Maryland
E·M·S
NEWSLETTER

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Emergency Readiness Drill at BWI Airport

Flight passengers leaving Baltimore/Washington International Airport (BWI) on May 5th received an unusual message at airline ticket counters: The emergency vehicles they might see on the airport grounds were participating in a drill, not responding to a crash.

That morning, BWI officials conducted a test of the airport's emergency plan. The exercise, called EPLEX III, was the third drill held at BWI. Every airport with an operating license must have an emergency plan and test it every 3 years.

In the BWI scenario, a commercial jet carrying 100 people crashed onto the runway when its engines failed during take-off. The burning wreckage slid into a field. Half of the plane's passengers survived.

Air traffic controllers, seeing smoke rising from the site, initiated a call-down procedure. Using a telephone reserved for such emergencies, they notified BWI's crash/fire rescue station and the airport's division of the Maryland State Police.

Units from the BWI Fire and Rescue Service arrived within minutes. Firefighters surveyed the crash site, estimating the number of people involved and assessing the safety of the area for rescuers. As some rescuers pulled passengers away from the burning wreckage, others requested mutual aid from neighboring jurisdictions.

Units from Howard, Prince Georges, Baltimore, and Anne Arundel counties as well as Baltimore City responded from a nearby staging area; their times of arrival at the scene were based on travel times from their base stations. Rescue crews and medics worked through the morning to locate crash victims in the field and wreckage, move the survivors to treatment tents, and transport them from the scene. The supplies they needed were readily available from the 54-foot disaster truck based at the airport. The trailer carries enough supplies for the treatment of more than 300 people involved in a disaster.

This was the first drill at BWI in which the airport's fire and rescue service was in charge of medical control. The overall incident commander was Capt. Francis Jester and the BWI medical commander was Paramedic Andres Ben. The overall

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Primary triage and treatment personnel BWI CRT Phil Keisling assesses a "victim" in the field at the edge of the runway. In an overturned bus (background), simulating the plane's passenger compartment, rescuers discovered entrapped and injured people.

BWI Airport Drill

(Continued from page 1)

medical commander for the drill was Ameen Ramzy, MD, State EMS Director. He was assisted by John Donohue, Region III administrator.

In compliance with the existing disaster plan, six MIEMSS physicians were transported to the scene. They oversaw the medical aspects of extrication and secondary triage.

The 50 survivors were transported from the scene (31 actual transports plus 19 simulations) to the six hospitals participating in this drill. Those hospitals—Francis Scott Key Medical Center, the MIEMSS Shock Trauma

On the field after the drill are (l-r) BWI Deputy Chief Dave Goodwin, BWI Chief Jack Beall, and Ted Mathison (administrator, Maryland Aviation Division).

Center, Harbor Hospital Center, the Johns Hopkins Pediatric Intensive Care Unit, North Arundel General Hospital, and Church Hospital—conducted their own drills of readiness for multiple trauma admissions.

Several "lessons learned" related to the location of response teams became evident as the drill progressed:

- To enhance communication, medical command should be near the overall incident command post.
- The patient disposition officer and computer tracking system should be close to the transportation and treatment officers.
- The helicopter landing zone should be close to the patient disposition area.

As patient treatment and transport neared completion, specialists in plane crash investigations began their work amid the wreckage. In a mass casualty incident, personnel from the Office of the Chief Medical Examiner (OCME)

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Victims and debris were scattered across a field in the simulation of the failed take-off of a commercial jet.

A patient is carried from the crash site to a nearby treatment tent. The art of moulage added realism to the drill scenario.

CRT Andres Ben (medical commander) (standing) confers with Ameen Ramzy, MD (using mobile phone), Tom Smith, MD, and John Donohue in the medical communications sector.

Emergency Readiness Drill at BWI Airport

Fire department personnel prepare to transfer a victim to a backboard for transport to the treatment tent. Extrication procedures continue in the background.

Med-Channel Radio Coverage Enhanced

Med-channel radio coverage has been marginal in the southeastern part of Harford County. For that reason, the med-channel base station site at Stony Forest, near Carsins, has been improved by the MIEMSS Communications Department.

Improvements include a new 190-foot tower to replace the old 130-foot fire tower. Also, new solid-state transmitters, new transmission lines, and new antennas were put into operation in mid-May. A new emergency power generator will provide reliable operating power for the site if commercial power is interrupted.

The improvements to the site have already shown that med-channel radio coverage has been successfully enhanced for the residents of this part of Harford County. Recent additional improvements include new transmitters for the med-channel site at Madonna, in the western part of the county.

These med-channel efforts are a part of a continuing program to improve medical radio communications within Harford County and numerous parts of the state. In addition, several new sites are under consideration in the southern and northern sections of the county.

(Continued from page 2)

are responsible for recovering and identifying bodies and body parts, determining the cause of death (following autopsy, if necessary), and releasing bodies to the appropriate person. Teams from the OCME began their assessment of the crash scene by creating a grid pattern marked by stakes. They photographed and documented physical evidence such as the location of deceased victims, body parts, and clothing.

According to Carl Flemke, chief investigator, identification of victims can be a difficult process, which is compounded by fire at the incident scene. Investigators from the OCME use clues such as jewelry, airline transfers, and manifests of plane passengers to piece together a victim's identity. They may request assistance from members of the Maryland State Dental Association, who can apply their expertise in the use of dental records to identify casualties. That association is developing an on-call list of Maryland dentists who will be available to respond to requests from the OCME following mass casualty incidents.

The OCME also works with the Maryland State Funeral Directors Association to prepare for and respond to disasters. In 1989, the funeral directors association acquired a mobile disaster response unit, a trailer stocked with items for patient identification as well as worker safety and comfort. The unit is based at BWI and will be taken to disaster scenes by the Maryland State Police when needed.

The Maryland State Police Crime Laboratory Division assists the OCME in locating and identifying fatally injured people at mass casualty incidents. Forensic photographers document the location of physical evidence at the scene. Chemists can be brought to the site to test for the presence of drugs, explosives, and other substances. Troopers who routinely investigate robberies, sexual assaults, and other crimes come to the disaster scene to seek evidence of criminal activity. Evidence retrieved from the scene can be taken to the crime lab for further analysis.

Representatives of the National Transportation Safety Board (NTSB) also came to the BWI drill to enhance their interaction with the other participants. As the federal agency responsible for investigating aircraft crashes, the NTSB takes custody of the aircraft after fire/rescue activities are completed and until the crash and its cause are fully investigated.

More than 10 million passengers passed through BWI in 1989. The number of arriving and departing flights averages 670 per day. Despite this volume of traffic, there has never been a commercial crash on BWI grounds involving a fatality. But if the unthinkable happens, trained and equipped rescue teams are ready.

◆ *Linda Kesselring*

BC/BS Rewards Using Seatbelts, Helmets

As part of a policy to reward the use of seatbelts, child restraints, and motorcycle helmets, Blue Cross/Blue Shield of Maryland received permission from the State Insurance Division to vary its coverage under specific circumstances.

Effective January 1, 1990, the changes affect 37,000 policyholders under the age of 65 who are enrolled in the Comprehensive Major Medical (CMM) programs for individual customers. Group customers are not affected.

Any CMM policyholder involved in a vehicular accident who was using a seatbelt, child restraint, or motorcycle helmet will now have the first $1,500 of covered medical costs paid at 100 percent (after the deductible is reached). Previously, the company paid 80 percent of the claim.

According to Francis Soistman, chief financial officer of the Individual Market Division, "We have a responsibility to encourage customers to be responsible for actions that affect their health." An effort was also made by the company to exclude benefits when a CMM policyholder was involved in an accident and convicted for the second time of driving while intoxicated or under the influence of unprescribed drugs. This provision was approved by the State Insurance Division but killed by the Maryland General Assembly as HB 875.

MIEMSS Team Studies High Altitude Illness

A team of scientists recently traveled to an 18,000-foot-high "laboratory" on a 20,600-foot mountain in the Bolivian Andes. They studied methods of preventing and treating acute mountain sickness, a syndrome that can be deadly to people who ascend too quickly to high altitudes.

Leading the 23-member expedition was veteran mountain research director William Bernhard, MD, who is acting director of anesthesiology at the MIEMSS Shock Trauma Center. Other Shock Trauma staff members who accepted the challenge to climb Mt. Cherow and Mt. Chachacomani are Gary Ehlert, MD, a hyperbaric oxygen physician and physiologist; Lisa Miller, BSN, a research nurse in anesthesiology; and Robert Van Boven, DDS, an anesthesia research fellow.

The 1990 American Andes Bio-Medical Research Expedition began on May 19, when the team assembled in La Paz, Bolivia. After an 8-day climb, they returned home on June 3.

The climbers/researchers had two experimental tasks: They tested the ability of acetazolamide and dexamethasone to prevent acute mountain sickness (AMS). They also carried a portable hyperbaric chamber, the Gamow bag, and collected data about its effectiveness in lowering atmospheric pressure at high altitude.

Acute mountain sickness may occur in 50 to 75 percent of people who ascend from sea level to altitudes higher than 10,000 feet without an appropriate period of acclimatization. The emergence of AMS is related to the rate of ascent and altitude reached, not to physical fitness. Because barometric pressure falls as altitude increases, less oxygen is available. To adjust to this "thinner" air, the body increases the respiratory and heart rates to pump more oxygen to the tissues. If the ascent is too rapid for the body's compensatory processes, AMS begins to appear. Its symptoms include headache, fatigue, nausea, loss of appetite, dizziness, and insomnia. Untreated, the condition can progress to pulmonary and cerebral edema, even to death.

The expedition team members tested a combination of acetazolamide and dexamethasone on themselves during their South American trip. Everyone took acetazolamide, which helps to alleviate the symptoms of AMS by increasing the ventilation rate and acting as a diuretic. Those actions increase the oxygen stores in the body and counteract the fluid retention associated with AMS. The investigators were also randomly assigned to groups that took dexamethasone or placebo. Physiologic, metabolic, and cognitive data were collected during the climb to assess differences between the group taking both drugs and the one taking acetazolamide alone.

The Hyperbaric Mountain Bag that was carried along on the climb looks like a sleeping bag. The device was developed by Dr. Igor Gamow, at the University of Colorado, to prevent and treat AMS. When a climber needs to "descend" because the signs and symptoms of AMS are developing, the 10-pound bag is unfolded, the mountaineer climbs inside, and the bag is zippered shut. With a light-weight foot pump, a companion fills the bag with air to a pressure of two pounds per square inch above ambient. About two minutes of continuous pumping is needed to reach that level, the equivalent of descending 6,000 feet at 20,000 feet. AMS symptoms usually begin to resolve in 20 minutes. As on this expedition, investigators are still gathering data on attributes of the Gamow bag. The information collected so far has been used by Dr. Bernhard and his staff to compile protocols for use of the portable chamber.

Dr. Bernhard with the Gamow bag, a portable hyperbaric chamber.

The prevention and treatment of AMS are of interest to groups other than mountain climbing enthusiasts. Dr. Bernhard recommends that people embarking on short ski vacations take medications that prevent AMS before leaving for their high-altitude destinations. The drugs being tested during the Andes expedition, as well as the Gamow bag, also have applications in mountain rescues, military operations (such as deploying troops in mountainous terrain), and space travel.

◆ *Linda Kesselring*

New Nursing Director

MIEMSS staff members welcomed a new director of nursing at an early morning reception on June 13. Angela Janik comes to MIEMSS from the Cleveland Clinic Foundation, where she was director of critical care nursing and department chairman of neuroscience nursing. She was previously on the nursing staffs at the University of Chicago Hospitals and Clinics, the Washington Hospital Center, and Rush-Presbyterian-St. Luke's Hospital in Chicago. Ms. Janik holds a BSN degree from the University of Michigan at Ann Arbor, a MSN degree from Catholic University, and an executive MBA degree from Baldwin-Wallace College, in Berea, Ohio.

2d ANNUAL TRAUMA CONFERENCE

Topics in Trauma

September 20-21

Carousel Hotel & Resort
Ocean City, MD

General surgeons, emergency physicians, critical care nurses, and prehospital providers interested in expanding their knowledge of caring for the trauma patient are encouraged to register. For additional information, contact Darlene Kwiatkowski, PGHMC Trauma Program Coordinator, 301-543-7328.

Cowley Fellowship Announced by NSC

R Adams Cowley, MD, founder and first director of MIEMSS, was honored May 1 at ceremonies announcing a fellowship in his name.

The special fellowship will be awarded to an individual who has displayed excellence in the field of trauma/EMS research or who shows great promise in researching trauma issues. The recipient will receive an annual stipend from a special endowment made initially by the Charles McC. Mathias, Jr., National Study Center for Trauma and Emergency Medical Systems and the physicians from the Shock Trauma Center.

At the May 1 ceremony, numerous people praised Dr. Cowley, who is internationally known for his pioneering work in trauma and EMS.

Special host for the ceremonies, Governor William Donald Schaefer noted that Dr. Cowley had "established the finest shock trauma center—the envy of the entire world. . . . Long after we're all gone, he will be remembered and that's the greatest thing that could be said about a human being. . . . He leaves behind him people who wouldn't be alive without him."

Dr. Cowley retired from MIEMSS in 1989 to become the first director of the National Study Center. The concept of the center was an innovation of Dr. Cowley who recognized the need for new trauma research and the dissemination of information related to all aspects of trauma and the delivery of emergency medical care. According to Harry Teter, executive director of the National Study Center, this fellowship was created as "one step to see that the lessons that Dr. Cowley taught and is still teaching will continue and be expanded."

◆ *Beverly Sopp*

Region V Council Officers

Richard Alcorta, MD, Thomas Wright, and Pam Fox, RN, recently were elected as chairman, vice-chairman, and secretary, respectively, of the Region V EMS Advisory Council.

(L-r) MIEMSS Director Dr. James P.G. Flynn, Roberta Schwartz Cowley, Gov. William Donald Schaefer, NSC Director Dr. R Adams Cowley, and Hilda Mae Snoops following the announcement of a fellowship in Dr. Cowley's name.

Promoting Excellence In EMS Conference

Region IV EMTs and CRTs should mark their calendars for September 21-23, for the 3rd annual Promoting Excellence in EMS Conference.

The Region IV Office, Queen Anne's County Advanced Life Support, and the Memorial Hospital at Easton are planning this continuing education program to be held at the Memorial Hospital. Those who attend all sessions will be eligible for 12 hours of continuing education credits to meet their recertification requirements. The conference will be one of the highlights of the Region IV EMS Week activities.

A complete program schedule and registration information will be mailed to Region IV ambulance and fire departments and to regional administrators in late August. For additional information, contact the Region IV Office at 301-822-1799.

Attention— Mennen-Greatbatch Monitor/Defibrillator Model 936 Users

The MIEMSS Communications Department announced that the State maintenance program and replacement batteries for the Mennen-Greatbatch Model 936 Monitor/Defibrillator will be discontinued on January 1, 1991.

This monitor/defibrillator was initially purchased and placed into operation approximately 15 years ago. The manufacturer has discontinued numerous replacement spare parts, forcing State-provided maintenance to be accomplished by "cannibalizing" parts from inventoried Model 936 units. State-provided Model 936 Monitor/Defibrillators should be returned to the MIEMSS Communications Department prior to the discontinuation of the maintenance program.

Requests for State-provided replacement monitor/defibrillators should be made through your EMS regional administrator. An ambulance company or county wishing to directly purchase a replacement may do so under a pre-negotiated fixed price with Physio Control for the State-approved LifePak 5 Monitor/Defibrillator.

PG County Honors Five with EMS Awards

Five members of the Prince Georges (PG) County Fire and Rescue Services recently received awards from PG County Executive Parris Glendening for their life-saving emergency medical efforts.

Two PG County firefighters were named Public Safety Employees of the Year. Capt. James A. Cooke and Firefighter James A. Strain were off duty when they encountered a crash scene in which a victim was trapped inside a burning car. With total disregard for their own safety and having neither protective clothing nor an extinguishing device, they pried open the car doors, removed the victim to safety, and administered first aid.

In another incident, the rescue team of paramedic trainees Laurie Gilman and Jeff Martin were called to a woman in her seventh month of pregnancy who was in labor, with contractions two minutes apart. Assessment indicated that a potentially life-threatening breech delivery was imminent. The first of two premature babies was born. While the mother and baby were being transported to the hospital for the delivery of the second baby, the first infant's heart stopped. Ms. Gilman initiated CPR. Ms. Gilman and Mr. Martin received Distinguished Service Awards for their diligent efforts that were directly responsible for saving the lives of the mother and at least one, and possibly both, of the babies.

Firefighter William "Joe" Reamy received a Meritorious Service Award for his actions during a house fire in Mt. Rainier, MD. While off duty, Mr. Reamy noticed smoke in his neighborhood and located a house fire several blocks away. Upon learning that someone was trapped on the roof, Mr. Reamy climbed to the top of the burning building and rescued the semi-conscious victim. Without fire gear or breathing apparatus, Mr. Reamy then forced entry into the house to search for additional victims. Finding none, he returned to render first aid and additional assistance to the rescued victim until the arrival of fire department units.

MIEMSS Director Cited For Rehabilitation Efforts

MIEMSS Director Dr. James P.G. Flynn accepts an award from James S. Jeffers, president of the National Rehabilitation Assoc., Mid-Atlantic region.

James P.G. Flynn, MD, director of MIEMSS and former director of Montebello Rehabilitation Hospital, has been named Administrator of the Year by the National Rehabilitation Association, Mid-Atlantic region.

Dr. Flynn was cited for his transformation of a general rehabilitation hospital into one of the nation's largest specialized rehabilitation centers. He was further recognized for raising the level of patient care at Montebello to the highest level attainable and for pioneering innovative programs in patient care that subsequently served as national models.

James S. Jeffers, president of the association, recognized Dr. Flynn for continuing to evaluate rehabilitation standards at centers throughout the country and for testifying extensively on behalf of the handicapped.

Edwards Appointed State AIDS Director

Kathleen F. Edwards, PhD, RN, was recently appointed director of the State AIDS Administration, replacing Gillian Ann van Blerk, MD, MPH, who resigned in February.

Dr. Edwards was formerly the chairperson of the Region III EMS Advisory Council and also chairperson of REMSAC. She has held numerous clinical, administrative, and faculty positions in the Baltimore, DC, and Frederick areas. In her new role, Dr. Edwards will head a 75-member staff and oversee an $11 million budget.

"It is very important that the AIDS Administration continue working together in concerted ways with hospitals, community organizations, local health departments, and other state agencies to improve service to people with AIDS," says Dr. Edwards.

Commercial Ambo Law Signed by Governor

The General Assembly adopted a measure during the 1990 session that calls for a licensing system for commercial ambulances transporting patients in Maryland. The measure was signed into law by Governor Schaefer on May 29. Regulations for the process are to be established by the director of MIEMSS, in consultation with representatives of the ambulance service industry, by July 1991. This new licensing procedure does not apply to ambulances run by local governments or volunteer fire/rescue companies.

The law lists three minimum requirements for the regulations. To be licensed for patient transport, each ambulance operated in that service must have adequate equipment for patient care and must be able to communicate with the dispatcher. At least one attendant on the vehicle must be certified as a Maryland EMT. Each ambulance operated by the service must be inspected once every 12 months by an authorized inspection station.

The requirements of the law may be waived by the MIEMSS director for out-of-state ambulance services that have met licensing criteria at least as stringent as Maryland's and for services that bring patients into Maryland on an occasional basis.

The program will be funded by application fees for licensing and license renewals. Organizations or individuals who do not comply with this law may incur a misdemeanor charge and a fine.

For further information, contact Ron Schaefer at 301-328-3666.

◆ *Linda Kesselring*

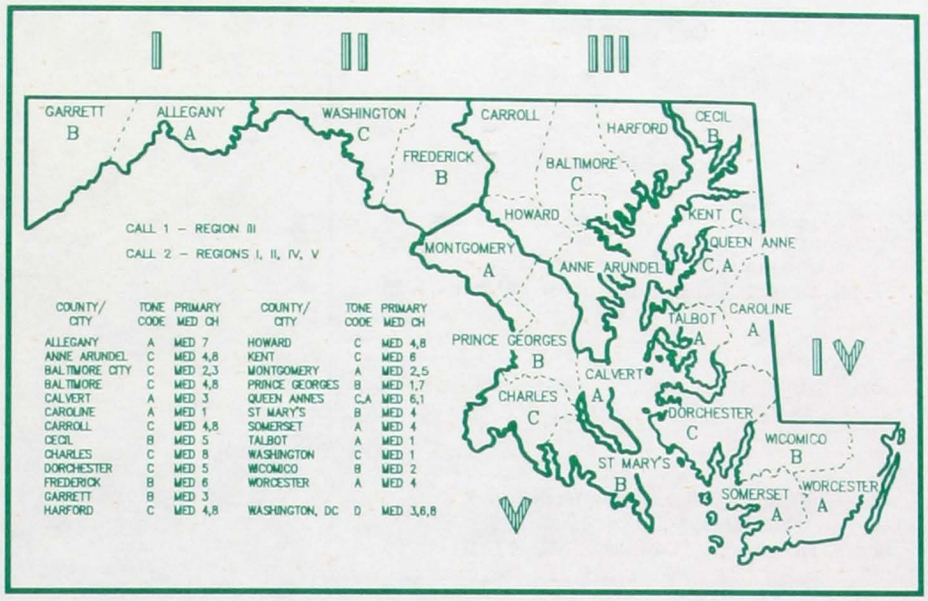
Maryland EMSCS Med Channels & Tone Codes

The MIEMSS Communications Department has "toned up" Region III. No, this doesn't relate to an aerobic exercise program. But it does allow med-channel radio receivers to reject out-of-region transmissions that do not have the proper tone code (CTCSS). The radio signals from adjacent states and outside regions will be rejected, allowing only wanted signals to pass.

The overall effect will be to eliminate med-channel signals that are not relative to the region's patient care. It results in less listener fatigue while allowing only the necessary voice and ECG signals to pass on to the listener.

As a result of the above change, the present med-channel radio information is now obsolete. Therefore, new material (see illustration) is being printed for distribution to every med-channel radio user in the state. This new information will be available in a sticky-back version for affixing to a vehicle wall location adjacent to the radio; another version will be laminated and can be used on a lanyard or located within a pocket in the vehicle.

Both the sticky-back and laminated copies will be distributed by your MIEMSS regional administrator, as necessary. In the meantime, please use the printed information appearing with this article.



COUNTY/ CITY	TONE CODE	PRIMARY MED CH	COUNTY/ CITY	TONE CODE	PRIMARY MED CH
ALLEGANY	A	MED 7	HOWARD	C	MED 4,8
ANNE ARUNDEL	C	MED 4,8	KENT	C	MED 6
BALTIMORE CITY	C	MED 2,3	MONTGOMERY	A	MED 2,5
BALTIMORE	C	MED 4,8	PRINCE GEORGES	B	MED 1,7
CALVERT	A	MED 3	QUEEN ANNES	C,A	MED 6,1
CAROLINE	A	MED 1	ST MARY'S	B	MED 4
CARROLL	C	MED 4,8	SOMERSET	A	MED 4
CECIL	B	MED 5	TALBOT	A	MED 1
CHARLES	C	MED 8	WASHINGTON	C	MED 1
DORCHESTER	C	MED 5	WICOMICO	B	MED 2
FREDERICK	B	MED 6	WORCESTER	A	MED 4
GARRETT	B	MED 3			
HARFORD	C	MED 4,8	WASHINGTON, DC	D	MED 3,6,8

Note. *Tone frequency for the above:*
A = 127.3Hz B = 146.3Hz C = 167.9Hz D = 192.8Hz

Frederick County Holds ALS Awards Banquet

Frederick County ALS held its 8th anniversary celebration on May 11 at the Woodsboro Volunteer Fire Company. In addition to the awards for ALS providers, a plaque was presented to the Frederick County Board of Commissioners in appreciation of their support; Board President J. Anita Stup accepted the plaque.

ALS in Frederick County is contributed on an entirely volunteer basis. CRT Keith Robeson was honored as the outstanding ALS provider of the year. Other CRTs honored were Keith Bowerman, with 2,065 hours and more than 200 responses; ShirleeAnn Cash, with more than 600 hours and 275 responses; Brian Hendricks, Daniel Moré, and Robert Small, for more than 600 hours; and Karen Mount, with more than 200 responses.

Among the CRTs honored were (l-r) Keith Bowerman, ShirleeAnn Cash, and Keith Robeson.

Among the honored guests were Mayor Paul P. Gordon of the City of Frederick; George Delaplaine, Jr., Region II EMS Advisory Council representative to REMSAC; and Frederick County Director of Public Safety John Droneburg.

MSP Hosts Region II Council Meeting

The Frederick Section of the Maryland State Police Aviation Division hosted the meeting of the Region II EMS Advisory Council on March 20. Following the regular business meeting, two MSP members of the council, Troopers/Paramedics Russell Plante and Eric Smothers, conducted tours of the hangar areas and of the new Dauphin 2 helicopters. Shown here are Blaine Snyder, TFC Plante, Bob Harsh, Terry Shook, and Patti Hicks.

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DATED MATERIAL

BUCKLE UP!

EMS Providers Set An Example For Their Communities.
Buckle Up Your Entire Family.

Trauma Course in Western Maryland

Western Maryland's 8th Annual Trauma and Disaster Short Course drew 210 participants to Garrett Community College in McHenry on May 5-6. This year's theme was the EMS response to hazardous materials. Co-hosts for the course were Garrett Community College, the Maryland Fire and Rescue Institute, and MIEMSS.

One of the designers of the course curriculum was Craig DeAtley, PA-C, associate professor of emergency medicine and health sciences and director of the EMS degree program at George Washington University in Washington, DC. Washington County's Hazmat Team volunteered their time to give a demonstration to course participants.

Washington County Hazmat Team in protective clothing demonstrate the extrication of a patient from the area of contamination during Western Maryland's trauma course.

EMS Week
Sept 16 - 22

Celebrate "Maryland EMS— A System Saving Lives By Design"

For information, contact your regional administrator.