

MIEMSS Staff Attend 121st Annual MSFA Convention

Dr. Robert R. Bass, MIEMSS Executive Director, and MIEMSS staff members recently participated in the 121st Annual Convention and Conference of the Maryland State Firemen's Association (MSFA) in Ocean City, Maryland.

In addition to providing various licensure and certification updates to Maryland EMS providers, who continue to give of their time and efforts to the citizens of the State of Maryland, Dr. Bass gave a presentation on important EMS issues such as the Maryland Emergency Medical System Operations Fund, new Maryland State Police medevac helicopters, eMEDS implementation, and new National EMS Education Standards.

MIEMSS would like to congratulate the award winners from the convention and, in particular, Michael Young from the Oxford Volunteer Fire Company in Talbot County, who received the Josiah Hunt EMS Award for outstanding EMS individual of the year.

We would also like to recognize Past President John Denver for a successful year as President of the MSFA and for the leadership qualities that he provided to the members of the emergency services in Maryland. MIEMSS would like to congratulate Jackie Olson of the Ferndale Volunteer Fire Company in Anne Arundel County on her recent election as President of the MSFA. We also congratulate First Vice President David Keller, III, Citizens Truck Company #4, and Second Vice President Johnie Roth, Sandy Spring Volunteer Fire Department and Bethesda Chevy Chase Rescue Squad, on their election to MSFA leadership roles. We look forward to working with President Olson and the other officers in the coming year.

MIEMSS thanks all emergency services providers of Maryland for the job that they do every day in making our state a safer place to work and live.

(Continued on next page)



This year's recipient of the Josiah Hunt Award was Michael Young from the Oxford Volunteer Fire Company in Talbot County.



Dr. Robert Bass, MIEMSS Executive Director, is greeted by MSFA Past President John Denver following Dr. Bass' remarks to the convention.



Jackie Olson, MSFA President



David Keller, III, MSFA First Vice President



Johnie Roth, MSFA Second Vice President

MIEMSS Staff Attend 121st Annual MSFA Convention

(Continued from previous page)



Members of MIEMSS staff pose with Senator Roy Dyson, District 29 (Calvert, Charles, and St. Mary's Counties), at the MIEMSS booth.



Mayor Craig Moe of Laurel is assisted by members of MIEMSS staff.

State Officials Launch the "SPIDRE"

An Elite Team of Troopers Focuses on Removing Impaired Drivers from the Road

Lieutenant Governor Anthony G. Brown, Maryland State Police Superintendent Colonel Marcus L. Brown, Maryland Department of Transportation Secretary James T. Smith, Jr., and other state officials and partner law enforcement agencies have launched the State Police Impaired Driving Effort (SPIDRE). Last year in Maryland, alcohol-related crashes killed 158 people and injured another 3,183 people. To reduce death and injury from impaired driving, the Maryland State Police has created the SPIDRE, a statewide DUI-focused patrol team, funded by the Maryland Department of Transportation's Highway Safety Office.

The SPIDRE team is made up of seven troopers with seven fully equipped vehicles dedicated to DUI enforcement. This team of highly trained state troopers will be conducting impaired driving enforcement initiatives throughout the state. The SPIDRE team is dedicated to reaching the state's goal of ZERO deaths related to impaired driving. Maryland has adopted a fatality goal program, Toward Zero Deaths, to reduce motor vehicle-related fatalities and injuries by one-half by 2030. The Maryland Department of Transportation's Highway Safety Office is dedicated to utilizing the four E's of Highway Safety, Education, Engineering, Enforcement, and EMS, to assure roadway safety in all settings.



Lieutenant Governor Anthony G. Brown, right, and Maryland State Police Superintendent Colonel Marcus L. Brown, left, unveil the State Police Impaired Driving Effort (SPIDRE) to move toward a goal of zero deaths related to impaired driving.

Save the Date!



The 25th Annual Pyramid Conference

November 2 – 3, 2013

Preconference: October 31 – November 1

Comfort Inn and Conference Center
Bowie, Maryland

Details and registration coming soon!

www.regonline.com/pyramid

AgustaWestland 139 (AW-139) Helicopter

Introducing the AgustaWestland 139 Helicopter

The Maryland State Police (MSP) completed its first medevac transport on March 19, 1970, under the leadership of Dr. R Adams Cowley in partnership with the University of Maryland Medical System. Dr. Cowley's "Golden Hour" studies of shock indicated that if definitive care was administered to a patient within the first 60 minutes of a life-threatening injury or illness, the chances of survival dramatically increased.

After 43 years of continuous service to the citizens of Maryland, the MSP Aviation Command is about to embark upon its greatest era of change by expanding helicopter operation capabilities and enhancing safety criteria by transitioning from Eurocopter 365N Dauphin helicopters to AgustaWestland 139 (AW-139) helicopters.

The MSP Aviation Command is providing this information about the AW-139 to answer commonly asked questions pertaining to helicopter operations, helicopter capabilities, landing zones, and medical information.

This new fleet of ten (10) AW-139s provides the MSP Aviation Command with expanded capabilities to proactively meet the needs of MSP missions throughout the state. The AW-139 is a true state-of-the-art helicopter that successfully performs throughout the world, in places such as Ireland, Canada, Norway, Italy, Australia, the Middle East, and Asia, and is currently flying multi-mission sorties daily with the US Customs Border Patrol, the Los Angeles City Fire Department, and the New Jersey State Police. The AW-139 has established itself as the aircraft of choice among publicly funded programs. It meets all current National Transportation Safety Board and Federal Aviation Administration HEMS recom-



Maryland Governor Martin O'Malley introduces the AgustaWestland 139 at Maryland State Police headquarters at Martin State Airport in Baltimore.

mendations. The AW-139 is the fastest helicopter in its class. Its operational safety features, capabilities, and reliability surpass the current Eurocopter 365N Dauphin aircraft that has been utilized by MSP since 1989.

Specific to the formal operational recommendations made by the Maryland House of Delegates EMS Workgroup in 2009, the AW-139 provides the platform for the following aviation safety initiatives:

1. Pursuit of FAA Part 135 Certification
2. Formal Flight Risk Evaluation and FAA AO21 compliant obstacle/terrain mapping
3. Achieving the standards of the Commission on Accreditation of Medical Transport Systems (CAMTS)
4. Two medical providers (Flight Paramedic/Crew Chief and Rescue Technician)
5. Two pilots (Pilot-in-Command and Second-in-Command)



The tactical flight station in the AW-139 provides a searchable database with the ability to identify any location or address and links to the Wescam MX-15i camera, TrakkaBeam 800A search light, and flight management system (autopilot) for aircraft navigation.

During the initial specifications development for the AW-139, MSP Aviation Command planners focused on meeting the current and future needs of Maryland

(Continued on next page)



(Continued from previous page)

“customers and consumers” of its multifaceted aviation services. The unique perspectives of patients, field providers, and incident commanders were all taken into account when the AW-139 was selected. It is the highest quality aircraft on the market bearing a utility configuration that provides mission-adaptable support to all MSP mission requests without compromising crew safety. To acknowledge the individuals and agencies that helped bring these new aircraft to Maryland, a “One Maryland” gold-lettered plaque adorns the cabin (see photo, right). A gold star embellishment on the tail honors those that have made the ultimate sacrifice in the service of public safety.

For additional copies of this article, please call the Maryland Institute for Emergency Medical Services Systems (MIEMSS) Educational Support Services (410-706-3994).

AW-139 Medical/EMS Operations

The AW-139 is a twin-engine, five-bladed helicopter capable of performing the multi-mission requirements of the State of Maryland: law enforcement, emergency medical services, search and rescue, homeland security, and damage assessment.

The maximum speed of the AW-139 is 170 mph (150 kts). Its maximum fuel capacity is 419.4 gallons with an average burn rate of 135 gallons per hour. The range of flight for the AW-139 is 250 miles. The operational launch time of the AW-139 is unchanged from the Eurocopter 365N Dauphin. Total prehospital response time can be greatly reduced if the request for medevac transport is made at the same time that prehospital assessment and/or treatment begins. The AW-139 represents a remarkable advance in modern technology and mission capabilities, focusing on improved patient care features, larger cabin, equipment storage, and enhanced operational safety.

The medical interior of the AW-139 was designed to the specific needs of the MSP Aviation Command and Maryland EMS. The aircraft has been designed to carry two patients in a side-by-side configuration. The patient litters can accommodate patients weighing up to 600 pounds per stretcher. The increased cabin space allows for full body access without restriction in flight. The additional passenger capacity and payload allows the AW-139 to rapidly transport medical teams as needed.

Patient loading in the AW-139 is significantly different from the Eurocopter 365N Dauphin in that all patients are loaded from the RIGHT SIDE of the aircraft in the AW-139. The primary patient is loaded HEAD FIRST into the aircraft. Combative or potentially combative patients can be transported in the AW-139, provided proper physical or chemical restraint occurs prior to transfer.

The AW-139 is equipped with medical equipment not previously carried on the Eurocopter 365N Dauphin, including:

1. LifeBlanket patient packaging system
2. Backpack kits
3. Folding backboard/extrication kit
4. Kendrick pole traction splint
5. SAM splints
6. LED LyfeTimer
7. King Vision video laryngoscope
8. Warmed IV fluids
9. New survival kit and life raft



In the AW-139, all patient loading takes place from the RIGHT SIDE of the aircraft. The primary patient is loaded HEAD FIRST.

AW-139 Search and Rescue Operations

The AW-139 provides significant enhancements for all search and rescue missions. A dynamic automated flight control system and a significant increase in available power ensure safer and more efficient flight while performing search or hoist operations. The autopilot has the capability to fly complete search patterns over water and in urban and remote environments. A flight crew member stationed at the dedicated tactical observation station operates the detailed moving map display, external thermal imagery/low light color video camera, and enhanced high output search light. All necessary mission equipment, including the rescue basket, is carried in the large cargo area and immediately accessible while in flight. During a hoist operation, wide cabin doors provide easy loading of a patient secured in a Stokes litter. When supporting response for large structural or woodland firefighting, the AW-139 provides an effective airborne command/control/communications platform for incident commanders on the ground. With on-board digital data recording and microwave video broadcast capabilities, live images can be fed directly to ground-based receivers allowing rapid decision making by incident commanders. The aircraft can easily transport a team of fully equipped firefighters for deployment into confined or panicle areas.



The cockpit configuration in the AW-139 supports two-pilot operation of the aircraft.

AW-139 Helicopters: Safety Guidelines for Emergency Medical Personnel

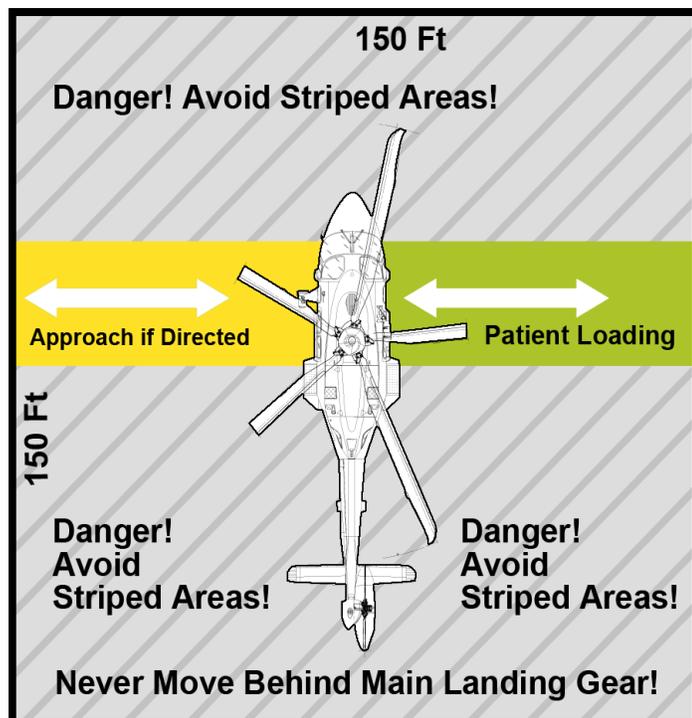
Landing Zones

There are a number of factors to consider when preparing a landing zone for the AW-139. Please read this section carefully and always ASK THE FLIGHT CREW if you have questions about the aircraft or its operations.

SIZE: The AW-139 requires a clear area of at least 150 feet by 150 feet to land, or larger when possible, along with a path clear of high obstructions, overhead power-lines, and vegetation for approaches and departures. This is variable and may change according to wind direction and speed, aircraft weight, temperature, humidity, etc. Therefore, the flight crew may elect to change the landing zone as necessary due to varying conditions.

SURFACE: The AW-139 requires a flat (no more than 5° slope), hard surface that is FREE OF ALL VEHICLE TRAFFIC for landing. Ideally, the helicopter should be able to land as close to the incident scene as possible. The main fuselage of the aircraft has a ground clearance of 1' 5"; please keep this in mind when preparing a landing zone.

ENVIRONMENT: The increased size and weight of the AW-139 PRODUCE GREATER DOWN WASH from the rotor system, which can result in more disruption to any loose surface material. Gravel, roadway debris, hats, and other solid objects can be thrown when the aircraft is near the ground. Dust, dirt, cut grass, and other debris can cause brown out conditions. Never use flares when the aircraft is approaching.



The Goodrich® Type 1 retractable hoist unit features 300 ft. of spin resistant cable, a 600 lb. lifting capacity, and operates at 250 ft. per minute.

Approaching the Helicopter

Providers should not approach the helicopter unless escorted by a member of the flight crew. When the aircraft is landing or departing, protect your eyes with safety goggles and/or by turning your head. After the aircraft has landed, the security and safety of the landing zone are the priorities. This may mean more than the mere presence of an emergency response vehicle. There should always be a guard standing approximately 50 feet behind the aircraft to keep people away from the tail area. Depending on the landing zone, personnel may be required to stand on either side of the aircraft to keep vehicles and spectators away. Spectators should remain at least 200 feet clear of the helicopter, and emergency vehicles should remain at least 200 feet away unless instructed otherwise by a member of the flight crew.

When initially approaching any running aircraft from outside the landing zone, you should approach from the front, either with a member of the flight crew, or after you have made eye-to-eye contact with the pilot and he or she has motioned for you to continue. Always walk, do not run. Please note, walking near the tail-rotor is always prohibited. Although the tail-rotor is elevated for safety, it is still dangerous. The rear of the aircraft should be avoided at all times.

Approach and depart the aircraft in a semi-crouched position until you are next to the helicopter; then you may stand upright. Do not raise anything above your head when in proximity to the aircraft. If for some reason, you become disabled, drop to one knee immediately, raise your arm, and wait for somebody to assist you.

AT NO TIME should providers shine bright lights at the aircraft or stand in the landing zone attempting to guide the aircraft.

For Further Information

The information provided herein is intended as a reference for MSP helicopter operations. Visit the MSP website (www.mspaviation.org) or follow them on Facebook (www.facebook.com/mspaviation) for the latest information about the AW-139 and MSP operations.

For further information, or to arrange for a demonstration of the aircraft, please contact the MSP Aviation Command, Helicopter Operations at 410-238-5800.

Dimensions



Overall Length	54' 8"
Overall Height	16' 4"
Width	10'
Wheel Base	14' 3"
Rotor Diameter	45' 3"
Ground Clearance	1' 5"

Technical Data

Specifications	Eurocopter 365N Dauphin 	Agusta Westland 139 
Maximum overall length	44' 4"	54' 8"
Maximum gross weight	9038 lbs.	14991 lbs.
Power plants	(2) Arriel® 1C1 turbines 724 shp each	(2) Pratt & Whitney® PT6C-67C Turboshafts with FADEC 1,872 shp each
Maximum air speed	165 mph	170 mph
Fuel quantity	306 gallons	419.4 gallons, 135 gallons burned per hour
Rotor blades	4	5
Landing gear	Retractable tricycle	Retractable tricycle
Pilots (medevac configuration)	1	2
IFR certified	Yes	Yes
Patients (normal configuration)	2 Maximum patient weight: 500 lbs Access: full body	2 Maximum patient weight: 600 lbs Access: full body
Patient Loading	Left-side primary patient loading	Right-side ALL patient loading
Medical Staffing	1 or 2 (Flight Medics)	2 (Flight Paramedic/Crew Chief and Rescue Technician)
Aerial rescue	Goodrich® hoist, 295 ft. retractable steel cable; 600 lb. capability	Goodrich® Type 1 hoist, 295 ft. retractable steel cable; 600 lb. capability
Search light	Nightsun® (tail-mounted xenon beam)	TrakkaBeam® (left side-mounted xenon beam)
Imaging Device	Forward looking infra-red device (FLIR)	Wescam MX-15i Low-light Color Camera plus Infrared

AW-139 Configuration and Capabilities

Exterior

- 2 Pratt & Whitney PT6C-67C Turboshafts with FADEC providing Category A engine performance
- PT-6 engines with Donaldson air barrier filter systems
- Nose-mounted Wescam MX-15i featuring low-light color video/camera with infrared; high capacity digital recording (up to 10 hours) and broadcast capabilities to ground receiving sites
- TrakkaBeam 800A search light with white light; search light syncs to Wescam MX-15i
- Goodrich hoist with 600 lb. capability; arm swings away from aircraft
- Four-axis auto pilot with fully stabilized auto hover and built in search and rescue patterns; hoist drift can be controlled by hoist pendant
- Rappelling and fast roping attachment bars on both sides of aircraft above cabin sliding doors
- Wire strike protection
- Engine fire suppression systems
- High visibility paint on blades and rotor head beanie

Interior

- Honeywell/GE advanced integrated avionics with flat panel glass cockpit instrumentation
- Integrated health and usage monitoring system (HUMS) to assist with troubleshooting and maintenance tracking
- "Black box" cockpit camera and voice recorder
- Advanced flight crew seats providing fore/aft movement and full rotation allow systems operations and continual patient care during flight
- Large cargo compartment accessible from both sides of aircraft and the main cabin, allowing access while in flight
- Rescue basket accessible without having to land
- Flight management system with advanced navigation and search management features (see Avionics)
- Cockpit configured and certified for night vision devices by flight crew

Avionics

- Fifth display (10" x 12") on the instrument panel featuring:
 - Imaging of both sides of the aircraft from forward facing tail camera
 - Honeywell Weather Radar Model 701, including wind shear modes and advanced hazard detection
 - Mapping system that integrates street-level mapping, helicopter-specific terrain awareness and warning system (HTAWS) with topographical depictions, and XM Weather
- Automated satellite tracking and data communications systems
- Tactical station in left front of cabin with camera and TrakkaBeam pendant controls, 17" display screen and keyboard that can operate street-level moving map system
- Multiband communications systems including 700 and 800 MHz capabilities

Safe Boating Tips



Courtesy of the Maryland Natural Resources Police and the National Safe Boating Council Submitted by Julie Brown, Maryland Department of Natural Resources Police and Safe Kids Maryland Steering Committee member

Boat Responsibly and Wear It!

The Maryland Natural Resources Police, in cooperation with the National Safe Boating Council, would like to remind you to “Boat Responsibly and Wear It!” Be alert and plan carefully when taking out your boat. Be sure you are well prepared and remember to wear your life jacket every time you are on the water. Incidents can happen very quickly and unexpectedly, so you must be geared up in

order to help yourself and your passengers. According to the most recent US Coast Guard statistics, over two-thirds of fatalities on the water were drowning victims. Out of those who drowned, approximately 90% were not wearing a life jacket. Many life jackets available today are more fitted and more comfortable, so it is much easier to “Wear It!” at all times.

Know the Navigation Rules (Nautical Rules of the Road)

Knowing the nautical rules of the road is important for all boaters. You should know what to do when meeting, crossing, or overtaking another boat. This knowledge can

prevent costly damage to your boat, personal injury, or even loss of life. Whenever you suspect there is a threat of collision you should slow down, stop, or steer away from the situation in question. Maintaining a proper lookout and a safe speed are all a part of the navigation rules and should be an important part of boat operation.

Stay Sober While Boating

Operating a boat under the influence of alcohol or drugs is illegal in all states and is a violation of federal law. An operator with a blood alcohol concentration (BAC) of .08 is TEN TIMES more likely to die in a boating accident than an operator with zero BAC.

Be Aware of Carbon Monoxide

All boat engines produce carbon monoxide (CO), an odorless, colorless, poisonous gas that can kill in a matter of minutes. Boaters are killed every year because of improper cabin ventilation, poorly maintained equipment, and careless behavior. You do not have to be inside the boat to be at risk. Boaters have died from exposure on the swim platforms of their boats and in other areas where CO exhaust may accumulate or be emitted. Be aware of the early symptoms (including irritated eyes, headache, nausea, weakness, and dizziness). Use CO detectors on your boat and stay off the swim platform when the engine or generators are running.

Baltimore County Cardiac Arrest Survivors and EMS Providers Join Forces to Promote CPR and AED Awareness

On June 12, 2013, Baltimore County cardiac arrest survivors, representatives from Maryland fire and EMS, and elected officials held an event at the Franklin Fire Station in Reisterstown, Maryland, to raise awareness of sudden cardiac arrest. The event stressed the importance of immediate use of cardiopulmonary resuscitation (CPR) and defibrillation in giving victims a chance at survival.

Annually, the Baltimore County Fire Department recognizes survivors of cardiac arrest and their rescuers as part of June’s “National

CPR/AED Awareness Week.” This year, one of the survivors from Baltimore County was very familiar with Maryland’s Trauma and EMS System. On January 28, Dr. David Efron, Director of Trauma and Chief of the Division of Trauma and Surgical Critical Care at Johns Hopkins Hospital’s Department of Surgery, came home to find his wife, Anne, unconscious and in cardiac arrest. He called 9-1-1 and immediately began CPR until Baltimore County EMS providers arrived.

(Continued on page 8)



Dr. David Efron speaks about performing CPR on his wife, Anne, when he found her unconscious and in cardiac arrest. Captain Steve Adelsberger (pictured far left), of the Baltimore County Fire Department, organized the June 12, 2013, event to highlight survivor stories and raise awareness of sudden cardiac arrest.

Take a Safe Boating Course

Operator errors, such as failure to pay attention, carelessness, recklessness, inexperience, excessive speed, and failure to watch for hazards, cause 70% of recreational boating accidents. Boating safety courses are widely available, inexpensive, brief, and a great way for you to learn safety and navigational rules.

Get Your Boat Checked

The Maryland Natural Resources Police Reserve Officers, Coast Guard Auxiliary, and United States Power Squadrons® offer a free Vessel Safety Check (VSC). Contact www.vesselsafetycheck.org for information. For more information on boating safety, please visit the National Safe Boating Council at www.safeboatingcouncil.org.

Baltimore County Cardiac Arrest Survivors and EMS Providers Join Forces to Promote CPR and AED Awareness

(Continued from page 7)

Other survivors of cardiac arrest who shared their stories at the event included:

- Ashley Mayse, 17, a softball player from Cecil County. In May 2012, she was playing in a game in Baltimore County when she suffered cardiac arrest. Her mother and her coach performed CPR.
- Tom Nowakowski, 39, of Phoenix, Maryland. Two months ago, he had just arrived at work in Towson when he suffered cardiac arrest. Two coworkers called 9-1-1, started CPR, and used an automated external defibrillator (AED).

Also highlighted during the event was the Baltimore County Fire Department's official announcement of their new "hands-only" CPR initiative called "Lend a Hand, Save a Life." Hands-only CPR is CPR without mouth-to-mouth breaths. It consists of three easy steps:

1. Call 9-1-1.
2. Push hard and fast on the center of the chest.
3. If possible, use an AED.

The American Heart Association promotes hands-only CPR, especially to civilians who, studies show, are more likely to perform hands-only CPR when they see someone go into sudden cardiac arrest. The Baltimore County Fire Department's initiative features



Kyrle Preis, Assistant Chief, Baltimore County Fire Department, was the emcee at the recent event to raise awareness of sudden cardiac arrest and to recognize survivors and their rescuers.

an online resource, www.baltimorecountymd.gov/handsonlycpr, as well as training opportunities around the county.

Baltimore County's public access defibrillation (PAD) program, called Project Heartbeat, aims to install AEDs in public places and to train businesses, schools, and other organizations to use them. Through Project Heartbeat, Baltimore County has installed AEDs in all public schools and county buildings. For more information about this program, visit www.baltimorecountymd.gov/Agencies/fire/ems/heartbeat.html.

NREMT "Transitioning" Explained

The National Registry of Emergency Medical Technicians (NREMT) is requiring current providers with national registry certification to transition to the new National EMS Education Standards. The requirements of the program, which are built into provider refresher programs, are sanctioned by the State of Maryland. Therefore, Paramedics that take the 40-hour full refresher, EMTs that take either the 24-hour full refresher OR 12-hour skills with the 12-hour online course (or other didactic combinations meeting the required 12 hours), and EMRs that take the 12-hour full refresher have already met the requirements for transitioning within their current provider level in Maryland. The refresher teaching agencies have course completion certificates available should a provider need to forward proof to NREMT.

The term "transition" also is used to refer to when a provider is advancing from one certification level to another. For example, if a provider wants to transition from CRT/I-99 to Paramedic, he or she must complete a formal CRT/I-99 to Paramedic Bridge Program offered by a Maryland EMS Board-approved and CoAEMSP-accredited paramedic educational program/teaching agency. Upon successful completion of the bridge program, the teaching agency will let NREMT know that the provider has become eligible to test for paramedic certification. Completion of this course is communicated electronically to the NREMT and does not involve a course completion certificate. Please note that the above-mentioned refresher programs used for licensure renewal do not meet the standards of the bridge program.

Should you have any questions about the process, do not hesitate to contact the Office of Licensure and Certification for clarification at 410-706-3666 or 1-800-762-7157.

MIEMSS, Maryland EMS News
653 W. Pratt St.,
Baltimore, MD 21201-1536



Governor Martin O'Malley
Lt. Governor Anthony Brown

Copyright © 2013 by the
Maryland Institute for Emergency
Medical Services Systems
653 W. Pratt St.,
Baltimore, MD 21201-1536
www.miemss.org

Chairman, EMS Board:
Donald L. DeVries, Jr., Esq.

Executive Director, MIEMSS:
Robert R. Bass, MD

Managing Editor:
Alethea Warmack (410-706-3994)

Design & Layout:
Gail Kostas

Photography:
Jim Brown & Brian Slack
(unless noted otherwise for specific photos)