

Community Impact Assessment



**Marine Air Ground Task Force Training Command
Marine Corps Air Ground Combat Center**

**Twentynine Palms
California**





Three observers with Mike Battery, 3rd Battalion, 11th Marine Regiment, watch for incoming artillery rounds in the Combat Center's Quackenbush training area. *Photo: Cpl Michael S. Cifuentes*

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...A word from the Commanding General, Twentynine Palms

This report attempts to take a comprehensive look at the full impact the Marine Corps Air Ground Combat Center (MCAGCC), has on the local and regional communities.

The Combat Center has been intertwined with the local community since its birth in 1952. In recent years, it was annexed to the town of Twentynine Palms which resulted in many positive benefits to the entire community. The base has developed strong partnerships with the towns of Twentynine Palms and other cities of the Morongo Basin, and enjoys close working relationship with other agencies such as the neighboring Joshua Tree National Park and regional Bureau of Land Management. We are committed to growing our relationships with our communities in every way possible.



The Combat Center has distinguished itself in many categories in recent years.

During June 2007 the Combat Center was the recipient of the Commander in Chief's Annual Installation Excellence Award as the best military installation in the Marine Corps. Additionally, the Combat Center has been a leader in several management areas receiving awards or serving as a best practice leader in waste management, recycling, energy efficiency and energy innovation.

The Combat Center is physically the largest Marine Corps base, encompassing 935 square miles, and has built state-of-the-art live and non-live and maneuver urban combat ranges. Currently under construction is a large-scale Combined Arms Military Urban Training (MOUT) complex consisting of approximately 1500 buildings. In addition, we have dozens of other projects either being started or planned over the next several years. These initiatives have stimulated growth not only for the basin's largest business enterprise and employer, but for local contractors as well. This growth has produced positive economic returns for local and surrounding communities. Our civic involvement provides an intangible economic value that reflects our continued commitment to social responsibility. This subsequently contributes to achieving long-term sustainable success for both the Combat Center and the Community at large.

For over fifty years, the Combat Center has enjoyed a mutually beneficial relationship with its neighbors. At present and in the coming years, it will be necessary to draw upon existing relationships to ensure the development of realistic training capabilities that meet our Nation's diverse security requirements. As in the past, we are dedicated to working with neighboring communities to achieve continued success. This report communicates and re-emphasizes the importance of partnering with the Morongo Basin Community, San Bernardino County and the State of California to sustain long-term organizational success while economically supporting the local and regional economy.

A handwritten signature in black ink, appearing to read 'M. G. SPIESE'.

M. G. SPIESE



Role-playing Marines with 3rd Battalion, 11th Marine Regiment sprayed with inert pepper spray are retrieved by the “snatch team” during a riot control and non-lethal weapons training exercise at Range 200. *Photo by Cpl Brian Tuthill.*

Quick Facts

The Combat Center was recognized by the DoD in 2007 as one of the best run military installations in the country with the Installation Excellence Award.

Overview

The Global War on Terrorism has ushered in a new chapter in military mission in this country. The U.S. Marine Corps has been at the forefront in meeting the new missions, challenges and threats that face our country today. Nowhere is this more evident than at the largest Marine Corps base in the country, the Marine Corps Air Ground Combat Center at Twentynine Palms, in the remote Mojave Desert.

This 935 square mile base in eastern San Bernardino County has been uniquely poised to provide the specific training needed for new and current troops in the emerging battle fronts in the Middle East and Africa in the past five years. It is unique because of its remote location, allowing Marines and sailors to train in real world combined air and ground exercises.

Known locally as the “Combat Center,” this base is the key desert and urban combat training center for all Marines heading into today’s conflict areas around the globe. MCAGCC specializes in desert combat on the ground and in the air, through indispensable live-fire exercise and maneuvering called “Combined Arms Exercises” (CAXs). This is the only dedicated live-fire maneuver range in the Marine Corps and the Department of Defense, replicating the war zones and battlefields of today. MCAGCC provides specific training for every Marine deploying to Iraq, in complex large scale exercises called Mojave Viper and smaller customized exercises. MCAGCC also hosts the Corps’ largest military occupational specialty school—in electronic communications. It has been the development and testing center for unmanned aerial vehicles which have proven critical in counter insurgency operations in the Middle East.

This base offers the Marine Corps and the other forces that train with them the unique flexibility to test defensive military functions such as evading Improvised Explosive Devices (IEDs), training in simulators to avoid HUMVEE roll-overs and IED attacks, learning to drive in formation in urban environments and detect enemy insurgent attacks, learning to operate in a culturally different environment, to differentiate between enemy and friendly elements in alien combat situations, close combat in urban environments, military checkpoint procedures and defense, and an increasing range of skills and abilities torn from the front lines of the middle east conflicts.

The Combat Center plays a vital function in preparing Marines for a type of war never fought before. As a military installation it has a unique flexibility in the DoD to adapt on a day-to-day basis with the training needs of Marines overseas.

Although deceptive to casual passerbys, the low profile base, nestled discreetly in the mountains north of the city of Twentynine Palms provides a major stimulant to the local and regional economy as the largest

Quick Facts

The Combat Center is the premier live-fire, combined arms training center in the Marine Corps.



In response to increasing rollover rates of Amphibious Assault Vehicles (AAVs), HUMVEEs and MTRVs, the Combat Center's responsive new driver training program requiring eight hours of mandatory instruction resulting in decreased accidents in these tactical vehicles by 80%. *Courtesy Photo.*

Overview

employer in the area. Many local businesses count a significant portion of their business from the base or from serving the large base-related workforce that call Twentynine Palms and other surrounding communities home.

The city of Twentynine Palms and the Marine base have had a close symbiotic relationship since WWII, as many service members retire and remain residents. Conversely, the town has provided a valuable pool of workers for the large civilian workforce required to maintain day-to-day operations. This symbiosis is evidenced by the large number of the local working populace who are current employees, or are retirees from the base and/or veterans.

Combat Center: A DoD Leader in Installation Innovation and Best Practices

The Combat Center has been recognized for its leadership in innovation in the Dept. of Defense (DoD), most recently being awarded the 2007 Installation Excellence Award (think of it as a Malcolm Baldrige type award for military bases). This award recognizes the outstanding and innovative efforts of the people who operate and maintain U.S. military installations. Awarded at the Pentagon on May 4, 2007 by Secretary of Defense, Robert Gates, it recognizes the military bases who strive for performance-based management and efficient use of resources to support their missions.

The base has also been progressive in its environmental stewardship, often exceeding federal, state and land management standards. Several federal and DoD awards have recognized the achievements in dramatic reductions in energy consumption, developing self-sustaining energy systems, and reducing energy costs. The entrepreneurial innovations in waste management aboard the base have also become a model standard in the DoD and are being replicated on other bases nationwide.

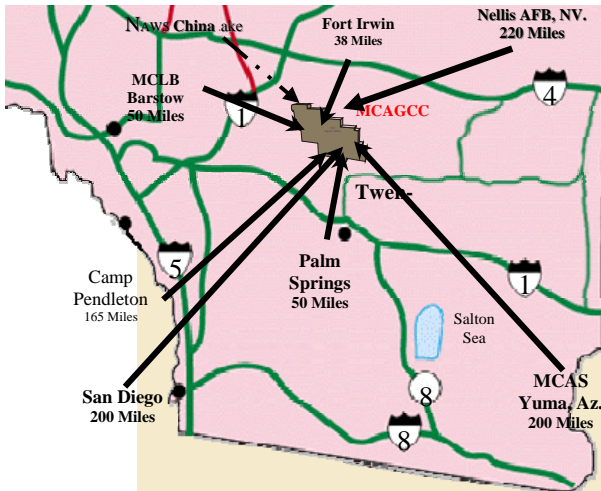
The Combat Center is also unique among installations in that it has been granted a certain degree of autonomy in its training curriculum, allowing it to adapt in the classrooms to daily changes in battle zones. As the head of the Explosive Ordnance Disposal department remarked "Twentynine Palms is the only place in the United States where Marines can test counter-IED tactics and train our technicians in the latest techniques to detect and disarm IED and other bombs. We are very limited at other bases because of the proximity to large urban areas where there are too many restrictions imposed to the kind of training necessary today."

The Combat Center continues to strive toward a model of installation excellence which has improved the installation's effectiveness in executing its mission in training Marines in the latest techniques as their mission grows more complex and further afield.

This assessment helps to illustrate how the installation impacts the local, regional and national community while executing its mission of training warfighters.

Quick Facts

Many former and retired military settle in Twentynine Palms, helping to account for the highest percentage of veterans in San Bernardino county.



Base Location: Mojave Desert

MCAGCC lies in the center of the remote southern Mojave Desert. The Mojave is unique, characterized not only by arid expanses, but by jagged mountain ranges, valleys and dry lakes, instead of the more stereotypical image of a sand-filled desert.

Located in the easternmost part of San Bernardino County and near the border of Riverside County, the Combat Center lies north of State Route 62, an East-West road connecting the Morongo Basin, and south of US 40.

The Morongo Basin describes a section of high desert that sits 2,000 feet above the Coachella Valley (Palm Springs, Palm Desert, etc), and is separated by the Little San Bernardino mountains, most of which are located within Joshua Tree National Park. This geographically remote section of desert averages less than 4" of rainfall per year. The Combat Center is surrounded by an arid desert topography known for its Mars-like volcanic surfaces like Amboy crater, and the large expanses of dry lake playas (Lavic, Bristol, Danby, etc) that have been periodically mined for salts, sulfates, and other minerals.

The Combat Center is the largest Marine Corps base landmass wise, encompassing 935 square miles and is home to more than a dozen Marine units that play a direct role in continuing conflicts around the world, and developing the systems and training to respond to emerging threats for the world's 911 force.



MCAGCC/MAGTFTC Open desert aboard the base. Photo Cpl Shawn Sales

The topography—jagged mountain ranges, make much of the land unusable for training operations, but certainly provides a realistic replica of many of the world's current conflict zones.

The unique location of the Combat Center provides one of the most diverse training settings in the country. This setting is ideal because of the terrain and remoteness which allow for the maximum flexibility to the different military units as well for specialists such as Explosive Ordnance Disposal technicians. This flexibility has also been recognized by federal and civilian law enforcement agencies who can obtain much needed training in law enforcement, counter terrorism, explosives investigations, and IED research aboard the Combat Center.

Train as We Fight

The tactics of war, offensive, defensive, and Stability and Support Operations (SASO), have changed dramatically over the years. The Combat Center remains a Service-level training environment for deploying Marines and Sailors. A robust and dynamic training curriculum allows Marines and Sailors to receive the most current and up-to-date training prior to being deployed in theatre.



MCAGCC Twentynine Palms -- Marines with Charlie Company, 3rd Light Armored Reconnaissance Battalion, occupy the streets of the military operations on urban terrain town at Combat Center's Range 200 during a cordon-and-knock operation. *Photo by Cpl Michael S. Cifuentes.*



HADITHA, Iraq -- Marines from 3rd Battalion, 3rd Marine Regiment patrol the streets of Haditha to speak with locals and disrupt any insurgent activity. *Courtesy photo.*

Quick Facts

The contracts for designing and constructing the MOUT facilities at the Combat Center have brought millions to Southern Californian firms.

Train as We Fight

Critical to providing a realistic 21st Century training environment is the simulated urban city on Range 215 at Twentynine Palms. The MOUT (Mobilized Operations on Urban Terrain) teaches Marines and Sailors valuable skills in operating in an urban conflict area, including cultural sensitivity and language.



AL SAQLAWIYAH, Iraq-- Marines with 3rd Battalion, 5th Marine Regiment, patrol through urban streets during Operation Saqlawiyah. *Courtesy photo.*



MCAGCC Twentynine Palms – Range 215.
Photo by Cpl Regina N. Ortiz.





The rocky, mountainous terrain may be inhospitable, but is invaluable in training Marines and Navy for similar landscapes in the Middle East. *Courtesy Photo.*

Quick Facts

The base employed more than 12,000 in 2006, but also generated an estimated 19,000 jobs regionally in indirect economic effects.

Economic Impacts on Local Communities

Economic Impact of the Combat Center

A military base usually represents a major economic activity in the region it is located. Often military bases are located in remote and isolated areas, and the towns and cities that grow up around them are inter-dependent economically on the health and growth of the base.

The BRAC closings (base realignments and closures) that have occurred over the past three decades often underline the strong gravitational pull of a base on the local economy when that base closes or shrinks, especially in the case of remote bases. The economic impacts are often classified into direct and indirect impacts.

Direct economic impacts represent the activities that have a primary or direct effect on the local economy such as direct employment by that activity and its health care expenditures, contracts, retirement pensions—those activities attributable to the initial economic activity. In 2006, 11,967 military and civilians were directly employed at the Combat Center, with annual salary and wages totaling approximately \$412,881,502.

Military and Civilian Retirees

Civilian and military retirees draw pensions that function as payroll in terms of economic impact on the local community. In 2006 civilian and military pensions in Twentynine Palms alone totaled \$25,020,360 for the 1,076 retirees. Retirees in the Morongo Basin receive \$42,824,172 annually in pensions.

Beyond the immediate area, it is estimated that 25% of retirees within an hour's drive are also related to the Combat Center. This would mean that 25% of these Coachella Valley/Riverside County federal retirees' annual salaries (\$39,223,464) or \$9,805,866 is likely related to the presence of the Combat Center.

Military and Civilian Retiree Annual Pension 2006

Twentynine Palms	\$25,020,360
Joshua Tree	\$4,011,396
Morongo Basin	\$42,824,172
Desert Hot Springs	\$6,318,444
Coachella Valley/ Riverside County	\$9,805,866



LCpl Keith Shaffer, a combat engineer with Company A, 1st Battalion, 2nd Marine Regiment, Regimental Combat Team 2 twirls a grapple hook as he clears a simulated minefield. The minefield is part of the training course for squad assaults and is the company's first training exercise at Mojave Viper. *Courtesy Photo.*

Quick Facts

\$465.5 Million in annual payroll and retirement benefits are added to the local and regional economies by the Combat Center.

Economic Impacts: Health Care, Contracting, Education

Many of the local retirees also continue to serve in the local workforce, contributing to a skilled workforce, another important impact on the local economy and local business.

In total, \$465,511,540 in annual payroll and retirement benefits are added to the local and regional economies by the Combat Center.

Health care expenditures in 2006 include TRICARE benefits to service members and their families and retirees and totaled \$8,728,687. Naval Hospital Twentynine Palms officials estimate that at least half that amount stays with local health care providers in the Morongo Basin. Civilian healthcare is estimated at \$3,199,130, much of which also stays local.

Military contracting stimulates the local and regional economies in direct and indirect ways. Military contracting represents a large effect on the local and regional economy in spite of the fact that a large proportion of contracting dollars go to large firms outside the local area. Many of these contractors both hire labor locally to execute the work, and also bring their employees in to the basin. As many local hotels and motels would attest, a majority of their weekly "heads-in-beds" is attributed to subcontractors and other workers from the Combat Center.

A total of \$152,266,179 in contracts are let annually. The Provost Marshal's Office estimates that as many as 2,500 sub-contractors were working on the Combat Center during the course of FY 2006 for varying amounts of time, linked to the various construction and service contracts. Although a certain portion of these subcontractors are local residents, others stay in town at hotels and motels. These subcontractors also contribute to local retail revenues as they spend wages and per diem in local grocery stores, restaurants, and on automotive repair, gasoline (and associated taxes) and entertainment. This is an example of the complex intertwined relationship between the base and the local economy.

The federal government also compensates **school districts** for schooling the dependents of federal employees including service personnel. In 2006, this amounted to \$1,676,700 from the Department of Defense and the Department of Education. The local college district also obtains a large proportion of its enrollments from Combat Center military and civilian



Courtesy Photo.

Quick Facts

The Combat Center generates an estimated \$6 Million in revenue annually to health care providers in the Morongo Basin.

Economic Impacts

Direct Economic Impacts of Combat Center--2006		
Employment	Number	2006 Salary
Military	10,060	\$336,513,000
Civilian (APF & NAF)	1,648	\$64,809,120
Personnel Contracting	Number	Contract Amts
<i>Personnel Service contracts</i>	<i>113</i>	\$6,959,382
<i>Food Service</i>	<i>146</i>	\$4.6 million
<i>Fast Food</i>	<i>ca.101</i>	N/A
Healthcare		2006 Expenditure
TRICARE to private providers		\$8,729,687
Civilian health care		\$3,199,130
Education		2006 Expenditure
DOE and DoD education grants		\$1,676,700
Copper Mt College apportionments		\$459,000
Contracts for Goods & Services		Contract Amt
Maintenance & Services		\$28,156,396
Construction		\$84,049,148
Naval Hospital & Dental		\$2,475,335
Training Construction		\$2,216,125
Training Maintenance		\$80,600
Training Services		\$20,503,697
MCCS		\$7,825,496
Utilities		2006 Expenditure
2006 Electric Bill		\$6,716,133
2006 Natural Gas		\$978,794
2006 Phone Service		\$323,319
Retiree Pensions	Number	Amount
Military Retirees—Morongo Basin	1,303	\$30,793,116
Civilian Retirees—Morongo Basin	571	\$12,031,056
Total		\$623,095,234



Twentynine Palms is home to the families of thousands of Marines.
Photo by Cpl Brian A. Tuthill



Before deploying to combat zones, Marines train at the Convoy Operations Course conducted by TTECG at Range 215. Photo by LCpl Kelsey Green.

Quick Facts

The base pays local property taxes for local military housing. In 2006, this amounted to \$478,672, with an increase to approximately \$564,672 in 2007.

Economic Impacts

Community Infrastructure & Mutual Aid

personnel, spouses and children in classes it conducts on base and at its main campus in the neighboring village of Joshua Tree. Some 86 classes with 1,584 enrollments were conducted on the base in 2005-06. The college conservatively estimates that at least 15% of full-time equivalent enrollments are directly related to the Combat Center. This represents at least \$459,000 in state apportionments to the local college district that contributes to its operating budget.

In Twentynine Palms, the Combat Center paid \$478,672 in taxes in 2006 for the Private Public Partnership Venture (PPV) housing properties in town. Although the base produces part of its energy needs through the cogeneration plant and solar array, it also pays \$8,018,246 in electric, natural gas and phone bills a year.

Combat Center Contribution to Community Infrastructure Enhancement

The Morongo Unified School District and the public services infrastructure of the surrounding communities also benefit directly from the presence of the base in inflow of tax dollars, revenues, and indirectly, from the economies of scale offered by the volume related to the combat center that allow larger businesses to operate in town such as motels, hotels, groceries, video stores, and restaurants. Even infrastructure improvements like fiber optic cables, DSL and road improvements become possible in the community because of the direct needs of the base or because of the volumes represented by the base that achieve an economy of scale enough to attract business investment. The Combat Center population augments the total city population figures resulting in a higher portion of county and state tax allocation back to the city. Gas taxes, for example, are allocated by population and amounted to \$510K in 2006. Measure I funds from the county taxes are also allocated back to communities by population proportion and totaled \$913K in 2006.

Mutual Aid Services to the Surrounding Communities

The base also contributes in a direct way to local communities by supplying *mutual aid services*. Rescue, fire, emergency, law enforcement and explosive hazard response services extend far beyond the boundaries of the Combat Center and into surrounding communities. In 2006, the Combat Center Fire Department responded to 172 calls beyond the fence-line. This included 78 calls to the city of Twentynine Palms, 68 to Wonder Valley and over 600 manhours expended fighting the Pioneertown fire in July 2006. The fire department also opens up Combat Center training opportunities to firefighters throughout the region, providing invaluable structural firefighting training at no cost. The Combat Center Fire Department also provides



Alison Proulx chambers a blank ammunition round into the M249 squad automatic weapon as Cpl Brian Collins of 3rd Battalion, 11th Marine Regiment, instructs her during 3/11's "Warrior Day."

Photo by: Cpl Brian A. Tuthill

Quick Facts

The Combat Center has a direct economic impact on the local and regional economy, generating more than \$623,095,234 in direct effects in 2006.

Other Community Impacts

Indirect Effects & Personal Impacts

continuing education classes, EMT recertification classes, and CPR/First Aid classes to the public throughout the year.

The Combat Center's police department (Provost Marshal's Office or PMO) also works closely with San Bernardino County to lighten the law enforcement burden locally, including policing its public-private-housing (PPV) area in Twentynine Palms. The Explosive Ordnance Disposal team also responds to explosive threats in the eastern portion of San Bernardino County and hosts cutting edge conferences for city and federal law enforcement professionals from LA to Boston.

Assessing the Indirect Effects of the Base

The jobs generated by a military base have a direct effect on the local economy. In 2006, there were approximately 11,967 military and civilians employed by the base. Add in the local hires to the fast food restaurants on base and the number climbs to 12,068. These direct jobs stimulate a significant indirect effect on the local and regional economy related to producing goods and services that indirectly support the base or the base personnel. Using the BRAC multiplier for the state of California of 1.62, the jobs in the wider region that are indirect effects of the base are estimated at 19,550.

Marine and Civilian Personal Impacts

Beyond the more obvious "economic" impacts of salaries and contracting, the Marine and Civilian community aboard the base also make powerful impacts in their communities off the base. The culture of a Marine base encourages strong ties to community and a commitment to giving back that goes beyond the more visible commitment to country and constitution. Dozens of organizations on base are involved with volunteer efforts from Red Cross volunteering, staffing the community rape hotline, to the Toys for Tots campaign that collected 33,537 toys for desert area children, and through more than 50 base volunteers collected \$55,059 in collection boxes throughout the Basin. The base chaplain's fund, with over \$87,000 in contributions, donated to several local organizations in Twentynine Palms to include local YMCA, local churches, women's shelters and pregnancy clinics.

In 2006, Marines, civilians and their families from the Combat Center also donated 1,862 pints of blood at base blood drives in 2006, \$418,950 by the health care system in Southern California.



Sgt Thomas Mossad and Cpl Corey Kerr, Fox Company, 2nd Battalion, 7th Marine Regiment, stand on top of a hill at sunset as Marines prepared for night exercises at the Range 210 complex.
 Photo by Cpl Brian A. Tuthill.

Quick Facts

In 2006, \$145 million in various contracts were let, many to California businesses who sub-contracted local workers.

Impact of Combat Center Contracting \$\$

Military bases award contracts in highly regulated federal processes resulting in millions of dollars in private sector contracts every fiscal year. Some of these contracts are awarded to local firms.

Although very difficult to track, non-local contractors usually subcontract to local businesses. This avoids a contractor from, for example, San Diego from sending all his workforce to Twentynine Palms. He can avoid paying costly per diem charges by hiring workers locally. For example, one recent contractor from San Diego hired eight of thirteen of its workers locally, keeping a significant percentage (62%) of the labor portion of the contract in the local community.

Many types of contracts are awarded by a military base. One type of contracting is construction. In FY06, the installation's construction contracts* totaled \$84 million, most of which remained in local counties including 18% in San Bernardino County, 2% in Riverside County, 51% in San Diego Co, 8% in Los Angeles County, and 10% in Orange County. See chart at left for a break down by county, and in/out of state.

Another \$61.2 million in various service, construction, maintenance and personnel contracts were let through the base, for a total of \$145 Million (see table on page 11 for breakdown).

In addition to the local subcontracted labor from these non-local contracts, much of the per diem spending from the temporary workers is re-circulated back into the local economy, spent in hotels, restaurants, gas and retail.

As retailers, restaurants and hospitality establishments benefit from these workers, so too does the city. These workers also pay the hotel transient occupancy taxes (TOT) of 9% of their hotel bill, which represent a substantial income for the city.

In 2006 this tax generated \$596,200 for the city of Twentynine Palms.

*Does not include training ranges construction contracts.

Combat Center Construction & Maintenance Contracts by Location	
Twentynine Palms Only	\$1,150,229.00
San Bernardino Co	\$14,920,322.40
Riverside Co	\$1,219,492.88
San Diego Co	\$42,252,562.00
Los Angeles Co	\$6,003,350.45
Orange Co	\$8,446,370.67
Santa Barabara Co	\$269,434.85
Kern Co	\$24,240.00
In State	\$73,135,773.25
Total out of state	\$10,913,375.06
TOTAL	\$84,049,148.31



Marines of Fox Company, 2nd Battalion, 7th Marine Regiment, watch as demonstrators show proper cornering techniques during a period of instruction at Range 210.

Photo by Cpl Brian A. Tuthill.

Quick Facts

It is estimated that 69% of the local population is employed, supported or related to the military in some way.

Population: Basics

Selected Demographic Characteristics Morongo Basin and Twentynine Palms

(Communities of Morongo Valley, Yucca Valley,
Joshua Tree, Twentynine)

From Census 2000 data

	Morongo Basin	29 Palms
Population 18+	51,047	24,697
Popu male 18+	29,167	16,553
Popu female 18+	21,880	8,144
Active Duty Males	8,342	8,110
Active Duty Females	357	350
Veteran Male 18-64	8,209	5,733
Veteran Female 18-64	961	738
Veteran Male 65+	3,178	670
Veteran Female 65+	130	24
Veterans total	12,478	7165
Total Population- Age 16+	52,649	25,255
Number male 16+	29,919	16,801
Number female 16+	22,730	8,454
% of popu in workforce	37.9%	27.7%
%age of popu not in labor force	45.5%	38.7%
% age employed	34.5%	25.2%
%age unemployed	3.30%	5.50%
Total Population	66,468	31,691
Total Households	23,033	8,405
HHs w/ SS income	34.1%	22.4%
HHs w/ supplemental SS income	7.9%	5.7%
HHs w/ Public Assistance	6.5%	5.7%
HHs w/ retirement income	22.3%	16.9%
Ave Median Family Income	\$34,640	\$34,173
Per Capita Income	\$15,782	\$15,746

The Combat Center and city of Twentynine Palms sit at the far eastern end of the Morongo Basin. The Morongo Basin is composed of several other communities, Morongo Valley and Yucca Valley at the western end, and Joshua Tree at the eastern end.

The 2005 population for Twentynine Palms was estimated at 27,387 (California Dept. of Finance), up 18.1% from the 2000 U.S. Census of 23,177.

Base employees, dependents and retirees form the majority of the Twentynine Palms population. Using 2005 figures (the latest for which local population estimates were available), it is estimated that 69% of the Twentynine Palms population is *directly* employed, supported or related to the military in some way as active duty military members and their dependents, retirees and civilians

This 2000 census provides a very useful moving snapshot of the character of the local population and illustrate the gravitational pull of the Combat Center on the local community.



Pfc Jesse Cash, a combat engineer with 4th Combat Engineer Battalion, drinks water in the shade from the 108 degree heat at Camp Wilson as his unit participates in Mojave Viper. *Photo by Cpl Brian Tuthill.*

Quick Facts

A significant percentage of the military active duty, their families and civilians live near the base.

Population: Resident Base Workforce

The military active duty workforce is only one component of the total base workforce. Key to providing long term continuity to managing the installation functions is the civilian workforce. Increasingly, the use of contractors and subcontractors to complement the workforce raises the overall workforce strength for the Combat Center.

In 2006, there were 10,060 active duty Marines stationed at Combat Center and another 30,000 who came for training periods averaging four weeks. The vast majority of the 10,060 active duty Marine and Navy personnel (91.7%) either live on base or in Twentynine Palms, with the balance residing in neighboring communities. It is estimated that at least 70% of the 1,648 civilian employees (civil service and NAF) live locally as well. This represents a significant part of the local working population and the income-generating population in the city of Twentynine Palms.

Base employees and active duty service members and their families comprise a significant portion of the population in the Basin, increasing in percentage closer to the base. In the chart below, the percentage of the estimated total population in 2005, as reported by the Chamber of Commerce, who were directly related to the base by being military, dependents or retired military is 66%. However, when civilian employees are factored in (not including their dependents), the percentage rises further to 69%. This does not include the contract employees nor the subcontracted employees.

The number of civilian employees on the base has risen from 2005-2006 by 4.1% and is anticipated to rise modestly over the next decade.



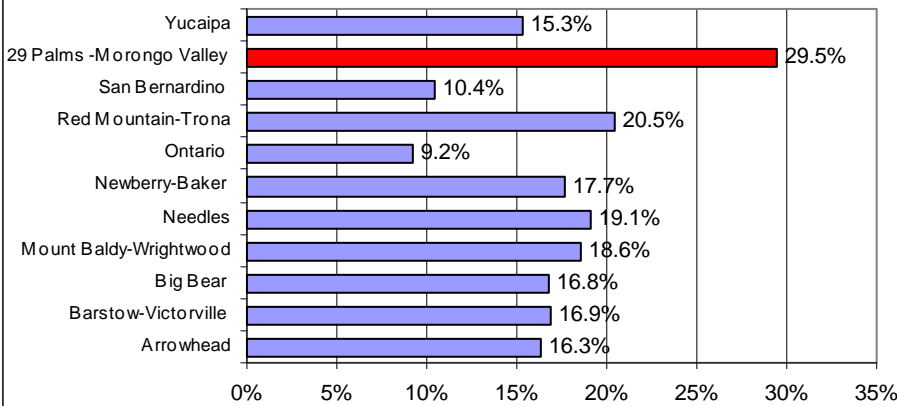
Pvts Bobby Israel and Cody Stauner of Bravo Company discuss the arrangement of SINCGARS tactical radios as Pfc. Trisha Metalla wraps a handset prior to an inspection Aug. 26 at MCCES training facilities here.
Photo by: Cpl Brian A. Tuthill

Quick Facts

In the local population, nearly two-thirds of males aged 18-64 were veterans or active duty.

Population: Veteran

Percentage of Population in San Bernardino Census Zones who were Veterans in 2000 Census
(Not Active Duty)



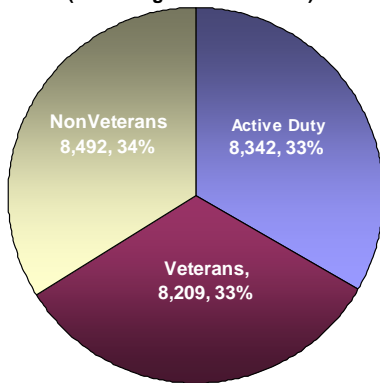
A Local Military Tradition

In comparison with the whole of San Bernardino County, the largest county in California, the Morongo Basin area has the highest percentage of military veterans by far—fully 29.5% of the population were military veterans despite the lack of veteran health care facilities in the area. The Morongo Basin area appears to be a major draw for many veterans in retirement, many of whom were affiliated with the Combat Center at some point in their career.

The chart at the left illustrates veteran densities in the 11 census zones of the county, where the Twentynine Palms-Morongo Basin counts 29.5% of the population as veterans, far exceeding even the veteran population near Ft Irwin (Newberry-Baker-17.7%) or Barstow-Victorville (16.5%). The next greatest census zone in veteran densities is the very miniscule Red Mountain/ Trona zone (pop. 1045)

Another indicator of the decided military flavor of the community can be seen in the pie chart at the left illustrating that 66% of males aged 18-64 in the whole of Morongo Basin—from Twentynine Palms to Morongo Valley—are either veterans or on active duty.

Males aged 18-64 in Morongo Basin
Military related status
(according to 2000 Census)





MCAGCC Twentynine Palms -- Marines with Charlie Company, 3rd Light Armored Reconnaissance Battalion, occupy the streets of the military operations on urban terrain town at Combat Center's Range 200 during a cordon-and-knock operation. Courtesy Photo.

Quick Facts

Census data reveal that those living on base have higher incomes than most areas in Morongo Basin and that the military service members increase the per capita income locally.

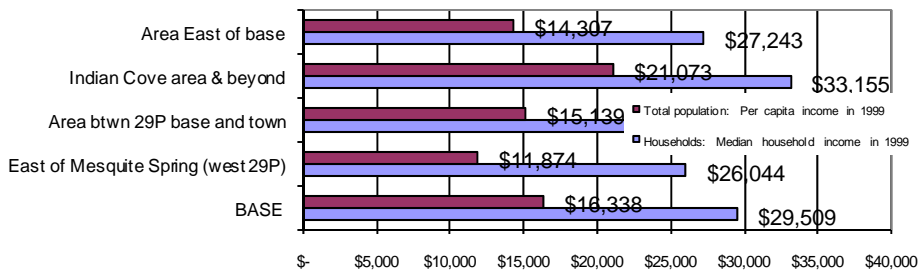
Population: Base & Local Income

Despite the presence of young military service members attached to this training base, the income of local service members appears to increase both the household and per capita income as represented in census data.

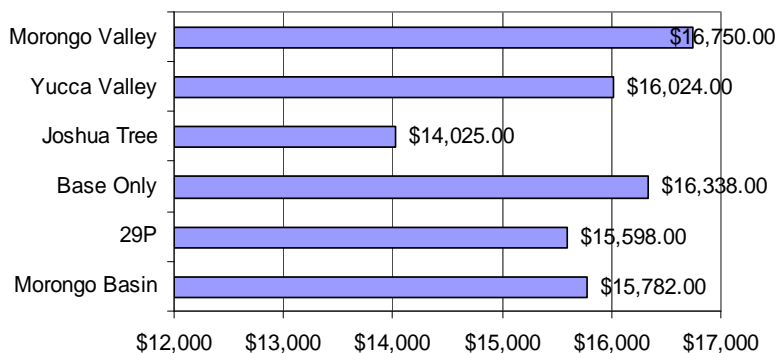
Census data from the 2000 Census file provides income data from 1999 that are useful when broken down by census tracts in the Twentynine Palms area. As seen at

the left, the average per capita income for base personnel in 1999—and this *before* the federal increases of 2004—illustrate that the base per capita income is higher than any other census tract other than the Indian Cove area, and that the median household income of base households falls in the middle of Twentynine Palms spectrum, but does not compensate for the fact that military families on base do not have housing expenses and therefore have significantly more discretionary income than is illustrated in this chart.

Household and Per Capita Income for Twentynine Palms Census Tracts (based on 1999 income from 2000 census)



Average Per Capita Income Morongo Basin 1999



In the bottom chart, the differences in per capita income by the different Morongo Basin Communities show that the base residents' per capita income is second only to Morongo Valley, and that base residents have a 4.7% higher per capita income than town residents. So, it is likely that the military personnel actually raise the average per capita for Twentynine Palms.



Waste Mgmt —Mixed brass ammunition casings (50 caliber, 7.62 mm, 5.56 mm).
 Courtesy Photo: NREA

Leading DoD Innovation: Recycling

Model Environmental Steward

Waste Management Model

As any city or town government knows, handling the different types of waste generated by a daily population of 25,000 is an imposing 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 have some real challenges.

The Combat Center has a strong history of proactive environmental policies, making the Environmental Division the logical home of waste management aboard the base.

To tackle the challenges presented by the different waste streams aboard the base, several installation department managers followed the spirit of recent federal and DoD efforts to foster more efficient and business-like approaches to the military business processes. A department in the base Environmental Division was created as a separate entrepreneurial activity.

This Combat Center department, called **Total Waste Innovation** (TWI) has become a model for the Department of Defense, fostering new best practices that will be implemented at other military bases around the country. By implementing private sector practices and technology in all its waste management functions, TWI has reused or recycled over 300 different waste streams. This has resulted in recycling of more than 9,000 tons of materials that previously went into landfills and generated over \$1.8 million in revenue that is used to offset the costs of these operations.

Some of the accomplishments in the Qualified Recycling Program in its first four years of operation include:

- decreasing landfill disposal of solid waste by 25% per year (from 8,000 to 6,000 tons per year)
- increasing the volume of recyclable goods by 1772% (from 100 to 1872 tons in fiscal year 07) reducing the overhead of solid waste management
- increasing sales from \$856K in 2006 to \$1.2 million in 2007

(Continued)



Giving Threatened Species a HEADSTART. At the Combat Center's Tortoise Research and Captive Rearing Site, hatchlings are weighed and monitored until they are able to resist predation in the wild. Courtesy Photo: NREA.

Model Land Steward

The Hazardous Waste Recycling Center, which must properly dispose of everything from aerosol cans, antifreeze, electronic waste, and remediation of petroleum contaminated soils also made some impressive reductions. From fiscal year 2001 to 2003, they

- reduced hazardous management costs from \$3.1 million to \$1.14 million, a 63% savings.
- reduced hazardous waste generation 28% from 751 to 540 tons, and this in spite of a 29% increase in the amount of regulated hazardous materials generated

Recycling and Reuse of Range Waste

The Combat Center generates a great deal of range and industrial waste in its numerous training operations. Material from practice projectiles, spent munitions casings, target remnants, tires and much more presented volume challenges. TWI responded with new innovations, such as converting much of this range residue to commercial scrap for sale or reuse. This practice serves as a benchmark for the Marine Corps in working towards viable range management and sustainability.

The Qualified Recycling Program (QRP)

The QRP consists of trash/recycling collection efforts and yard processing. The QRP collected 14,054 pounds of trash and 7,027 tons of recycling in FY07. They also serviced 1,500 family housing units through trash, recycling and hazardous material and bulk pick up. The QRP processed over 1,259 tons of scrap turned in by base and training units during FY07.

This department was recognized by the Environmental Protection Agency with a Certificate for **Outstanding Environmental Achievement**.

Recycling Statistics FY 2007	
Explosives Hazardous Materials	1,118,652 lbs
Metals Recycled	2,245,890 lbs
Other Recycled Materials (computer parts, etc)	2.6 million lbs
Paper and Cardboard ¹	1,306,920 lbs
<i>¹Saving 4,243 square yds of landfill space</i>	

Waste Collection Aboard Base FY 2007	
Mixed Office Paper	781,900 lbs
Steel Cans	21,700 lbs
Glass	3,755 lbs
Range Residue	2,171,003 lbs



The Desert Tortoise

The Combat Center has an intensive conservation program in place to advance knowledge for recovery of this threatened species including its protected breeding facility TRACRS. *Courtesy Photo: NREA.*

Natural Resources

The Combat Center is home to a wealth of plant and animal species whose survival depends on the fragile desert ecosystem. The Natural Resource program is responsible for ensuring that these precious resources are managed properly, while supporting the Combat Center's military 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 Combat Center is home to one threatened species, the Desert Tortoise, which 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 Combat Center's Headstart facility, TRACRS (Tortoise Research and Captive Rearing Site), vulnerable tortoise nests and hatchlings are protected until the young can resist most predation. This proactive initiative was conceived to conserve the Center'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 Combat Center.

Natural Resource staff has also worked to maintain the health of the 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. This plan 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. The Combat Center is currently operating under its second ratified Integrated Natural Resources Management Plan (INRMP) after successfully meeting the goals in the first five-year plan.



Policies and practices at MCAGCC are aggressively enforced to protect natural and cultural resources, and include regular briefs of incoming Marine units on the dos and don'ts on the ranges. *Courtesy Photo: NREA*



NREA archaeologists excavate in the caliche dense soils on base. Cultural remains are screened, tagged and conserved at the Interpretation Center.
 Courtesy Photo: NREA

Cultural Resources

The cultural resources program is responsible for protecting the thousands of prehistoric and historic sites that are present at the Combat Center. The program also ensures that the Combat Center remains in compliance with the National Historic Preservation Act and the other laws and regulations governing cultural resources. This is accomplished by conducting surveys and evaluations and implementing protective measures designed to integrate historic preservation requirements with the needs of the training mission.

When the Europeans arrived in the region, the area now comprising the Combat Center was part of the historic tribal territories of the Mojave, Serrano, and Chemehuevi Indians. Data collected from some of the archeological sites indicate that Native Americans lived in the area for at least the last 9000 years, as evidenced by habitation and resources procurement sites found throughout the Combat Center. In the 1880s, the construction of railroads across the Mojave Desert brought miners to the more remote sectors of the desert. Several mining districts and abandoned mines are present at the installation.



Representing the non-written library of the prehistoric native Americans who once dwelled here, these ancient petroglyphs from the FoxTrot site are protected and conserved by the staff of the Environmental Directorate.
 Courtesy Photo: NREA

The Combat Center is also the location of some truly unique prehistoric archeological sites, including the Foxtrot Petroglyph Site, which is 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 by the time the installation is completely inventoried for cultural resources. Hundreds of sites have been evaluated and dozens of the resources have been found to be eligible for listing in the National Register of Historic Places and are being protected by making them off limits to training until appropriate mitigation measure can be coordinated and implemented.

In addition to the many prehistoric archeological sites, the Combat Center also has a small number of significant paleontological deposits present within its boundaries. The most notable site is the Gypsum Ridge deposit that has yielded significant early Pleistocene fossils representing such fauna as the Giant Ground Sloth, the Giant Tortoise, the Pleistocene Horse, Camel, Llama, and Mastodon. Additionally, numerous rabbits, hares, rodents, and snakes have been recovered. At least four habitats have been defined for the site area and these include open grasslands, brushy, rocky uplands, well-watered grasslands and a stream feeding a marsh, pond or small lake. All of the habitats are inferred based on the fauna recovered. For example, a marsh, pond or small lake habitat is interpreted because fossil remains of minnow, gastropods, pelecypods, muskrat, and slug (stains) have been recovered. The site is currently dated to approximately 1.8 to 2 million years ago, dates which assign the deposit to the early Pleistocene.



The award-winning design of the base Co-Generation facility helps produce 60% of the base's energy needs year round, and as much as 95% in the winter months.

Courtesy Photo.

Quick Facts

Energy initiatives aboard the Combat Center have consistently saved the federal government \$7 Million by savvy advance purchases of natural gas, use of a co-generation plant and energy saving cooling systems.

Energy Conservation

Leading the Marine Corps bases in energy management, utilities conservation, power generating capacity and cost savings, the Combat Center now saves as much as \$7 million annually in energy costs. The Combat Center has *reduced* its energy impact on the Southern California power and energy system through a series of infrastructure initiatives and now generates 60% of its own energy year-round and 95% in winter months.

The Combat Center Cogeneration plant, the largest in the Marine Corps, generates 7.2 megawatts (MW) of electricity. Cogeneration plants produce and utilize both energy and heat and use advanced technologies to boost efficiency from the industry standard of 33% to an impressive 80% by utilizing its own waste-heat. On the Combat Center, this waste-heat is used for cooling barracks facilities.

The solar array, the largest in the federal government, generates 1.1 megawatts of electricity by converting sunlight into electricity.

These two facilities were 2003 recipients for the Federal Energy Management Program's "Showcase" awards and were recognized by the Dept. of the Navy with a Platinum award for the innovative designs of the cogeneration plant and the solar array.



Combat Center Solar Array

The largest solar (photo-voltaic) array in the federal government generates 1.1 Megawatts of electricity and has garnered several national energy awards. *Courtesy Photo.*



MCAGCC Twentynine Palms – Marines of Weapons Company, 3rd Battalion, 2nd Marine Regiment, walk through the improvised explosive devices training lane at Camp Wilson. *Courtesy Photo.*

Quick Facts

The Combat Center is the perfect training location for countering roadside bombs and explosive hazards for military, federal, state, and county agencies.

Explosive Ordnance Disposal

Leading Training Ground for Counter Explosives

Twentynine Palms is becoming a Joint-Use facility for combating explosive hazards proliferation

In a remote building nestled in the mountain outside the main compound of the Combat Center, Marines at the Explosive Ordnance Disposal (EOD) unit pore over reports and images of roadside bombs found in combat areas overseas. They frequently travel to Iraq and Afghanistan to study the latest changes in roadside bomb technology, the leading killer of Marines, soldiers and civilians in Iraq. Back home, they meticulously duplicate the homemade devices and incorporate them into realistic training for deploying Marines and Sailors.

Location, Location, Location...

The remoteness, the space available on multiple ranges, the weather, and the distance from urban areas allow a joint use training ground for military, federal and state bomb squads and law enforcement personnel to train on the increasingly complex and deadly hazardous devices, bombs, and IEDs.

The Explosive Ordnance Disposal Team at Twentynine Palms is also a partner to San Bernardino County and to the nationwide community of bomb investigators.

The annual **Post Blast Investigation** conference is also held here, providing critical training for those government and law enforcement officials around the US who conduct bomb investigations.

The EOD team is also responsible for responding to explosive threats in a wide geographic region far beyond the confines of the base as part of their mutual aid obligations.

The Combat Center offers something to EOD professionals that can't be found anywhere else in the United States, and something that increasingly has drawn bomb squads and law enforcement personnel from the FBI, Los Angeles, State agencies, and the many California Counties: a remote, safe place to learn about the latest in hazardous explosive devices and how to defeat them.

What is so unique about this location for explosives professionals? And what does this base have that is drawing law enforcement, bomb squads from the nation's biggest cities, and federal agencies like the FBI?

"Location, location, location" in short.

Several things make Combat Center an unparalleled facility among military installations for explosive ordnance training for military and civilian agencies alike:

1. The unique location allows technicians to train with advanced electronic equipment that cannot be used near populated areas
2. Ideal weather for year-round training
3. The wide variety of training ranges supports a wide variety scenarios
4. The availability of a large mock urban environment supports realistic training for operations in populated areas, both at home and overseas.
5. The similarity of terrain to Iraq and Afghanistan enables the most realistic training possible for deploying forces.

No other US military base is isolated enough from urban areas to offer a place to safely test increasingly complex explosive devices, which is critical to staying ahead of the game in the war on terror. No other base offers the range of testing environ-



Land Mine Awareness Training. The mission of EOD has expanded to pre-deployment explosives hazards awareness training as well as their research into detecting and disarming IEDs. *Photo by Cpl Brian A. Tuthill.*

Quick Facts

EOD has civil obligations apart from their military mission and respond to explosives hazard for a wide geographic area from the Arizona border to the US 40 to San Bernardino.

Explosive Ordnance Disposal

ments for combined arms exercises that also provide critical training to EOD technicians deploying to combat zones around the globe.

For law enforcement officials and the bomb squads from California and around the country, the base offers a package of training opportunities offered nowhere else as population densities have pushed residential areas right to fence-lines on many military installations, restricting training options. At the Combat Center, military and civilian bomb technicians can hone their skills against explosive devices in both urban and rural areas of the Combat Center ranges.

The combination of the many unique qualities of Twentynine Palms provides an essential pre-deployment training experience for troops heading to Iraq and Afghanistan. The wide variety of improvised explosive devices is the number one cause of casualties in today's battle zones. The Combat Center has addressed this threat head-on, and has incorporated preventive training into the curriculum for every deploying Marine. The EOD staff has face-to-face training time with nearly every deploying Marine and Sailor—as many as 30,000 annually - to teach critical skills that allow them to recognize and counter the complex and variable roadside bombs.

Although the EOD unit at the Combat Center has a distinctly military mission of protecting the forces from explosive hazards, it also works closely with federal, state, and local law enforcement agencies as part of a national effort to counter similar devices here at home. As part of its mutual aid duties, EOD frequently responds to explosive threats off the base, in a large area reaching as far east as the Arizona border, north to the US40 to west to San Bernardino.



Car Bomb Familiarization. Staff Sgt. Bryan K. Burgett reveals a 500-pound bomb hidden in the trunk of an abandoned car at the IED Lane at the Combat Center's Camp Wilson. *Photo by Cpl Brian A. Tuthill.*



The Grenade Gallery
The EOD unit at Twentynine Palms provides deploying Marines and Sailors ordnance familiarization such as the different types of grenades found in Iraq. *Photo by Cpl Brian A. Tuthill.*



Quick Facts

The Combat Center Fire Dept responded to 172 fire, rescue and emergency calls in off-base neighboring communities in 2006.

Mutual Aid to Surrounding Communities

Cooperation between the base and local communities and counties has a long standing history. The base supports a variety of different services in local communities, the county and in some cases the national law enforcement.

Firefighters from the Combat Center Fire Department respond to fires in neighboring communities such as the devastating Sawtooth Complex Fire in neighboring Yucca Valley (pictured above) which was visible as far away as Las Vegas, and smelled as far away as Wisconsin.

Photo by: Cpl Brian A. Tuthill

Fire, Rescue and Emergency Services

Most military bases provide mutual aid support to the communities beyond the base boundaries in the way of fire, emergency and rescue services. The Combat Center Fire Department responded to 172 events off the base in surrounding communities, often providing emergency response coverage for local or non-existent fire departments. In 2006, 1,367 manhours were expended by fire and emergency personnel responding to routine and involved calls, including 608 hours at the devastating fire in Pioneertown.

Structural Fire Training to 200 Outside Firefighters

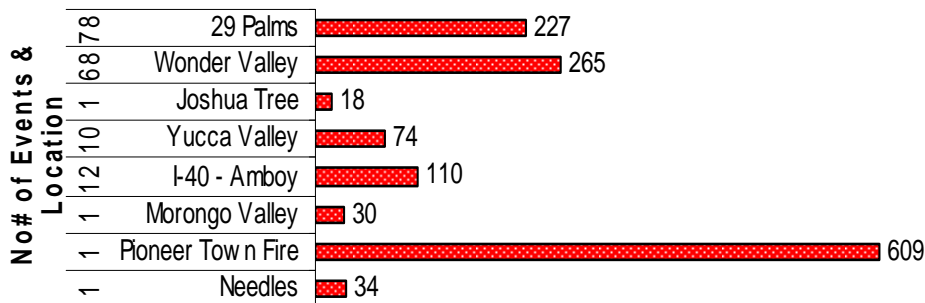
In 2006, the Combat Center Fire Department also invited over 200 firefighters from neighboring communities for a rare opportunity to train and practice combating structural fires. Using base buildings slated for demolition, the department practiced attacking actual interior fires and zero visibility search and rescue. This training is crucial to fire departments as fire prevention has reduced the opportunities for fire fighters to practice these skills.

The Fire Department also conducts public education with the Fire Safety Trailer, which teaches local area children 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.

The Fire Department also conducts public education with the Fire Safety Trailer, which teaches local area children 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.

The Combat Center Fire

Manhours on Mutual Aid Fire/Rescue Responses





Firefighter Alfonso Rios of the San Bernardino County Fire Department watches a hose as he manipulates gauges during a two-day exercise at the Joshua Heights housing area. Firefighters from around the region are often invited to valuable structural firefighting training at the Combat Center.

Photo by Cpl Brian A. Tuthill.

Quick Facts

The base police department also assists San Bernardino County law enforcement as well as on presidential security details.

Mutual Aid to Surrounding Communities

Department also offers monthly training in First Aid and CPR to the public and frequently offers free EMT recertification classes to the public. They are also a regular participant in local events such as Grubstake days.

Base Police Dept. (Provost Marshal Office-PMO)

Like the Fire Department, the base PMO also provides support to the community law enforcement as well as its community service activities. Besides providing a full-time unit to the base housing in town, the military police also provide support to San Bernardino County Sheriff's Department by responding to calls involving Marines. Coordination between the two departments alleviates the burden on law enforcement. The Military police also provided regional support for events such as President Ford's Funeral. The K-9 team on base also supports San Bernardino County which does not have a team locally and performs demonstrations at community events. Community service activities by the military police include hosting a Crime Prevention Booth at various local events and completing Identification Safety Kits for local children.

Explosive Ordnance Disposal

In addition to their primary obligations on the base—a role that has only expanded in recent years—the EOD unit provides mutual aid support to the County as well as its community service. EOD response teams support the county by responding to hazardous devices in a large regional area from Palm Springs to the Arizona Border and up to US 40. Besides hosting various training exercises for federal agencies and law enforcement officials nationwide, they also perform a variety of community service activities including hosting science day for elementary school children and showing off one of the largest repository of training robots. The EOD team also hosts Explosive Awareness events in town.



The Combat Center Marine Band brings their passion and pursuit of excellence to music as they entertain audiences in the Morongo Basin with a variety of musical styles. The band gives more than 20 performances in both the Morongo Basin and Coachella Valley each year. *Photo by: Cpl Brian A. Tuthill*

Quick Facts

Marines and civilians on base donated 1,862 pints of blood in 2006—a contribution valued at \$418,950.

Volunteering, Community Service & Philanthropy

The Marine commitment to service extends far beyond that of their more publicly visible commitments to country and constitution. This primary Marine Corps ethos extends to their surrounding civilian communities and is evidenced in volunteering in civic and community organizations, philanthropic work, and community service activities by official Marine Corps organizations.

One of the most visible community service activities is the annual Toys for Tots drive. This annual event collects toys from around the region and distributes them to needy children from Morongo Basin to the Coachella Valley. In 2005, children received 37,537 toys. In addition, volunteers from around the base, including 40 volunteers from the Naval Hospital spent weekends at collection spots in November and December and collected an impressive \$55,059 for needy children.

Marines, Sailors, civilians and family members also donate blood on a regular basis. In 2006, 1,862 pints of blood were collected. This blood finds its way to blood banks and hospitals in the high and low deserts. Blood is always sorely needed and patients pay as much as \$225 a pint in Southern California. This combat center contribution to the regional blood supply is valued at \$418,950.

The Combat Center band performs in more than 20 performances in the Morongo Basin and another 20 or more performances down in the Coachella Valley.



Marines from the Combat Center create a “living sculpture” of the flag raising atop Mount Suribachi at the 29th Annual California Police Chief’s Association conference in Palm Springs, Calif. *Photo by: Cpl Brian A. Tuthill*

Volunteering:

Many caring members of the Marine Corps community also donated their off time to local activities such as the hundreds of manhours pulling over one ton of invasive weeds at Joshua Tree National Park, collecting trash from Highway 62

Sailors at the Naval Hospital staff participate with the base in the Defy Camp (Drug Education for Youth) conducting a one-week long camp followed by monthly meetings for a year. Approximately 16 hospital staff provide one-on-one with students in the program. Other hospital personnel also staff the local Rape Hotline.



Cpl Adam Bosley, a vehicle commander with Weapons Company, Task Force, 1st Battalion, 4th Marines searches the Virtual Convoy Combat Trainer screens for insurgents programmed into the system. The VCCT allows Marines to learn from their mistakes before entering a combat environment.

Photo by LCpl Eric C. Schwartz

Quick Facts

In spite of the frequent deployments, many Marines, Sailors, and their families are continuing their higher education. The Combat Center celebrated 60 college degree graduations

Education

The Marine Corps has been promoting higher education among its active duty members and dependents for many years. Higher education has become an important consideration for promotion, and consequently, the Combat Center has made education opportunities available on base in traditional face-to-face classes and through distance education.

Increasingly distance education has offered new flexibility and choices to young and mid-career Marines and their families to pursue the benefits a college education can offer.

Despite the heavy deployment to Iraq and other operational hot spots, in FY06 approximately 1,509 Marines from the Combat Center took 3,152 courses from 105 different institutions of higher education.

Many Marines and their families attend the local **Copper Mountain Community College (CMCC)**. Approximately 415 Marines were enrolled in degree programs at CMCC. According to college officials, Combat Center related enrollments resulted in approximately \$459,000 in state apportionments to the CMCC budget (amount provided to colleges by the State Community College system based on full-time student equivalent enrollment).

CMCC also held 86 of its 513 classes in the 2005-2006 academic year at the Combat Center at which 1,584 students took classes, including many military spouses, children and civilians.

Graduations

Despite deployments and the frenzied operations tempo, the Combat Center saluted 60 new degree program graduates of local and distance education institutions in 2006 and 30 more in the first part of 2007.



Photo by Cpl Brian A. Tuthill



Courtesy Photo.

Some people spend an entire lifetime wondering if they made a difference in the world. But, the Marines don't have that problem.

-Ronald Reagan, President of the United States; 1985

Mutual Partnerships

The challenges that face the country in the years ahead will depend greatly on our ability as a country to come together to fight on new fronts foreign and domestic. The battles are more complex, and require new skills, different training, and different models for supporting that training.

The Combat Center has followed a path that sets it apart from other military bases, pursuing excellence in how it manages the installation. This is evidenced in the awards received for installation management, innovation in energy conservation and generation, waste management and its environmental stewardship. The excellence is also witnessed in its adaptive and highly dynamic training programs at the Combat Center that ensure that Marines and Sailors are well-prepared for the threats that face them around the world.

The communities surrounding the Combat Center have thrived in their symbiotic relationship with the base, as active duty and retired service-members, civilian employees and their families have made their homes here. In spite of the increased demands upon the Marine Corps that has many units stretched to breaking point, the Combat Center has continued to provide key support to its neighbors. The base has provided tangible and intangible support to surrounding communities in employment opportunities, indirect economic impacts, in the continuing mutual aid provided, and on a personal level, it has provided community donations and thousands of hours of volunteer time. The presence of the base has also provided tax revenues and infrastructure enhancements that offset its presence.

The Marine mission and the growing criticality of flexibility in training requirements makes the partnerships with local communities ever more important to ensure the Marine Corps can meet the needs of the Nation: to protect against the new menaces.



Marines and Sailors practice recovery of a wounded comrade during a Combined Arms Exercise. *Courtesy Photo.*