2020 ANNUAL REPORT

SUSTAINMENT AND RESILIENCY DIVISION

ARMY RESERVE INSTALLATION MANAGEMENT DIRECTORATE

MODERNIZING FOR THE FUTURE
INCREASING READINESS

On behalf of the United States Army Reserve (USAR) and the Army Reserve Installation Management Directorate (ARIMD), I am proud to present the 2020 Sustainment and Resiliency Division (SRD) Annual Report.

Looking back at the year, the operational environment in 2020 remained volatile, uncertain, and ambiguous. Coupled with the complexities of a global pandemic with COVID-19, the U.S. continued to face increased threats from adversaries and natural disasters. Through refinement of the USAR Infrastructure Strategy and other internal support strategies, such as the Energy and Water Resilience Strategy, ARIMD has established a strong framework aimed at properly resourcing and managing USAR real property assets.

This framework enables SRD programs and services to target the best investments through resource prioritization which ensures long-term affordability of our infrastructure. We must protect our most critical assets without compromising the mission, which includes adapting our facilities for increased efficiency while modernizing to meet future mission requirements. To that end, our energy, water, environmental, and solid waste/recycling initiatives, combined with our engineering and logistics services, target the best investments to provide the resilient infrastructure that enhances Soldier readiness.

Since SRD's beginnings over eight years ago, our projects and initiatives continue to make a tangible difference. In 2020, the efforts of the division along with the hard work of field personnel across the enterprise, enabled the USAR to:

- Decrease energy use intensity (EUI) by 7.5 percent
- Decrease energy consumption by 7.9 percent
- Decrease potable water use intensity (WUI) by 12.8 percent
- Divert 45,748 tons of waste from landfills

I would like to personally thank the dedicated Directorate of Public Works (DPW) staff, as well as staff sections and engaged stakeholders at USAR-funded installations, Readiness Divisions (RDs), and Mission Support Commands (MSCs). Our programs would be unsuccessful without your hard work and profound commitment to supporting our Soldiers and the future of the USAR.

For more information on USAR SRD initiatives, please visit **www.usar.army.mil/Sustainability**.

DANIEL L. CEDERMAN
COLONEL, GS
DIRECTOR, ARMY RESERVE
INSTALLATION MANAGEMENT DIRECTORATE

TABLE OF CONTENTS

DIVISION PROFILE

OUR PURPOSE
SRD plans, programs, and resources USAR-funded installation services, establishing policies and guidance as they relate to sustainable and resilient facility operations.

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

STRATEGIC READINESS TEAM (SRT)
Resilience enables the USAR to anticipate, recover, and adapt to changing conditions. Secure and reliable assets at USAR facilities are vital to perform its mission and support global operations. The SRT partners with USAR-funded installations and RDs to facilitate the Integrated Strategic and Sustainability Planning (ISSP) process, supporting the creation of long-term holistic strategic plans. Through ISSP, SRT helps strengthen the USAR's alignment with a culture focused on warfighter readiness and resilience.

ENERGY & WATER TEAM
The USAR Energy & Water Team's priority is to ensure available, reliable, and quality power and water to sustain critical missions. Our energy and water initiatives are integrated — enabling the USAR to execute a holistic strategy that enhances readiness and resilience while improving the operational capabilities of Soldiers.

ENVIRONMENTAL QUALITY TEAM
The USAR Environmental Quality Team champions environmental stewardship through legal compliance. It enables senior leaders to make the best possible decisions in support of USAR missions while bolstering the ecosystems upon which military training and operations depend.

SERVICES BRANCH
The USAR Services Branch enables our facilities to work on any given day, in the face of any given challenge, safely and effectively with the resources they need to achieve their mission. Through the Solid Waste Team, logistics and engineering funding, or infrastructure analytics to articulate requirements-driven decisions through Installation Status Report (ISR), our Services Branch is here to support a wide range of essential programs.

OUR COMMUNITIES
We believe we have a special duty to our communities to do things the right way. We also believe that Soldiers, Civilian employees, and our communities have a personal responsibility to implement conservation and resilience efforts. Everyone is vulnerable to the risks that drive the USAR's focus on long-term sustainability. Whether natural disasters or cyberattacks, personal resilience is just as important as military resilience.

OUR ORGANIZATION

DIVISION CHIEF

Paul Wirt
paul.g.wirt.civ@mail.mil

PROGRAMS COORDINATOR

Rosa Brizuela
rosa.m.brizuela.ctr@mail.mil

SRT

Heather Brown
SRT Lead
heather.n.brown37.ctr@mail.mil

Kisha Patton
Sustainability Planner
kisha.d.patton.ctr@mail.mil

Birgitte Dodd
Sustainability Coordinator
birgitte.r.dodd.ctr@mail.mil

Ashley Bradford
Strategic Communicator
ashley.m.bradford.ctr@mail.mil

ENERGY & WATER TEAM

Trey Lewis
Energy & Water Coordinator
frank.w.lewis.ctr@mail.mil

Eric Connelly
Energy Coordinator
eric.m.connelly.ctr@mail.mil

Clete Schaper
Energy Coordinator
william.s.schaper.ctr@mail.mil

Eric McKay
EBCS Sustainment Coordinator
eric.t.mckay.ctr@mail.mil

Dave Ashley
Research Analyst
david.ashley@pnnl.gov

ENVIRONMENTAL QUALITY TEAM

Kelly Dreyer
Environmental Quality Team Lead
kelly.a.dreyer.civ@mail.mil

Rodrigo Walker
NEPA Coordinator
rodrigo.j.villarroelwalker.ctr@mail.mil

Stephanie Santiago
Environmental Coordinator
stephanie.n.santiago3.ctr@mail.mil

Mary Schmidt
Cultural Resources Coordinator
mary.e.schmidt37.ctr@mail.mil

SERVICES BRANCH

Lt. Col. Danny Jennejohn
Branch Chief
danny.c.jennejohn.mil@mail.mil

1st Lt. Jenny Lee Milanes
Knowledge Management Officer
jennylee.e.milanes.mil@mail.mil

Tyrone Cook
Solid Waste Program Coordinator
tyrone.g.cook.ctr@mail.mil

Robin Sullivan
Solid Waste Program Assistant Coordinator
robin.sullivan@pnnl.gov

Laura Pirtle
Logistics Services Program Manager
laura.j.pirtle.civ@mail.mil

Walt Kilmer
Engineering Services Program Manager
walter.l.kilmer.civ@mail.mil

Aaron Bloedorn
Dual Assets/Services Support
aaron.a.bloedorn.ctr@mail.mil

Tom Goeller
Lead Analyst Contract ISR/CLS Support Team
thomas.g.goeller.ctr@mail.mil

Will Dalton
ISR-Infrastructure Support
william.t.dalton21.ctr@mail.mil

John Markatos
ISR-Services Support
john.m.markatos.ctr@mail.mil

SUSTAINMENT AND THE PIVOT TO RESILIENCE

PAUL WIRT
SRD CHIEF

Sustainability – what does it mean to the USAR? For the SRD, it has been our foundational platform from our beginnings as a programs branch. As our support to RDs and USAR-funded installations has grown to provide strategic planning and resiliency resources for all facets of operations…beyond energy, water, and environmental compliance… the SRD restructured itself in 2020 to reinforce that sustainability is the key to everything we do.

When the Sustainability Programs Branch was created in 2015, we intended to ensure organizational alignment with the Deputy Assistant Secretary of the Army for Energy and Sustainability, and to ensure we were best able to support the priorities of the Assistant Secretary of the Army for Installations, Energy and Environment. The focus at that time was achieving Net Zero energy, water, and solid waste. From the beginning, our focus was highlighting those three programs where we had a unified effort. We also added environmental to the fold because it is a critical component and incorporating it helps ensure a holistic approach to sustainability. These were the areas we knew we could leverage to best influence and support mission readiness.

While these four initial program areas were great steppingstones in creating a culture of sustainability, it was only just the beginning. We did not want to define sustainability in the nutshell of those four single programs — the Sustainability Programs Branch was just an overarching name for what Net Zero was accomplishing at the time. We quickly expanded to move beyond being defined by those programs thanks to our strategic planning efforts.

In 2018, the sustainability principles were transitioned to the division level, incorporating logistics and engineering services, as well as the ISR team. Now, the SRD has further aligned its portfolio of services to bring sustainability and resiliency to the forefront of RD- and installation-level strategic planning.

Over the last five years, we have seen remarkable success through our SRT and its strategic planning facilitation efforts. We have integrated sustainability more fully into the way that RDs and installations do business — expanding beyond the initial four programs to focus on areas such as overall operations, training, infrastructure, logistics, and human capital.

Along with the increased demand for strategic and sustainability planning support at the RD and installation level, the SRD remains aligned with the Army Secretariat focus which naturally matured over time from Net Zero to resilience. We know that the pivot to resilience does not negate sustainability. Readiness for today is built on resiliency — our ability to be agile, flexible, and to withstand and adapt to changing conditions that disrupt the USAR mission. Readiness for tomorrow is built on sustainability.

Managing a half-billion dollars in installation funding across the USAR, SRD emphasizes resilience across all programs, from logistics to engineering services, as they all play a part to train, mobilize, and deploy Soldiers. Having a resilient USAR is our primary focus. We are doing everything possible to support the field across our entire division and are committed to sustaining our programs, facilities, and infrastructure to ensure we can adapt to the dynamic and ever-changing operating environment. It is our obligation to present and future Soldiers to provide them with the hardened resources needed to win the wars of the future.

2020 FACTS AND FIGURES

37,497 Million British Thermal Units (MBtu) of renewable energy

7.9 percent decrease in energy consumption compared to FY19

45,748 tons of waste diverted from landfills

52.7 percent decrease in potable WUI compared to FY13 baseline

279,424 acres of land

200,000 Soldiers and Civilian employees

42+ million square feet of facility space

$500 MILLION SRD Annual budget

USAR-FUNDED INSTALLATIONS

Fort Buchanan (Puerto Rico)
Fort McCoy (Wisconsin)
Fort Hunter Liggett (California)

RDs

63rd RD (California)
81st RD (South Carolina)
88th RD (Wisconsin)
99th RD (New Jersey)

MSCs/ ARMY SUPPORT ACTIVITIES (ASAs)

7th MSC (Germany)
9th MSC (Hawaii)
ASA Fort Dix (New Jersey)

RESERVE FORCES TRAINING AREAS (RFTAs)

Parks RFTA (California)
Devens RFTA (Massachusetts)

ALIGNED STRATEGIES AND STAKEHOLDER ENGAGEMENT

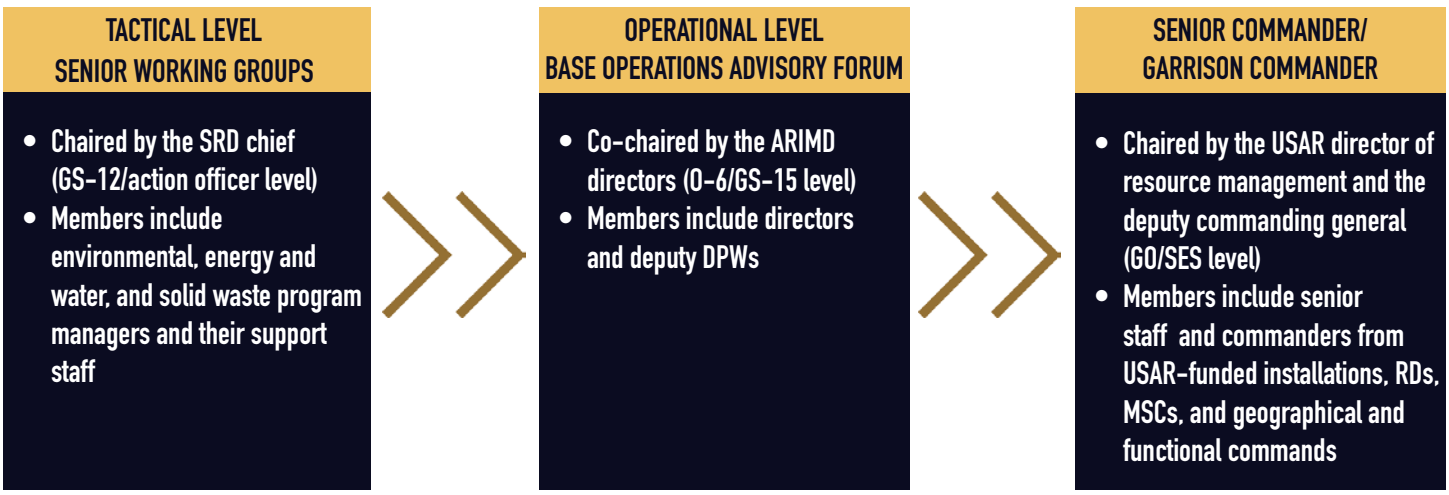
ALIGNED STRATEGIES

The USAR focuses on targeted investments that ensure readiness now while shaping the Force of tomorrow. Our facilities must enable unit readiness, support mobilization, and the projection of combat power. They must be resilient enough to support all missions from an unsecured Strategic Support Area and be able to support emerging technologies and the future infrastructure requirements of a multi-domain capable force. To successfully execute these requirements, we know that all strategies — from top to bottom — must be in alignment.

SENIOR SUSTAINABILITY COUNCIL (SSC)

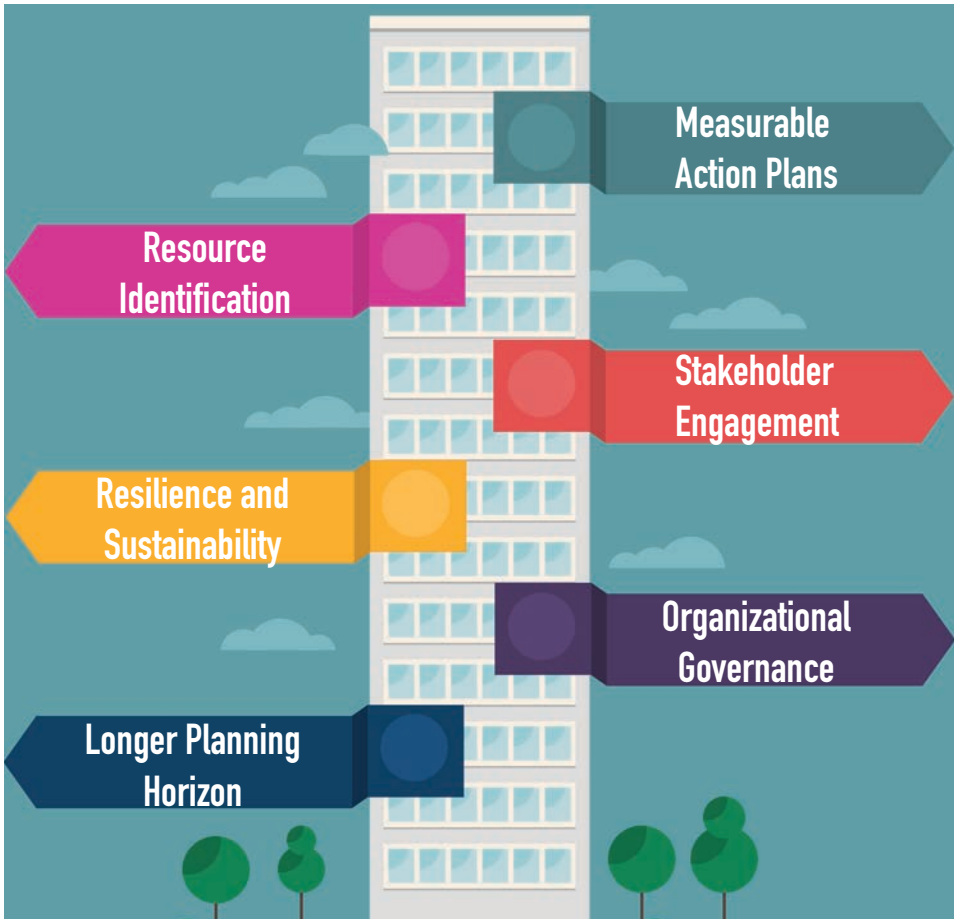
From engaging senior leadership to integrating operational staff, the USAR drives policy and resources towards state-of-the-art resiliency initiatives. We must protect mission readiness, and through stakeholder engagement, we can continue to increase understanding and support of our critical facilities. As we continue to lead the effort to coordinate and collaborate on critical mission resilience, we will always look beyond our team to ensure solutions are sustainable, flexible, and meet the needs of mission owners.

The SRD leverages engagement from the USAR SSC, which guides the implementation of our objectives and promotes the integration of sustainable and resilient processes into all functional areas of the enterprise. The SSC fosters and encourages the use of innovative technologies and tools for sustainable practices and it develops and monitors the progress of programs, plans, and activities intended to achieve the USAR's sustainability and resiliency goals and objectives. The council is a tiered council comprised of stakeholders at all levels of the enterprise — from senior leaders to program managers.



BUILDING STRATEGIC SUCCESS

Imagine a company is hired to build a modern, efficient building that not only has to meet current operational needs, but also has the adaptability to meet future requirements. Then take it a step further and imagine that the client has not provided any cohesive guidance on architectural design, resources, or supplies. Even though the builder has a solid reputation and skillful team, they are destined for failure without an interrelated step-by-step approach.



The SRT partners with SRD programs, USAR-funded installations, the MSC, and RDs to offer a suite of services to ensure that strategies are holistic, long-term, nested with overall Army and DOD guidance, and include measurable actions to drive mission readiness. From facilitating integrated strategic planning through a buildable process to tailored communications and awards support, the SRT is comprised of subject matter experts who help the USAR establish long-term direction and provide the support needed for continual growth. SRT also articulates the stories of resiliency initiatives executed across the USAR through communications and award narratives to increase awareness, engage stakeholders, and inspire tangible culture change.

STRATEGIC PLANNING

SRT strategic planners establish and maintain a continuous working relationship with personnel across all levels and organizations at RDs, the MSC, and USAR-funded installations, as well as provide internal strategic planning support to ARIMD. Using the Army's ISSP process, the USAR can establish a longer planning horizon and be postured to anticipate and plan for needed change to best support the mission. This ultimately ensures resiliency in the face of ever changing-mission requirements and threats. The ISSP process consists of several steps that build upon each other to develop an integrated and comprehensive strategic plan. ISSP is not a separate process from strategic planning but rather works with leadership and the Plans, Analysis, and Integration Office to enhance an organization's strategic vision and the process in which it is developed.

In addition to a longer planning horizon, the ISSP process offers several other essential benefits to traditional strategic planning and supports the most significant drivers of Federal, Department of Defense (DOD), and Army strategic and sustainability guidance and requirements. These added benefits include increased stakeholder involvement, the creation of a culture of sustainability and resiliency, measurable action plans, clarified organizational governance, and resource identification.

EXTERNAL STRATEGIC PLANNING SUPPORT

Over the past three years, strategic planning was successfully conducted by SRT at three USAR-funded installations — Fort Buchanan, Fort Hunter Liggett/Parks RFTA, and Devens RFTA. All locations are executing Action Plans and updating their reporting as they advance into 2021.

INTERNAL STRATEGIC PLANNING SUPPORT

At the heart of everything we do is the genuine desire to support the field to our greatest ability. It is because of this we embarked on various updates to ARIMD-level strategies this year. We recognize that as important as it is for the field to have an integrated strategic vision, the same foundation is just as crucial at ARIMD. We took time this year to do the very important work of stepping back to evaluate how we can provide better support to the RDs, the MSC, and USAR-funded installations. A modified ISSP process is being used to update the Energy and Water Resilience Strategy, Solid Waste Implementation Strategy, and Environmental Quality Implementation Strategy (coming in 2021).

STRATEGIC COMMUNICATIONS

SRT's strategic communicator directly provides ARIMD and USAR-funded installations with comprehensive communications support that helps fulfill long-term efforts. As an internal and external resource, the strategic communicator has a hands-on approach in numerous initiatives across the division and the USAR – creating a framework for consistency and alignment. By supporting ARIMD, partnering with field managers, and collaborating with USAR public affairs officers, there is an increased ability to leverage a wider audience to forge critical partnerships, combine efforts, and ultimately achieve change.

AWARDS

The SRT includes dedicated team members who are committed to honoring exceptional performance at the personal, installation, and virtual installation levels. ARIMD sponsors a quarterly appreciation program, created by SRT in 2020, to foster excellence and esprit de corps in the USAR DPW community. The objective of the program is to recognize individuals from the field who may not meet all the criteria for external federal awards, but who provide exceptional performance and service to the mission of the organization. Chosen recipients receive recognition for exceptional engagement in their respective programs, developing innovative ideas, minimizing resource use while promoting efficiency and resiliency, and being team players who develop and foster strong partnerships with colleagues.

At a national and federal level, SRT has extensive expertise in writing competitive award narratives and packages. Since 2014, SRT support has resulted in 23 awards and recognitions for numerous RDs and USAR-funded installations through the following award programs:

- Federal GreenGov Award
- Secretary of the Army Energy and Water Management Award
- Secretary of the Army Environmental Management Award
- Department of Energy, Federal Energy Management Program (FEMP) Award
- FEMP Spotlight Award
- US Green Building Council, Lighting Energy Efficiency in Parking
- Environmental Protection Agency (EPA) Federal Green Challenge Award

Lt. Col. Lindsey E. Halter, commander, and Command Sgt. Maj. Kelli M. Harr review proposed Mission and Vision statements drafted by stakeholders at the Devens RFTA LOE session held March 3–4, 2020.

TRAINING

With the unique operating environment that comes from a global pandemic, keeping Soldiers and Civilian employees safe from COVID-19 took absolute precedence in 2020.

The SRD quickly adapted training practices to ensure a geographically-dispersed USAR could complete training requirements that kept the installation management workforce empowered during critical times. To effectively do so, SRT helped SRD to become better prepared to address the needs of the field in a virtual environment. Through effective facilitator and interpersonal training, SRD provided internal and external opportunities to develop our team. This enabled SRD programs to provide various successful workshops and training events with USAR staff across the nation while maintaining collaboration through dynamic engagement.

SRD also hosts the annual Army Reserve Mission Resilience and Sustainability (ARMRS) Training that brings together over 150 participants from across the USAR enterprise. Due to the overwhelmingly positive response from the previous two trainings, it remains a priority to SRT to plan the next ARMRS as soon as it is safe for our Soldiers and Civilian employees to gather in person again. After exploring different virtual platforms and venues, we feel strongly that the value of meeting in person cannot be replaced or replicated virtually. In 2020, the SRT began the planning process for the next ARMRS which will be held in fall 2021.

> Working at a headquarters level of a worldwide organization, we want to always make sure we're bringing our best game when it comes to supporting USAR commands, our Soldiers, and Civilian employees. In 2020, we faced travel restrictions that inspired us to make sure we still brought top-notch support that the field depends on but in a virtual way that was still engaging, productive, and supporting the needs of the mission.

PAUL WIRT
SRD CHIEF

USAR
ENERGY & WATER

ENSURING RESILIENCE AND SECURITY

When USAR Soldiers answer the call of duty, unfettered access to energy and water supplies is critical to winning the mission. Energy and water resilience, or the ability to operate independently from commercial utilities during outages, means reliable access when our Soldiers need it the most. Our holistic Energy and Water Resilience Strategy enhances readiness and resilience while improving the operational capability of Soldiers. It focuses on achieving this security through collaboration, knowledgeable and trained staff, and modern, well-maintained infrastructure.

PROGRAM GOALS

1. Governance and Collaboration: Reliable leadership engagement at all levels, integrated with operational staff, enabling input to drive policy and resources toward state-of-the-art resiliency initiatives to the Strategic Support Area.
2. Knowledge Management and Workforce: A properly staffed, proficient installation management workforce that leverages dynamic data repositories and reliable information platforms; the embodiment of a unified and integrated culture.
3. Infrastructure Modernization: Modernized, efficient, and affordable USAR infrastructure that meets Army Directive 2020-03, Installation Energy and Water Resilience Policy, to "prioritize energy and water security requirements to ensure available, reliable power and water to continuously sustain critical missions…" and "reduce risk to critical missions by providing the necessary energy and water for the duration of time designated by the Senior Commander."

Installation Energy and Water Plans (IEWPs)

To reduce mission risk, the USAR is prioritizing resilient energy and water supplies, facilities, and infrastructure. To effectively do so, USAR-funded installations and RDs conduct IEWPs and virtual-IEWPs (v-IEWPs; conducted for RDs or "virtual" installations) to outline critical mission requirements, assess energy and water baseline conditions, develop a prioritized approach for both projects, and operations and maintenance activities that improve energy and water resilience. In FY20, the USAR completed IEWPs for Fort McCoy, Fort Hunter Liggett/Parks RFTA, and Fort Buchanan. The USAR also completed site resilience assessments at Army Reserve Centers as part of future FY21 v-IEWPs.

Below is a sampling of projects that were developed from IEWPs and v-IEWPs for the Energy Resilience and Conservation Investment Program (ERCIP) in FY20:

FY	DESCRIPTION	LOCATION	CURRENT WORKING ESTIMATE (MILLION)
20	Microgrid controller, 750 kW PV, and 750 kWh Battery Energy Storage System (BESS)	Mountain View, CA	$9.7
22	Microgrid control system, 690 kW PV, 275 kW generator, and 570 kWh BESS	Juana Diaz, PR	$9.2
23	Microgrid control system, 750 kW PV, 750 kWh BESS, and 680 kW generator set	Conroe, TX	$7.1
24	Microgrid control system, 150 kW PV, 250 kWh BESS, and 250 kW generator	Fort McCoy, WI	$1.7
24	Microgrid, 3 MWh BESS, and 2 MW generators	Fort Buchanan, PR	$36.1
25	Water Treatment Plant	Fort Buchanan, PR	$5.8
25	Microgrid, 300 kW PV, 2 MW generator, and 1 MWh BESS	Ceiba, PR	$9.5
25	Microgrid, 600 kW/2100 kWh BESS, and 365 kW generators	Seagoville, TX	$6.5

Conserving Energy

In FY20, the USAR achieved a 7.5 percent decrease in EUI compared to FY19. In FY20, eight of 10 RDs, MSCs, and USAR-funded installations realized a decrease in EUI, with three of the 10 showing a double-digit decrease. Energy consumption in FY20 also decreased by 7.9 percent compared to FY19.

The USAR continued to pivot from planning and executing projects that only achieve mandates, but also increase efficiency and support readiness. Past investments such as building envelope retrofits, electrical infrastructure repair, boiler upgrades, and HVAC upgrades, helped the USAR to gain larger EUI and energy consumption reductions. Energy conservation measures that were executed by the 63rd RD at 14 Army Reserve Centers in Texas, Oklahoma, and Arkansas ($5.6 million Utility Energy Service Contract awarded in FY18) are also improving efficiency.

Generating Renewable Energy

The USAR recognizes the critical role that renewable energy plays in sustainability and resilience, producing 37,497 MBtu of renewable energy in FY20. This represents nearly a 12 percent increase from FY19. High performers include Fort Hunter Liggett which produced 13.9 percent of its electric needs from renewable energy. The 9th MSC led for the USAR virtual installations with 8.6 percent of electricity coming from renewable sources.

Decreasing Potable Water Use with Water Infrastructure Improvements

The USAR has made huge strides in reducing WUI and water consumption over the past seven years. In FY20, potable WUI decreased by 12.8 percent and 13.2 percent compared to FY19, and by 52.7 percent compared to the FY13 baseline. Exceptional numbers were also reported for water consumption with an FY20 decrease of 49.3 percent compared to an FY13 baseline.

As with past energy efficiency investments, past water efficiency projects continue to reap benefits. Water distribution system repairs at Fort Buchanan, Puerto Rico, and Fort Douglas, Utah, have and will, result in significant reductions in water waste. The USAR also continues to leverage bundled energy and water efficiency opportunities where identified.

Turning Rain into Useable Water

Based in Puerto Rico, Fort Buchanan is no stranger to hurricanes and utility disruption. To increase water resiliency, the Installation installed seven additional potable Rainwater Harvesting Systems (RWHS) in 2020 and have six more under design. During FY20, RWHS produced 418 kgals of potable water at Fort Buchanan — enabling an offset of off-site utility-provided water. Along with repairing their potable water distribution systems, Fort Buchanan was able to decrease potable water use by 17 percent in FY20 compared to FY19 and over 49 percent in FY20 compared to FY18.

Driving Awareness

Energy Action Month presents an annual opportunity to capture and highlight energy and water initiatives that strengthen the security and resiliency of USAR facilities and infrastructure. Activities included:

- A radio media tour by Col. Cederman, director of ARMID, where he gave six radio interviews highlighting USAR conservation initiatives.
- Educational tables and displays at Fort Buchanan and Fort Belvoir promoting energy and water resilience, conservation tips, and observance-focused education items.
- An online event, Energy Action Month: Bringing It Home, was a collaborative effort between Devens RFTA and Mass Save® focusing on how utility-sponsored energy efficiency programs can help improve personal energy security.
- National news articles on resilience projects at Fort Hunter Liggett and the 63rd RD.

Streamlining Utility Billing and Meter Data

Data-driven decisions enable the USAR to inform potential projects, technical assistance, v-IEWPS, and behavioral change. Leveraging various sources across RDs (including Real Property data, water usage data, and billing data) and consolidating them into a single location, the USAR developed the water utility billing master database. Thanks to this streamlined data, RDs have the functionality to generate reports on basic and advanced water use parameters including:

- WUI
- Average cost
- Total annual usage
- Water risk and availability
- Automated detection of seasonal variance in usage
- Potential savings when compared to a similar USAR site

The database also enables RDs to rank their sites by any desired combination of parameters and their relative importance — further supporting data-driven prioritization efforts.

In addition to the monthly utility data, the USAR leveraged access to the Meter Data Management System (MDMS) data to make building-level energy and water recommendations. The recommendations are distributed in quarterly data analysis reports for each RD and provide metrics of meter status and reporting frequency, RD level stats on building performance metrics for appropriate occupant setbacks, and priority actions to reduce energy based on meter trends. Furthermore, the USAR is utilizing the granular MDMS to identify buildings with likely water leaks. The algorithm correctly identified a leak on historic site data for a building that had previously been determined by an on-site assessment, validating the methodology. This analysis will be used in the future to prevent major leaks at Army Reserve Centers as the coverage of the MDMS increases across the nation.

Geographically Dispersed, Remotely Connected

In FY15, ARIMD formed a working group to develop an Enterprise Building Control System (EBCS) to provide remote monitoring, troubleshooting, and control of facilities. USAR facilities are ideal candidates for remotely connected building controls because they often lack full-time on-site personnel, have highly variable occupancy, and have long periods of low/partial occupancy. In FY20, USAR reached a total of 86 EBCS-connected buildings and issued a performance work statement to survey an additional 258 buildings at 80 USAR sites for future integration. When fully realized, the EBCS will include more than 500 buildings.

In FY20, ARIMD re-envisioned the EBCS and metering programs as a single system. A combined EBCS/metering system can be managed as one program that eliminates redundant hardware and communication pathways — increasing efficiency and affordability.

Strengthening the Energy and Water Planning Process

Synchronized as a supporting component of IEWPs and v-IEWPs, the USAR uses Comprehensive Energy, Water, and Waste Evaluations (CEWWE) as a key part of the energy and water security planning process. A requirement set by the Energy Independence and Security Act of 2007, CEWWEs identify load reduction measures that decrease the size of the generation as well as the energy and water storage required to support critical missions. The program evaluates energy and water efficiency opportunities for each building visited in the areas of building envelope, controls, lighting, HVAC, domestic hot water, plug loads, plumbing fixtures, and irrigation

systems. CEWWE evaluations are helpful to the planning process because lighting and building control upgrades produce the largest opportunity for investment and savings. The CEWWE evaluations that are done in person can extend to assess the waste and recycling practices at the buildings and provide recommendations to increase diversion.

In FY20, the USAR CEWWE program evaluated 5.3 million square feet and identified $11 million in energy and water savings. Remote desk assessments helped to cover the data collection, analysis, past project identification, and measurement and verification review before the FY21 v-IEWPs started. The CEWWE program also assisted with identification of load reduction and optimization measures from within the EBCS.

Energy and Water Modernization Projects Management

The USAR rolled out the Status Tool for Environmental Programs (STEP) Energy web-based, enterprise project planning tool in FY20. STEP Energy enables RDs and USAR-funded installations to enter their energy and water modernization requirements, bundle them into projects, track their projects' planning, funding, and execution, and perform data analytics and reporting to Headquarters, Department of the Army (HQDA), DOD, and Congress. To ensure implementation success, energy and water managers in the field and at ARIMD received virtual training on how to effectively use the system.

FY20 CEWWE PROGRESS

5.3 Million Square Feet Audited Floorspace	% Audited Floorspace	Identified Measures
On-Site CEWWEs Supporting IEWPs		
Fort Hunter Liggett Parks RFTA Fort McCoy	45%	$8.2 million
Remote Evaluations		
88th RD	47%	$2.7 million
Remote Controls-Focused Evaluation (EBCS)		
63rd RD 99th RD	8%	$51 thousand

ARIMD also initiated a General Fund Enterprise Business System (GFEBS) Plant Maintenance module implementation pilot at the 63rd RD in FY20. The GFEBS Plant Maintenance module provides the ability to track needed and/or completed maintenance, repair, construction work, and associated base operations cost back to each associated real property asset, installed equipment, and installation service area. The pilot consists of three phases: 1) Exploratory; 2) Pilot Execution; 3) Compilation of lessons learned and decision brief. The GFEBS Plant Maintenance module implementation pilot is scheduled for completion in FY22.

In collaboration with Fort Buchanan DPW Environmental Division personnel, the U.S. Army Corps of Engineers (USACE) evaluate the water quality and biological health of Las Casas Lake to inform future management activities.

USAR
ENVIRONMENTAL QUALITY

PRIORITIZING ENVIRONMENTAL STEWARDSHIP

The USAR depends on our land, air, and water to enhance the readiness of our Soldiers. Because the protection of the environment and the health of our Soldiers, their Families, and the Community take precedence, the USAR Environmental Program champions stewardship through legal compliance. This enables our senior leaders to make the best possible decisions in support of USAR missions while conserving and restoring natural lands, reducing pollution, and preserving our history and heritage.

PROGRAM GOALS

1. Conserve Natural and Cultural Resources: Support the long-term mission through effective management of our natural and cultural resources.
2. Ensure Compliance: Comply with all applicable environmental laws, regulations, and policies to ensure mission capability and readiness.
3. Prevent Pollution: Use processes, materials, or products that avoid, reduce, or control pollution in a cost-effective manner.
4. Strengthen an Integrated Environmental Quality Foundation: Regularly evaluate and continuously improve environmental management processes to optimize support to USAR priorities.
5. Environmental Cleanup: Perform appropriate, cost-effective cleanup so that property is safe for Army use (or transfer as appropriate), sustains operations and training, and protects human health and the environment.

Affordability and Modernization

As the mission changes, so does our commitment to meet the needs of our Soldiers while balancing affordability. In 2020, the USAR moved forward with consolidation plans for two Dayton, Ohio area Army Reserve Centers to new buildings located at Wright-Patterson Air Force Base. The existing facilities are undersized and cannot be modified to meet the needs of the 280 Soldiers and Civilian employees who work at the centers. Streamlining operations will create significant efficiencies, save money on operations and maintenance costs, and drive Soldier readiness.

In 2020, an environmental assessment of the construction plan was executed and the environmental impact documents were made available for public comment. Construction will consist of two phases, with the first phase beginning late FY21 and the second phase slated for FY24.

USAR ENVIRONMENTAL UNIVERSE

780 USAR locations on 279,434 acres of land (FY18 data)

90 Endangered/ threatened species on 20 sites

10,504 Acres of wetlands

29 Buildings listed on Natural Register of Historic Places

11 Integrated Natural Resource Management Plans

415 Environmental Permits

(includes minor and all other permits)

189,000 Pounds of hazardous waste

(generated at 700+ individual locations)

74 Environmental clean up sites (active)

90 Environmental Condition of Property reports initiated

8 Environmental Assessments initiated

1,100 Records of Environmental Consideration completed

118 Archaeological sites*

9 Integrated Cultural Resource Management Plans

640 Internal EPASs** at individual sites

*RDs Only

**Environmental Performance Assessment System

USAR
SOLID WASTE

CLEAN, WASTE-CONSCIOUS FACILITIES

The USAR inspires a culture where Soldiers, Civilian employees, and Families all do their part to help sustain our environment. To take care of our facilities and our lands, we depend on everyone in our community to help the USAR safely manage waste and recycle. These efforts help the USAR Solid Waste Program to accomplish program goals, meet DOD diversion objectives, avoid landfill costs, and generate revenue opportunities that can be reinvested into USAR projects — furthering our resilience and mission readiness.

PROGRAM GOALS

1. Safe and Healthy Facilities: An innovative and mature Solid Waste Program enabling safe and healthy facilities with the appropriate policy guidance, resources, senior leader emphasis, and Soldier buy-in at all levels that ensures properly developed and executed contracts, implemented Integrated Solid Waste Management Plans, and a culture of maximum conservation.
2. Modern Infrastructure and Sustainable Systems: The USAR Solid Waste Program is the leader in integrated solid waste management that exceeds DoD goals with a USAR-wide zero waste culture established through a robust set of directives, external partnerships, and innovative infrastructure and systems.
3. Awareness and Culture Change: Educated and motivated operational staff at all levels that enable the USAR to exceed diversion goals, optimize resources, and support mission resiliency and sustainability.

Meeting and Exceeding Waste Diversion Goals

To demonstrate the DOD's commitment to Integrated Solid Waste Management, an update was made in 2020 to the existing solid waste objectives. The USAR is committed to achieving these metrics which continue diversion, promote reduction in waste generation, optimize cost avoidance, and minimize environmental impacts from solid waste disposal.

The revised objectives are:

1. Divert 40 percent of non-hazardous solid waste (NHSW; excluding construction and demolition (C&D) debris) from incineration and landfilling;
2. Divert 60 percent of C&D debris from incineration and landfilling; and
3. Reduce total annual waste generation by two percent of total waste each year through FY25.

Annual solid waste data is collected from 10 USAR commands and is reported through the web-based Solid Waste Annual Reporting system known as SWARWeb. Thanks to efforts across the enterprise, the USAR impressively diverted 39 percent of NHSW in FY20. Moreover, the USAR exceeded the 60 percent C&D diversion goal with an 88 percent diversion rate.

High performers that exceeded the Federal and DOD 40 percent NHSW diversion metric includes Fort McCoy (71 percent), Fort Buchanan (42 percent), Devens RFTA (73 percent), and the 9th MSC (58 percent). Nine out of 10 commands exceeded the DOD 60 percent C&D diversion metric.

Inspiring Culture Change

Each year on November 15, the USAR takes part in observing America Recycles Day. The 2020 USAR message highlighted that as good stewards of taxpayer dollars, we must reduce waste to effectively manage operating costs and preserve the environment in which we train and live. As a ready and resilient Federal

Reserve Force, the USAR depends on everyone to remain dedicated by employing simple habits daily. The tips provided included:

- Familiarize yourself with the items that are accepted for recycling at the office and ensure they are empty, clean, and dry before placing them in the bin.
- Place garbage and other non-recyclables (including wet, dirty items) in the trash can, not the recycling bin.
- Flatten cardboard boxes before placing them in the cardboard recycling container.
- Recycle plastic bags and films separately. Drop these materials off at specifically-labeled bins at your local supermarket or other participating retail stores.
- Take small steps to implement similar practices at home.

Along with America Recycles Day, the USAR actively participated in Earth Day (April) and Pollution Prevention Month (September). Outreach materials were developed and supplied for use in the field to support their educational and awareness efforts. In FY20, this included posters and bin/wall signage to communicate what materials are accepted for recycling to reduce contamination and ultimately inspire culture change.

Federal Award Recognition

The EPA Federal Green Challenge Awards program challenges federal agencies throughout the United States to lead by example in reducing the government's environmental impact. In the area of waste management, the award provides recognition to agencies who achieve a significant reduction in tons of materials generated; an increase in tons of materials recycled (highest year-to-year percentage improvement in a specific target area); and/or an increase in tons of material composted.

In 2020, the 9th MSC received a 2019 EPA Federal Green Challenge Regional Award for its FY19 diversion efforts as their sites recycled and diverted approximately 108 tons of material from landfills. This was a 27.3 percent improvement in waste diversion percentage (compared to FY18). As reported by the EPA, this contributed to an estimated cost savings of more than $36 million to U.S. taxpayers.

Reusing with Purpose

In late 2019, Fort Buchanan partnered with PR Textiles to collect items in four collection bins strategically placed in high-traffic areas near two main Installation entrances. Clothing donated in new condition is reused locally, while other material is shipped to the United States to manufacture rags with post-consumer recycled content. In FY20, this program was successful in diverting 8,122 pounds — that is more than four tons of textile material!

Improving Waste Management and Diversion

In FY20, Waste Characterization Reports were finalized for Fort Hunter Liggett, Devens RFTA, and Grand Prairie Armed Forces Reserve Complex. These reports, along with three others already completed at different USAR sites, will be used to identify improvements that can be made across the USAR to improve our waste management and diversion. The 88th RD conducted waste program assessments at over 20 Army Reserve Centers during ISR Infrastructure site visits for project validations. Waste and recycling programs were included to provide an understanding of the waste and

recycling infrastructure, process, issues, and overall execution of the programs and services. The inclusion of waste and recycling in ISR site visits has been productive in both identifying opportunities for improvement as well as learning when the quality of services from vendors needs to be improved.

Turning Waste into Profits and Energy

As a USAR- funded Installation that enables Total Force readiness through mission-related training, Devens RFTA has recycled over 49.5 tons of spent brass over the past three fiscal years. In 2020, they continued to actively work toward setting up a Qualified Recycling Program (QRP) that will allow them to retain the proceeds from the brass sales and feed it back into the Installation to support critical sustainability and community programs.

In addition to setting up a QRP, Devens RFTA's DPW Environmental Services initiated a food waste collection program (provided through their local hauler). The program not only diverts waste but turns the waste into energy through a process known as anaerobic digestion. This is the first USAR-funded installation to partner with an outside organization to divert food waste. ARIMD is encouraging other USAR facilities to explore and enhance partnerships in their communities to help meet waste diversion goals.

For several years since 2016, Fort McCoy's rail infrastructure has undergone improvements with new rail ties, track, and crossings installed throughout the post. In 2020, the Installation contracted Vendor Volkmann Railroad Builders Inc. to recycle approximately 400 tons of scrap iron railroad materials including rails, plates, bars, spikes, bolts, and approximately 19,000 railroad grade ties and switch ties. The sale's proceeds will go to the Installation's QRP to help fund Fort McCoy's solid waste and recycling program.

Enhancing Our Strategy

In 2020, the Solid Waste Team, with the support of the SRT, began preparation for a workshop to update their program's strategic plan. Aligned with the USAR Infrastructure Strategy, the new Solid Waste Implementation Strategy will determine funding and staffing priorities across the USAR portfolio through 2028. The workshop will take place in January 2021. The pre-workshop preparation included: Lines of effort (LOE) development, Solid Waste Program activities identification and alignment with LOEs, vision/mission statements development, and a strengths, weaknesses, opportunities, and threats analysis with field staff.

DATA THAT DRIVES MISSION READINESS

Data matters now more than ever as the USAR focuses on modernizing facilities while balancing affordability and efficiency, and data-driven decisions lead the way. USAR leadership relies on ISR, the Army's database of record for the quality, functional ability, and mission capability of services and infrastructure, to make well-informed funding decisions. ISR provides holistic visibility (energy and water security, renewable energy, training, ranges, etc.) and accessibility to facility, sustainable management, and service assessment data. From this collection of data, the USAR can better assess the condition and mission capability of USAR-funded installation assets and identify the funding necessary to improve facilities.

PROGRAM GOALS

1. Conducting Training: Provide outstanding remote and on-site training and support to all users at USAR-reporting organizations.
2. Obtaining Accurate Data: Ensure USAR reporting organizations are accurately capturing precise information and comments, while the ISR team assists in the quality control/quality assurance process.
3. Providing Decision-Supportable Information: Enable leadership to effectively justify requirements and funding using ISR Data.
4. Keeping Leadership Informed: Identify division and Installation concerns and/or issues that may hinder service, mission, and infrastructure success.
5. Managing USAR ISR Change Management Program: Work with ISR users to submit proposed updates to ISR system to better represent USAR efforts. Additionally, the ISR team serves as a liaison between the USAR reporting organizations and Deputy Chief of Staff (DCS), G-9 Installations staff, as it relates to the ISR database.

Tailored Training at USAR-funded Installations

Before 2020 travel restrictions due to the COVID-19 pandemic, the ISR team was able to provide interactive in-person training at two USAR-funded installations. At Fort Hunter Liggett, the ISR team took a deep dive into ISR-Services (Cost) and covered the entire process of GFEBS verification, fund transfers between services, contractor levels of effort, and ended with the certification process. At Fort Buchanan, the team provided a three-day workshop on all three ISR components: ISR-Services (Cost and Performance), ISR-Infrastructure, and ISR-Mission Capacity. Topics included leadership awareness, organization ISR administration training, as well as an additional training session provided to local ISR-Service subject matter experts on Cost, Performance, Infrastructure, and Mission Capacity.

Ensuring ISR User Success

Because of our commitment to enhance the field's understanding of ISR's functionality and to enhance the user experience, the ISR team continued to bring training to the people by adapting on-site training practices to the virtual environment. In 2020, the ISR team started conducting monthly virtual sessions and update meetings for each ISR module (Infrastructure, Cost, Mission Capacity, and Performance) for users across the USAR. Additionally, the ISR team conducted quarterly virtual training and updates for service owners, Management Decision Evaluation Package (MDEP) managers, and ISR organizational leads. These meetings provided an excellent opportunity for the USAR ISR community to collaborate, share feedback, learn of upcoming ISR changes/enhancements, and gain updates from the DCS, G-9 Installations, and ARIMD.

Collaborating with the National Guard Bureau (NGB)

Due to the unique operating environment of geographically-dispersed facilities across the nation, the USAR partnered with NGB counterparts to share ISR best practices. The quarterly meetings enabled the Army National Guard and the USAR to share methods of collecting and presenting data — partnering together on the Change Management Process (CMP) for ISR data collection and reporting to better present the USAR and NGB picture.

Committed to Improvement

A major effort during the ISR cycle is working with DCS, G-9 Installations to find ways to improve the ISR database. In 2020, all impacted parties (service owners and MDEP leads) joined forces to fully review ISR-Services and provide a comprehensive change recommendation on behalf of the USAR. The effort began by reviewing all nine logistic services with the Logistics Working Group. Over a period of three weeks, results were provided to DCS, G-9 Installations during the ISR CMP process. By having the appropriate representation from across the USAR, a consolidated voice presented a well-supported request for changes — increasing the likelihood that these enhancements will be approved and implemented. Additionally, the proposed changes were shared with NGB counterparts to aid in their ISR efforts.

Increasing Participation at ISR Quarterly Performance

Quarterly Performance Management Reviews (PMRs) provide the opportunity for ARIMD to present quarterly ISR results to provide leadership a view of how well we provide services and infrastructure to Soldiers and their Families. PMRs also demonstrate USAR's ability to support training and mobilization missions. 2020's primary goal was to increase PMR participation and due to the more frequent contact and collaboration through virtual training, meetings, email, and phone communications, more than 60 personnel participated. From ARIMD staff to MDEP managers, service owners, and organizational service leads, a wider aperture of expertise led to a successful review.

Enhancing the Way We Look at Data

The ISR team developed several new trends analysis charts to enhance the way users can analyze data. New charts created in 2020 include an ISR histogram, showing the age of facilities from the past eight years. In addition, Performance and Cost trend analysis charts were generated for each ISR Service and organization. Both permit easier identification of trends versus strait numerical presentations and are being provided quarterly to MDEP managers and service owners.

Troubleshooting to Ensure Accurate Data

As the U.S. Army moves to adapt the BUILDER Sustainment Management System (SMS) and use the BUILDER quality rating to replace the ISR Quality rating, the ISR team identified an issue with the BUILDER SMS ratings. After appearing to not work properly and showing a sharp decrease in facility maintenance funding, the ISR team conducted an analysis of the data. The team identified that the default BUILDER SMS quality rating was set to 100 percent quality for uninspected facilities — skewing reporting when compared to ISR quality ratings. Once uninspected facilities were removed from reporting and only inspected facilities in the BUILDER SMS were compared to the same ISR facilities, there were minimal differences in quality rating and the issue was resolved.

USAR
LOGISTICS SERVICES

EMPOWERING FACILITIES AND SERVICES

Logistics Services manages a myriad of essential program funding across Army Reserve Centers, RDs, and USAR-funded installations. From Army food service to ammo programs and asset management, Logistics Services manages over $45 million. These funds help ensure USAR programs are appropriately financed to support Soldiers and their logistical needs.

FY20 FUNDING BREAKDOWN

- **Logistics Services: $45 million**
  - **USAR-Funded Installations: $34.7 million**
    - Laundry and Dry Cleaning
    - Ammo, Retail Supply, Central Issue, and Asset Management
    - Installation Materiel Maintenance
    - Installation Transportation Office and Non-Tactical Vehicles (NTV)
    - Army Food Service
  - **RDs: $10.5 million**
    - Laundry and Dry Cleaning
    - Asset Management
    - Installation Materiel Maintenance (Administrative Support)
    - NTVs
    - Army Food Service (Equipment Replacement)

Leveraging the USAR Community to Build Funding

The success of building Program Objective Memorandum (POM) requirements would not be possible without the USAR logistics community conducting its Annual Logistics POM Workshop. More than 18 logistics management analysts representing all RDs and USAR-funded installations met virtually from 5-6 August. A wide spectrum of logistics topics was discussed — ensuring collaboration and consistency across the entire USAR. External agencies were also in attendance to provide support and included the Army Materiel Command, Army Sustainment Command, and 407th and 404th Army Field Sustainment Brigades. The OCAR program analysis and evaluation analyst for the Sustainment Program Evaluation Group (SS PEG) also participated.

Workshop accomplishments included:

- Successfully developing the requirements for POM 22-26.
- Cross collaboration on continuing challenges at each location and development of strategies to address those challenges.
- Identification of duplicate efforts at locations where there is a cohabitation of an RD and a USAR-funded installation.
- A comprehensive review of the ARIMD Annual Funding Guidance for FY20 to generate necessary changes.

Respecting and Honoring Our Veterans

In 2020, Logistics Services completed the seamless transition of the last two remaining cemeteries under the USAR's care. Both Devens Cemetery (September 2020) and Vancouver Barracks Cemetery (March 2020) were transferred to the Veteran's Administration (VA) per the Office of Army Cemeteries (formerly known as Army National Cemeteries). The four other cemeteries that were previously transferred to the VA under the USAR's Cemetery Divestiture Program included Fort Sheridan (December 2019), Fort Douglas (December 2019), Fort Missoula (October 2019), and Fort Lawton (June 2019). Thanks to the Logistics Services Team, their hard work ensured a smooth shift in care so deceased Veterans received the continued respect and honor they so very much deserve.

Reducing NTV Costs

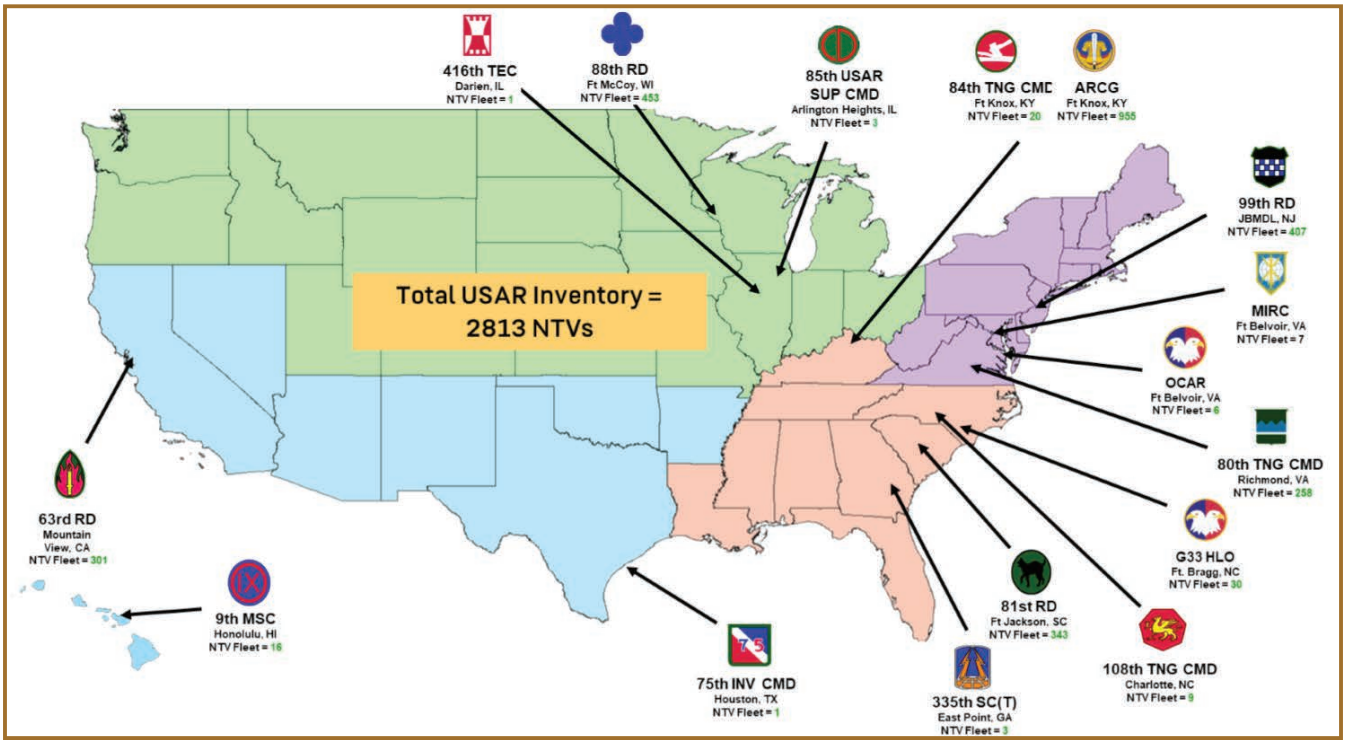
To reduce costs and help act against climate change, the USAR is committed to reducing fuel consumption through our NTVs fleet. The USAR NTV Fleet Management Program has made huge strides over the past three fiscal years, increasing its number of electric and hybrid vehicles while reducing gas consumption.

From diversifying the vehicles in the NTV fleet, the USAR decreased the use of E85 from 17,724 gallons in 2018 to 13,598 gallons in 2019. Additionally, the USAR decreased Standard Gas consumption from 849,112 gallons in 2018 to 772,388 gallons in 2019 — an overall decrease of 76,742 gallons annually. This represents the gradual reduction of straight fossil fuel (including E85) burning vehicles and the addition of Hybrid vehicles.

In 2020, the USAR NTV inventory continued to see positive change. The number of E85 sedans was reduced by 69 vehicles and an additional 48 gas/hybrids were added. A total of 2,813 vehicles make up the NTV fleet and are comprised of the following fuel types:

- 1,292 Alternative Fuel
- 747 Gas Hybrids
- 39 Plug-in Hybrids
- 2 Electric
- 621 Gas
- 112 Diesel

USAR FLEET DISTRIBUTION



ENGINEERING SERVICES

KEEPING FACILITIES SAFELY OPERATING

The USAR has 780 Army Reserve Centers and Armed Forces Reserve Centers that help make up our virtual installations (RDs). Those facilities, along with our USAR-funded installations, require funding for essential services to keep them operational so our Soldiers can safely execute their mission. Our Engineering Services Team manages nearly $394 million to fund fire and emergency services, municipal services, engineering services, facility sustainment (maintenance and repair), and demolition to ensure USAR infrastructure is effectively managed.

FY20 FUNDING BREAKDOWN

- **Sub Activity Group (SAG) 131 Base Operations Support: $128 million**
  - **USAR-Funded Installations: $49.7 million**
    - Facility Engineering Services ($11.9 million)
    - Municipal Services ($15.9 million)
    - Fire and Emergency Services ($22 million)
  - **RDs and 9th MSC: $72.1 million**
    - Facility Engineering Services ($26.5 million)
    - Municipal Services ($44.1 million)
    - Fire and Emergency Services ($1.5 million)
  - **Centrally-Managed Funds: $6.2 million**
    - Facility Engineering Services ($4.4 million)
    - Fire and Emergency Services ($1.8 million)
- **SAG 132 Sustainment, Demolition Funding: $265.6 million**
  - **USAR-Funded Installations: $59.6 million**
    - Real Property Maintenance
  - **RDs and 9th MSC: $167.2 million**
    - Real Property Maintenance
  - **Centrally-Managed Funds: $38.8 million**
    - National Roofing Program (NRP) ($32.6 million)
    - Demolition ($1.6 million)
    - BUILDER SMS ($4.6 million)

Implementing BUILDER SMS

Since FY17, the USAR, along with all military services, has been hard at work executing the migration to using BUILDER SMS software to assess the condition of facilities to better forecast building infrastructure maintenance. The endeavor is a massive undertaking, mandated by the Office of the Secretary of Defense (OSD), with the implementation of condition assessments completed for 100 percent of facilities by September 2021. The USAR initiated a contract with USACE Mobile District in 2017 to conduct assessments of all USAR facilities. In FY20, the USAR completed assessments on 7.2 million square feet and contracted for the FY21 assessment of 390 additional buildings totaling 9.8 million square feet. Due to COVID-19 travel restrictions, the USAR fell short of the FY20 goal of 709 buildings and 9.45 million square feet by just 2.25 million square feet. However, the USAR remains on track to meet the OSD mandate and will complete the assessment of the remaining FY20 facilities in FY21. Going forward, BUILDER SMS data will better predict and anticipate future maintenance requirements and in return, articulate the funding needed to restore and modernize USAR facilities.

Protecting USAR Facilities

The NRP launched in 2007 as a lifecycle replacement plan to identify and replace damaged roofs to protect USAR infrastructures more effectively. The program is centrally-managed, enabling it to provide cost-effective and reliable contract roof replacements at USAR sites nationwide. Since 2007, the USAR has been able to decrease the amount of identified roof repairs and replacements inventory from 56 percent to 34 percent. In 2020, SRD executed $32 million in the NRP which included the replacement of roofs on 80 buildings at 41 sites. The NRP has invested a total of $238 million in the last 14 years to protect and sustain facilities into the future.

FOLLOW US

USAR.ARMY.MIL/SUSTAINABILITY
@SUSTAINABLEUSAR

SUSTAINMENT AND RESILIENCY DIVISION

ARMY RESERVE INSTALLATION MANAGEMENT DIRECTORATE

6075 GOETHALS ROAD
FORT BELVOIR, VA 22060