



## What's New at ESD?

ESD would like to introduce and welcome several new employees to the UGA campus.

Tori Outlaw, a fire safety inspector, joined the fire safety program on June 12, 2006. Tori came to ESD from Wrightsville, GA, where she worked at the state fire marshal's office as a deputized state fire inspector for 3.5 years.

Bill Megathlin joined the lab safety program on August 8<sup>th</sup>. He graduated from UGA in 1996 with a degree in Environmental Health Sciences. He came to ESD from Home Depot, full-time for 10 years, and part-time from the Lodging Services department of the Georgia Center for Continuing Education for 15 years. He will be assisting with the implementation of Chematix, UGA's comprehensive laboratory chemical tracking program.

Matt Slafkosky joined the HMTF office as a hazardous materials specialist on Sept. 7, 2006. He is a recent graduate from UGA in Fisheries and Aquaculture.

Chad Cheely will join lab safety on September 15, 2006. He's a recent graduate from UGA in the College of Environmental Health Science.



## ESD Represented at the National Association of Scientific Materials Managers (NAOSMM) Annual Conference

NAOSMM is a professional organization of laboratory managers, science store-room personnel, teaching lab coordinators, purchasing personnel, and chemical safety officers that was founded in 1974. Our members include representatives from academia, manufacturing, research laboratories and pharmaceutical companies.

*Listed below is ESD representative Bill Favaloro's abstract of the lecture which he delivered at the NAOSMM seminar in Savannah, Georgia on July 29, 2006.*

Environmental health, safety and regulatory compliance are of paramount importance and must receive top priority at any university. For the University of Georgia (UGA), comprised of over 32,000 students, over 1,500 laboratories and more than ten outlying research sites, managing environmental safety presents a challenge that the university believes must provide a balance between safety and regulatory compliance. Education is imperative for making sure that faculty, staff and students work safely while understanding their responsibility, as well as that of the university, for observing regulatory requirements.

Rather than operating only in the roles of inspector and assessor of laboratories and facilities, the Environmental Safety Division (ESD) has established a precedent for education emphasizing the fact that operating in a safe manner will usually cause an individual to be regulatory compliant, too. Everyone should understand the roles of regulatory agencies and how to work with them while performing their research or teaching responsibilities.

With yearly hazardous waste disposal totaling over 100,000 pounds at the main Athens campus alone, the area of hazardous waste is the main focus in regulatory compliance. However, other areas that ESD strives to maintain in a safe and regulatory compliant way include radiation safety, fire safety, emergency operations, health and sanitation, and support and outreach to outlying facilities.

## Canned Air in Vehicles

*Part of this article was contributed by Delta Airlines' newsletter, "Line Maintenance Safety."*

Here is a picture of a truck that a driver sprayed canned air (like you use to clean your keyboard) in his truck to clean the dash and overhead console. A few minutes later, he rolled down his window, went to light a cigarette, and a flash explosion occurred inside the cab. The driver had first and second degree burns on his arms and spent four days in a burn center.

A can contains 1, 1-difluoroethane. It is an extremely flammable aerosol propellant, as well as an asphyxiate if inhaled in large enough concentrations.

If you have company vehicles, please use another product to clean the inside of the vehicle, and please don't inhale too much of it – even in the office.



## RAD DAWG NEWS

By Jody Jacobs

### New Radiation Safety Vehicle

Our big news for this issue is our new vehicle. The Rad Dawgs are the proud owners of a new Dodge Sprinter van. The new vehicle replaces a 1991 Chevrolet van that has seen a lot of hard miles and shows evidence of bullet holes from a vandalism incident. The new van is a short wheelbase, high roof model and is essentially a Mercedes Benz European delivery van. It is powered by an environmentally friendly turbo-diesel engine that provides good fuel economy. The vehicle will be used primarily to transport radioactive materials on campus. It will also be set-up for



(Left to right) Chris Vanderpool, Wayne Dill, Dennis Widner, Dustin Smith and Jody Jacobs. (See page 5 for more pictures.)

radiological incident response with a built-in storage cabinet containing emergency response supplies. Special thanks go to Wayne Dill for his support in obtaining this vehicle.

### Late Summer Training Classes

Once again, Radiation Safety is offering our Advanced Radiation Worker series of training classes. Individuals that successfully complete all four modules qualify as a UGA Advanced Radiation Worker. All radioisotope use labs are required to have at least one person with these qualifications. Individuals who want to know more about working with radioactivity can also sign up for these classes; Modules 0 and 1 provide a good introduction to radiation safety.

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### The class schedule is as follows:

- Sept. 6, 2006, 1:15 - 4:30pm, Module 0, "Orientation" 162006H-01
- Sept. 13, 2006, 1:15 - 4:30pm, Module 1, "Basic Radiation Principles" 162106H-01
- Sept. 20, 2006, 1:15 - 4:30pm, Module 2, "Safety and Radiation" 162206H-01
- Sept. 27, 2006, 1:15 - 4:30pm, Module 3, "UGA Site Specific Procedures" 162306H-01

Watch for fall training classes in the mid-October schedule to be published soon. Classes are held at UGA's Training and Development facility. To sign up for a class, please visit the UGA Faculty and Staff Self-Service website at <https://employee.uga.edu/FacStaff/>

## FIRE PREVENTION WEEK, OCTOBER 8-14, 2006

### Prevent Cooking Fires All Year Around

When fires occur, Americans depend on our courageous firefighters to be the first on the scene and to save lives. Each year, more than 100 of our country's firefighters die in the line of duty. Americans are grateful for the brave men and women who put themselves in harm's way to rescue and protect their fellow citizens. During Fire Prevention Week, we recognize these heroes and honor their sacrifice. Fire Prevention week is actively supported by fire departments and professionals across the country. This is the 85<sup>th</sup> year that fire departments have observed Fire Prevention Week, making it the longest running public health and safety observance on record.

During this year's fire safety campaign, safety advocates and firefighters will be spreading the word about the dangers of cooking fires.

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They will be educating the public on how to prevent cooking fires from starting in the first place. NFPA research shows that cooking is the leading cause of home fires. One out of three home fires begins in the kitchen. Cooking fires are also the leading cause of home fire-related injuries.

In 1920 President Woodrow Wilson issued the first National Fire Prevention Day Proclamation. Since 1922, Fire Prevention Week has been observed on the Sunday through Saturday period which October 9<sup>th</sup> falls. The Fire Marshals Association of North America decided that the anniversary of the Great Chicago Fire should be observed in a way that would keep the public informed about the importance of fire prevention.

### Fire Extinguisher Training

**10:00 AM**

Oct. 25, 2006

November 1, 2006

December 6, 2006

These training sessions will be held at the FIRST Building, in back of the HMTF building on Will Hunter Road.

Instructor: Tori Outlaw. Please call Tori at 706-369-5706 if you have any questions.

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# University Health Center's Emergency Response Drill Tests Readiness for a Mass Casualty Event

by Wes Kolar,  
UGA HazMat Operations Coordinator

During the morning of August 10th, the University of Georgia's Health Center (UHC) held an emergency medical response drill known as a PICE, or Potential Injury Causing Event. The scenario for the drill involved the explosion of a hot water boiler at East Campus Village. Such an event could be expected to produce a wide range of injuries including burns, smoke inhalation injuries, and cuts from air-borne shrapnel. The drill involved several different groups that would actually respond to a mass casualty event such as a boiler explosion on campus including, UGA Police, hazmat technicians, medical transport personnel, and UHC staff.

Given the above scenario, the primary responsibility of the UGA Police would involve scene security at the accident site. UGA PD are usually the first emergency response personnel on site, and have the responsibility for overseeing site security measures. The UGA HazMat team, known as HART, may also be called to respond depending on whether or not hazardous materials were released during the accident.

Athens Regional Memorial Hospital (ARMH) also participated in the drill, and along with St. Mary's Hospital would be involved with transporting injured personnel to medical treatment at either UHC, ARMH, or St. Mary's Hospital. No actual medical transport was performed during the drill, and staff members from both

hospitals participated as observers.

The primary responsibility of UHC staff members in a mass casualty event such as the proposed boiler scenario would be to receive and treat injured personnel. The first step in receiving injured personnel involves a process known as triage in which patients are prioritized based upon the severity of their injuries. In order to simulate a real event, volunteers are used as fake accident victims after undergoing a process known as

moulage. The purpose of moulage is to attach realistic looking injuries to the volunteer victims that simulate the type of damage that would be expected from a given accident scenario. Each volunteer victim also has an attached note card that lists symptoms that can not be simulated by the moulage. Once patients have been triaged, medical care can be directed first toward the patients who are most in need.

In addition to the groups listed above, the drill was also attended by several monitors and observers. The duty of these two groups is to observe and critique the entire response. After completion of the drill, monitors and observers meet with other drill participants in order to evaluate the response. The evaluation process typically looks at both the actions of the drill participants, and also the emergency response plans that these actions were based upon. By going through the actual motions that would be involved in a real emergency situation, realistic drills are an excellent way of determining both the strong and weak points of both the responders and the emergency response plans that are used to guide the responders.

The drill was very well attended, and went exceptionally smoothly. By performing routine emergency response drills, the UGA medical community is insuring their readiness for an actual event, should it occur.



**Moulaging is a technique used to realistically simulate injuries such as this compound fracture.**



**Drill participants meet after the response to discuss the strong and weak points of the exercise.**

**A class on  
"Handling of Compressed  
Gas Cylinder Safety"  
is currently being developed.  
The class will be presented by  
National Welders.  
The likely date will be in November and  
will be announced over the list  
serve. Any questions contact  
Bill Favaloro at  
[wfavaloro@esd.uga.edu](mailto:wfavaloro@esd.uga.edu)**

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**Lab Safety News**  
By Heath Hardison

**Emergency Showers and Eyewashes**

Plumbed emergency showers and eyewashes are crucial pieces of equipment that need to be tested and maintained. The UGA Environmental Safety Division (ESD) operates an annual testing program for this equipment and will begin testing this fall. If you have an emergency shower or eyewash station that needs testing, please contact the Environmental Safety Division at (706) 542-5801.

UGA employees can do their part when it comes to shower and eyewash equipment in their work areas. Listed below are things that should be done:

- Remove obstructions from emergency shower and eyewash stations. These areas should be completely free of obstructions.
- Remove electrical hazards from the emergency shower and eyewash stations. Notify ESD of any concerns you may have about electrical equipment around shower and eyewash stations.
- UGA employees should test plumbed emergency eyewashes in their work areas at least once a week. Microorganisms can build in these eyewashes. Make sure to flush eyewash for at least five minutes.
- Emergency shower and eyewash stations should be clearly posted. If there is not a shower or eyewash in your work area and you work around hazardous materials, please take the time to post the nearest location(s). Postings are available on the Environmental Safety Division's website at <http://www.esd.uga.edu/chem/labpost.htm>.
- Have in your Standard Operating Procedures (SOP) a procedure for using the emergency shower and eyewash station. Appendix J-17 and J-18 in *Laboratory Safety Manual* has SOP's for emergency

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shower and eyewash stations. This is available online at <http://www.esd.uga.edu/chem/safetymanual.htm>.

Please note that the Emergency Eyewash Standard Operating Procedure has recently been updated. Line 4 in the procedure has been changed from "Contact emergency medical personnel at 9-911" to "Someone should be calling for emergency medical assistance. On campus this may be done by dialing 9-911."

Please print out the latest version and place in your *Laboratory Safety Manual*. Each work area should have appropriate SOP/s, and everyone should be knowledgeable about them.

**ESD Outreach Program**  
By Bill Favaloro

*Support and Outreach to the Outlying Facilities is the outreach branch of the Environmental Safety Division in support of the University of Georgia sites statewide. One of these sites is the Marine Extension Service(MAREX) located in Brunswick, Georgia. The following is a brief look at this world renowned operation and its important contributions.*

**Brunswick Programs**

MAREX and The Georgia Sea Grant Marine Advisory Service (MAS) work hand-in-hand to serve Georgia's marine related industries. MAREX and MAS specialists concentrate their efforts in seven major program areas: seafood technology, commercial fisheries, recreational fisheries, marine business, coastal ecosystem stewardship, aquaculture, coastal water quality, and smart growth through Non-point Education for Municipal Officials (NEMO). The center transfers technology, provides education and training, and conducts applied research.

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Through its three programmatic areas of applied research, education, and outreach, the Marine Extension Service serves a diverse coastal constituency. It educates student and adult groups about Georgia's marine resources, and the importance of being good environmental stewards. It provides assistance to marine industries by finding ways to increase their efficiency and effectiveness, and encourages the development of new industries that do not degrade the environment. It identifies issues and problems that limit the coastal economy and addresses those it can. Those it cannot are directed to appropriate researchers on the main campus. In this sense, the Marine Extension Service provides a vital conduit between the University and Georgia's coastal community.

The Brunswick Marine Technology Center is located on a three-acre site with 300 feet of frontage on the Brunswick River. Commercial shrimp docks, packing houses, and an ice plant are close to the waterfront facility. The 16,300 sq. ft. Brunswick Center facility includes: classrooms, offices, a lecture hall, a seafood technology laboratory, water quality, microbiological and chemical laboratory, a seafood processing pilot plant built to USDA standards, a seafood sanitation training facility, a net loft, a recirculating seawater crab shedding facility, a video editing suite, and two warehouses.

MAREX has interactive distance learning facilities at the School of Marine Programs in Athens and at the Brunswick and Skidaway coastal stations. The sites have satellite downlink capabilities and are tied directly to the Georgia Statewide Academic and Medical System (GSAMS). The GSAMS system's interactive sound and video connections link approximately 200 educational locations around the state. The sites can tie into locations with satellite uplink capabilities for regional or national presentations.

MAREX/MAS augmented its video production and distance learn-

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ing capabilities with the purchase of professional video production and editing equipment that includes a Sony Color Video Printer, a complete Sony Video Production System, and a MacIntosh digital video editing system. MAREX/MAS purchased Hi8mm, BetacamSP cameras, digital video cameras and computer controlled audio and video recording and editing equipment. This equipment is used to document fish behavior in and around turtle excluder devices (TEDs), bycatch reduction devices (BRDs), and other experimental fishing gear. MAREX also produces both training and educational videos focusing on coastal issues.

MAREX operates the R/V Georgia Bulldog, a 73-ft shrimp boat converted into a multipurpose fishery research vessel. The Bulldog is capable of bottom and surface long-line fishing, hook and line fishing, deep-sea trap fishing, offshore stern trawling, and double rig shrimp trawling. Modern electronic equipment includes radar, loran, GPS, sonar, side-scan sonar, a Scanmar trawl mensuration system, and state-of-the-art real-time underwater video monitoring and recording equipment. The boat serves as both a research platform and as an education-outreach facility.

Crew members routinely maintain radio communication with nearby commercial boats working the same fishing grounds to provide real-time information on gear research and catch data. The Bulldog gives the Georgia MAS program a unique character. Two smaller vessels, a 23-foot Sea Ox with a forward cabin and a 21-foot Carolina Skiff are available for water quality and inshore fishery research projects.

For more information, please contact: Keith Gates, University of Georgia Marine Extension Service, 715 Bay Street, Brunswick, GA 31520, 912-264-7268. Email address: kgates@uga.edu .

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**Above is the 'old' Rad van. As you can see, there's cause for excitement among the ESD Rad staff. Below is the 'new' Rad van with the manager, Jody Jacobs, proudly standing in front of it. (The article is on page 2.)**



### Kudos

- Bill Favaloro, Outlying Facilities Coordinator at ESD, has completed the *Managerial Leadership* nine-part series at UGA's Training and Development center. Congratulations, Bill.
- On behalf of everyone here at the Environmental Safety Division, we would like to say thank you and congratulations to everyone on campus for another violation free inspection from the Georgia Department of Natural Resources – Environmental Protection Division. Inspectors were here September 1, 2006 for an annual inspection of the Hazardous Materials Treatment Facility and also visited laboratories on the University of Georgia's main campus. During the inspections no violations were found. This is certainly quite an accomplishment for any institution and you are all to be congratulated for your efforts.

# Safety Videos Available

The Environmental Safety Division has a library of safety videos which can be borrowed free of charge by University employees. Call us at (706) 542-5801 or place a checkmark by the videos you wish to borrow and return this completed page to us. Videos can be borrowed for up to two weeks or longer, if necessary; they can also be reserved for upcoming training classes you might be conducting. For a description of each video, including its length, go to our website: [www.esd.uga.edu/info/pub/vlibrary.pdf](http://www.esd.uga.edu/info/pub/vlibrary.pdf).



**Art Safety:**

(A1) \_\_\_ Health Hazards and the Visual Arts

**Chemical and Laboratory Safety:**

(CL2) \_\_\_ Chemical Storage Hazards

(CL3) \_\_\_ Chemical Hazards

(CL4) \_\_\_ A Place for Everything: Chemical Storage in the Laboratory

(CL5) \_\_\_ Practicing Safe Science

(CL6) \_\_\_ The Keys to Laboratory Safety

(CL7) \_\_\_ Introduction to Reactive and Explosive Materials

(CL8) \_\_\_ Radionuclide Hazards

(CL9) \_\_\_ Science—Live to Tell About It

(CL10) \_\_\_ Glassware Washing Hazards

(CL11) \_\_\_ Centrifugation Hazards

(CL12) \_\_\_ Fume Hood Test and Training

(CL13) \_\_\_ Safety Showers and Eyewashes

(CL14) \_\_\_ All Washed Up

(CL15) \_\_\_ Safe Handling of Laboratory Glassware

(CL16) \_\_\_ Whose Job Is It Anyway?

(CL17) \_\_\_ Laboratory Fume Hood Safety

(CL18) \_\_\_ Assessing Risks of Toxic Chemicals

(CL19) \_\_\_ Flammables and Explosives

(CL20) \_\_\_ Mammalian Cell Culture Hazards

(CL21) \_\_\_ X-Ray Diffraction Hazards

(CL22) \_\_\_ Controlling Your Risks—HIV in the Research Laboratory

(CL23) \_\_\_ Working Safely with HIV in the Laboratory

(CL24) \_\_\_ Preventing Contamination

(CL25) \_\_\_ Get Your Checklist Ready—A Guide to Lab Safety Inspections

(CL26) \_\_\_ Laboratory Safety: Potential Hazards II

(CL27) \_\_\_ Ether Removal at Mercer University; Reactives/Explosives, AETC

(CL28) \_\_\_ Hazardous Materials

(CL29) \_\_\_ Lab Safety

(CL30) \_\_\_ Chemical Lecture & Demonstrations

(CL31) \_\_\_ It Only Takes a Second

(CL32) \_\_\_ Confined Spaces—Silent Killer

(CL33) \_\_\_ Virtual EPA Inspection of a College or University

(CL34) \_\_\_ Environmental Health: The Invisible Profession

**Driver Safety:**

(DS1) \_\_\_ Just Another Saturday Night

(DS2) \_\_\_ Breaking the Accident Chain of Events

(DS3) \_\_\_ Night Driving

**Emergency Procedures:**

(EP1) \_\_\_ Tornado—Nature’s Fury 2000

(EP2) \_\_\_ Chernobyl—Legacy of a Meltdown

(EP3) \_\_\_ Emergency Response

(EP4) \_\_\_ Preparing for a Crisis on Campus

(EP5) \_\_\_ An Orientation to Community Disaster Exercises

(EP6) \_\_\_ Bioterrorism and Mass Casualty Presentation; UGA; 10/31/01

**Fire Safety:**

(FS1) \_\_\_ Fire Safety in the Laboratory

(FS2) \_\_\_ Fire Escape—Getting Out Alive

(FS3) \_\_\_ How Fast It Burned!

(FS4) \_\_\_ Ready to Respond

**Gas Cylinders:**

(GC1) \_\_\_ Gas Cylinders—Welding, Cutting, and Brazing

(GC2) \_\_\_ Compressed Gases Can Be Dangerous; An Explosion Case History

(GC3) \_\_\_ Handling Compressed Gas Cylinders

(GC4) \_\_\_ Gas Cylinders—Overview

**Right to Know/Hazard Communication:**

(RTK1) \_\_\_ Cracking the Code

(RTK2) \_\_\_ Material Safety Data Sheets

(RTK3) \_\_\_ MSDS—Roadmap to Safety; Read that Label

(RTK4) \_\_\_ Your Right to Know

(RTK5) \_\_\_ Right to Know: Administrator’s and Trainer’s Guide

(RTK6) \_\_\_ Your Right to Know; MSDS—Roadmap to Safety

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