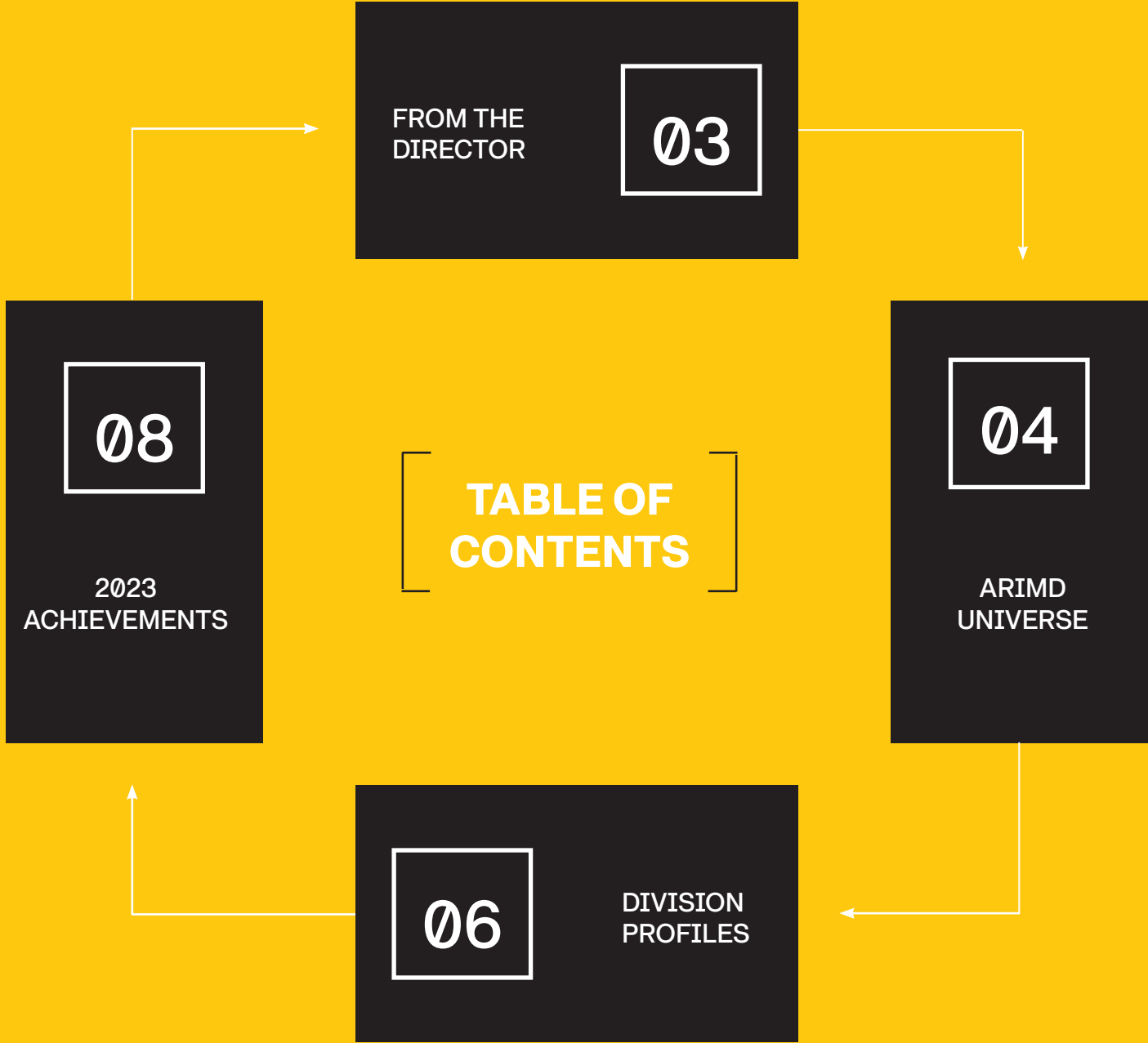


# REMAIN READY AND MODERNIZE

ARMY RESERVE INSTALLATION  
MANAGEMENT DIRECTORATE



2023 ANNUAL REPORT







## FROM THE DIRECTOR



**Martin J. Naranjo**  
Colonel, U.S. Army  
Director, Army Reserve  
Installation Management  
Directorate

The Army Reserve continues to innovate and transform the way we provide and sustain the facilities and infrastructure to support the mission and meet the quality of life needs of our Soldiers, Civilian employees, and Families. As we confront the challenges of aging infrastructure and limited resources, modernization and resiliency remain key to the Army Reserve as it navigates these unpredictable times. Providing healthy and modern facilities not only contributes to mission accomplishment but also enhances our ability to recruit and retain the next generation of Soldiers.

ARIMD is at the forefront of exploring emerging technologies that enable the Army Reserve to adopt efficient and affordable solutions, enhance resilience, and achieve strategic outcomes. Our directorate has been instrumental in collaborating with strategic partners and securing third-party funding to develop solutions that will increase sustainability and readiness. In fiscal year (FY) 23, the Army Reserve initiated an impressive 11 pilots and demonstrations.

To meet the needs of our tenant units we are promoting environmental stewardship to protect our training lands in support of readiness and are always adapting facility designs to meet future threats and mission requirements. Future designs will promote ease of operations, sustainability, and adaptability. Ultimately, modern and well-maintained facilities contribute to training, reduce energy costs, and support climate goals.

I am extremely proud of the work our team has done and excited for you to read about our accomplishments in this year's annual report. These achievements could not be possible without the Army Reserve's dedicated and innovative Installation management community at every level of command.



*ARIMD is at the forefront of exploring emerging technologies that enable the Army Reserve to adopt efficient and affordable solutions, enhance resilience, and achieve strategic outcomes.*





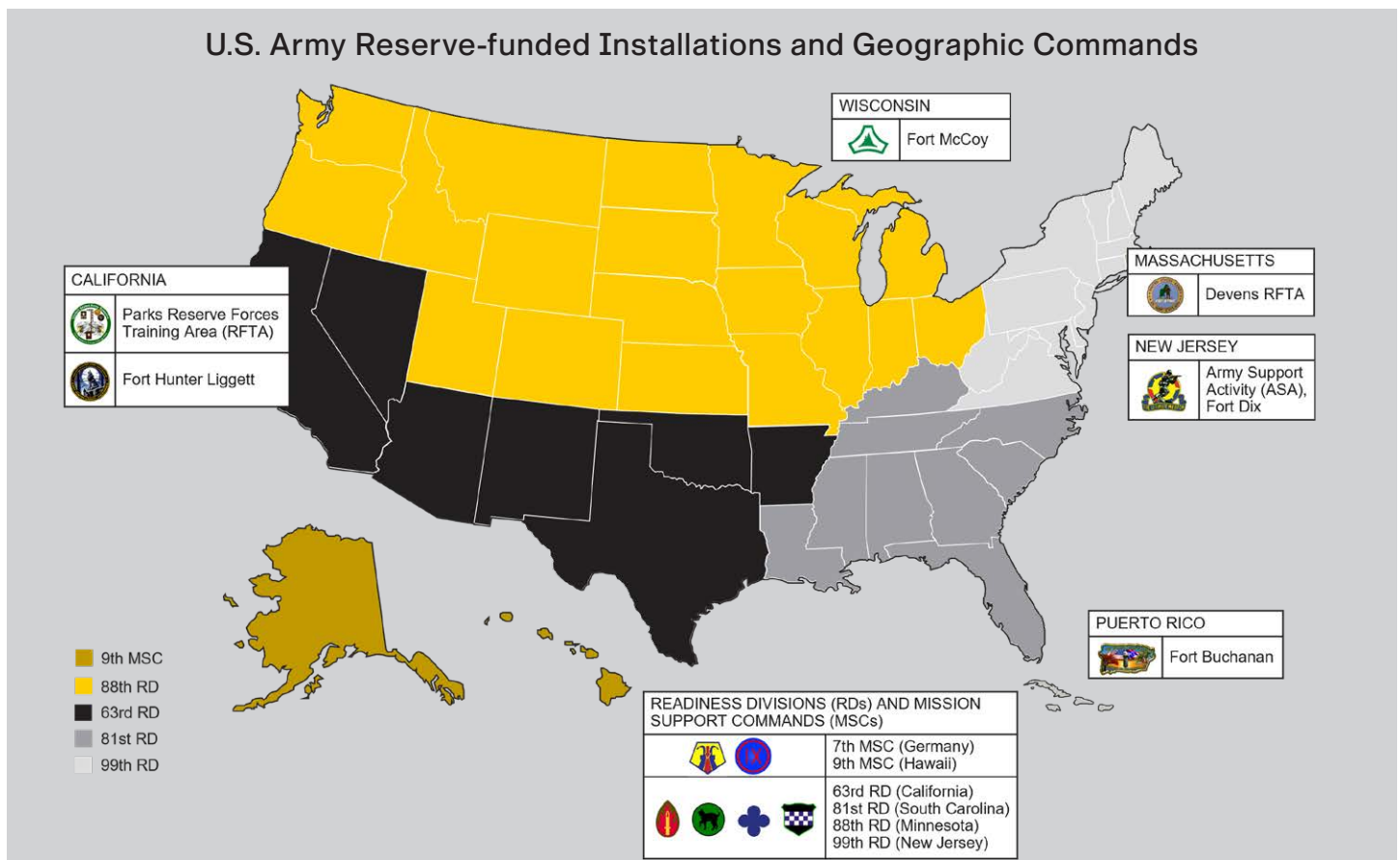
# ARIMD UNIVERSE

## Mission

The Office of the Chief, Army Reserve (OCAR) ARIMD establishes policies; prioritizes and distributes resources; and develops and manages programs that deliver facilities, lands, and infrastructure that support the readiness of the Army Reserve, protect the environment, and strengthen our communities.

## Vision

State-of-the-art, sustainable, and resilient facilities, lands, and infrastructure that contribute to a capable, combat-ready, and lethal Federal Reserve.





## ARIMD Front Office

The OCAR is an element of the Headquarters, Department of the Army (HQDA) staff. As part of this staff, ARIMD is charged with representing the Chief of Army Reserve (CAR) in planning, policy, and programming responsibilities. The ARIMD Front Office maintains collaborative relationships and consistently engages with the Office of the Secretary of Defense (OSD), Army Secretariat, and HQDA staff to ensure we have a pulse on regulations, guidance, and policies that have the potential to impact our responsibilities. In the same vein, it is imperative that we are prepared to influence the development of these directives to best support the Installation and facilities management needs of our Army Reserve Soldiers. From the Army Campaign Plan to the Army Climate Strategy to Army Reserve Centers (ARCs) of the Future and so many more, integration and implementation of these strategies is at the heart of what we do. To that end, ARIMD is proactively developing knowledge management and data integration resources in an online centralized platform to support collective and transparent management of our efforts – the Army Reserve Installation Management Enterprise (ARIME). The ARIMD Front Office supports an innovative and passionate staff that includes three divisions: Assets, Resource Management, and Sustainment and Resiliency.

**Freddy Poole**  
**Deputy Director**  
freddy.l.poole.civ@army.mil



**ARIME**  
*A Common Access  
Card (CAC) is required.*

## Sustainment and Resiliency Division

The Sustainment and Resiliency Division (SRD) plans, programs, and resources Army Reserve-funded Installation services, establishing policies and guidance as they relate to sustainable and resilient facility operations. SRD's vision is to provide state-of-the-art, sustainable, and resilient facilities, lands, and infrastructure that contribute to a capable, combat-ready, and lethal Federal Reserve Force. The division has a diverse portfolio that prioritizes resilience and readiness. The Installation Services and Programs Branch (ISPB) leads the rollout of the Army Reserve's Electric Vehicle fleet and manages the Intergovernmental Support Agreement (IGSA) Program. ISPB also manages the Army Reserve Solid Waste Program, engineering and logistics services, and Installation Status Report support and training across the enterprise. The Army Reserve's Energy & Water Program enables critical facilities to have uninterrupted access to power and water during utilities disruption by implementing new and efficient technologies such as microgrids, renewable energy sources, and centralized building control systems. The Army Reserve Environmental Quality Program ensures access to training lands and facilities, and ensures compliance with environmental laws and regulations to minimize adverse effects to human health and the environment. Execution of conservation, planning, compliance, pollution prevention, and restoration missions are executed through an integrated operational approach leading to innovative solutions with component level buy in. SRD's Strategic Readiness Team is responsible for senior leader engagement, facilitates strategic planning efforts, tells the Army Reserve story through communications, designs customized training, and manages the awards programs.

**Paul Wirt**  
**SRD Chief**  
paul.g.wirt.civ@army.mil





## Assets Division

The Assets Division develops, implements, and oversees the execution of master planning, real estate, and construction policies, plans and programs; develops strategy for execution; determines requirements for the management of facilities and sites; manages Army Reserve equities for Installation Geospatial Information and Services; provides oversight for real estate acquisition and disposal; manages real property exchange and enhanced use leasing; distributes and accounts for construction and real estate resources in support of the Army Reserve real property programs. Provides state-of-the-art, sustainable, and resilient facilities, lands, and infrastructure that contribute to a capable, combat-ready, and lethal Federal Reserve.

**Quincy Meade**  
**Assets Division Chief**  
quincy.meade.civ@army.mil



## Resource Management Division

The primary mission of the Resource Management (RM) Division is to manage the financial and manpower resources assigned to ARIMD in support of the acquisition, construction, sustainment, enhancement, and disposal of all Army Reserve Real Property through judicial planning, oversight, and execution of Army programs. All the RM Teams provide support to the RDs, Installations, and the MSCs. The Accounting Team provides accounting policy and guidance to ensure that all financial transactions will comply with audit readiness requirements. They also work with the field to clear unmatched transactions, liquidate obligations and resolve problematic financial transactions. The Budget Team performs complex financial analyses and develops funding guidance to provide direction to the field for appropriate funding use and execution. They also assist in identifying funding to support critical unfinanced requirements to meet mission requirements. The Manpower Team aids and advises the Installations with Command and Control to Installation Management Command (IMCOM) in Table of Distribution and Allowances management and coordinates with the IMCOM Readiness. They also provide headquarters level support for the Internal Controls program. In addition, they review and prepare support agreements and are the lead on the ARIMD implementation of the 7600A and 7600B process involving the Treasury Department and the Department of Defense (DOD). The RM Team ensures the financial and manpower requirements comply with all financial laws, regulations, and policies to ensure that ARIMD accomplishes all programs in accordance with Federal law and Army regulations.

**Glenn Hu**  
**RM Division Chief**  
glenn.t.hu.civ@army.mil





## TAKE CARE OF PEOPLE

### Taking Care of Soldiers

The Army Reserve recently completed two Military Construction Army Reserve (MCAR) funded projects at Starkville, MS and Fort Buchanan, PR, and one minor MCAR (MMCAR) funded project at Panama City, FL. The Starkville project replaced an overcrowded and failing ARC that was constructed in 1958 with a modern facility that meets the training and maintenance requirements of the assigned units. The previous facility was not up to code, lacked required functional areas, and was experiencing major settlement issues with the foundation. The new 100-member ARC provides 27,306 square feet of training, maintenance, and storage space, an increase of 13,048 square feet over the previous facility. The Fort Buchanan project constructed a 58,312 square foot 1,400-member ARC and unheated storage for 26 units that were previously assigned to temporary facilities on Fort Buchanan until the new ARC was constructed. These same units were displaced by the condemned 1300-area facilities, a vintage 1941 barracks complex that was vacated and demolished due to mold. The Panama City MMCAR project was funded with emergency hurricane relief appropriations. Army Reserve units assigned to the Newkirk Sutherland Jr. ARC were displaced when the facility was destroyed by Hurricane Michael in October 2018. The Panama City ARC required additional training and storage space to accommodate these displaced units.



### Modernizing Barracks

In 2023, the Army Reserve received an authorization and appropriation at Fort McCoy, WI which will complete the military construction required for new collective barracks. Between FY19 to FY23, the Army Reserve received \$181.4 million to construct four new transient training barracks and two officer quarters which will provide 1,920 bed spaces for visiting Soldiers. In 2023, construction started on the third (of four) four-story, 60,000-square-foot barracks. Different from the traditional World War II-era barracks at Fort McCoy, the new barracks are being built with the latest in construction materials, state-of-the-art physical security, and energy-savings measures to support quality of life for Soldiers.



# TAKE CARE OF PEOPLE

## Operation Allies Welcome Barracks Reset

Fort McCoy concluded its six-month long humanitarian mission, Operation Allies Welcome, in February 2022. The Installation temporarily housed, clothed, fed, and provided services to 12,600 Afghan allies who assisted the United States' interest in Afghanistan. In 2023, a complete reset of the installation's World War II-era barracks was completed – restoring 212 rooms. Total funding for the project included more than \$150 million in Overseas Humanitarian, Disaster, and Civic Aid and more than \$250 million in Sustainment, Restoration, and Modernization funding. Fort McCoy stands ready to support additional mobilization and Defense Security Cooperation Agency missions should they arise.

## Recognizing Excellence

The ARIMD semi-annual appreciation program highlights excellence and esprit de corps in the Army Reserve Directorate of Public Works (DPW) community. The program recognizes Department of Army civilians and military personnel from the field who provide exceptional performance and service to the mission of the organization. Chosen recipients receive recognition in the form of a Star Note from Mr. Stephen Sullivan, Director for Resources, Installations, and Materiel. Additionally, the directorate supports federal-level awards with the Secretary of the Army and Federal Energy Management Program to recognize exemplary individual and team efforts across our Army Reserve-funded Installations, RDs, and the MSC.



## Protecting Human Health

In 2023, the Army Reserve routinely sampled our drinking water systems to ensure concentrations of Per- and Polyfluoroalkyl Substances (PFAS), Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic acid (PFOA), or PFOS+PFOA continue to be below 70 parts per trillion and / or compliant with state drinking water regulations. For more than 50 years, PFAS have been used in hundreds of industrial applications and in common household products such as non-stick pots and pans, carpeting, apparel, upholstery, food paper wrappings, and fire-fighting foams. The Army Reserve's most frequently used PFAS-containing product is aqueous film-forming foam (AFFF), which has been used to fight petroleum fires. In January 2023, the military approved a new PFAS-free version of fire-fighting foam appropriate for combating aviation fuel fires, and in September 2023 the first replacement foam was approved. The Army Reserve is committed to protecting human health and continues to work on replacing AFFF in its vehicles, facilities, and equipment.

Additionally, this past year the Army Reserve held monthly meetings specifically to address heavy metals. Though the process has multiple steps, we are moving forward with preventative measures and abatement efforts. The Army Reserve's greatest strength is our people, and our priority is the health and safety of our service members, their families, our civilian workforce, and the communities we serve. We continue to use scientifically supportable data to assess the risk to human health and the environment, and to prioritize and address sites where risk to human health is the highest. We take our cleanup responsibility seriously and are moving as quickly as possible through the deliberative processes for cleanup.





## STRENGTHEN READINESS AND RESILIENCE

### Addressing Threats to the Homeland

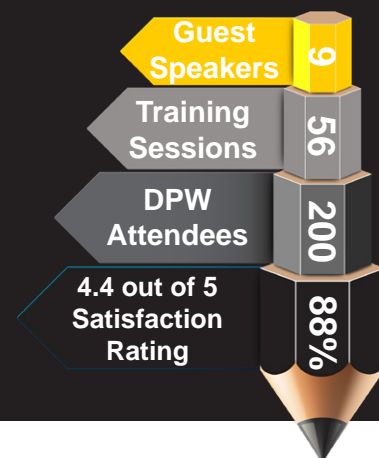
Threats to our homeland's security, such as advanced cyberattacks, could target ARCs and Installations to attempt disruption of utilities and other building control systems to limit our ability to project combat power. To counter this threat and strengthen our critical facilities and infrastructure, the Army Reserve continues to conduct Facility-Related Control Systems (FRCS) inventories and assessments through USACE. In 2023, the Army Reserve reached 70% execution of inventories and assessments with estimated completion in FY25. USACE will begin addressing cyber vulnerability mitigation measures in FY24.

### Enhancing the Resilience of Critical Facilities

The Army Reserve continues to compete for Energy Resilience Conservation Investment Program funding for critical facilities to meet energy and resilience objectives. In FY23, one project was in the commissioning phase and is scheduled to be completed in FY24. Additionally, another project was under construction. Looking ahead, two microgrid projects are scheduled for award by the end of FY24. Furthermore, the Army Reserve has six projects in various stages of design, with several additional projects in the planning phase. Coordination with the U.S. Army Engineering and Support Center, Huntsville continues as the Army Reserve Energy Program refines and further develops existing project submissions to be more competitive for future selection.



On 9-11 May 2023, ARIMD hosted the Army Reserve Mission Resilience and Sustainability (ARMRS) Training for more than 200 DPW attendees with emphasis on practical skills essential to perform strategic objectives. ARMRS Training is a mission critical training in climate change, energy and water resilience, solid waste diversion, environmental quality, real estate, and real property. The training enables strategic integration and collaboration across all Army Reserve-funded Installations, RDs, and the MSC to address programmatic performance deficiencies to advance planning, execution, and identification of resilient solutions for Army Reserve infrastructure.





# STRENGTHEN READINESS AND RESILIENCE

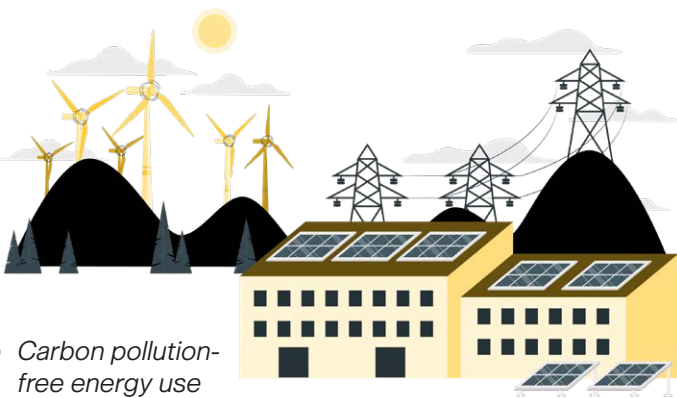


## Creating Better Buildings

Leadership in Energy and Environmental Design (LEED) certified buildings follow a framework for healthy, highly efficient, and cost-saving green buildings. The Military Construction (MILCON) and MRAR programs successfully achieved LEED Silver on three new facilities in 2023; the FY19 Tactical Equipment Maintenance Facility and Warehouse located at Marine Corps Logistics Base Barstow, CA and the FY20 Collective Training Enlisted Barracks located at Fort McCoy, WI. This brings the program total to 71 facilities that have achieved LEED Silver or Gold. Another 53 projects currently in design or construction are targeting LEED Silver certification.

## Success in Cyberspace

The Army Reserve received \$127 million in additional MILCON funding through the FY23 National Defense Authorization Act appropriation to include \$40 million for the Fort Hunter Liggett, CA Network Enterprise Center (NEC). This provides secure permanent information and communication facilities to support the garrison, tenants, and federal government agency partners. The NEC provides internal and external network communications supporting national and international elements including but not limited to the Army, Army Reserve, Army National Guard, Army Corps of Engineers, Navy Reserve, and Marine Corps Reserve. The information systems facility will support network defense and enable information technology and management.



- Carbon pollution-free energy use
- Deep-energy retrofits
- Whole-building commissioning
- Energy and water conservation measures



## New Facility Electrification Projects

In 2023, the Army Reserve began implementing Executive Order 14057 Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability and the DOD memo requiring the electrification of federal buildings. In FY23, electrification requirements were also incorporated into the designs for the FY24 MRAR program. Additionally, infrastructure for future building electrification was incorporated into four ongoing FY25 designs at Fort Buchanan, PR; Richmond, VA; Parks Reserve Forces Training Area (RFTA), CA; and Devens RFTA, MA. Full electrification was incorporated into the new start for the FY26 project at New Castle, PA.





## MODERNIZE AND INNOVATE

### Improving Future Programs and Facility Standardization

In conjunction with USACE, After Action Reports (AARs) for MILCON and MRAR programs examined 10 recently awarded design projects and five recently completed construction projects. Input was gathered from the project delivery team members comprised of ARIMD, USARC G-3/5/7 Engineers, USACE, RDs, and Army Reserve-funded Installations. Initiatives such as improving contractor performance ratings, enhancing risk registers, and performing additional structural and environmental testing for proposed MRAR facilities are now being implemented. Such initiatives drive improved resource management and allow for the timely identification and mitigation of compromised building operations.



### Intergovernmental Support Agreement Program

The Army Reserve Intergovernmental Support Agreement (IGSA) program provides opportunities for RDs to partner with local governments to capitalize on contracts and services rendered by local municipalities. Benefits of IGSA include economic benefits and cost savings, strategic regional collaboration, improved government and community relationships, increased efficiencies and mission capacity, and installation and family resilience. The IGSA program is growing as many RDs are actively exploring opportunities. For example, the 88th RD established a grounds maintenance agreement at the Waterford Army Reserve Center, MI, resulting in an estimated \$10,000 savings over the 10-year agreement at this single site.



# MODERNIZE AND INNOVATE

## Electric Vehicle Pilot and Master Plan

The Army Reserve partnered with the Defense Innovation Unit (DIU) to conduct an electric vehicle (EV) charging pilot program to provide Level 2 and 3 electric vehicle supply equipment for both government and privately owned vehicles (POVs), as well as developed a system for POV owners to reimburse the government for charging services. In support of the holistic EV implementation plan, ARIMD launched a master planning initiative with the U.S. Army Engineering and Support Center, Huntsville. The effort includes multiple site assessments to bridge the gap between planned EV fleets and the required charging infrastructure to support it. The site assessments will provide data into FY25 and aid RDs and the MSC to make better informed decisions when selecting and installing EV chargers and supply equipment.



### Measurement and Verification

- Documenting reduced energy use before/after retrofit
- Collect enough extra information to normalize energy data



### Pilot

- Validate performance at an initial location with hopes to install on a larger scale
- Data collected is greater than typical measurement and verification but not as detailed as a full-scale



### Demonstration

- Similar to a pilot but adds additional data points to understand how something performs and why
- Key outcome is to generalize how device will perform in other locations and situations



### Testbed

- Established with ample metering, data loggers, and/or test equipment that will be used to conduct multiple demonstrations of technologies or multiple scenarios for one or more technologies

## Emerging Technology Pilots

To support the Army of 2030, the Army Reserve is facilitating and supporting the adoption of new, novel, and emerging technologies through facilitating 11 studies, pilots, and/or demonstrations to verify performance in Army Reserve facilities. Five of the 11 demonstrations involve external partners and include \$4.88 million of co-funding. The Army Reserve was awarded three Environmental Security Technology Certification Program projects through a competitive selection process. Four of the 11 projects are advanced analytic applications building on the Army Reserve's Enterprise Building Control System. Looking ahead, a new project in FY24 will evaluate a containerized deployable photovoltaic and microgrid hosted at two 88th RD sites with DIU.



## PROMOTE STEWARDSHIP

### Army Reserve Environmental Takes Strategic Steps Forward

In 2022, the Army Reserve Environmental Quality Team created a new strategy to address both execution and policy challenges. The strategy enables the Team to champion proactive environmental stewardship and shape a sustainable tomorrow. With four quarterly In-Progress Reviews completed in FY23, the team received valuable input and direction from leadership which helped focus efforts for the team's long-term vision. Progress was made towards building standard operating procedures and continuity, online training forums, enhanced data tracking mechanisms, and overall process improvement. The Environmental Quality Team continues to strive toward program success for a large, dynamic, and highly specialized organization.

### Reducing Carbon Emissions

In FY23 the Army Reserve reduced greenhouse gas (GHG) emissions from the real property portfolio by 42% compared to the FY08 baseline. As a result, the Army Reserve has achieved the FY27 goal for GHG reduction as directed by the Army Climate Strategy Implementation Plan. In FY23, the Army Reserve reduced 5.7% of the emissions (174,088 to 164,186 metric tons of carbon dioxide equivalent). Though building energy costs increased by 4% in FY23 due to rate increases, the Army Reserve simultaneously decreased energy consumption and energy use intensity by 7% respectively.

### Climate Adaptation: Natural and Cultural Resources

In support of climate adaptation goals and Integrated Natural Resource Plans, in 2023 ARIMD received a grant from the National Environmental Education and Training Foundation under the National Public Lands Day DOD Award Program. Nearly 25 Army Reserve Soldiers, Civilian employees, and Families volunteered to weed, plant, and mulch the pollinator garden at OCAR. The garden directly supports a small but still important piece of habitat for both the Fort Belvoir's Accotink Bay Wildlife Refuge and Jackson Miles Abbott Wetland Refuge and contributes to Fort Belvoir's Flight Bird Conservation Initiative.

After the 2023 release of the Climate Adaptation Guide for Cultural Resources by the DOD Legacy Resource Management Program, the Army Reserve has encouraged RDs to integrate climate change risks and ways to improve resiliency into cultural resource management. The up-to-date guide provides climate adaptation strategies for Integrated Cultural Resource Management Plans (ICRMP). Currently, the 63rd RD, 88th RD, and 9th MSC are updating or establishing their ICRMPs to incorporate more robust climate change initiatives.



## PROMOTE STEWARDSHIP



### Enhancing Environmental Compliance Through Comprehensive Data

External Environmental Performance Assessment Survey (EPAS) audits are a vital tool to improve the Army's compliance with all applicable environmental regulations. The Army Reserve has recognized a need for enhanced data analytics to identify trends and weaknesses while improving EPAS compliance. The 81st RD built a dashboard using off-the-shelf software that showcases efficient data organization and collection. Through their initiative, regulatory requirements and associated risks are identified and prioritized, facilitating better overall environmental program management. Building on this success, an enterprise-wide project pilot is underway. Its goal is to provide comprehensive insights into environmental compliance trends across all RDs. Improved data visualization and risk analysis will enhance environmental program management and allow leadership to make well-informed decisions.

### Protecting the Planet Through Solid Waste Diversion

The Army Reserve Solid Waste Program tracks and analyzes the generation, recycling, and disposal of non-hazardous solid waste (NHSW) and construction and demolition (C&D) debris across the enterprise. In FY23, the Army Reserve exceeded DOD goals by diverting 43% of NHSW and 78% of C&D. Fort Hunter Liggett and Fort McCoy qualified recycling programs generated over \$119,000 primarily by selling spent brass. ARIMD also advocated for Devens RFTA to be selected for an Army-wide pilot to test the effectiveness of dumpster sensor technology. The potential contract cost savings is \$145,000 - \$395,000, which is based on optimized collection scheduling to reduce unnecessary pickups (by 30% - 55%) and associated fuel costs.



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