



# Report to STAKEHOLDERS

Edwards Air Force Base  
95th Air Base Wing  
Environmental Management

May 2008

Volume 13 No. 5

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# Report to STAKEHOLDERS

*Report to Stakeholders* is a publication of Edwards Air Force Base, 95th Air Base Wing, Environmental Management. Its purpose is to inform and educate the public, base workers and residents about continuing environmental and safety efforts on base. It currently has a circulation of 6,000, including about 2,000 subscribers.

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**CHECK IT OUT** — Archaeologist Jim Johannesmeyer, right, shows a member of the Tempe, Ariz., Military Affairs Committee artifacts found on the base at the curation facility. The curation facility was one of many tour destinations at Edwards visited by the civilian military group in January.



### What's on the cover?

#### PH TEST DEMONSTRATION

Environmental Management employees show students from Barstow High School how to conduct a pH test. Read article on page 4.

# Plan emphasizes management of whole desert ecosystem

**A**lthough threatened and endangered species get a lot of attention at Edwards Air Force Base, no threatened species like the desert tortoise is an island.

Challenged with managing the future of sensitive species, the march of development off-base, and myriad other factors, Air Force officials have widened their vision in planning for the future of the base's natural resources.

The latest update to the base's *Integrated Natural Resources Management Plan* (INRMP) emphasizes ecosystem management. An ecosystem is comprised of all the soil, rocks, plants, animals and microorganisms in an area and their surroundings.

"We want to manage from the ecological point of view rather than just managing single species," said Robert Wood, director of Environmental Management for the base. "We're better off with biodiversity."

In 1992 and 1993, the base conducted an initial habitat quality analysis of 60 monitoring plots throughout the base. Base biologists revisit these sites periodically to evaluate the health of the plots. "We're starting to integrate this biological census data," Wood said. "There is change happening."

As a result, base personnel are rethinking ways to maintain ecosystems while supporting the flight test mission. One strategy is to reach out beyond the base to preserve, restore where necessary and enhance what is here now. "Animals don't stop at the fenceline," Wood said. "We want to focus our efforts on enhancing natural corridors both on and off the base."

Edwards already has a long history working with the Desert Managers Group – an organization composed of federal, state and local government land managers. Desert Managers Group members have learned a lot about regional ecosystems and shared their knowledge with others.

Now Edwards' officials are reaching out



**SCORCHED** — A couple of biologists stand next to a Joshua tree in a desert area that was burned during a wild land fire at Edwards Air Force Base in 2006.

to the public and nongovernmental organizations like The Nature Conservancy to find smarter ways to keep Edwards ecosystems healthy. Base officials are working with The Nature Conservancy to create buffer zones around the base boundaries.

"I don't want Edwards to become a Noah's ark," Wood said. "There has been a gradual change in the desert over the past 20 to 25 years."

Wood cited invasive species as a challenge for land managers trying to promote biodiversity. Invasive species are plants or animals from other parts of the world that get introduced into the local ecosystem and thrive. "Invasive species make permanent change," Wood said. "For example, invasive plants push out native plants that the native animals need to survive."

Wood said invasive grasses have made wildfires a reality in the desert. "We never had a land wildfire plan until this year." Previously bare patches of sand between native shrubs are now filled with dry, invasive grasses that wick fire through the landscape.

Understanding ecosystems helps the Air Force better manage the natural resources entrusted to it by the American people, Wood said. "We can manage the base critters and plants, but they're part of a larger ecosystem that we need to consider every day."

The *Integrated Natural Resources Management Plan* is available to the public on the internet at <https://bsx.edwards.af.mil/environmental>. If prompted, log in as a guest.

# Chemistry, firsthand



**PH** — A student watches his pH demonstration change color, as another student looks on. The pH demonstration was a hands-on experience for the students, who visited from Barstow High School.



**OBSERVE**  
A teacher, left, and a student look at a vial they received at one of the stations during the Mojave Environmental Education Consortium Base Environmental Analytical Laboratory tour.



**MICROSCOPES** — Chemist Ed Soto, left, goes over microscopy with students.



**IN THE LAB** — Chemist Alison Vasquez, right, talks through a demonstration, while a student looks on.

# First MEEC student tours on base spotlight Base Environmental Analytical Laboratory

**M**icroscopes, Bunsen burners and beakers might not be anything new for Lequisha Brown's students, but seeing them put to use in a real-life professional lab was a new experience. The Barstow High School students were able to see high-tech equipment that is used on a daily basis at the Base Environmental Analytical Laboratory (BEAL) located at Edwards Air Force Base.

The students were separated into small groups, which allowed them to experience the demonstrations up-close and with personal attention from the BEAL chemists.

"This tour has been great! Actually an overwhelming experience," said Ashley Mansfield, a student from Barstow High School. "I really enjoyed seeing how things are broken down. The dissolving of the metals was really cool."

Using liquid nitrogen, the students watched as half-and-half, sugar and vanilla extract were transformed into ice cream. This demonstration, historically the most popular among the students, is a great way for them to experience chemistry in a memorable way.

"Seeing the smoke from the liquid nitrogen was cool. It had to be really cold to freeze the stuff in the bowl," student Silverio Contreras said. "The ice cream tasted really good too. I was glad they let me have seconds."

In addition to the scientific demonstrations, the Natural and Cultural Resources sections had snakes, wildlife and artifacts on display for the students.

"I really loved the snakes," student Tami Hoody said. "I was able to see their scales really close because I knew they couldn't get to me. I also really enjoyed the ice cream and dissolved metals experiments."

The BEAL chemists shared their educational achievements and encouraged the students to establish and pursue higher education so that they could, one day, work at a place like the BEAL.

Ed Soto, a BEAL chemist, gave an asbestos microscopy demonstration and showed the teachers and students how to identify and count asbestos fibers. Soto



**DISSOLVED** — Chemist Tim Lacey shows how metals are broken down with a dissolving demonstration as students watch.

also asked the students what their plans are after graduating from high school. Some students wanted to become business owners, while other students wanted to pursue higher education.

"If you have a college education not only will you have a better chance of being successful, you will have something to fall back on should the business not make it," Soto added.

Another great example for the students was one of their own teachers. Brown is currently pursuing her doctoral degree. Such positive reinforcement about higher education is something the students get to see first-hand on a daily basis.

The tour, a Mojave Environmental Education Consortium (MEEC) grant-funded field trip, allowed for the students to be transported to the base at no cost to the school. Being an education-oriented organization, the major focus of this MEEC tour was to emphasize pursuing a college degree to the students.

The original goal of MEEC — the High

Desert Zone of the California Regional Environmental Education Community, Region 10 — is to deliver environmental education to young people. Since it was spearheaded by the Mojave Desert Air Quality Control Management District in 2001, it has grown to include 30 different environmental organizations.

To find out more about MEEC and the programs it offers, you may visit the group's Website at [www.meeconline.com](http://www.meeconline.com).

Supporting hazardous waste management, cleanup efforts and spill responses, BEAL chemists can analyze a variety of samples including water, soil, asbestos and plant material. Located in two of the buildings formerly used by the Jet Propulsion Laboratory, the BEAL also supports the Air Force mission by providing environmental services.

For more information regarding the BEAL's analytical capabilities, contact Environmental Management at (661) 277-1401.



**ALL IN A ROW** — 1st Lt. Andrew Westman, wearing appropriate motorcycle gear for on-base riding, stands behind a row of motorcycles parked at a Rosamond, Calif., gas station. Westman is one of the many motorcycle mentors from Edwards Air Force Base who met on a weekday morning to commute to Bakersfield, Calif., to take the experienced riders course.

# Awareness and training at heart of motorcycle safety

With the weather heating up and gas prices steadily approaching \$4 per gallon, motorcycles are becoming a more common sight on and off the road. Used for play or practicality, motorcycles require rider training and awareness for safe operation say Edwards Air Force Base safety workers.

Experts at the national, nonprofit organization Motorcycle Safety Foundation agree. A 2007 news release stated that the majority of solo motorcycle crashes occur

because the drivers were not following basic but essential rules for riding.

To promote motorcycle safety, base officials require military, civil service and nonappropriated funds personnel who drive a motorcycle on Edwards to pass the Basic Rider Course. The two-day course involves a written exam and a riding-skill evaluation. It is required in addition to any California Department of Motor Vehicles (DMV) requirements.

"I highly recommend the beginner's motorcycle safety course to anyone

interested in riding," said 1st Lt. Andrew Westman, a motorcycle mentor for his organization. "It's especially good for people that don't know how to ride. More experienced riders can benefit from the reinforcement of basic safety principles."

A minimum of 5 hours of classroom time prepares each student for about 10 hours of practical riding in a controlled, off-street environment. The course is designed to teach riders how to operate a motorcycle safely, emphasizing the special skills and mental attitudes necessary for

dealing with traffic. Every student that passes the course receives a certificate of completion of motorcycle training that can be used to waive the California DMV motorcycle riding test.

As an added incentive, the Air Force covers the fee for military, civil service and nonappropriated funds personnel who pass the course. Contractors and public citizens should expect to pay from \$150 if you are under 21 years of age to \$250 for others, depending on the training site. Practice motorcycles, helmets, eye protection and gloves are loaned to each student at no extra cost.

The program course is offered throughout California. The nearest training sites are operated through Nelson Motorcycle Training at Palmdale, Santa Clarita and Bakersfield locations. Those interested can sign up by phone. Classes are offered on a regular basis. Contact Nelson Motorcycle Training at (800) 593-7909.

In addition to training, the Air Force supports an educational awareness program through mentorship. Under the motorcycle mentorship program, every unit on base that has more than five riders is required to have a motorcycle mentor. Each mentor serves as a role model for safe riding principles. He or she must have at least five years of riding experience and a good driving record.

"The new mentorship program at Edwards encourages experienced riders to teach and advise new riders on the proper way to ride a motorcycle safely," said Vincent Duny, Ground Safety chief and fellow motorcyclist. "Mentors are meant to be a source of information and lead by example, practicing good riding habits and techniques.

"The new program also

requires mentors to pass the experienced rider course every three years so they keep their safety skills sharp. March was the first time in years that a group of mentors and monitors from the base attended the course."

The experienced rider course provides more in-depth training about the mental and physical aspects of safe riding. The 5- to 6-hour course includes practice techniques of managing traction, stopping quickly, cornering and swerving.

Training and awareness refreshers are necessary for continued motorcycle safety. Ken Nelson, who has taught motorcycle safety in the valley for over 20 years, explained that riding a motorcycle requires more mental skills than physical skills.

"There are about 800 more things a rider has to observe, analyze and react to when riding a motorcycle versus a car," Nelson said. "A motorcyclist has only safety gear for protection and is not surrounded by metal like a car driver. Because personal protection is limited, the rider cannot afford to drive recklessly. A rider must be focused and vigilant throughout the ride, always keeping safety in mind."

2nd Lt. Paul Mantegna, another motorcycle mentor at Edwards, expanded on Nelson's observation.

"The best advice I have for new riders is, do not let your ego get in the way of safety," Mantegna added. "Treat the bike with respect and remember that other motorists on the road are not on the lookout for motorcycles. One of the biggest mistakes a new rider can make is behaving as if he is still within the protective shell of a car."

The only barrier between a motorcyclist and the pavement is protective gear. Motorcyclists riding on Edwards must

wear the following: a properly fastened protective helmet that meets Department of Transportation guidelines; impact-resistant goggles or full-face shield; brightly colored highly visible long-sleeve shirt or jacket (not required for dirt bike riders); long trousers; full-fingered gloves; and sturdy over-the-ankle footwear.

Since 2006, there have been 10 motorcycle mishaps on the base. Most of the mishaps involved dirt bikes or off-highway motorcycles, according to Edwards Ground Safety statistics.

Dirt bikers should observe safe driving practices. The same protective gear worn by street motorcyclists must be worn while riding dirt bikes.

"Most of the incidents we see could have been avoided if the dirt-bike rider had scouted the area to double-check for any hazards first," said Timothy Snyder, a motorcycle enthusiast who works in Ground Safety. "Rainstorms in the desert can wash out banks and cut into the soil. This creates straight drops or cliffs in areas where there might have been a soft hill before the rain. Scouting a route, whether familiar or new, ensures the rider can travel a

safe path without experiencing a mishap."

The Motorcycle Safety Foundation offers dirt bike school to all, age six and older. For more information, you may access the school's Website at [www.dirtbikeschool.com](http://www.dirtbikeschool.com) or call the nationwide toll-free number at (877) 288-7093.

RTS

May is Motorcycle Safety Awareness Month and the Motorcycle Safety Foundation offers the following tips for both motorcyclists and car drivers.

#### Motorcyclists

- Get trained and licensed
- Wear protective gear
- Ride unimpaired by alcohol or drugs
- Ride within your limits
- Be a lifelong learner

#### Car Drivers and other motorists

- Look out for motorcyclists
- Don't be distracted
- Give two-wheelers some room
- Use your turn signals
- Do not throw trash out the window
- Keep loaded cargo secure

Motorcycle Safety Foundation Web site: [www.msf-usa.org](http://www.msf-usa.org)  
California Motorcycle Safety Program Web site: [www.ca-msp.org](http://www.ca-msp.org)



**READY TO GO** — the motorcycle instructor looks back as he prepares to lead Edwards motorcycle mentors to Bakersfield, Calif., to take an experienced rider's course.

# Where to Find More INFORMATION



Published data and documents relating to Environmental Management are available for public review in information repositories at three locations. The current information repositories are located in the cities of Lancaster and Rosamond, as well as Edwards Air Force Base. They are updated when new documents are released.

For questions about information in the repositories, you may contact Gary Hatch, Environmental Public Affairs at (661) 277-1454 or by e-mail at [95abw.pae@edwards.af.mil](mailto:95abw.pae@edwards.af.mil). Here is a list of our current information repositories:

## Edwards Air Force Base Library

5 W. Yeager Blvd.  
Building 2665  
Edwards AFB, Calif.  
(661) 275-2665

Hours of operation: Mon-Thu 9:30 a.m. – 7 p.m.  
Fri 9:30 a.m. – 6 p.m.  
Sat-Sun 10:30 a.m. – 6 p.m.

## Kern County Public Library

**Wanda Kirk Branch**  
3611 Rosamond Blvd.  
Rosamond, Calif.  
(661) 256-3236

Hours of operation: Tue-Wed 12 p.m. – 8 p.m.  
Thu-Sat 10 a.m. – 6 p.m.

## Los Angeles County Public Library

601 W. Lancaster Blvd.  
Lancaster, Calif.  
(661) 948-5029

Hours of operation: Mon-Wed 10 a.m. – 8 p.m.  
Thu-Fri 10 a.m. – 5 p.m.  
Sat 11 a.m. – 5 p.m.

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# Restoration Advisory Board (RAB) Information

The RAB is made up of elected representatives from communities in and around Edwards Air Force Base, regulators from federal and state agencies and base officials. The board's purpose is to provide a forum for two-way communication among base restoration officials, regulators and representatives regarding the cleanup of contamination from past military activities.

The board meets quarterly, rotating meeting locations in communities surrounding the base. The public is welcome to attend. If you have any questions or concerns about the cleanup activities going on at Edwards, you

may contact your community's RAB member or Gary Hatch, Environmental Public Affairs, at (661) 277-1454.

## Next Quarterly Meeting

Date: May 15, 2008

Time: 5:30 p.m.

Location: Best Western Antelope Valley Inn and Conference Center  
44055 N. Sierra Highway, Lancaster, Calif.

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