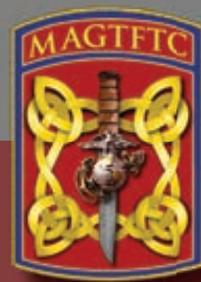


# Community Impact Report



Marine Air Ground Task Force Training Command,  
Marine Corps Air Ground Combat Center  
(MAGTFTC, MCAGCC)  
Twentynine Palms, California

## Produced Summer 2013 by the Marine Corps Air Ground Combat Center Community Plans and Liaison Office, G-5:

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Front cover photos: The Combat Center's Mainside area, seen from the air in 2012, covers 7 square miles. (Kelly O'Sullivan); Marines march in the 2012 Pioneer Days Parade in Twentynine Palms. (Cpl. Ali Azimi)

Title page photos: Range 220 — also known as CAMOUT for combined arms military operations in urban terrain — is the Department of Defense's premier urban warfare training range, with seven districts and more than 1,500 buildings. It is the size of downtown San Diego and can accommodate up to 15,000 troops. (Kelly O'Sullivan); Pfc. Victor Fotu patrols with New Zealand Army soldiers during a counter-insurgency exercise at Range 220. (Cpl. Ali Azimi)

Table of contents photos: Marines prepare to shoot a shoulder-launched multipurpose assault weapon from atop Machine Gun Hill during training. (Cpl. Ali Azimi); The Range Sustainment Branch processes thousands of 25 mm casings by hand before they are sold as scrap steel. (Kelly O'Sullivan); Pfc. Kevin Pham reads "The Foot Book" by Dr. Seuss to kindergartners at Joshua Tree Elementary School. (Kelly O'Sullivan)

Inside cover photos: Lance Cpl. Alexis Lindsey chats with tour participants about her job. (Kelly O'Sullivan); Onaga Elementary School students greet a military policeman after a Provost Marshal's Office working dogs demonstration at the school during Red Ribbon Week. (Cpl. D.J. Wu); Pvts. Jordan Jabben and Tyler Chambers and Pfc. Christopher Whalen of the Marine Corps Communication-Electronics School stand watch during a candlelight vigil at Oasis Elementary School honoring the victims of the December 2012 Sandy Hook Elementary School shooting. (Cpl. Lauren Kurkimilis); Military working dog handlers and their dogs pose with students at Condor Elementary School after a Red Ribbon Week demonstration. (Cpl. D. J. Wu)

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Page 13: A crew installs solar panels atop a parking structure aboard the installation. (Public Works)

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Page 19: The Quail Mountain REPI project area encompasses 950 acres of diverse terrain that will be preserved for future generations. (Kelly O'Sullivan)

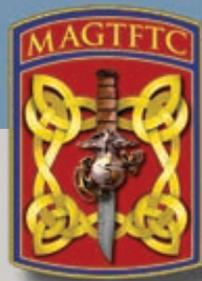
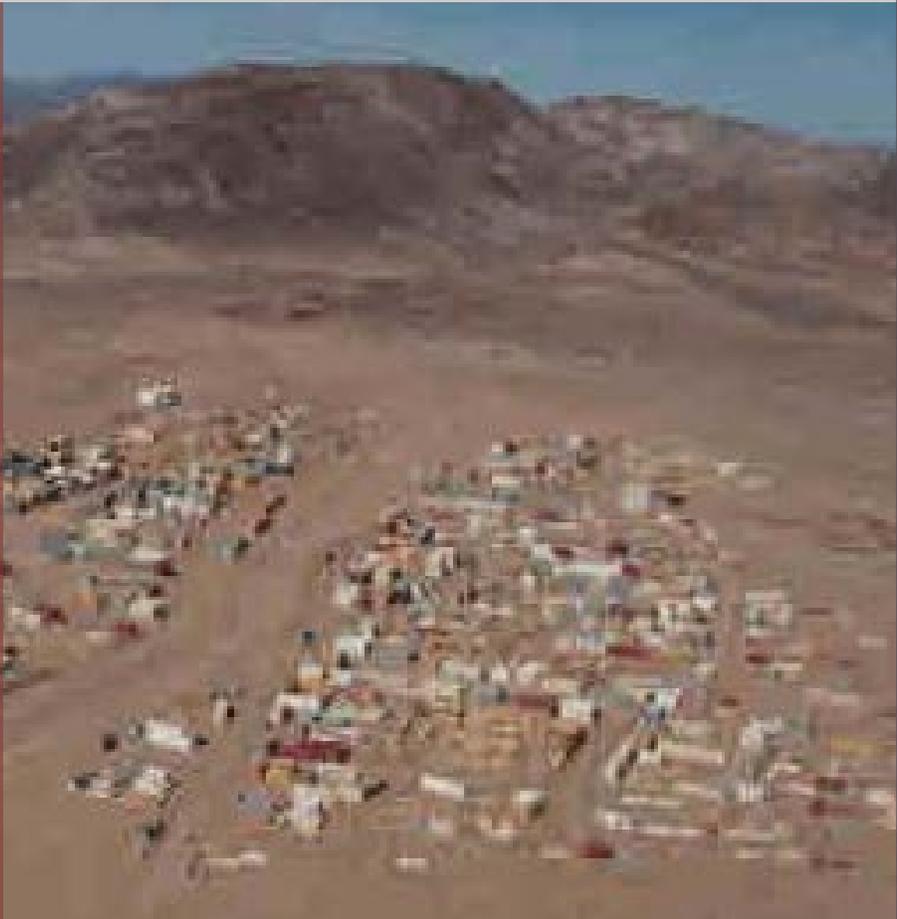
Page 23: Col. George C. Aucoin, Combat Center chief of staff, rides in the 2012 Pioneer Days Parade in Twentynine Palms. (Cpl. Ali Azimi)

Page 25: Working with racers at the annual Soap Box Derby in downtown Twentynine Palms is one of many ways Marines and sailors give back to the community as Armed Services YMCA volunteers. (Kelly O'Sullivan)

Back inside cover: Tanks and Marines line up for display during a VIP visit in the 1950s. (MCAGCC archives); A representative of the installation presents the annual Twentynine Palms Boys' Basketball Tournament's Hugh "Chief" Jones Award to 10-year-old Mark Christian in March 1969. (Twentynine Palms Historical Society, reprinted with permission); Marines are greeted by Twentynine Palms residents as they return from Operation Desert Storm in 1991. (Twentynine Palms Historical Society, reprinted with permission); Marines display the colors from each of their units during a formal command ceremony during the 1970s. (MCAGCC archives)

# Community Impact Report

*How the Marine Corps Air Ground Combat Center benefits the Morongo Basin and surrounding areas*



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# Message from the Commanding General

**O**ur intent with this report is to describe in some detail the close relationship between the Marine Corps Air Ground Combat Center (MCAGCC) and the communities surrounding the installation. That relationship is the bedrock of our ability to continue to provide realistic combat training for Marine units deploying around the world.

The Combat Center has been an integral part of the Morongo Basin since the first Marines arrived in 1952. In 2000, a portion of MCAGCC was annexed into the city of Twentynine Palms, benefitting both the installation and the entire Basin. Civilian and military personnel have worked hard to develop strong partnerships with the city of Twentynine Palms and the town of Yucca Valley, as well as other communities in the Basin and the Coachella Valley. MCAGCC also enjoys close working relationships with other federal agencies, including the National Park Service at Joshua Tree National Park and the U.S. Department of the Interior's Bureau of Land Management. We are committed to growing our relationships with our communities in every way possible.



The Combat Center continues to distinguish itself in numerous ways, to include national-level recognition. For four straight years, from 2009 through 2012, the President of the United States selected MCAGCC from among all Marine Corps installations to receive the prestigious Commander-in-Chief's Annual Installation Excellence Award. No other Navy, Marine Corps, Army, or Air Force installation has ever earned that level of recognition in four successive years. From energy and water conservation, to innovation in waste management and improving efficiency in the way we do business, the Combat Center has set a high standard of performance for other Marine Corps installations to emulate.

The Combat Center remains the Marine Corps' premier combat training location. Covering 935 square miles of rugged Mojave Desert terrain, it is the Corps' largest base. The unique geography, climate, and airspace allow Marines to conduct combined-arms exercises encompassing both land and air elements of warfighting. Based on historical trends and anticipated future Marine Corps commitments around the globe, we continuously update our training ranges to keep pace with the Marine Corps' role as America's premier Expeditionary Force in Readiness. In 2011, the Combat Center added a new urban warfare training facility – an impressive 1,553-building complex that is literally the size of downtown San Diego. These new training complexes and realistic ranges and maneuver areas are critical in preparing Marine units for the complex operations they could face anywhere in the world, well into the future.

Dozens of other construction and renovation projects aboard the Combat Center have stimulated growth not only for the Basin's largest business enterprise and employer, but for local contractors as well. This has produced positive economic returns for local and surrounding communities, and resulted in improved infrastructure that benefits everyone.

For more than 60 years, the Combat Center has enjoyed a mutually beneficial relationship with our neighbors. Our extensive civic involvement with the local community reflects our commitment to preserving and strengthening the bonds that tie us together. We sincerely appreciate all that our local communities do for our Marines, civilian employees, and their families. We remain committed to working closely with our local communities to achieve continued mutual success in the years ahead.

A handwritten signature in black ink, appearing to read "D. H. Berger". The signature is stylized and written in a cursive-like font.

David H. Berger, Major General, USMC  
Commanding General, MAGTFTC, MCAGCC

# Combat Center Timeline

**F**rom the moment they stepped aboard in August 1952, the Marines, sailors and civilians of the Marine Air Ground Task Force Training Command, Marine Corps Air Ground Combat Center (MAGTFTC, MCAGCC) have been making a difference in the communities that surround the installation. From contributing heavily to the local economy through personal spending or by donating time to countless organizations in both the Morongo Basin and the Coachella Valley, their presence is a strong one.

At 935 square miles (a little smaller than the state of Rhode Island), the Combat Center is, by far, the largest physical installation in the U.S. Marine Corps. The sprawling installation just north of the city of Twentynine Palms is critical to the nation's security and holds the distinction of being the Marines' premier live-fire, combined-arms training center. Nowhere else is the phrase "We must train as we fight" more possible or more necessary. Marines across the Corps conduct training at their home installations to build up their combat skills before they put them to the test at MCAGCC. The Combat Center is home to the Corps' top training and assessment groups, and units that come here receive the most realistic and up-to-date training possible. The roots of this training excellence run deep.

Because of their training at MCAGCC, Marines and sailors have distinguished themselves in battle and during missions around the world, most recently in Operations Iraqi Freedom in Iraq and Enduring Freedom in Afghanistan. Units stationed here, such as the 7th Marine Regiment, 1st Tank Battalion, 3rd Light Armored Reconnaissance Battalion, 3rd Battalion, 11th Marine Regiment, Combat Logistics Battalion-7, 3rd Combat Engineer Battalion, 3rd Assault Amphibian Battalion, Marine Unmanned Aerial Vehicle Squadrons 1 and 3, and Marine Wing Support Squadron 374 are not only part of regular deployment rotations, they are prepared to mount up and move out within hours any time the country's 9-1-1 force is called upon.



## Adapting for the future

In 2012, MAGTFTC activated its newest assessment and standardization unit, the Marine Corps Logistics Operations Group. That action solidified the Combat Center's professional authority over Marine Air Ground Task Force (MAGTF) capabilities development. The instructors and staff here will shape the way the Marine Corps fights with its ground, air and logistics combat elements for decades to come.

MCAGCC also is home to the Marine Corps Communication-Electronics School, which trains Marines in ground electronics

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Above: Artist's rendering of a 1980s-era MCAGCC logo. (Samantha Giordano)

Below: Marines prepare to fire a self-propelled howitzer in the 1970s. (MCAGCC archives)



## Did you know?

Camp Wilson, the expeditionary staging point for units that conduct combined-arms training at MCAGCC, has a connection to a famous musical family. It's named for Brig. Gen. John Bushrod Wilson Sr., the grandfather of Ann and Nancy Wilson of the Seattle-based rock band, Heart.

Below: A Marine launches a Red Eye missile during training in the 1970s. (MCAGCC archives)

maintenance, tactical communications, air control/anti-air warfare operations and maintenance.

All of these things may not mean much to the layperson, but increased air-ground task force training capabilities and its world-class training ranges will ensure that MCAGCC — the Marine Corps' "crown jewel in the desert" — remains the premier facility for training Marines well into the 21st century and beyond. MCAGCC's value to the nation means the installation will remain a vital part of the surrounding communities.

As the security needs of the country and the challenges facing the Marine Corps change, so does training conducted aboard the installation. But one thing will never change — the Combat Center's commitment to community, Corps and country. By reducing our environmental impact, supporting our neighbors through community service, participating in civic events and daily life as citizens in our local communities, the Combat Center has woven threads of Marine Corps scarlet and gold into the very fabric of our community. MCAGCC is committed to being a great neighbor, willing at a moment's notice to support its local communities in whatever way it can. The close ties between the Combat Center and our local neighbors have been strong since our founding and will continue as long as the command exists.

### Committed to excellence at all levels

One major way we have improved our support locally is through world-class environmental stewardship. The command has implemented ground-breaking programs that have significantly reduced our impact in the areas of energy conservation, range management, and hazardous waste and residential-industrial recycling as well as natural and cultural resource management and preservation.

MCAGCC's resource conservation and environmental stewardship have earned the installation national recognition. The installation has reduced its energy consumption by 31 percent since 2007. Water consumption has been reduced by 60 percent from 2007 levels through water-wise landscaping, innovative

vehicle maintenance procedures and modernized water pipes and fixtures. In 2011, the Combat Center won both the Secretary of the Navy Energy and Water Management Award and the Federal Energy Management Program Award. It earned two Secretary of the Navy Environmental Awards for Sustainability and the Marine Corps Superior Achievement in Safety Award. In keeping with local community emphasis on preserving our desert's dark skies, night-sky-friendly outdoor lighting systems were adopted, significantly reducing our light pollution. All of these efforts come together to reduce our impact on the local environment, improve our fiscal stewardship and support the cultural and environmental goals of our neighbors.

The Combat Center's leadership in these areas has not gone unnoticed. In 2012, MCAGCC won its fifth Commander in Chief's Installation Excellence Award in six years, and became the first installation to win it four times in a row. The award — presented annually by the Office of the President — recognizes the excellence of those who operate and maintain U.S. military installations in all four branches of the U.S. Armed Forces. To even be considered for such a prestigious award requires an enormous amount of cooperation and teamwork with military personnel and civilians working together both inside and outside the installation's boundaries.



In 2012, MCAGCC became the first command authorized to train its own instructors in the Department of the Navy's Continuous Process Improvement Program. The program, used by major global businesses, is used by our Business Performance Office (BPO) to improve combat readiness, increase warfighting capability and improve the quality of life for Marines, sailors and their families. The BPO has completed more than 60 improvement projects saving more than \$7.9 million. The Combat Center is an example of the Corps' culture of innovation and constant improvement. From conservation to services to savings, MCAGCC has set a high standard for performance.

Other Combat Center awards in recent years include Phelps Hall's recognition as "The Best in the West" dining facility and its Maj. Gen. W.P.T. Hill Food Service Excellence Award for best in the Marine Corps.

Through their innovation and dedication to their mission, the men and women of the Combat Center strive daily to ensure that the installation meets its training mission while supporting MCAGCC's Marines, sailors and family members through quality-of-life programs and improvements, all while being a good neighbor to those outside our boundaries. It's a tough, complex mission, but it's a mission they take on gladly.



# We Must Train as We Fight



Members of the Australian Army work with Marines from the Combat Center to fire an M777A2 howitzer at MCAGCC. (Cpl. Ali Azimi)



Marines prepare an M777A2 howitzer after receiving a call for artillery fire in Southwest Afghanistan. (Cpl. Tommy Bellegarde)



Marines conduct a simulated patrol at Range 220, an urban warfare training facility aboard the Combat Center. (Cpl. Ali Azimi)



Marines conduct a patrol in a narrow alley in Sangin, Helmand province, Afghanistan. (Sgt. Logan W. Pierce)



An MV-22B Osprey comes in for a landing at the Combat Center's Range 220 during a training exercise. (Lance Cpl. William C. Gomez)



An MV-22B Osprey carrying U.S. Marines and Afghan soldiers departs Combat Outpost Fiddler's Green in Afghanistan. (Lance Cpl. M.E. Warren)



“We must train as we fight” is much more than a slogan. The Marine Corps’ unique role as the nation’s crisis-response force means that we need tough, realistic training to prepare our Marines across a wide spectrum of missions and tasks. As a force, we must remain in a high state of readiness, able to deploy on short notice to a troubled location and stabilize any situation. Our dynamic training provides the very foundation of victory no matter where we’re called upon to fight.

As our opponents, battlegrounds, objectives and cultural challenges change, so must our training. From the Cold War-era Desert Palm Tree exercises in the 1950s and the Combined Arms Exercise (CAX) of the ‘80s and ‘90s to the counter-insurgency Mojave Viper and Enhanced Mojave Viper (EMV) exercises focused on Iraq and Afghanistan, we have adjusted our training to meet operational demands.

In 2012, the Combat Center’s Marine Air Ground Task Force Training Command (MAGTFTC) led the Marine Corps through another training transition. The final EMV exercise was conducted that September and the Marines and civilians of MAGTFTC prepared to introduce the Integrated Training Exercise (ITX). This 28-day combined-arms exercise returns the focus of training to the traditional warfighting skills Marines need to successfully fulfill combat missions worldwide.

Training is prioritized for units deploying to operations such as Operation Enduring Freedom in Afghanistan, units participating in the Unit Deployment Program to Okinawa, Japan, and for units that will serve as part of a Marine Expeditionary Unit. Ideally, every battalion and squadron-sized unit will have the opportunity to participate in an ITX at least once every two years.

The ITX exercise force covers each of the Marine Air Ground Task Force’s (MAGTF) ground, air and logistics elements. The Ground Combat Element (GCE) is designed to be two reinforced infantry battalions. Based on unit availability, the GCE will include tanks, assault amphibious vehicles, light armored vehicles, combat engineers and artillery batteries. The Air Combat Element (ACE) is made up of a Marine Aircraft Group headquarters, fixed-wing tactical aircraft, tiltrotor aircraft and rotary-wing assault aircraft. The Logistics Combat Element (LCE) comprises a Combat Logistics Regiment headquarters and either a Combat Logistics Battalion or an Engineer Support Battalion.

Other attachments and enablers can include civil affairs teams, interpreters, military working dogs, explosive ordnance disposal teams and others.

As battalions and squadrons progress through the training,

they are required to work together as a cohesive team through shared planning, briefing, rehearsals, execution and debriefing. This interaction builds the connections and procedures necessary to fight as a unified force.

The bottom-line value in this approach is that it allows units to use initiative during training, learn from mistakes and leave the Combat Center better prepared to meet our nation’s needs.



Top: Marines fire M777A2 lightweight howitzers aboard MCAGCC during Exercise Steel Knight. (Lance Cpl. Jason Morrison)  
Bottom: Marines conduct multiple-scenario exercises during training. (Cpl. Sarah Dietz)

Lance Cpl. Cosmo Peters prepares to provide cover fire during buddy rushes on Range 105. (Lance Cpl. Ali Azimi)



# Economic Impacts

The Combat Center is the main economic driver in the Morongo Basin — and one of the largest employers in San Bernardino County — contributing an estimated \$1.7 billion annually to the local economy, both directly and indirectly.

Including direct, indirect and induced impacts associated with MCAGCC employment and spending, the installation supports 24,300 jobs, or nearly 77 percent of all employment in the Basin, and an estimated 62 percent of the area's economic activity.

## Direct economic impacts

Direct economic impacts represent expenditures that have a primary effect on the local economy, such as employment at the Combat Center, the Basin's largest employer. Other examples of direct impacts include service and construction contracts, utilities, retiree pensions and health care spending.

MCAGCC's payroll and contract spending are important to the installation's long-term mission and to the surrounding communities' economic stability. The Basin depends on economic activity generated by the Combat Center, and the installation depends on support from the community. This relationship ensures that MCAGCC can meet its mission to enhance Marine Corps operational readiness by conducting live-fire, combined-arms training.

In 2012, there were about 14,500 active-duty Marines and sailors stationed at the Combat Center. Civilian employees totaled about 2,500, with another 2,700 contract employees estimated to be working at the installation. Annual salary and wages for all these individuals totaled about \$661 million.

Many service members, retirees and family members obtain medical services at off-installation medical facilities, including Hi-Desert Medical Center in Joshua Tree. (Kelly O'Sullivan)



Annual pensions by community for military and DoD civilian retirees in the Morongo Basin (2012)

City	Yearly Total	
	Retirees	Pensions
Twentynine Palms	1,027	\$25,120,260
Yucca Valley	415	\$10,530,744
Joshua Tree	149	\$3,711,516
Morongo Valley	30	\$618,936
Landers	18	\$415,800
Pioneertown	10	\$334,380
<b>Total</b>	<b>1,649</b>	<b>\$40,731,636</b>

MCAGCC military and DoD civilian retiree pensions provide a direct economic impact to the local community.

Military bases award contracts through highly regulated federal processes that result in millions of dollars in private-sector contracts each fiscal year.

Combat Center contracting significantly impacts both the local and regional economies, with contracting dollars spent both in the Basin and throughout the broader regional community.

The installation's two largest categories of contract spending are construction/maintenance and service/utility contracts. MCAGCC's total annual contract spending has been approximately \$550 million recently.

In 2012, the installation's construction and maintenance contract spending totaled \$437 million. Its service and utility contract spending in 2012 totaled \$112 million, including \$27 million spent in the Basin. An additional \$900,000 was spent locally for procurement of goods in support of operations at MCAGCC.

In recent years, contract spending has resulted in the construction of family housing and modern barracks and multi-level office buildings and parking structures on the installation. These structures replaced degraded facilities and improved the quality of life for the Marines, sailors and families living aboard the Combat Center. By building "up" with two-story office buildings instead of building "out," the installation is maximizing the space available for administrative functions without infringing on land set aside for training.

Although the installation satisfies most of its energy needs through its cogeneration plants and solar arrays, it pays \$12.8 million in electric, natural gas and telephone bills each year.

Military and Department of Defense (DoD) civilian retiree pensions are similar to payroll in terms



of economic impact. Military-related retirees across the Basin receive \$41 million annually in pensions, with more than half — \$25 million — paid to the 1,027 retirees who live in Twentynine Palms. For a breakdown of military-related pensions by community, see the related table on page 6.

Many retirees who choose to stay in the area after leaving active duty or their jobs at MCAGCC have pursued new careers locally, contributing skills and experience that benefit the quality of life here, and they continue to serve in a number of ways.

The last category of direct spending — health care — includes medical and dental benefits to service members, military retirees and family members in the Morongo Basin. In 2012, medical and dental payments to local health providers totaled \$24 million.

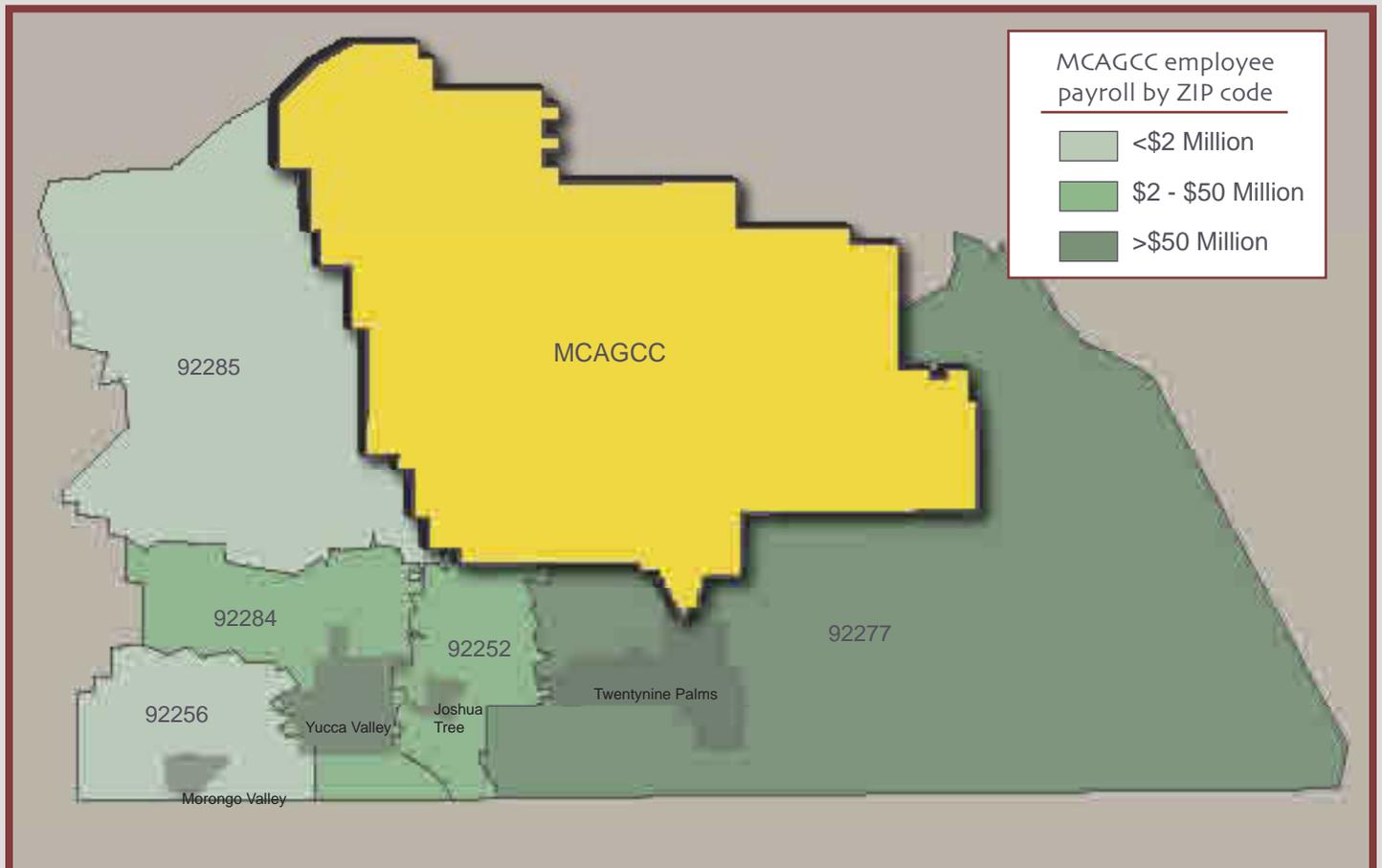
**Indirect and induced effects**

The financial impact of the Combat Center on the local economies includes much more than the installation's direct spending on payroll, services and contracting.

Money spent locally by MCAGCC is spent again in the region



Randy Stevens, a contractor with Tatitlek Corp. explains a convoy objective to Marines before a training exercise at the Battle Simulation Center at Camp Wilson. (Kelly O'Sullivan)



# Economic Impacts (continued)



Justin Abbott, a salesman at Yucca Valley Chrysler Center in Yucca Valley, shows a vehicle to Pfc. Gerardo Nabus, left, and Trevor Laher, both of Combat Logistics Battalion-7. (Kelly O'Sullivan)

when employees and businesses purchase goods and services from other local businesses. This re-spending of money is referred to as the indirect and induced effects of the installation's spending.

Combat Center wages, pension payments and contract spending indirectly support 4,600 part- and full-time jobs in the Morongo Basin. Total payroll for these jobs is about \$178 million.

Many contractors doing business at MCAGCC hire laborers locally to execute the work or they bring specialized employees to the Basin. Although many subcontractors are residents of the surrounding communities, many others live throughout the United States and stay in area hotels and motels while they are here.

As many local hotels and motel owners would attest, especially those in Twentynine Palms, a majority of their weekly "heads-in-beds" can be attributed to subcontractors and other out-of-area workers staying in the surrounding communities while doing business at MCAGCC. The 9 percent Transient Occupancy Tax (TOT) collected from hotels and motels in Twentynine Palms is the city's third-largest source of revenue. In 2012, the city received

slightly more than \$1 million in TOT tax monies. During their stays in the Basin, subcontractors also contribute to local revenues as they spend wages and daily meal allowances in local restaurants and grocery stores, and on such items as automotive repair, gasoline (and associated taxes) and entertainment.

Numerous family members and friends also spend money locally when they come to the Combat Center to visit their Marines and sailors. MCAGCC-related visitors spend an estimated \$1.5 million in the Basin each year.

These expenditures are just a few examples illustrating the many ways MCAGCC spending supports the area's economy.

## Protecting the mission protects the economy

It is important that the Combat Center work with local, state and federal officials as well as with residents of the surrounding communities to protect MCAGCC's training mission and the economic health of the Basin.

This can be done by the installation and communities working together to avoid land-use decisions that could adversely impact training, such as siting a wind turbine energy project under a designated military aircraft training route. Avoiding such projects in areas incompatible with training helps preserve MCAGCC and its role as an economic engine, just as the surrounding communities would avoid siting such facilities in areas that would degrade the spectacular view sheds that make tourism the Basin's second-largest economic driver. In this sense, preserving view sheds and air routes is a double economic benefit to the local communities.

MCAGCC is proud of the benefits its payroll, contracting and health services provide in our neighboring communities. We continue to be resilient and part of our resiliency depends on protecting, for the long term, our ability to conduct the live-fire, combined-arms training that is our hallmark. If we do so, not only will we successfully prepare Marines for their missions, we will continue to be an economic driver for our communities.



Terri Foland checks in contractor Matthew Osman of Mobius Industries at the Fairfield Marriott in Twentynine Palms. (Kelly O'Sullivan)



Rosita Moncada, a contractor with Sodexo Inc., greets hungry Marines and sailors with a smile at Phelps Hall. (Kelly O'Sullivan)



Sgt. Tommy Vantilborg, his wife, Betsy, and son, Randy, 2, exit Whitaker's Art Supply in Twentynine Palms after shopping with Tiffany, Kaitlyn, Xander and Braden Rimington. (Kelly O'Sullivan)



Combat Center Marines, sailors, civilians and family members are a familiar sight at area restaurants. Here, 1st Lt. Jan Herbut-Hewell (center) of 3rd Light Armored Reconnaissance Battalion enjoys dinner at the 29 Palms Inn in Twentynine Palms with friends, Eva and Netta Kavanagh, left, and Valerie and Amore Flores. (Kelly O'Sullivan)

## Combat Center's contribution to community infrastructure

Infrastructure allows cities to physically function. It includes water pipes, roads, gas lines, telephone poles, streetlights, cable lines and electric lines. The placement of infrastructure is important for people to conveniently use and access public services. Utilities are a good example of a type of infrastructure.

The public services infrastructure of the surrounding communities benefits from MCAGCC's presence. When permanent and visiting populations at the Combat Center spend money locally, San Bernardino County and local municipalities receive increased tax revenues that they can allocate to infrastructure improvements.

As the Combat Center grows, its infrastructure needs will increase. Project Leatherneck (see page 13 for more details) is an excellent example of how the installation's energy needs facilitated a major upgrade in Southern California Edison's infrastructure, giving the local area a power system that allows for a backup circuit and lessening the chances for blackouts in the area that were all too frequent in the past.



With help from a Department of the Navy grant, the city of Twentynine Palms completed in 2010 a \$4.2 million project to repave Adobe Road and install curbs, gutters and a bike path between Amboy Road and the Combat Center's main gate. (Kelly O'Sullivan)

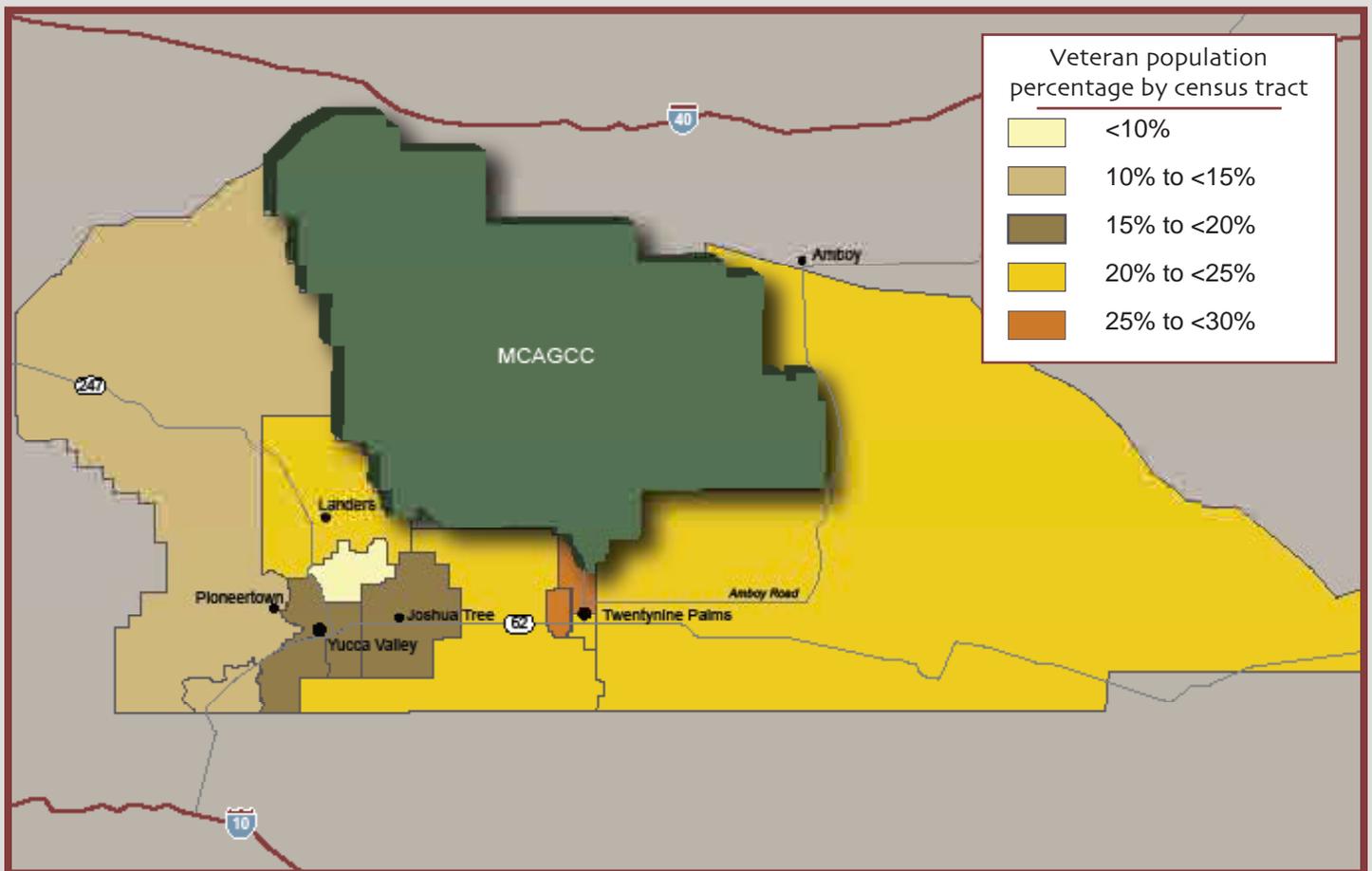
## Population-based taxes provide another benefit to MCAGCC's closest neighbor

Many municipalities around the country benefit financially by annexing the residential areas of neighboring military installations into their city boundaries.

Since annexing the Combat Center's Mainside area in 2000, the city of Twentynine Palms has received higher apportionments of county and state taxes that are allocated based on population.

Gasoline taxes and Measure I funds are two types of tax revenues allocated based on population. In 2012, Twentynine Palms received \$861,763 in gas tax revenues and \$459,743 in Measure I revenues.

# Population

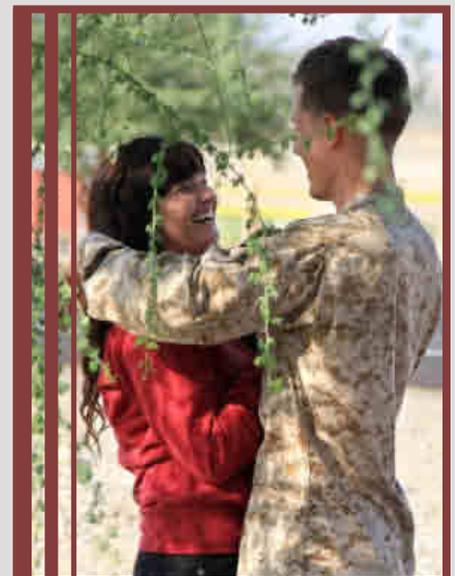


Opposite page: Retired Marine Steve Dell of the Military Order of the Purple Heart salutes the colors during the annual Memorial Day observance at the Twentynine Palms Public Cemetery. (Kelly O'Sullivan)

This page, left: Staff Sgt. Arthur Schocken walks with his daughter, Gigi, after returning from deployment. (Cpl. Ali Azimi)



This page, right: Sadie Hepler and her boyfriend, Cpl. Stephan Fournier, share final moments together before Fournier's deployment to Afghanistan. (Sgt. Heather Golden)





**The Combat Center is at the far eastern end of the Morongo Basin, a geographical region that includes Morongo Valley, the town of Yucca Valley, Pioneertown and Homestead Valley in its west end; the village of Joshua Tree in the center; and the city of Twentynine Palms and Wonder Valley in the east end.**

The 2010 U.S. Census provides a useful snapshot of the character of the local population and illustrates how MCAGCC fits into the local community. The Basin's population grew much faster than the county, state and nation between 2000 and 2010 (see table to the right). The city of Twentynine Palms' increase can in part be attributed to the city's annexation of the Combat Center's Mainside area, completed in 2000.

The Basin's population for 2010 was 69,900, according to the Census. Active-duty service members, civilian employees, family members and government retirees comprise 35 percent of the Basin's population. Twentynine Palms had, by far, the largest concentration of this population in 2010, with 71 percent of its 25,048 residents connected to the military in some way. The next two largest concentrations were Joshua Tree, with 9 percent of its 7,414 residents, and Yucca Valley, with 8 percent of its 20,700 residents, related to the military.

### Installation workforce

Active-duty personnel are only one component of the Combat Center's total workforce. The key to providing long-term continuity in managing the installation is the civilian workforce. In 2012, there were 14,500 active-duty Marines and sailors stationed at the Combat Center and another 45,000 who came aboard for training periods averaging four weeks. Civilian employees in 2012 totaled 2,500 with an estimated 2,700 more employed through service and construction contracts. Eighty percent of MCAGCC's active-duty Marines, sailors and civilian employees live in the Basin.

### Military and DoD civilian retirees

A total of 1,649 military and DoD civilian retirees from all branches of the service live in the Basin. Many have or do serve on every town, city or community council, and every school, hospital and chamber of commerce board in the Basin. They serve on county and state commissions, in the California Legislature, and as of 2013 in the U.S. House of Representatives. Retirees also make a difference by volunteering their time and sharing their expertise with the dozens of service and cultural organizations that work to improve the quality of life in the Basin.

### Change in resident populations

	Population		Percent Change
	2000	2010	
<i>United States</i>	281,421,906	308,745,538	10%
<i>California</i>	33,871,653	37,253,956	10%
<i>San Bernardino County</i>	1,709,434	2,035,210	19%
<i>Twentynine Palms</i>	14,764	25,048	70%
<i>Yucca Valley</i>	16,865	20,700	23%
<i>Joshua Tree</i>	4,207	7,414	76%
<i>Morongo Valley</i>	1,929	3,552	84%

### Veteran population

Veterans comprised 17.1 percent of the Morongo Basin's population in 2010. The accompanying map (opposite page) shows the percentage of local civilians who are veterans.

Most of the Basin has a veteran population that is considerably higher than the county (8.3 percent), the state (7.6 percent) and the nation (9.9 percent). Many retired service members choose to stay in the Basin or move to the area because of the proximity of the Combat Center and the services available to military retirees.



# Energy Management

**The Combat Center leads the Marine Corps in energy management, utilities conservation, power-generating capacity, microgrid control and utilities cost-savings. The installation's award-winning programs and infrastructure initiatives save the Marine Corps \$10 million annually in energy costs and have reduced demand on the Southern California power and energy system over the last 10 years.**

MCAGCC generates 60 percent of its own energy annually and 95 percent of its own energy during the winter months. Power generation by the Combat Center can be sustained for several days in an emergency situation, which will enable the installation to continue its mission and support the local community as directed by the command authority.

## Advanced technology improves efficiency

Partly due to MCAGCC's success in the areas of alternative energy and infrastructure development, the installation qualified to take part in a joint project between the Department of Defense and the Department of Energy. The Combat Center received advanced systems that allow for flexibility in managing electrical distribution in our local power grid. These systems, collectively referred to as a microgrid, are cutting-edge technologies that ensure we can continue our training mission during power outages and other challenging situations.

Recent upgrades to the Combat Center's microgrid include large-capacity battery systems for energy storage and highly accurate "smart" meters that rapidly capture system information.

## Cogeneration plants power the installation

One of the key elements of MCAGCC's energy management program is the use of cogeneration plants. These complex systems produce electricity with natural

gas-burning turbines, then use the remaining heat to produce steam and hot water for other installation needs. This approach eliminates the need to operate a separate system to produce steam and heat and saves significant operating costs. While commercial utilities typically produce electricity with 33 percent efficiency, MCAGCC's cogeneration plants operate at an impressive 80 percent efficiency. Cogeneration plants produce cheaper energy with less environmental impact.

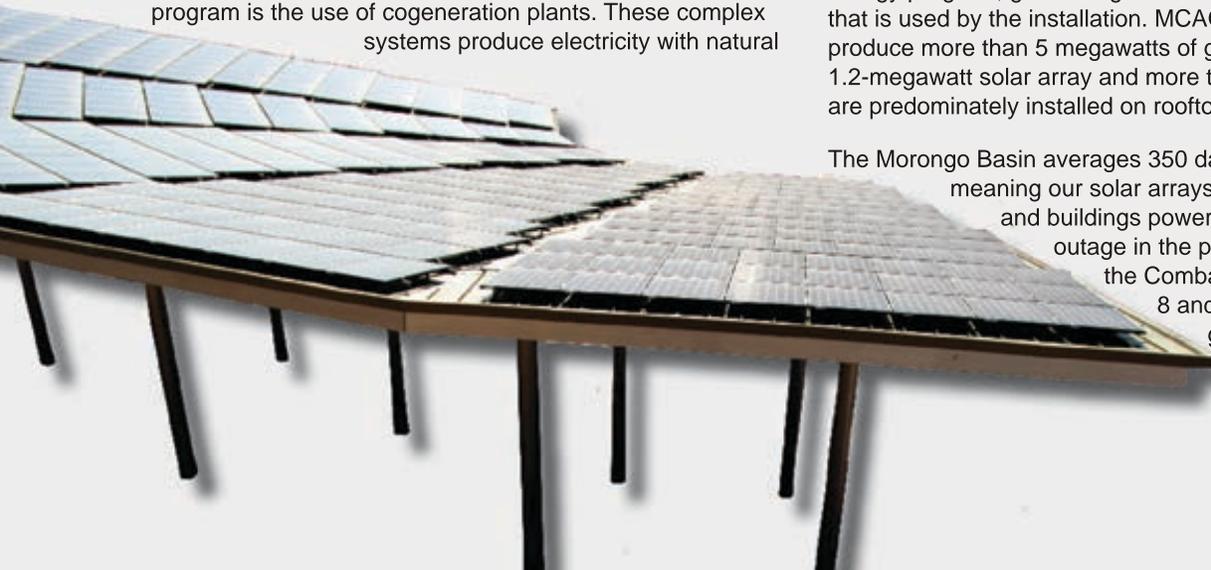


The Combat Center currently operates two cogeneration plants. The first, which came online in 2003, is the largest in the Marine Corps — producing 7.2 megawatts of power. A new 9.2-megawatt plant will take the honors as the Marine Corps' largest when it comes online in late 2013. Together, the two cogeneration plants will generate enough electricity to cover more than 90 percent of the installation's energy needs year-round.

## Solar takes advantage of year-round sun

Solar arrays are an important part of the Combat Center's energy program, generating more than 5 percent of the electricity that is used by the installation. MCAGCC's solar panels can produce more than 5 megawatts of green energy, including a 1.2-megawatt solar array and more than 30 smaller systems that are predominately installed on rooftops throughout the installation.

The Morongo Basin averages 350 days of sunshine a year, meaning our solar arrays can help keep our systems and buildings powered even in the event of an outage in the public grid. By the end of 2014, the Combat Center will have between 8 and 9 megawatts of solar power-generating capability.





### Project Leatherneck meets increased electrical needs

As MCAGCC has grown, so has its electrical needs. Even with its cogeneration and renewable energy sources, the feed from Southern California Edison (SCE) — the electrical utility that serves the region — was no longer adequate to sustain training operations. The Combat Center partnered with Edison to increase its feed from 34.5 kilovolts to a twin-transmission, 115-kilovolt line.

In 2012, a new Leatherneck substation was built aboard MCAGCC to handle the installation's power requirements. Its internal power grid also was upgraded and new switches and controls were installed. Those upgrades may eventually allow MCAGCC to export the power it generates back into SCE's system.

The Combat Center's power upgrade also necessitated changes to SCE power lines feeding the installation as well as its electrical systems serving the entire Morongo Basin. The twin 115-kilovolt

lines are fully switchable so that if one line is down, the system automatically switches to the other, thus providing power to not only MCAGCC but to the surrounding area as well.

Because of the Combat Center's upgrades, the overall reliability of SCE's system serving the Basin has greatly increased. Its main control center is able to manage the grid system better and faster, and it can maintain power easier than in the past.

### MCAGCC energy programs win awards

The installation's energy programs have not gone unnoticed. MCAGCC has won multiple Federal Energy Management Program awards for cogeneration, renewable energy and advance controls from the U.S. Department of Energy. It also won the Marine Corps Large Shore Energy Award three times between 2008 and 2011, as well as multiple platinum-level awards over the last 10 years.

## Reducing our night-sky imprint

Not content to merely increase energy efficiency through infrastructure and other improvements, Combat Center energy managers began a project in 2008 to conserve energy and reduce the installation's night-sky imprint.

Under Operation Dim the Lights, they replaced more than 3,000 light fixtures throughout Mainside and at Camp Wilson with night-sky-compliant fixtures that direct beams downward instead of out. Old, champagne-colored streetlights in family housing also were replaced with white lights that use half the energy.

Motion sensors were placed in offices and on many outdoor lighting fixtures so lights come on only when necessary. MCAGCC's running track is an excellent example — each solar-powered light comes on only when a runner or walker trips its sensor. Each stays on for five minutes, allowing the runner sufficient light to continue along the track. Similar lights also were placed on walking trails at the installation's Felix Field sports complex.

Future energy conservation projects include insulating MCAGCC's concrete buildings to pare down energy usage in those structures, and solar heating for the training tank and Officers' Club pools.

Opposite page, left: Solar amphitheater shade cover. (Diane Durden)

Opposite page, right: Combat Center Energy Manager Gary Morrisett and Werner Velasco, a quality control engineer with contractor T.B. Penick & Sons Inc., look at the absorption chiller in MCAGCC's new 9.2-megawatt cogeneration plant. Unlike the installation's original cogeneration plant, the new one will have all of its chillers and boilers under one roof. (Kelly O'Sullivan)

This page: The solar-powered lights on the Combat Center's running track are a great example of the installation's conservation and night-sky preservation efforts. Each comes on when someone trips its sensor, and a shield directs the beam down instead of out. (Kelly O'Sullivan)



# Leading the Way in Waste Management

**A**s any city or town government knows, handling the different types of waste generated by a daily population of 25,000 is a substantial logistic responsibility. Add to that the specialized type of waste generated aboard the Combat Center — like brass ammunition casings and hazardous and industrial waste produced by one of the largest live-fire training ranges — and you add to the challenges.

## Waste management model

The Combat Center has a strong history of proactive environmental policies, making the Environmental Directorate the logical home of waste management on the installation.

As they tackled the challenges presented by the different wastes generated aboard the installation, several department managers followed the spirit of recent Executive Orders and Department of Defense efforts to foster more efficient and business-like approaches to military problem-solving.



Those managers created a separate entrepreneurial activity within the Environmental Directorate. The Qualified Recycling Program (QRP) has become a model for the DoD, fostering innovative practices that have been implemented at other military installations around the country. QRP reissues or recycles more than 300 types of items, keeping more than 30,000 tons of materials out of the installation's landfill to date.

The \$2.2 million in revenue generated yearly offsets the program's costs and goes toward quality-of-life improvements aboard the installation.

In 2012, the QRP disbursed more than \$800,000 to Marine Corps Community Services to help improve quality-of-life programs for

Marines and sailors who serve here, as well as their families. Some of QRP's accomplishments include:

- Decreasing landfill disposal of solid waste by 54 percent (From 11,000 tons in 2007 to 5,100 tons in 2012)
- Increasing the volume of recyclable goods by 247 percent (From 1,872 tons in 2007 to more than 6,500 tons in 2012)
- Increasing sales of recyclable materials (From \$1.2 million in 2007 to more than \$2.2 million in 2012)

## Hazardous waste

The Hazardous Waste Management Branch ensures compliance with federal regulations such as the Resource Conservation and Recovery Act. The branch processes items including used oil, aerosol cans, antifreeze, electronic waste, used lead acid batteries and petroleum-contaminated soils.

From fiscal year 2002 to 2012, the branch:

- Reduced hazardous management costs from \$574,000 to \$150,000 annually, for a 74 percent savings.
- Reduced its hazardous waste footprint by 58 percent — from 641 metric tons to 272 metric tons annually by treating and recycling hazardous materials and keeping them out of waste streams requiring off-site disposal.



## Recycling of range-generated solid waste

The Combat Center generates a great deal of range residue and industrial waste during training. Material such as wooden pallets, practice projectiles, spent munitions casings, target remnants, tires and other assorted materials present unique challenges due to the large volume handled by the Range Sustainment Branch.

In response, QRP staff has developed methods for converting much of the range residue collected to commercial scrap for sale or reuse. These innovative practices serve as a benchmark for the Marine Corps in working toward viable range management and sustainability.

## Residential-industrial

Recycling operations consist of solid waste (trash)/recycling collection and material processing. During 2012, the Recycling Branch collected 8,733 tons of trash and 5,011 tons of recyclables from 1,539 military family housing units as well as 370 industrial and office complexes. The branch also collected 2,350 tons of solid waste from Camp Wilson, the installation's expeditionary training facility.



For its efforts, the QRP has been recognized by the Environmental Protection Agency with a Certificate for Outstanding Environmental Achievement.

## Did you know?

**Solid/hazardous waste items collected aboard the installation in 2012 included:**

- **Aluminum/steel cans:** 35,200 lbs
- **Glass:** 106,400 lbs
- **Range residue:** 4.8 million lbs
- **RCRA hazardous and non-hazardous waste:** 272 tons
- **Hazardous and non-hazardous materials recycled:** 540 tons

**In 2012, QRP recycled:**

- **Range residue and gleanings (explosives hazardous materials):** 1.2 million lbs
- **Assorted metals recycled:** 5.3 million lbs
- **Other recycled materials:** 8.6 million lbs
- **Paper and cardboard:** 1.9 million lbs\*  
*\* Resulting in the saving of 6,206 cubic yards of landfill space due to solid-waste diversion.*

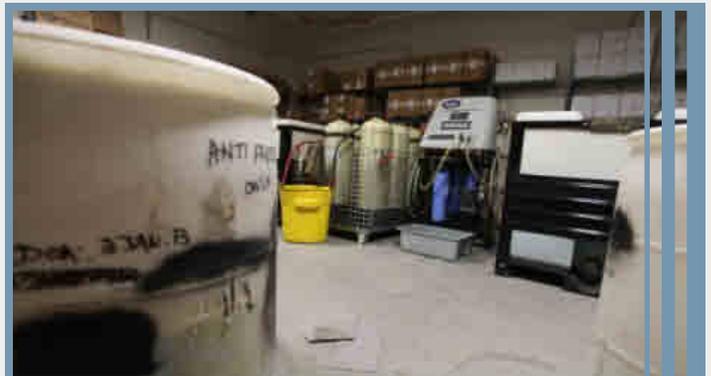
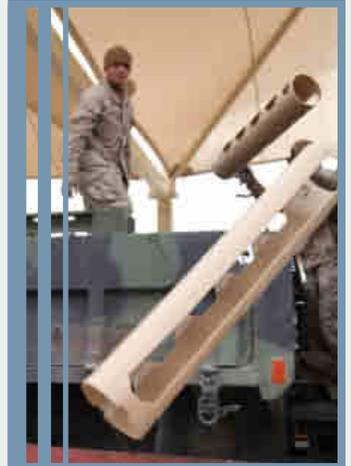
Opposite page: Elton Munoz, left, LeRoy Edick and James Kitchack process cardboard for baling at the Qualified Recycling Program's residential-industrial recycling lot. Finished bales weigh between 1,500 and 1,700 pounds. (Kelly O'Sullivan)

This page top: A Range Sustainment Branch employee releases melted aluminum into a form at the branch's aluminum smelter. Each form weighs between 500 and 600 pounds. (Kelly O'Sullivan)

Middle left: Staff Sgt. Richard Otero, an environmental assistant in the Hazardous Waste Management Branch, checks the charge on a battery. Batteries that hold a charge are cleaned, labeled and reissued to units. Batteries that won't hold a charge are processed and sold as scrap. (Kelly O'Sullivan)

Middle right: Marines offload ordnance containers at the Range Sustainment Branch lot. Units are required to bring their range residue to the lot after training. (Kelly O'Sullivan)

Bottom: The Hazardous Waste Management Branch recycles antifreeze turned in by units throughout the installation by cleaning out impurities and putting it into clean drums for distribution back to the units. (Kelly O'Sullivan)



# Natural Resources

**The Combat Center is home to a wealth of plant and animal species whose survival depends on the fragile desert ecosystem.**

MCAGCC's Natural Resources and Environmental Affairs Division (NREA) is responsible for ensuring these precious resources are managed properly, while supporting the Combat Center's training mission. At the heart of this program are strategies designed and implemented to comply with federal laws such as the Migratory Bird Treaty Act (MBTA) and the Endangered Species Act (ESA). Under the ESA, federal agencies are required to protect and promote the recovery of threatened and endangered species.

The desert tortoise, a threatened species, is found throughout the installation. To develop effective natural resources management strategies, the staff conducts and oversees extensive studies on the tortoise and other sensitive plant and animal species. At the installation's Headstart facility, Tortoise Research and Captive Rearing Site (TRACRS), vulnerable tortoise nests and hatchlings are protected until the young can resist most predators. This proactive initiative was conceived to conserve MCAGCC's tortoise populations and to advance knowledge for species recovery.

In support of regional goals, the Combat Center has partnered with the California Department of Fish and Game to help reintroduce Nelson's Bighorn Sheep to the installation.

NREA also has worked to maintain the health of MCAGCC's training lands by implementing desert restoration studies, land condition trend analysis and an installation-wide soil survey.

One of the program's most important management tools is the Integrated Natural Resources Management Plan overseen by the U.S. Fish and Wildlife Service, which uses an ecosystem approach and establishes a five-year plan outlining how the Combat Center can best support its military mission while sustaining important natural resources within its boundaries.

MCAGCC also works with organizations like the Mojave Desert Land Trust to preserve critical habitat off the installation via the Department of Defense Readiness and Environmental Protection Integration (REPI) Program. For more information on REPI, see pages 18-19.

The horned lizard is one of numerous species at MCAGCC. (Nora Bruennel, NREA)

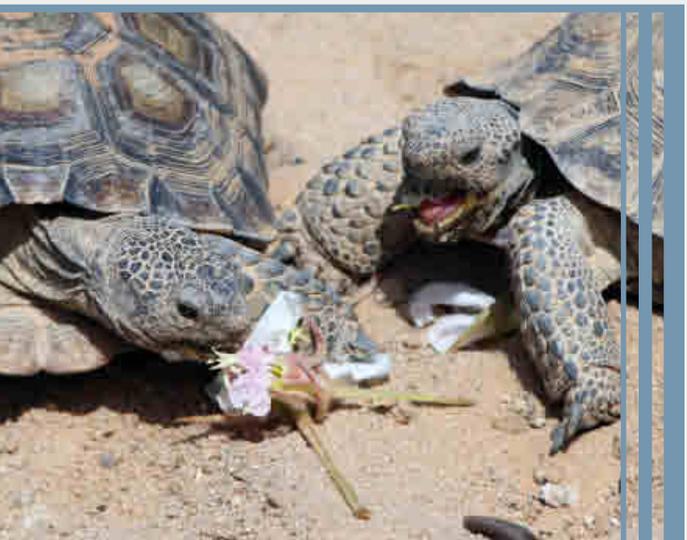


## Did you know?

Desert tortoises can be found in the Mojave and Sonoran deserts of Southern California, Nevada and Utah. Their numbers have decreased by 90 percent since the 1950s, when there were an estimated 200 adults per square mile.

Above: Two owls take shelter on the wheels of a military vehicle. (Taura Huxley, NREA)

Below: Thelma and Louise, two resident desert tortoises used for educational purposes, feast on primrose blooms. (Kelly O'Sullivan)



# Cultural Resources

## The Combat Center's Cultural Resources Program protects thousands of prehistoric and historic sites on the installation.

The Natural Resources and Environmental Affairs Division (NREA) ensures MCAGCC's compliance with the National Historic Preservation Act and other laws governing cultural resources by conducting surveys and evaluations as well as implementing protective measures that integrate preservation requirements with the Marine Corps' training mission.



Dr. Marie Cottrell shows students the foot bone of a mastodon at the Curation Center. (NREA)

When Europeans arrived in the region, the area that now comprises the Combat Center was part of the Mojave, Serrano and Chemehuevi Indians' tribal territories. Data collected from some of the archeological sites indicate they lived in the area for at least the last 9,000 years. In the 1880s, construction of railroads across the Mojave Desert brought miners to its more remote sectors. Several historical mining districts and abandoned mines are present at MCAGCC.

The Combat Center also is home to some truly unique prehistoric archeological sites, including the Foxtrot Petroglyph Site, one of the largest in the region. Valuable information on how Native Americans subsisted in the desert has been found at the Surprise Springs and the Deadman Lake archeological complexes.

Archeological surveys and evaluations are ongoing and it is expected that thousands of sites will be located and recorded as they continue. Hundreds of sites have been evaluated and dozens were found to be eligible for listing in the National

Register of Historic Places, which makes them off-limits to training until mitigation measures are implemented.

MCAGCC has prehistoric archeological sites and some significant paleontological deposits. The most notable, Gypsum Ridge, has yielded early Pleistocene fossils representing such fauna as the giant ground sloth, giant tortoise, Pleistocene horse, camel, llama and mastodon. At least four habitats have been defined: open grasslands; brushy, rocky uplands; well-watered grasslands; and a stream feeding a marsh, pond or lake. The site is currently dated to 1.8 to 2 million years ago, assigning it to the early Pleistocene era.



This petroglyph at the Foxtrot Petroglyph Site is referred to by archaeologists as an anthropomorph, which means it is a human-like figure. (NREA)

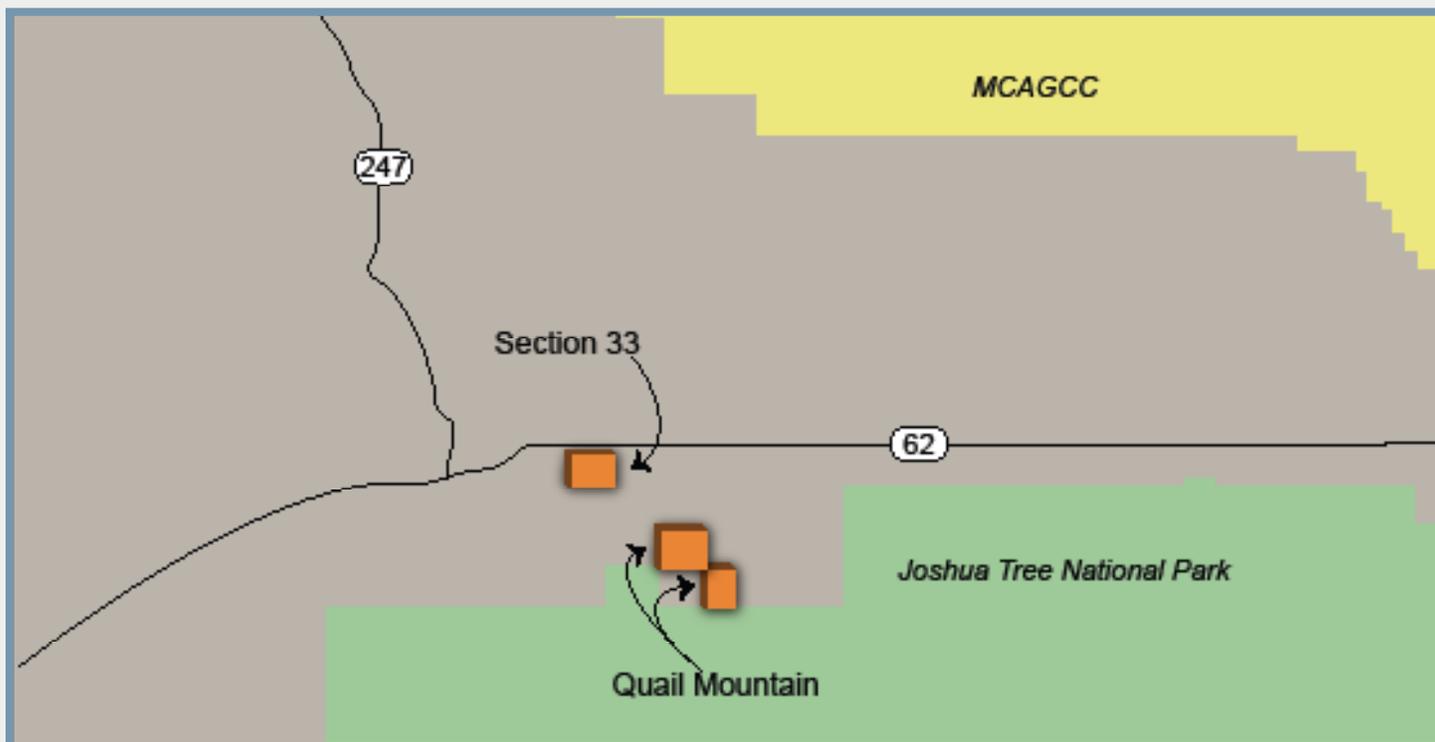


An archaeological field crew excavates a prehistoric campfire site at MCAGCC to determine whether it's eligible for inclusion on the National Register of Historic Places. (FWARG Inc.)

## Combat Center houses regional cultural collections

In 2007, NREA opened a 2,500-square-foot, environmentally controlled Archeology and Paleontology Curation Center to house the Combat Center's cultural collections. In 2011, it also began serving as a regional facility housing collections from the Marine Corps Mountain Warfare Training Center in Bridgeport, Marine Corps Logistics Base Barstow and Marine Corps Air Station Yuma. The grounds also are home to an interpretive ethnobotanical garden used for outreach activities and available for self-guided tours. Future plans include construction of an additional building to add another 2,000 square feet of space.

# Readiness and Environmental Protection Integration Program



Section 33: Before

Before the Section 33 area was conserved, it had been used as an illegal dumping ground for household items, commercial waste and even hazardous materials. Combat Center personnel worked with volunteers from the Mojave Desert Land Trust and The Trust for Public Land to remove more than 100 dump sites. These restoration efforts will allow native plants and animals the opportunity to recover and flourish.



Section 33: After





**The Combat Center has a reputation for excellent environmental stewardship of its training grounds. This focus on protecting natural resources extends off the installation as well. Protecting the environment helps the military maintain its mission readiness and creates a positive relationship with the neighboring communities.**

The Department of Defense Readiness and Environmental Protection Integration (REPI) Program supports cost-sharing partnerships between the military, private conservation groups, and state and local governments to protect military test and training capabilities, and to conserve environmentally significant land in the surrounding communities.

Through FY 2012, REPI has protected more than 264,000 acres, benefitting the DoD mission, local communities and our nation's natural resources.

-2013 REPI Report to Congress

As development around MCAGCC increases, less land is available for desert plants and animals, including the desert tortoise. Development and recreational activities push the animals to find new habitat. Due to its wide open spaces, the Combat Center may become one of the last refuges for these animals.

REPI works by allowing the Marine Corps to share the cost of conservation with a partner. The partner purchases an environmentally important piece of land. Documents are then filed to limit development (called a Restrictive Use Easement). Then, anyone who owns the land must follow the conservation

requirements written in the easement and the land is now preserved for desert plants and animals indefinitely.

There are many training restrictions in place to protect MCAGCC's desert tortoises. When a tortoise makes its way to a training area, all activities stop until it moves on. More tortoises on the installation could mean less training. Live-fire, combined-arms training is the backbone of the Combat Center's existence. Too many restrictions on training could severely impact mission readiness. This is where preserving habitat off MCAGCC becomes important.



Past projects (see map on previous page):

- **2010 Quail Mountain** — 955 acres of pristine desert tortoise habitat and desert view sheds preserved. Partners included the Mojave Desert Land Trust, a local conservation agency.
- **2012 Section 33** — 623 acres of desert tortoise habitat preserved. Partners included the Mojave Desert Land Trust and The Trust for Public Land.

Top: Two young bobcats perch together in a Joshua tree. (Julianne Koza)

Below: In addition to preserving pristine desert habitat, the Quail Mountain REPI project area protects airspace needed for military helicopter routes. (Kelly O'Sullivan)



# Mutual Aid to Surrounding Communities

**C**ooperation between the Combat Center and local communities and counties has a long-standing history. The installation supports a variety of different services in local communities, the county and in some cases national law enforcement.

## Provost Marshal's Office

The Provost Marshal's Office (PMO) — the Combat Center's police department — works closely with the San Bernardino County Sheriff's Department, easing the law enforcement burden on both agencies in overlapping areas.



Officers with the California Highway Patrol gear up in preparation for crowd dispersion training held at Range 220. (Cpl. Ali Azimi)

In addition to providing a patrol presence in off-base military housing at Vista del Sol in the city of Twentynine Palms, PMO responds to off-installation calls involving Marines and sailors. MCAGCC's K-9 section

also provides regional and global support for such events as presidential and other VIP visits requiring working dog support.

Community service activities by military police include hosting a crime prevention booth at events in the surrounding communities, completing identification safety kits for local children and participating in Drug Abuse Resistance Education (DARE) programs at local schools. The Combat Center's K-9 team — the only one in the Morongo Basin — also conducts working dog demonstrations at schools and at numerous events.

## Fire, rescue and emergency services

MCAGCC maintains mutual aid agreements with San Bernardino County and local municipalities related to collaborative response and aid in the event of a large-scale disaster. In 2012, the Combat Center Fire Department responded to 126 events in surrounding communities, often providing emergency response coverage for local fire departments. (See box for breakdown of responses.)

### Crucial training provided to outside firefighters

In 2012, the Combat Center Fire Department hosted Rapid Intervention Team Training and Bail Out Training for 200 firefighters from neighboring communities. The structural fire



Combat Center Fire Capt. Wayne Giannini introduces himself to 5-year-old Savannah Villapudua during Morongo Valley's annual Firefighters Appreciation Picnic. (Cpl. Ali Azimi)

training was held in MCAGCC's Live Firefighting Training facility on 10th Street using state-of-the-art training modules and props that are not available within 80 miles of the Morongo Basin. Visiting firefighters practiced attacking actual interior fires and zero-visibility search and rescue as well as vehicle fires inside garage storage areas. Such training is critical to firefighters because successful fire prevention efforts have reduced the real-world opportunities for practicing these skills.

Combat Center Fire also conducts public education outreach to the community via its fire safety trailer, which teaches children about home fire safety, what to do in the event of a fire and how to safely escape from their homes in case of an emergency. It also offers monthly first aid and CPR training to the public, and frequently offers free EMT recertification classes to the public.

The fire department's community outreach includes participation in such events as the Twentynine Palms Pioneer Days and Yucca Valley Grubstakes Day parades, and the annual holiday light parades in those communities. The department also hosts kindergarten and second-grade students from Condor Elementary School on field trips, and participates in the school's reading program and annual disaster drills.

In 2012, the Combat Center Fire Department responded to 126 events in the local communities, for a total of 699 man hours:

- **Twentynine Palms:** 66 responses, 178 man hours
- **Wonder Valley:** 38 responses, 108 man hours
- **Yucca Valley:** 14 responses, 300 man hours
- **Joshua Tree:** 6 responses, 64 man hours
- **Needles:** 2 responses, 49 man hours

# Education

**T**he Marine Corps takes education at all levels seriously, and Combat Center staff works closely with local school and college districts to ensure that students receive the best education possible.

## Elementary and secondary education

Under the Federal Impact Aid program, the federal government compensates school districts for educating the family members of some federal employees, including armed forces personnel. In 2012, the Department of Defense provided \$1.6 million in impact aid funds to Morongo Unified School District (MUSD).

MUSD operates 11 elementary schools, two junior high schools and three high schools in the Morongo Basin, including Condor Elementary School aboard the Combat Center. Total enrollment for 2012-13 was 8,589 students. Of those students, 1,789 were children of active-duty service members, 871 were children of MCAGCC civilian employees and 17 were children of civilian employees of other military installations in Southern California.

MUSD also participates in Military K-12 partners, a Department of Defense Education Activity (DoDEA) Educational Partnership program that awards grants to public schools serving the children of active-duty service members. Since 2009, the school district has received \$4.5 million in DoDEA grant funding for programs ranging from special education to language arts and math.

## Higher education

The Marine Corps encourages active-duty personnel and their college-age family members to pursue their education beyond high school, and MCAGCC has made educational opportunities available aboard the installation via traditional and online courses.



Cpl. Clayton Custer and Lance Cpl. Nathan Carranza use a page from "Miles and Miles of Reptiles" to answer a student's question about the difference between alligators and crocodiles after reading to second-graders at Friendly Hills Elementary School. (Kelly O'Sullivan)

Copper Mountain College (CMC) in Joshua Tree, Mayfield College in Twentynine Palms and National University are the three local institutions that received military tuition assistance in 2012. National University received \$262,655, which helped fund 472 courses; Mayfield College received \$103,498, which helped fund 27 courses and CMC received \$21,722, which helped fund 178 courses.

In 2012, National University held 54 courses on the installation, with a total enrollment of 902 students. Of those, 72 were active-duty Marines, eight were active-duty sailors and 811 were family members, veterans or civilians. CMC conducted 14 courses on the installation in 2012, with 208 students enrolled. Of those, 28 were active-duty Marines, six were active-duty sailors and 158 were family members, veterans or civilians.



Left: Leslie Hundley of the Exercise Support Division shows a job-shadowing student how to use a plasma cutter. (Kelly O'Sullivan)

Above: Retired Marine Jim Lizarraga, right, and former Marine Delvin Dowell are attending National University classes at the Combat Center. (Diane Durden)

# Community Relations



## Did you know?

Each year, the Community Relations Section coordinates more than 3,500 Marines, sailors and family members who participate in more than 300 community events throughout the region as part of MCAGCC's commitment to being a good neighbor.



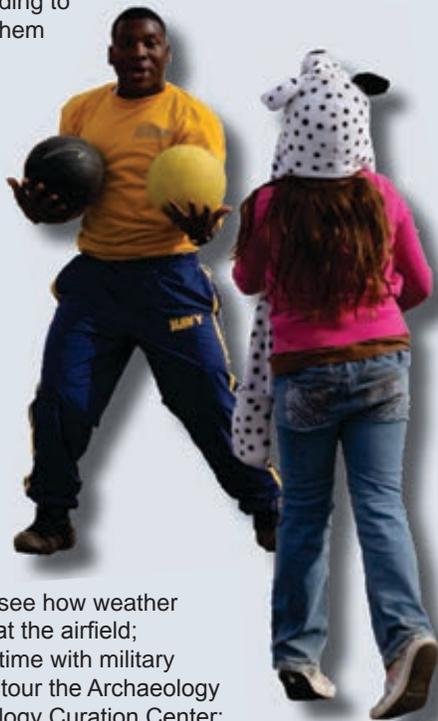
Opposite page: Navy Petty Officer 3rd Class Dominique Lemons plays a game of toss with students during an Adopt-A-School visit at Joshua Tree Elementary School. (Kelly O'Sullivan) Clockwise from top left: A Light Armored Vehicle from the Combat Center participates in the Palm Springs Veterans Day Parade. (Cpl. Ali Azimi); Lance Cpl. Andrew Whitaker shows off an all-terrain Mine Resistant Ambush Protected Vehicle to children at a Veterans Day celebration in Twentynine Palms. (Kelly O'Sullivan); Members of MCAGCC's Cub Scout Pack 78 bag trash they collected at Joshua Tree National Park during National Public Lands Day. (Sgt. Heather Golden); A Combat Center color guard takes part in a Veterans Day observance in Yucca Valley. (Capt. Nick Mannweiler)



**If you see groups of Marines and sailors doing good work in the community, chances are they were organized by the Combat Center's Community Relations section. Community Relations receives requests from groups throughout Southern California and works with commands on the installation to send personnel to participate in those events.**

One of the section's most extensive outreach programs is Adopt-A-School. Under the program, Marines and sailors visit schools in both the Morongo Basin and Coachella Valley, mentoring students and serving as good examples of physical fitness, citizenship and leadership.

Throughout the year, participating service members visit "their" elementary schools regularly, participating in physical education activities, reading to students and assisting them with campus cleanups on Earth Day. They participate in such special school events as K-9 demonstrations during Red Ribbon Week, Science Fair judging, Read Across America Week and career days. When students in Morongo Unified School District's Gifted and Talented Education (GATE) program visit the Combat Center, they learn crash/ fire and safety



techniques, and see how weather balloons work at the airfield; get hands-on time with military vehicles; and tour the Archaeology and Paleontology Curation Center; range recycling operations and MCAGCC's solar field to discuss renewable energy.

Under the Combat Center's Career Pathways partnership with MUSD and Copper Mountain College, Marines and sailors help motivate at-risk junior high students to go to high school and pursue their career dreams by providing hands-on experience in four areas — firefighting, electronics, medicine and leadership.

During annual job-shadowing, MUSD high school juniors and seniors visit the installation and are paired with professionals in their field of interest. Between 2002 and 2012, approximately 500 local students shadowed military police, photographers, welders, nurses, computer experts, Officers' Club hospitality staff, cooks, Marine Corps Exchange managers, mechanics, hair stylists, Sergeants' Course instructors, dental technicians, accountants, lawyers and more aboard the Combat Center.

Community Relations also arranges for volunteers from units from MCAGCC to assist in local beautification projects, often working side-by-side with area residents. In 2012, 150 Marines, sailors and family members participated in National Public Lands Day cleanup activities in Joshua Tree National Park, and personnel from the installation helped clean up Turtle Island in the village of Joshua Tree as well as sites in Morongo Valley.

The section worked with the staff of "The Tonight Show" to send Marines and sailors to Jay Leno's annual Thanksgiving salute to the troops. It also coordinated trips to "The Price is Right," "NCIS" and to events like the Los Angeles Dodgers' Fourth of July game, Tournament of Roses Parade and Rose Bowl football game.

Community Relations coordinates guest speakers, color guards, firing details, marching units and vehicles, K-9 demonstrations, static displays and stages for events ranging from Memorial Day and Veterans Day observances to Fiesta, Grubstakes and Pioneer Days as well as annual car shows, Earth Day events, festivals, parades and celebrations around the region.

Under the Commanding General's Tours Program, Community Relations staff welcomes an average of 600 residents from the surrounding communities to the installation each year, showing them how Marines and sailors here train, work and live. During tours, visitors learn about the Combat Center's rich history and its commitment to being a good neighbor by experiencing first-hand the installation's dedication to preserving environmental, cultural and natural resources by visiting places like the range recycling operation and the Curation Center. They also have an opportunity to visit sites like the Battle Simulation Center at Camp Wilson and one of several urban training ranges on the installation.

Community Relations staff also serve as liaisons between the installation and organizations including local chambers of commerce, the Basin Wide Foundation, Morongo Basin Economic Development Consortium, Twentynine Palms Public Arts Advisory Council, Morongo Basin Dark Skies Alliance and others.

While supporting local events, many Marines, sailors and family members find a true reward in being part of an outstanding and welcoming community. While they may miss their hometowns, the Basin quickly becomes their home away from home and they take great pride in making a difference here.



# Giving Back

**M**arines' and sailors' commitment to service extends far beyond their more publicly visible commitments to country and Corps. Their desire to give back extends to their surrounding civilian communities and can readily be seen through their work with civic organizations, philanthropic groups and other community service providers.

## Community service

One of the Combat Center's most visible community service activities is the annual Marine Corps Reserves' Toys for Tots campaign. In 2012, Company D, 4th Tank Battalion, a Reserve unit stationed aboard the installation, collected and distributed more than 40,000 toys to more than 20,000 children in the Morongo Basin and Coachella Valley, as well as Riverside and Fontana. The campaign directly supported 806 families and 64 nonprofit organizations. More than 200 Marines and sailors from MCAGCC and Robert E. Bush Naval Hospital assisted in the campaign, helping to raise more than \$39,000.

Marines, sailors, civilians and family members also donate blood regularly. In 2012, Combat Center personnel and their families



A Marine with the Wounded Warrior Battalion works during the cleanup of the Big Morongo Canyon Preserve in Morongo Valley. (Cpl. Ali Azimi)



## Did you know?

In 2011, Americans spent nearly 8 billion hours volunteering in their respective communities, an estimated economic value of \$171 billion.

Source: Corporation for National and Community Service, [www.nationalservice.gov](http://www.nationalservice.gov)

Above: Cpl. Peter J. Napoles accepts toys collected by residents of Rancho San Francisquito in La Quinta during the 2012 Toys for Tots drive. On the day that Napoles visited, the community held a celebration with food, music and children's activities. (Fiorella Napoles)

Below: Clarissa Parker, a phlebotomist with Desert Blood Services, draws blood from Pfc. Andrew Evans of the Marine Corps Communication-Electronics School at the East Gym. MCAGCC personnel donate about 1,000 pints of blood annually. (Kelly O'Sullivan)





donated 939 pints of blood to La Quinta-based Desert Blood Services, which serves hospitals in both the high and low deserts, including Hi-Desert Medical Center in Joshua Tree and the Naval Hospital at MCAGCC.

Blood is always sorely needed and patients pay as much as \$225 a pint in Southern California. The Combat Center's contribution to the regional blood supply in 2012 was valued at \$211,275 and up to 2,817 lives saved.



Crista Parfitt, wife of an active-duty Marine, plays "Taps" at military events and funerals within a 100-mile radius of the Combat Center. (Parfitt family)

### Volunteering

When they're not on the job, many caring members of the MCAGCC community also make a difference by donating thousands of volunteer hours each year. Marines, sailors, civilians and family members serve as coaches and umpires for local park and recreation sports programs, mentor youths through scouting and programs like Young Marines, collect trash along Highway 62 and other roadways in the local communities, help build sets at community theaters, docent at museums and art galleries, participate in youth and

adult programs through their churches and help in after-school programs on and off-campus. Still others make a difference by quietly helping neighbors in their respective communities.

Sailors from Robert E. Bush Naval Hospital participate with the installation in the Department of Defense's annual Drug Education for Youth (DEFY) Leadership Camp, a two-phase program that encourages 9- to 12-year-olds to pursue a healthy, drug-free lifestyle. Through the camp, about 20 staff members work with students in a one-week session followed by monthly events over the course of a year.

In 2012, staff and sailors assigned to the hospital donated more than 2,900 volunteer hours to youth sports, scouting, churches, Wounded Warrior Program, Twentynine Palms Community Food Pantry, Morongo Basin Mental Health, Joshua Tree Search and Rescue, White Rock Horse Rescue, Riverside National Cemetery, Norwalk Medical Center and others.

Many Marines, sailors and family members grew up volunteering in their hometowns, and carrying on that tradition of service in their adopted home gives them a sense of accomplishment and community pride. They may only live in the Basin for a short time, but the difference they make here lasts a lifetime.



Sgt. Leonel Barron is one of many MCAGCC Marines and sailors who give back through volunteering on a regular basis. Barron has served for three years as an assistant coach with the Twentynine Palms Hoop, a basketball team comprised of third- and fourth-graders. Barron and Hoop Coach Joe Estrada, a civilian, have formed a tight bond and they coach other Twentynine Palms Park and Recreation sports teams together. Barron and his family are so fond of the community that when he got orders to Camp Pendleton in 2013, they made the decision that he would commute home on weekends so they could continue living here. (Kelly O'Sullivan)



# Our Commitment to You

**Whether it's yesterday, today or tomorrow, the men and women who live and work aboard the Marine Corps Air Ground Combat Center enjoy being part of the community. Those of us on active duty may come and go from the installation as duty calls, but while we're here this is our home and just like you, we want it to prosper.**

Like you, we want nice places to shop, great places to eat and interesting things to do. We want our kids to love their schools, to remember their teachers and their coaches fondly, and we want them to grow up and pursue their dreams knowing that the foundation provided during their time in the Morongo Basin was a solid one.

We want to make a difference in our jobs and in our service to our country, and we want to make a difference in the lives of our families and yours. To that end, we will continue to spend our hard-earned dollars locally whenever we can. We will continue to work side by side with you through professional and personal partnerships to improve the quality of life in our communities and we will continue to proudly call the Morongo Basin "home."

The communities surrounding the Combat Center have thrived in their ongoing relationship with the installation as active-duty and retired service members, civilian employees and their families have made their homes here.

Despite ever-changing demands on the Marine Corps, the Combat Center continues to provide key support to its neighbors. The installation provides tangible and intangible support to the local communities via employment opportunities, numerous direct economic impacts and mutual aid. On a personal level, it provides community donations and thousands of hours of volunteer time each year. MCAGCC's presence here also provides tax revenues and infrastructure enhancements to the entire Basin.

The Marine Corps' mission and the growing need for flexibility in training requirements as our readiness challenges evolve makes the installation's partnerships with surrounding communities ever more important to ensure that the Corps can meet the needs of the nation as America's crisis-reaction force.

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Throughout the Combat Center's 60-plus years of service, our traditions and values have contributed to the quality of life in the Morongo Basin.



(Photo illustration by Samantha Giordano)

