family networks such as parents, siblings and extended families to support the Soldiers. Finally, efforts such as Army OneSource, state alliances and the Community Covenant must continue to strengthen the understanding of communities and care providers and enable them to provide the most effective readiness support possible for the Army.

The present fiscal environment, however, threatens to deprive installations of the resources they need to support Soldiers and their families. Years of continuing resolutions have hampered long-term fiscal planning and the law of sequestration makes it increasingly difficult to balance endstrength with readiness and modernization. Without full funding in a timely and predictable manner, installations simply will not have the resources to meet their requirements. Thus, it is paramount for America's vital interests that the law of sequestration be repealed not only for quality of life for Soldiers and their families but also for the readiness of both current and future forces.

[9] Association of the United States Army, "Force 2025 and Beyond: The U.S. Army's Holistic Modernization Strategy," Torchbearer Issue Paper, January 2015, http://www.ausa.org/publications/ilw/digitalpublications/documents/tbip-st/index.html.