

FLIGHT JACKET

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Marine Corps Air Station Miramar, Calif.

March 19, 2012

Battle Colors sound

Drum & Bugle
Corps and
Silent Drill
Platoon come to
Miramar





Battle Color Detachment performs aboard Miramar

“The Commandant’s Own” Drum & Bugle Corps and the Silent Drill Platoon performed at MCAS Miramar for a Battle Colors Ceremony.

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Snipers of the Sky: 3rd LAAD Bn. trains on San Clemente Island

Alpha Battery with 3rd Low Altitude Air Defense Battalion trained on San Clemente Island to replicate what it would be like if enemy aircraft were spotted on a deployment.

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Marines take lead on green ideas

MCAS Miramar brings energy efficient ideas to life in waste disposal and renewable energy, making the air station well on its way to becoming a net zero energy installation.

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Maj. Gen. Andrew O'Donnell Jr.
Commanding General
3rd Marine Aircraft Wing



Col. Frank A. Richie
Commanding Officer
MCAS Miramar

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The editorial content is edited, prepared and provided by the Public Affairs Office. Comments or questions should be directed to 858-577-6000.



Comedian Chipper Lowell with “Operation Magic” juggles an axe, a hatchet and a toilet plunger at the Bob Hope Theater here March 16. Lowell spent his act sprinting across the stage, throwing things from his magic box and giving the gift of laughter to service members and families.

Magic night for Marines

Story by Pfc. Christopher Johns



Col. Frank A. Richie, the commanding officer for Marine Corps Air Station Miramar, Calif., watches comedian Chipper Lowell tease an audience member during a magic show at the Bob Hope Theater here March 16. Comedians with “Operation Magic” performed a free show for service members and families stationed with MCAS Miramar.



Sgt. John Ferguson, middle, an air traffic control communications technician with Headquarters and Headquarters Squadron and a Greenfield, Ind., native, takes part in a magic trick with Jeff, left, and Kimberly Bornstein, right, with “Operation Magic” at the Bob Hope Theater here March 16.

ON THE COVER:

Marines from “The Commandant’s Own” Drum & Bugle Corps perform during a Battle Color Ceremony here March 8. During the performance, the Drum & Bugle Corps played songs such as “American Salute,” “Rocky Top,” “Shall We Gather,” “El Cumbanchero y Cumana,” “Stars & Stripes Forever,” and a medley from the movie “Grease.” (Photo by Cpl. Sarah Fiocco)

Tour de Marine Corps Air Station Miramar

Photos by Pfc. Christopher Johns
Click [HERE](#) for more photos



International officers with the Expeditionary Warfare Training Group attending the International Senior Officer Amphibious Planning course speak with pilots about the aircraft they fly here March 8. The officers' visit also included tours of Marine Fighter Attack Squadron 314, the Aviation Survival Training Center and a military police working dog demonstration.



Lt. Col. Joan Hin Lee, left, a Singapore native, and Capt. Seth Coomson, right, an Accra, Ghana, native, both international officers with the Expeditionary Warfare Training Group attending the International Senior Officer Amphibious Planning course, receive a tour of the cockpit of an F/A-18 here March 8.



Battle Color Detachment performs aboard Miramar

Photos by Cpl. Sarah Fiocco



A rifle inspector with The Silent Drill Platoon throws back an M1 Garand rifle to a Marine as he walks away during a Battle Color Ceremony here March 8. The Battle Color Detachment is a ceremonial unit from Marine Barracks Washington featuring the Drum & Bugle Corps, the Silent Drill Platoon and the Official Color Guard of the Marine Corps.



The Silent Drill Platoon performs during a Battle Color Ceremony here March 8. The Battle Color Detachment is a ceremonial unit from Marine Barracks Washington featuring the Drum & Bugle Corps, the Silent Drill Platoon and the Official Color Guard of the Marine Corps.



Maj. Gen. Andrew W. O'Donnell Jr., commanding general of 3rd Marine Aircraft Wing, left, retired Col. Robert J. Modrzejewski, center, and retired Col. Jay R. Vargas, right, both Medal of Honor recipients, stand at attention as the Official Color Guard of the Marine Corps marches past during a Battle Color Ceremony here March 8. Modrzejewski and Vargas both attended the ceremony as guests of honor.



The United States Marine Corps Color Guard lowers the Battle Color of the Marine Corps so the National Ensign flies solo while the national anthem plays during a Battle Color Ceremony here March 8.



Marines from the drum line of "The Commandant's Own" Drum & Bugle Corps line up to perform a drum solo during a Battle Color Ceremony here March 8.



Marines from the Silent Drill Platoon march in place during a Battle Color Ceremony here March 8.

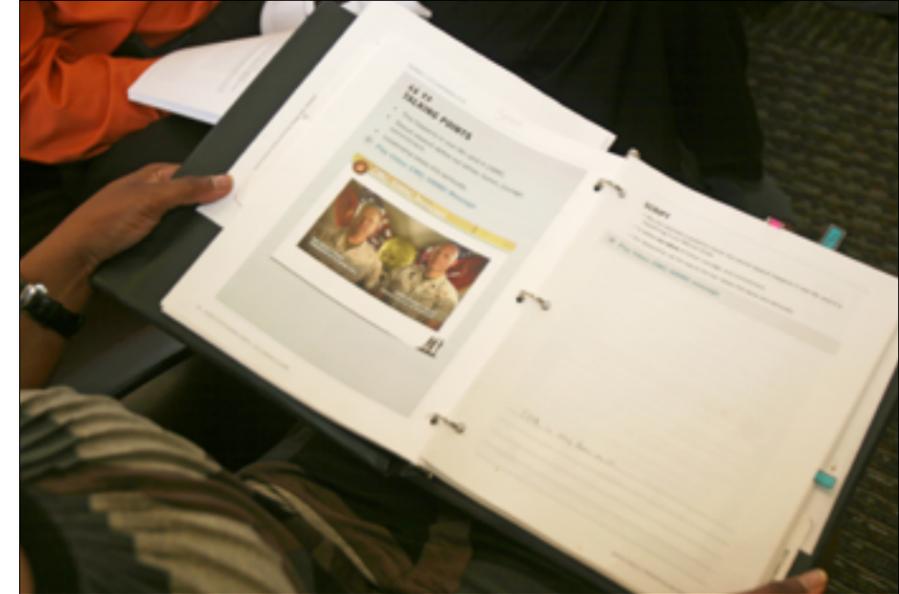
The drum major of "The Commandant's Own" Drum & Bugle Corps conducts the band during a Battle Color Ceremony here March 8. The 79-man band was formed 75 years ago and is the only musical unit of its kind serving in the armed forces.



A Marine from "The Commandant's Own" Drum & Bugle Corps plays her trumpet during a Battle Color Ceremony here March 8.



A Marine with The Silent Drill Platoon spins his rifle during a Battle Color Ceremony here March 8.



(Above) The Sexual Assault Response Coordinator program manager goes over the noncommissioned officer training course with victim advocates here March 5. All noncommissioned officers must be trained by a victim advocate to recognize sexual assault.

(Left) Latricia Kamins, left, the Sexual Assault Response Coordinator program manager and a Hamptons Roads, Va., native, goes over the noncommissioned officer training course with Josho Malfavon and Jillian Carrick, both victim advocates here March 5. MCAS Miramar's Sexual Assault Response Coordinator was recently awarded the Marine Corps 2012 Exceptional SARC of the Year and is slated to receive the award in April at the Pentagon.

(Below) The Sexual Assault Response Coordinator program manager goes over the noncommissioned officer training course with victim advocates here March 5.

MCAS Miramar SARC to receive award at Pentagon

Story and photos by Lance Cpl. Rebecca Eller

Sexual assault is a crime that requires special attention, and thanks to the Sexual Assault Response Coordinator program aboard Marine Corps Air Station Miramar, Calif., active-duty service members and civilians are now able to get the help they need.

One SARC is chosen annually from each branch of the military to receive the SARC of the Year award. MCAS Miramar's Latricia Kamins will receive the 2012 Marine Corps Exceptional SARC of the Year award this April at the Pentagon.

"[Every SARC] is doing such great work. I just couldn't believe I was the one chosen from the Marine Corps" said Kamins.

The Hamptons Roads, Va., native did not expect to be selected for the award, but she was selected based on her knowledge of the SARC program, patience with victims, and helpfulness with getting victims the help and justice they deserve.

"She is a well-rounded person on the program and always willing to go the extra mile," said Maj. Rhonda Martin, the 3rd Marine Aircraft Wing SARC and a Trotwood, Ohio, native. "She does it with class and professionalism that you need with this job field."

Uniformed Victim Advocates are one of the main keys to connecting the Sexual Assault Prevention and Response Pro-

gram with commands providing education and training on sexual assault, added Kamins.

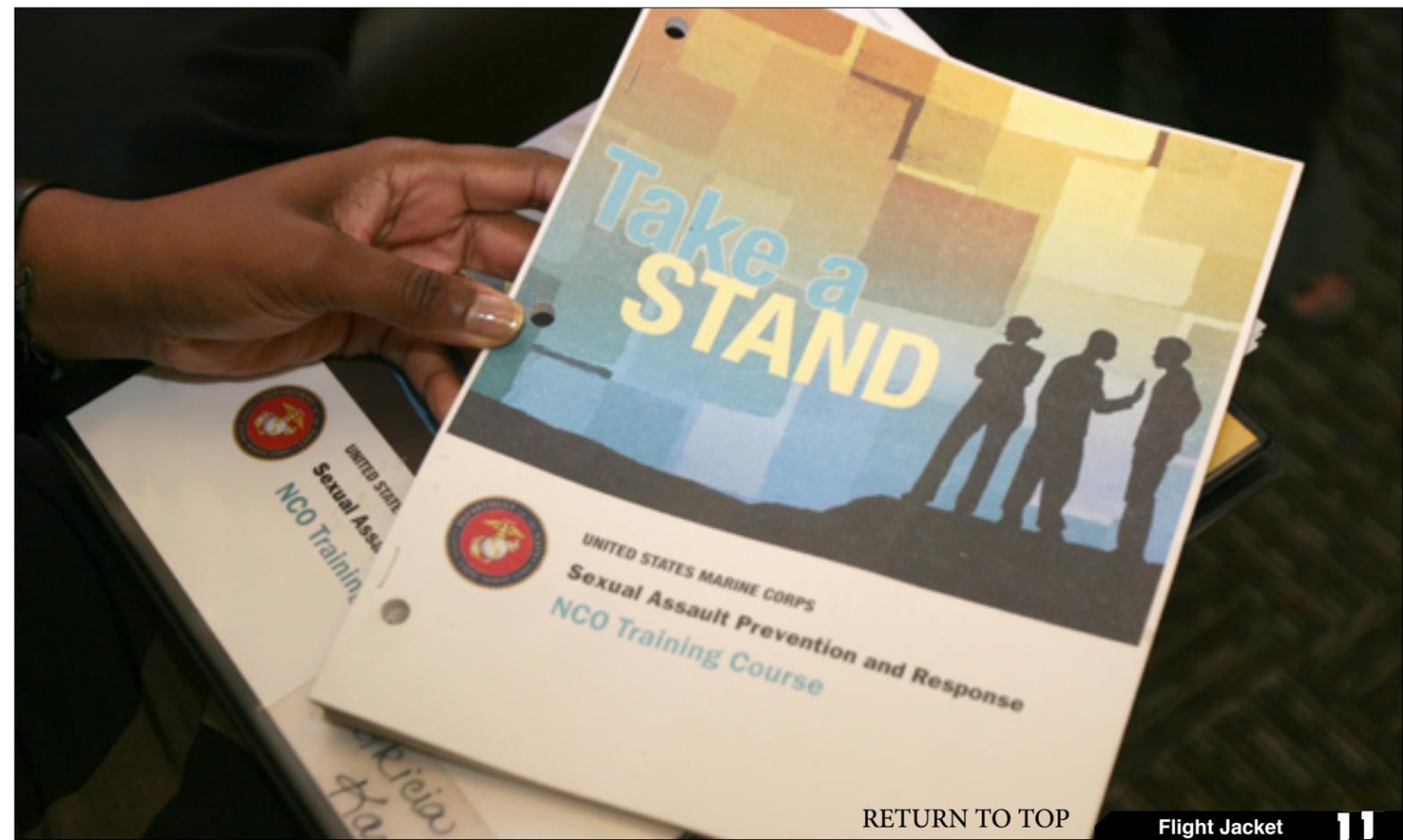
The program provides services for not only active-duty service members, but civilians as well. If the victim does not wish to have their identity revealed, there are still ways to file a report while still respecting the victim's wishes.

"Restricted reporting is confidential," said Kamins. "Your command and law enforcement will not be notified of identifying information, so therefore an investigation should not be triggered."

Those who make a restricted report should still visit medical and the advocacy services to talk with someone confidentially. If a victim ever wishes to change the status of their report from restricted to unrestricted, they may do so at any time.

Victims who choose to make an unrestricted report allow advocates to pass the information along to their commanding officer and law enforcement. Letting a victim's superiors know allows the commanding officer to assist with military protective orders.

"I'm from beginning to end," said Kamins. "When the victim comes forward I see that change, I'm helping to empower that victim to take their life back into their own hands. That's the greatest feeling."



SAN CLEMENTE, Calif. – Pfc. Juvahne Bramwell, a gunner with Alpha Battery, 3rd Low Altitude Air Defense Battalion, and a Stephen City, Va., native, practices locking on to a notional enemy aircraft here March 14. The battery Marines trained for four days to prepare for future combat scenarios.



Snipers of the Sky: 3rd LAAD Bn. trains on San Clemente Island

Story and photos by Lance Cpl. Kevin Crist

SAN CLEMENTE, Calif. – An assistant gunner looks through his binoculars to see an aircraft coming his way and points it out to the other two Marines in this three man team of 3rd Low Altitude Air Defense Marines. The LAAD team has been instructed that any aircraft flying this day is

considered an enemy. In other words, if it flies, it dies.

The gunner of the group picks up his shoulder-fired Stinger training missile, locks on to the target, super-elevates and pulls the trigger. A loud, ear-piercing pop sends the missile on its way. The missile's heat-seeking system tracks down the enemy aircraft, causing an explosion and sending it crashing to the ground. The team of Marines then sends in their engagement report.

This is a hypothetical scenario.

The mission of a LAAD unit is to provide close-in, low altitude surface-to-air weapons' fire in defense of forward combat areas, vital areas and installations. LAAD specializes in ground-based air defense, explained Lance Cpl. Ethan Navajar, a gunner with Alpha Battery, 3rd LAAD Battalion and a Chicago native.

Alpha Battery was sent to San Clemente Island, Calif., March 12 through 16, for training at an attempt to replicate what it would be like if enemy aircraft were spotted on a deployment. Although there were no live rounds or missiles, the Marines did everything possible to simulate the real deal.

"The mission scenario LAAD was put into, on San Clemente, Calif., was that terrorists took over Marine Corps Air Station Miramar, Calif.," said Lance Cpl. Rawshean Haynes, a gunner with 3rd LAAD and a Warren, Ohio, native. So the LAAD Marines went to defend the island from further intermission and make sure the terrorists couldn't use it as an airfield for other operations.

Continued next page



SAN CLEMENTE, Calif. – Cpl. Shay Moody, a team leader for Alpha Battery, 3rd Low Altitude Air Defense Battalion, and a Harlan, Ky., native, marks the coordinates of his team's position here March 13.

Approximately 20 vehicles carrying 66 Marines arrived on the island via Landing Craft, Air Cushion on March 12. The team was sent to practice their communication skills and work on their reaction time with getting a Stinger missile out when an enemy aircraft is spotted.

Haynes explained that when an aircraft is spotted, the first thing that has to be done is visually identify the aircraft.

Once that is done, the Identify Friend or Foe system is used. This system sends a coded tone to the aircraft and the aircraft sends a tone to indicate whether the aircraft is friendly or unknown. If the aircraft is unknown, the team must wait for the okay to engage it. If the approaching aircraft is hostile, the gunner will lock on it with his Stinger missile.

Marines then super-elevate the weapon because when the missile first comes out of the barrel it drops before it chases the target.

After the Marines shoot down an aircraft, the Marines have to send in an engagement report to let the other teams know the specific details of the engagement. This includes the time, type of aircraft, and total number, as well as how many were shot down, Haynes explained.

While sending in an engagement report, the Marines have to quickly move to another position to avoid giving away their

position with the trail of gas left behind by the missile.

The M-16A4 service rifle, the M-240B medium machine gun and the M-2 .50-caliber machine gun are brought and used to defend from ground forces, explained Navajar.

“Aircraft aren’t the only thing we have to worry about,” said Navajar. “We have to worry about troops heading in on foot. We always have our personal weapons, because you never know who’s out there.”

“Different teams could lose communication with other teams, so all teams have to cooperate to make sure everyone knows what is going on,” said Haynes.

He explained that communication is very important in LAAD because if an aircraft is shot down too close to another team, the debris may fall on that team.

The teams also need to make sure two missiles are not fired at the same aircraft due to the high expense of the missile. If the aircraft is out of their range, the team needs to let the other teams know an aircraft may be heading their way.

With their primary mission in mind, LAAD is scheduled to head to Marine Corps Air Station Yuma, Calif., for a month long Weapons and Tactics Instruction training course where LAAD Marines will use actual Stingers and gain a more realistic view of what combat is like for someone in this job field.

SAN CLEMENTE, Calif. – Pfc. Juvahne Bramwell, left, an assistant gunner and a Stephen City, Va., native, and Lance Cpl. Rawshean Haynes, a gunner and a Warren, Ohio, native, both with Alpha Battery, 3rd Low Altitude Air Defense Battalion, spot and prepare to lock onto a notional enemy aircraft here March 14. The battery Marines use a shoulder-fired Stinger training missile during a training exercise, preparing for future deployments.



SAN CLEMENTE, Calif. – Pfc. Juvahne Bramwell, front, an assistant gunner and a Stephen City, Va., native, and Lance Cpl. Rawshean Haynes, a gunner and a Warren, Ohio, native, both with Alpha Battery, 3rd Low Altitude Air Defense Battalion, spot a notional enemy aircraft here March 14.



Ordnance Marines with Marine Aviation Logistics Squadron 16, slide rounds into tubs for the Ground Threat Reaction training off the coast of San Diego, March 14. The training focuses on how to defeat ground based radar and infrared weapon systems, improving survivability of Marines inside the aircraft.

SAN CLEMENTE, Calif. – An MV-22B Osprey with Marine Medium Tiltrotor Squadron 165 maneuvers off the coast of San Diego during a Ground Threat Reaction training exercise, March 15. The training is meant to feel as real as possible, so pilots will react the way they need to during a fight.



Going out with flare: XO's last flight

Story and photos by Pfc. Christopher Johns

SAN CLEMENTE, Calif. – Lt. Col. Wes Spaid, the executive officer and pilot of the MV-22B Osprey with Marine Medium Tiltrotor Squadron 165 “White Knights,” flew his last flight with the squadron over San Clemente while performing Ground Threat Reaction training March 15.

After flying the Osprey for six years and watching the plane’s program evolve, Spaid is proud to say that he has supervised dozens of missions like GTR with the squadron.

Spaid assisted with the MV-22B when it first arrived to Marine Medium Tiltrotor Training Squadron 204 on the East Coast, then came to help VMM-165 when the Osprey first came to the West Coast.

“I’ve seen the plane and [the Marines] come a long way; it has been an honor to be a part of that historical transition,” said the Dallas native.

On his last flight, Spaid and his fellow crew members performed Ground Threat Reaction training.

“[The training] focuses on how to defeat ground-based radar and infrared weapon systems,” explained Spaid. “It provides us survivability. If we’re transporting supplies or troops across the battlefield, it allows us to make it where we need to be. This training also promotes good aircrew coordination and training on how to defeat those weapon systems.”

The pilot wanted to get instructors and peers up to date on GTR, passing on knowledge and experience he shared from using this very training in combat, explained Spaid.

This training is important to help prepare Marines for the stresses of combat situations where pilots and crews must know exactly what to do.

“This gets [air crews] ready for the challenges of hostile theatre,” said Staff Sgt. Daniel Plank, an aerial observer for the training flight and the VMM-165 airframes quality assurance representative. “The flares coming at us from the ground during the training are exactly what it’s going to look like in combat, so we release our flares to sort of confuse the enemy’s weapons systems.”

In releasing the flares, the crews hope to neutralize the enemy’s infrared weapons and heat-seeking capabilities by creating a large amount of different heat signatures for the missiles to follow.

Marines on the ground have to know they will receive the supplies and troops they need to get the job done – even if the aircraft itself becomes a target. This very reason is why VMM-165 trains using GTR – to make sure it’s business as usual for every flight, even in combat.

“This gives [Marines on the ground] confidence that we can make it to them and either get them out, give them supplies or drop off more troops,” said Plank, a Lompoc, Calif., native. “This is a standard training flight for us. This is us doing business; we take care of this because it’s all about the guys on the ground, and we’re here for them.”

The purpose of Ground Threat Reaction training is to make sure pilots and crews alike know what is required to get the job done, shooting flares, communicating with the pilots and giving them warnings about incoming projectiles and to make sure Marines come home safe at the end of the day.

Lt. Col. Wes Spaid, right, the executive officer and a Dallas native, and Sgt. Joseph Walkerstill, an MV-22B crew chief and a Spring Hill, Fla., native, both with Marine Medium Tiltrotor Squadron 165, stand in front of an Osprey, March 14.



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NAVAL BASE SAN DIEGO -- Maj. Gen. Andrew W. O'Donnell, Jr., center, 3rd Marine Aircraft Wing commanding general, and Sgt. Maj. Anthony A. Spadaro, right, 3rd MAW sergeant major, visit the USS Peleliu here March 10.



Expeditionary unit's eyes in the sky

Story and photos by Pfc. Christopher Johns

NAVAL BASE SAN DIEGO, Calif. – Marines and sailors welcomed guests with the Carter Foundation as well as former U.S. president Jimmy Carter for a charity luncheon aboard the USS Peleliu at Naval Base San Diego, March 10.

Guests with the foundation received tours by sailors stationed aboard the ship, including the medical bay, the ship's flight deck with several 3rd Marine Aircraft Wing helicopters, and the lower decks where amphibious vehicles are kept and maintained.

After the tours, guests of honor spoke of the sights they saw and how the Navy and Marine Corps has changed over the years.

The Marines and sailors aboard the USS Peleliu are training to deploy with aircraft such the CH-53E Super Stallion as part of the 15th Marine Expeditionary Unit. Each MEU is an expeditionary quick reaction force, ready for immediate response to national crisis.

"[This] helicopter can carry up to 37 troops," said Lance Cpl. Dylan Melanson, an airframe technician with Marine Medium Helicopter Squadron 364 (Reinforced) and a Breaux Bridge, La., native. "We bring supplies, food, water, mail and ammunition to the troops on the ground. We keep everyone in the fight."

Across the Marine Corps, MAWs provide aircraft and crews necessary for mission ac-

complishment, ensuring Marines get from ship to shore as quickly and safely.

"The biggest advantage gained from helicopter operations is flexibility and speed," said Capt. Jason Neas, a CH-53E pilot with HMM-364 (Rein), and a Rockaway Park, N.Y., native. "Shortening the time between objective areas, flying Marines off the ship and getting them onto the shore."

Deploying on a MEU can be a positive experience, giving Marines a chance to see the world and to get closer to their brothers and sisters-in-arms.

"Being able to come in and work with Marines on complicated missions is a very rewarding experience," said Neas. "We're here to support the missions deemed fit by the Marine Corps. We're the emergency force that is going to accomplish any mission."

The aircraft element provided by 3rd MAW to the 15th MEU allows for the fastest transportation of troops, supplies and other valuable essentials that could turn the tide in a fire fight. With an aircraft element like that, there is one less worry on the minds of those in the fight.



NAVAL BASE SAN DIEGO – During a charity luncheon aboard the USS Peleliu here, President Jimmy Carter speaks about today's military and how it has changed since he served as a submariner in the late 1940s and 1950s.



NAVAL BASE SAN DIEGO – Carter Center guests listen as John Dalton, the 70th Secretary of the Navy, speaks aboard the USS Peleliu here March 10.



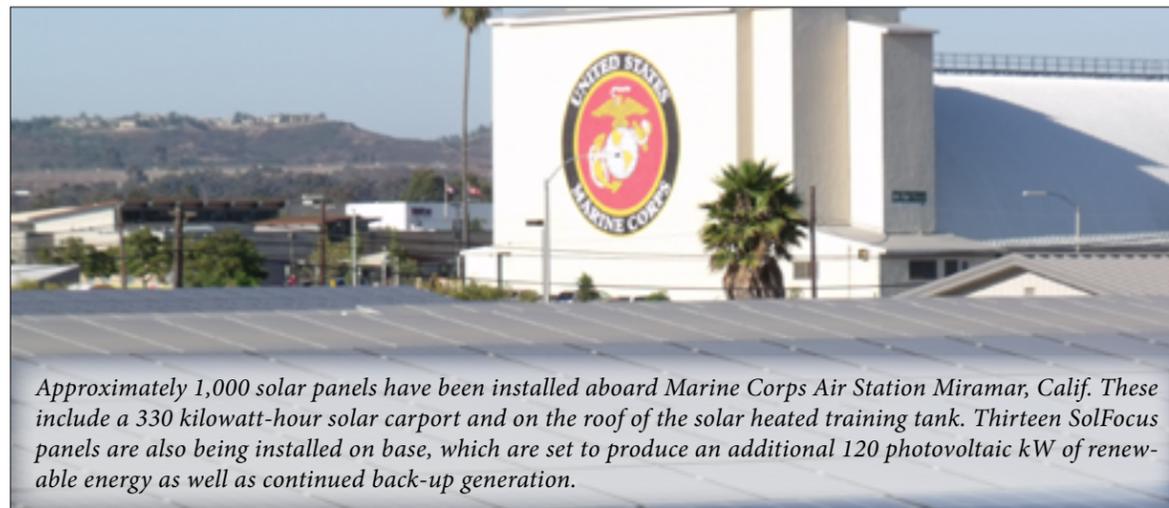
NAVAL BASE SAN DIEGO – Marine pilots give Carter Center guests the opportunity to observe an AH-1Z Super Cobra aboard the USS Peleliu here March 10.



NAVAL BASE SAN DIEGO – Guests of the Carter Center, founded by former President Jimmy Carter, tour the inside of an UH-1Y Venom "Huey" with the 15th Marine Expeditionary Unit aboard the USS Peleliu here March 10. The aircraft element provided by 3rd Marine Aircraft Wing to the 15th Marine Expeditionary Unit allows for the fastest transportation of troops, supplies and other valuable essentials that could turn the tide in a fire fight.

Marines take lead on green ideas

Story and photos by Lance Cpl. Erica DiSalvo



Approximately 1,000 solar panels have been installed aboard Marine Corps Air Station Miramar, Calif. These include a 330 kilowatt-hour solar carport and on the roof of the solar heated training tank. Thirteen SolFocus panels are also being installed on base, which are set to produce an additional 120 photovoltaic kW of renewable energy as well as continued back-up generation.

Well on its way to becoming the Department of Defense's first net zero energy installation, Marine Corps Air Station Miramar, Calif., continues to bring energy efficient ideas to life in waste disposal and renewable energy.

Through various projects such as the energy purchase of the Miramar Landfill, which will generate more than three megawatt-hours of energy, and the construction of several hundred solar panels aboard the air station as well as a diesel generator, MCAS Miramar has surpassed the Secretary of the Navy Instruction on energy efficiency and begun working toward the creation of a micro-grid energy system.

This system will allow MCAS Miramar to operate as a "911" base in case of an emergency or power outage in the local area, separate from the San Diego General Electric power grid.

While DOD requirements include cutting consumption of brown

energy, energy from fossil fuels, to 50 percent by the year 2020, air station officials have already reached 48 percent through a multi-point attack.

"We are attacking energy conservation from every aspect," said Randy Monohan, the MCAS Miramar utilities and energy manager. "We are using solar power generation, reclaim water and the power from the landfill. We have pinpointed the locations of massive energy consumption and gone through to fix each problem individually."

Approximately 1,000 solar panels have already been installed around the air station. These include a 330 kW solar carport and on the roof of the solar heated training tank. Thirteen SolFocus panels are also being installed on base, which are set to produce an additional 120 kW of renewable energy as well as continued back-up generation.

As a second energy conservation measure, reclaimed water is now being used for irrigation and plumbing at offices across the base.

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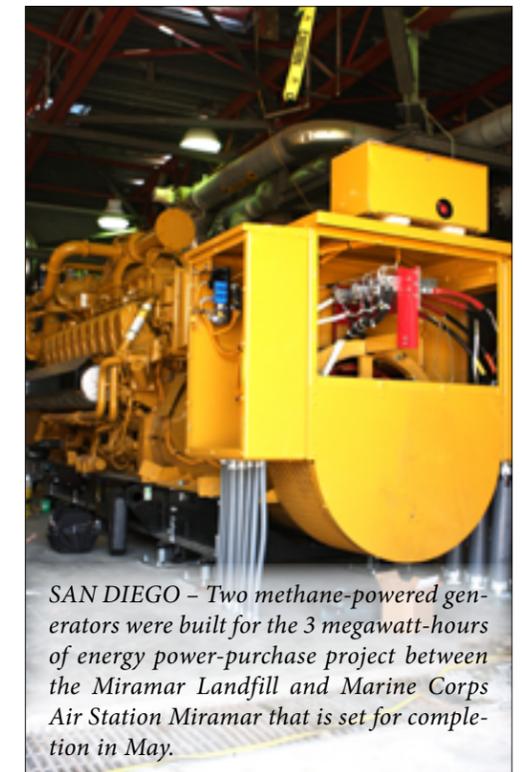
SAN DIEGO – Approximately four miles of 12-kilovolt line runs above and below ground for the power-purchase project between the Miramar Landfill and Marine Corps Air Station Miramar that is set to be complete in May.



A rock filled culvert combats water erosion after the implementation of a 12-kilovolt line that runs from the Miramar Landfill to Marine Corps Air Station Miramar, Calif.



Charlie Graham, a site safety health officer with Dynalectric, attaches labels to one of the thirteen SolFocus panels under construction here March 12.



SAN DIEGO – Two methane-powered generators were built for the 3 megawatt-hours of energy power-purchase project between the Miramar Landfill and Marine Corps Air Station Miramar that is set for completion in May.

SAN DIEGO – Approximately four miles of 12-kilovolt line runs above and below ground for the power-purchase project between the Miramar Landfill and Marine Corps Air Station Miramar that is set to be complete in May. This agreement will provide the air station with 3 megawatt-hours of energy to the base from two 1900 kW methane-powered generators at the landfill. As methane gas builds up among the landfill's waste, it is directed to the generators before being converted to useable energy and sent to the base's transformers.



“We are installing several miles of new water lines,” said Monohan. “The water is funneled to a water treatment plant and cleaned. While not to drinking standards, it is completely safe for pretty much any other use: toilets, cleaning, watering the golf course and ball fields, whatever is needed. This is much better than just continuing to use more and more water.”

To alleviate water consumption, numerous exercise and ball fields have now been replaced with Astroturf. This is done to prevent necessary irrigation and maintenance consumption.

At one time, four fields could use more than 7,000,000 gallons of drinking water annually, costing \$72,000. The replacement of these fields and use of reclaimed water has signifi-

cantly decreased those types of costs.

As the final attack on fossil fuel consumption and the largest contributor toward the goal of energy independence, MCAS Miramar signed a 15-year purchase-of-power agreement that is set to generate a total of approximately 24,000 MW of renewable, or green, energy. The construction is set to

be complete by May 2012.

As each project comes to completion, MCAS Miramar pulls into the lead on becoming one of the first to complete the Secretary of the Navy Instruction brown energy consumption requirements ahead of schedule, as well as complete energy independence with the creation of its own micro-grid.



Lance Cpl. Juan Domingo, a cryogenics technician with Marine Aviation Logistics Squadron 11 cryogenics department and a Indiantown, Fla., native, monitors the gauges of a compressor here March 7. Squadrons use the liquid nitrogen the cryogenics plant provides for various tasks, such as filling tires and solidifying the brakes of an aircraft.



Liquid nitrogen billows out of compressor pipes aboard Marine Corps Air Station Miramar, Calif., March 7. Liquid nitrogen cryogenics Marines also fill the aircraft tires, ensuring a safe return back to base.

Cryogenics Marines keepin' it cool

Story and photos by Pfc. Christopher Johns

Cerebral hypoxia is a condition that occurs when the brain lacks oxygen, causing it to shut down.

It is the responsibility of cryogenics Marines with Marine Aviation Logistics Squadron 11 to make sure pilots have the compressed oxygen they need so cerebral hypoxia is not an issue when flying more than 22,000 feet in the air at hundreds of miles per hour.

"We produce liquid oxygen and nitrogen, as well as the gaseous forms of both, in the purest forms possible," said Sgt. Micheal Bell, a work center supervisor with the Marine Aviation Logistics Squadron 11 and a Laurel, Miss., native. "We allow no margin for impurities."

The pure oxygen allows pilots to breathe, ensuring they can support ground Marines effectively.

"When pilots are flying over [certain altitudes], the smallest amount of Argon, Helium or any impure gases can cause a black out," said Bell. "Because so little oxygen is in the atmosphere when a pilot is flying, any bad air we might think is miniscule here, is a big problem that can cause the brain to shut itself down up there."

In addition to producing pure oxygen for pilots to breathe, cryogenics Marines also produce liquid nitrogen to keep aircraft tires at the correct pressure during flights.

At 396 degrees below zero, liquid nitrogen is cold enough to shrink bearings to a size that will seat properly inside aircraft tires.

The liquid nitrogen is even cold enough to solidify the brakes of an aircraft.

Liquid nitrogen also keeps heat-seeking missiles from turning and destroying the aircraft that fires them.

"Pure nitrogen form is very cool," said Bell. "So when the rocket is fired, it spurts off a small amount of pure nitrogen across the bow of the missile, which lasts until it gets far enough away so that it won't turn and destroy the aircraft."

The cryogenics plant is open 24 hours a day for one week a month.

"Depending on what the squadrons need, we will produce [pure oxygen and nitrogen] to keep up with demand," said Lance Cpl. Bruce O'Brien, a cryogenics equipment technician operator with MALS-11 and a Brighton, Mich., native. "We then store it here, fill up liquid oxygen carts, then use those to service aircraft. Then we give the liquid nitrogen tanks to the squadrons, and they'll use those for their various needs."

Cryogenics Marines ensure pilots are able to breathe to combat the damages caused by cerebral hypoxia – allowing Marines in the air and on the ground to focus on tasks at hand.

"Without oxygen you aren't flying," said Bell. "Without flying, you can't support the ground troops. If you can't support the ground troops, they can't get the mission done."

[Click HERE for more photos](#)

'Eyes in sky' aid in largest drug bust in history

Story by Staff Sgt. Tiffany Carter with 3rd Marine Aircraft Wing Forward

CAMP LEATHERNECK, Afghanistan – Opium poppy grows abundant in the fields of Afghanistan and the harvesting of this plant in the spring helps fund terrorist organizations all year. However, this year, with the help of “eyes in the sky,” U.S. troops on the ground along with their Afghan counterparts were able to put a hole in the insurgents’ pockets.

Marine Unmanned Aerial Vehicle Squadron-1, based out of Twentynine Palms, Calif., provided Afghan National Security Forces with intelligence collected by UAVs. A recent counter-narcotics operation in the Marjah district of Helmand province, Afghanistan turned out to be the ‘golden egg’ ground forces had predicted.

Earlier this month, the ANSF’s Narcotics Interdiction Unit (equivalent to the U.S. Drug Enforcement Agency), in conjunction with 2nd Battalion, 9th Marine Regiment deployed from Camp Lejeune, N.C., conducted a raid in Marjah. The team recovered three AK-47s with magazines, a 9 mm pistol with magazines, and signs of potential improvised explosive device-making materials. But the most important stash was buried deep underground.

“The raid resulted in approximately 4,000 pounds of suspected narcotics (the equivalent of \$2.5 - 3 million) being removed from the battlefield,” said 2/9’s air officer, Capt. Joseph Quirk, a Cooper City, Fla. native. “This was the biggest drug bust in ANSF National Interdiction Unit history.”

Capt. Quirk said the success of the raid will have a powerful impact. “The amount of money lost by the insurgency will significantly affect the insurgents’ capabilities and resources for the spring offensive saving ANSF and International Security Assistance Force lives.”

This raid would not have been as successful had it not been for the support and teamwork provided by the unmanned aerial vehicles belonging to VMU-1, deployed to Camp Dwyer, Afghanistan.

“What’s especially fulfilling for us is we have been supporting [the ANSF NIU’s] operations for months and that information helped shape the operation beforehand,” said Lt. Col. John Barranco, VMU-1’s Commanding Officer, and Boston, Mass. native. “This operation not only demonstrated our ability to work as a Marine Air Ground Task Force and with coalition partners, but was also another step forward for manned and unmanned aviation integration within the Air Combat Element.”

Capt. Quirk confirmed that to date, 3rd Marine Aircraft Wing’s support of this operation has currently led to approximately 5,000 pounds of suspected narcotics being removed from the battlefield.

“3rd MAW (Fwd) has shown great support with intelligence surveillance reconnaissance from VMU-1, assault support from HMH-363, escort support from HMLA-369, and close air support from several Marine squadrons.”

The Miramar Minute

Battle Color Detachment performs at Miramar

Video by Sgt. W. Zach Griffith



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Deputy PAO
1st Lt. Tyler Balzer

Media Relations
1st Lt. Maureen Dooley

Community Relations
1st Lt. Chad Hill

Press (Forward)
2nd Lt. Jose Negrete

Contact (Click) us

Community Relations
Media Relations
Press Department



CAMP LEATHERNECK, Afghanistan – Large quantities of opium recovered during a recent Afghan National Security Forces-led counter-narcotics operation in the Marjah district of Helmand province, Afghanistan. The total amount of suspected narcotics collected is estimated to be worth about \$2.5 - 3 million. The history-making raid was successful in part by intelligence collected by Marine Unmanned Aerial Vehicle Squadron-1, 3rd Marine Aircraft Wing (Fwd).

TECHNOLOGYexpo

DISCOVER SOLUTIONS FOR EVERY MISSION

PLEASE POST & DISTRIBUTE TO ALL PERSONNEL

MCAS MIRAMAR

DATE: 29 MARCH 2012

TIME: 1000 - 1400

PLACE: OFFICERS' CLUB

All Military, Civilian, and Contractor Personnel are invited to attend for **FREE!**

20+ EXHIBITORS WILL DEMONSTRATE THE LATEST IN:

Battle Tested Communications, Tactical Tools, Web Conferencing, Data and Information Management, Audio Visual Design, Video Network Infrastructure, Explosives Detection and Protection, Training Support Services, Distance Learning, and Many More!

HOSTED BY: **MCAS MIRAMAR/S-6**

REFRESHMENTS WILL BE SERVED AND GIVEAWAYS OFFERED WHILE SUPPLIES LAST!

For a list of exhibiting companies or to request a company, please contact

Katelyn Hansen

Hansen@ncsi.com

Phone: 443.561.2414

Fax: 443.561.2415

To Pre-Register, please visit
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