EMS MESSENGER

TEXAS DEPARTMENT OF HEALTH
BUREAU OF EMERGENCY MANAGEMENT
Volume 9 Issue 2 March/April 1988

ABOUT THE COVER:
Mayor Babe Aycock boasts that Mart EMS has 2 vehicles, 30 volunteers (11 are EMTs with Special Skills) and an 85% collection rate. On page 4, *The Messenger* visits Mart EMS, 1987's Outstanding Volunteer Provider.

Editorial Board

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From this Side

by Gene Weatherall

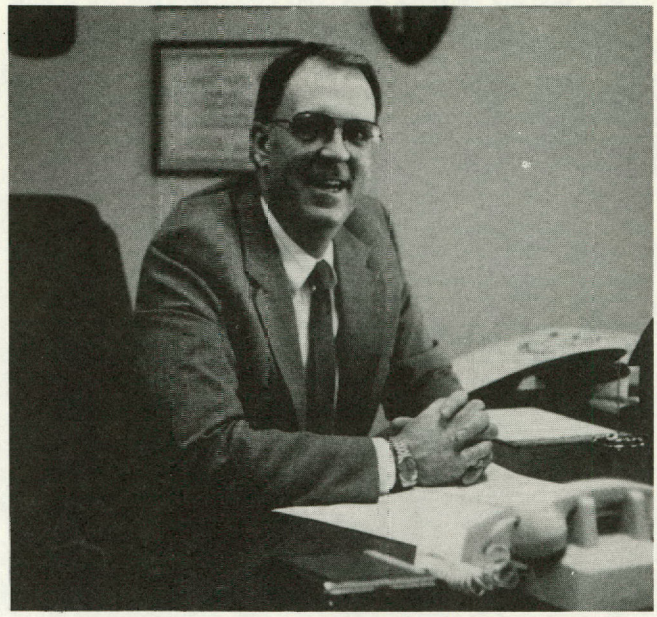
Quote of the Year goes to Jimmy Dunn, a long time EMS Program Administrator for Public Health Region 5, when he said "We should quit worrying about what the EMS special interests want and start thinking about what is best for EMS patients." Those words by Jimmy Dunn are reflective of a growing number of individuals involved in emergency medical service. I am happy to report to you that there seems to be a renewed interest in serving patients with the best we have to offer and leave the special interest groups to bemoan their lot in life among their own kind. When the wagons are loaded which one are you going to be in?

Recently there has been much discussion over the issue of eliminating Emergency Care Attendants. Please read this carefully: WE HAVE NO INTENTIONS OF ELIMINATING THE ECA, AND THIS ISSUE WILL NOT BE A PART OF OUR LEGISLATIVE PACKAGE. There are several members of the Texas Board of Health that feel Texas will always have the ECA as the minimum staffing requirement for ambulances. Jim Arnold, EMS Program Administrator for Public Health Region 5, recently told me that we had been too effective years ago in establishing and promoting the ECA to ever eliminate this level of certification. It is an interesting story how the ECA was established in Texas; perhaps I will write about that in the next issue.

Do you believe that after all the emotional issues discussed regarding the defibrillator issue that TEMSAC voted unanimously to recommend adoption of these rules to the Texas Board of Health. Oh, well.

Congratulations to Faye Thomas for her election as chairperson of TEMSAC. We look forward to working with Faye in this new role. Many of us have worked with her over the years in achieving positive outcomes for emergency medical service. For those of you that do not know Faye you will find her to be an honest, highly motivated individual with patient outcome as her primary goal.

Congratulations to Mayor Babe Aycock of Mart for her recent segment on the "Eyes of Texas" TV show. Mayor Aycock has certainly become one of my favorite people the last couple of years. She is without a doubt one of the most outstanding women I have met. Her accomplishments in emergency medical service are outlined in another article in this issue. We could all learn from this outstanding lady as she has established a most successful EMS service for the town of Mart. I feel much richer as a person for knowing Babe Aycock and consider myself lucky to call her my friend. You will probably see her at our next conference here in Austin rappelling down the side of the hotel.



Gene Weatherall is Chief of TDH's Bureau of Emergency Management. He worked for many years as a Paramedic, EMS System Director, & EMS Educator.

Sexual Assault Awareness Week March 6-12, 1988

Agencies Join Together for Sexual Assault Awareness Week

by Ann J. Robison

The Bureau's Sexual Assault Prevention and Crisis Services Program and the Texas Association Against Sexual Assault (TAASA) are co-sponsoring the Fifth Annual Sexual Assault Awareness Week, March 6-12, 1988.

During this week efforts will be intensified to promote public awareness of the problems of sexual assault; to emphasize the need for citizen involvement in efforts to reduce sexual assault through public education and changing public attitudes, rather than reliance on punishment of offenders; to increase community support for agencies providing sexual assault crisis services.

RESOURCES

There are over 50 sexual assault programs in the State of Texas to help survivors and their families. They are also able to present prevention/avoidance programs and training for any age or group. Many sexual assault centers have given in-service training for EMS personnel.

For in-depth information or a speaker on any of these topics, please contact your local rape crisis program or the co-sponsors. Pamphlets, articles, bibliographies and resource organizations are available.

CO-SPONSORS:

The Sexual Assault Prevention & Crisis Services Program of the Bureau of Emergency Management pro-

(See Awareness continued page 7)

The EMS Messenger Visits 1987's Outstanding Volunteer Provider

Babe Aycock and Mart EMS They're Ready!

by Alana S. Mallard

Babe Aycock has been the Mayor of Mart, Texas, on and off for thirteen years, and for many years before that she was City Secretary. It wasn't until the fall of 1983 that she got involved in EMS when the local private operator called her and said that the EMS Act would put him out of the ambulance business on January 1, 1984.

The first thing Babe (she tells everyone to "just call me Babe.") did was call a town meeting where she appointed a committee and got an ECA school going. "When we started, we really took off," said the energetic mayor. Thirty people finished an ECA course on December 29, 1983, which was taught by Donna Thompson from Mexia. Babe gives Thompson a lot of credit for her work with Mart and for teaching the first two ECA courses there.

"We had another get-together," Babe recalled, "and I told them 'Oh no, these people have volunteered for training but they can't haul people on their backs. The rest of you are going to have to come up with some money for ambulances.' And one guy started it with $2,500. By mid-December we had enough money for two ambulances."

The Mayor did not intend to forget the smaller communities around Mart - itself a small community by most standards with a population of about 2,500. She and her people went to places like Reisel, Ben Hur, Prairie Hill, and Otto for money. Special collections were held in churches, and by mid-January a total of $75,000 had been collected "Man," exclaimed Babe, "I started kicking them in the shin with my boot toe. 'We gotta have money!' I'd tell 'em."

Recently, though, Babe realized that the ambulances purchased in 1983 would need replacing soon because they were getting old and she was "afraid they might break down on a hot run to Waco." So Mayor Aycock had herself a birthday party and she told folks to bring money for EMS. Babe started the birthday party off by writing a $1,000 check and she challenged anybody to match her check. "It wasn't anytime," beamed Babe," before we had a brand new modulance."

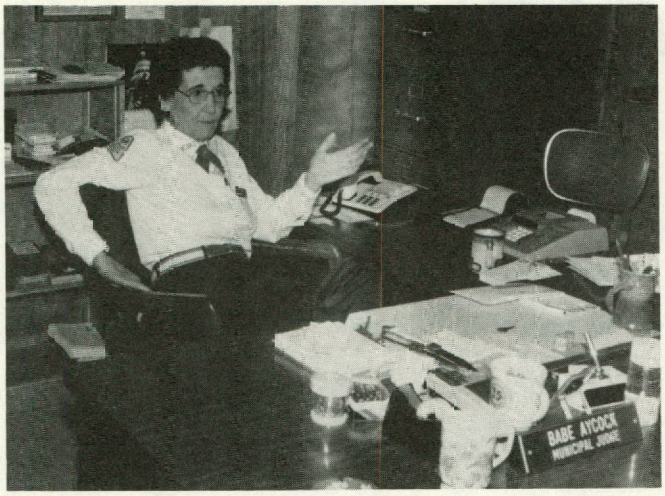
Mart EMS, actually named Medic Alert Rescue Team, has about 50 members, most of whom are medically trained. But some are drivers and one volunteer washes sheets, blankets and pillowcases. The churches make cravats for the group, folding them and putting them in individual sealed plastic bags.

Besides being an incredible fundraiser, Babe Aycock is a marvel at motivating and organizing people, and she doesn't do it by sitting behind her desk playing mayor. Babe Aycock is a doer, a motivater by example. She took ECA training early in Mart EMS' creation, is one of eleven Specially Skilled EMTs on the roster, and, along with six of her crew members, started paramedic training in February at McLennan Community College in Waco. Babe says proudly that of the 23 students in her EMT-SS class, eleven of them were from Mart. Donna Pleasant was with McLennan Community College when she and Renee Michalski taught the Special Skills course in Mart. "Donna and Renee are very oriented to rural areas," Babe said in praise of the two educators, "because they know that is where the struggle is going on."

The struggle in a rural community like Mart is not just for money and volunteers, but, because of the relatively low patient load, it is also to maintain skills proficiency. Mart EMS runs about thirty calls a month, and twelve of those are emergencies. Babe has been trying to work out details with Medical Director Bill Moore to allow the volunteers to work at Waco's Hillcrest Baptist Hospital to keep their skills current. The Mart group is one of two in the Heart of Texas area chosen by Dr. Moore to participate in an EMT-Defibrillator program.

When Babe Aycock praises the people who have helped EMS in her community she describes Public Health Region's Brett Marsh as "the finest, kindest thing that could ever have happened to us. Brett has bent over backwards to try to get us started. And he made sure we did it right." Marsh, an EMS Field Consultant based in Temple says that Mayor Aycock is "the catalyst who represents the cohesiveness of the group." He says people look at what the Mayor has

Babe Aycock, EMT-SS, is one of six Mart, Texas citizens taking Paramedic training at McLennan Community College.



"I stay ready so I don't have to get ready" says Mart's Aycock as she wears her EMS uniform in her City Hall Mayor's office.

done for EMS personally and with her position and they are inspired by her: they don't want to disappoint her.

Brett Marsh was also responsible for Babe's branching out into rescue training. The mayor has gone through both the basic and advanced high-angle training courses taught by STAR Team through McLennan Community College. Marsh was one of the STAR Team members waiting for Babe on the ground after she rappelled off the ninth floor of the Airport Hilton Inn in Austin during Texas Department of Health's Texas EMS Conference in September. "When Brett told me about the two day rappelling course he taught, I told him if I was a few years younger, I'd do it," said Babe, "And Brett told me 'You can do it.' Brett, I told him, you just talked me into it." Six Mart EMS crew members, including the Mayor, went through the basic vertical rescue courses in August. Babe and Mart's Mary Nichols went through the 32-hour advanced course in November.

Mart EMS is run entirely by donations and charges - no municipal or county funds are used for EMS. The group enjoys a near 90% collection rate. Many volunteers are sponsored by community members who fund their tuition and books. Mart EMS goes to every one of the high school football games - those at home and away. And EMS goes to every community function in Mart and the surrounding communities. Crew members open the ambulance doors for inspections and set out the can for donations. Training sessions are held once a month.

The mayor is convinced Mart EMS provides a good service to the community. "You've got to want to help your community. I wish we could bottle the spark in this community " says Babe. "There's a real consciousness in this community." Brett Marsh is convinced that spark in this community is Babe Aycock. "She has a gleam in her eye," says Marsh. "And she's so determined."

"There was one thing I never did as Mayor or in EMS," says Babe. "I never asked anyone to do anything I wouldn't do myself. So I went to ECA school in those early years. What it does for you is it makes you more aware of what you're doing and what they're doing. I owe a lot to these people and I owe a lot to this community and I owe a lot to EMS."

Open Letter to Texas EMS Personnel

On December 5, 1987, a historic event occurred in EMS. On this date, the personnel who rescued Baby Jessica, Ray Sprague, Robert O'Donnell, Steve Forbes, and Doit Lee, received Commendations from the Texas Board of Health. They also received Meritorious Service Awards from Governor Bill Clements, and Austin Mayor Pro Tem, John Trevino, set aside that Friday and Saturday as days honoring the four men. This is the first time that EMS personnel in Texas have ever been recognized by anyone other than their own.

There was a mass mailing of invitations to all EMS providers and personnel in Texas to attend this event.

During the day's activities, there were some local providers in and out. At the time these individuals received their Commendations, maybe, there were six or eight individuals from the EMS community present.

As these four young men accepted their Commendations, they were so proud and so very humble. As each accepted their citations on behalf of every EMT in Texas for the job they perform everyday, I felt a lump in my throat, I had goose bumps running up my skin, and I had tears in my eyes. And as these activities proceeded, I felt pride for my chosen profession and I felt pride in the fact that, finally EMS was truly recognized in Texas. As the initial wave passed, I felt sorrow, and I felt disappointment and confusion. What is it within us that we didn't support our own, that we didn't think this event was important? We were all invited, not only to honor these fine deserving young men, but for us all to receive the recognition in EMS that we all rightly deserve. For those of us who did attend, those renewed feelings of pride and dedication will not soon pass.

We, in EMS, have sought so very hard to receive recognition for our profession, and because of Baby Jessica, we received world wide attention, recognition from the Governor of Texas, and we received recognition from the Board of Health for our profession and all that we do daily. Never before has this occurred.

You missed a special event in EMS, and I feel sorry for those of you who were not there to receive the recognition that you deserve.

Faye Rainey-Thomas, Director
East Texas Emergency Medical Services
Navarro County

Local and Regional EMS News

Merry Crounse, director of **Seymour-Baylor County EMS**, reports on an ECA class that was completed in the fall in her community. The class was sponsored by the EMS to provide "relievers" for the three full-time employees. The ten certifications out of the class will allow the group to make transfers and still have a full crew at home base. **Audrey Collins** from Crowell taught the class (it was her first class as a coordinator although she has been an EMS instructor for years) and the class average was 84. The city paid all expenses for the police officers in the class and picked up all expenses of the coordinator and instructors. Our congratulations to Merry and her crews for having such a supportive community.

* * * *

The **National EMS Pilots Association** based in Pearland, Texas, has developed a booklet called "LZ - Preparing a Landing Zone" designed to educate EMS personnel who work closely with evacuation helicopters. The Association was organized to deal with issues of safety in the aeromedical field and the booklet serves as a packet-size ready reference on general operating safety, LZ selection, obstructions, wind, markings, hazardous materials and hand signals for EMS ground crews. Write NEMSPA, P.O. Box 2354, Pearland, Texas 77588 or phone (713) 997-2563.

* * * *

Angelo Community Hospital's fine newsletter **The Emergency Responder** featured **Crockett County EMS** in a recent issue. "Rural EMS as we all know," says the article, "could not operate without loyal and dedicated volunteers." We salute these dedicated members of Crockett County EMS: **John L. Henderson,** EMT/SS, EMS Coordinator; **David Cook,** EMT/SS; **Carol Hunnicutt,** EMT/SS; **Doug Meador**, EMT/SS; Joe Moran, EMT/SS; Tina Moran, EMT/SS; **Dub O'Bryant,** EMT/SS; **Betty Gonzales,** EMT; **Dee Keiler,** EMT; **Della Moore,** EMT; **Eddie Moore**,EMT; **Ten Rodriguez**, EMT; **Phyllis Tucker,** EMT; **Elliott Barrera**, Driver; **Bear Borrego,** ECA; **Randy Branch,** ECA; **Ray Myers,** ECA; **Bob Falkner**, Driver; **Zoe Green,** RN/EMT.

* * * *

Central EMS of West Columbia is the beneficiary of a musical tape by West Columbia resident **Lynda Boaz.** Boaz, whose son was resuscitated by paramedics, has dedicated the tape "to all EMS crews everywhere" and gives special thanks on the tape to the doctors at Austin's **Brackenridge Hospital** and to Austin's **paramedics.** Proceeds from the $10 tape will be used to purchase a new ambulance for West Columbia. The tape, which features six gospel songs and six country songs, is titled "He Gave Me Music" and can be ordered from Dorothy McGuire at 2219 River Oaks Drive, West Columbia, Texas 77486.

* * * *

Renee Michalski has been elected president of the recently-formed Heart of Texas EMS Advisory Council based in Waco and serving EMS concerns in McLennan, Bosque, Hill, Freestone, Limestone, and Navarro counties. Other officers are Vice-Presidents **Aaron Thompson**, Mexia Fire Department, and **Martha Mayer,** McGregor Volunteer EMS; Secretary **Mary Nichols,** Mart EMS; and Treasurer **Bonnie Mullins,** McGregor Volunteer EMS. The membership of HOTEMSAC is not limited and includes providers, educators, and individuals involved in EMS. The March 15 meeting will be in Mart.

* * * *

Two well-known EMS folks from Waco have turned into Aggies! Paramedics **Donna Pleasant** and **Jim Moshinski** are at Texas A&M University working on their doctorates in Health Education. Jim is keeping his hand in emergency medical care by working standby for Daniel EMS in Waco and Donna works at St. Jo's critical care unit. Donna's dissertation studies the use of paramedics to fill the void created by the nursing shortage in critical care areas.

* * * *

The **Texas Advisory Commission on Intergovernmental Relations** has received an additional six months grant through the Texas Traffic Safety Program to provide and maintain a clearinghouse for information and assistance on the planning and implementation of 9-1-1 emergency telephone service. The clearinghouse is based on a network of state and local officials, industry representatives, as well as other professionals concerned with emergency communications. The emphasis of the project is on implementation of the 1987 legislation providing for statewide 9-1-1. Main activities include seminars, briefings and dissemination of reports.

Individuals interested in scheduling 9-1-1 briefings or seminars for their areas should contact Mary Boyd, 9-1-1 Coordinator, (512) 463-1812.

* * * *

In a report to the **Board of Directors of Harlingen Community Emergency Care Foundation,** Harlingen EMS Director **Bill Aston** indicated that in only 19% of their calls do drivers of EMS vehicles use lights and sirens on the trip to the hospital with the patient on board. Harlingen EMS has conducted an awareness campaign among its employees to reduce the use of lights and sirens, unless indicated by the patient's tentative diagnosis at the scene. Safety of the patient, citizens, and EMS personnel are all concerns says Aston, and "we are pleased with this result, since not operating in the emergency mode reduces our chances of an accident."

* * * *

Petersburg EMS took possession of a new EMS vehicle in November and by noon the day it was received it was loaded with $18,000 worth of new equipment and was ready to run. The **Petersburg Post** and the **Plainview Daily Herald** carried fine, informative articles about the vehicle and Petersburg's volunteer group. **City Manager Jesse Nave** is to be congratulated as are **Mayor Jim Fox,** the city council, **Hale County Judge Hollars** and the County Commissioners for their EMS support. Citizen support for projects such as this and for volunteers such as Petersburg's three EMTs, one ECA, and five EMTs-SS is one of the gratifying aspects of public service.

* * * *

A two day Vehicle extrication/Rescue seminar for EMS and Fire Suppression personnel was held on January 30, 31 in Weslaco. The event was jointly sponsored by **Weslaco Fire Dept., Rio Grande Valley EMS Educators**, and the **Texas Department of Health** and included training in scene control, safety principals, extrication tool operation, and patient assessment and packaging. Organizers of the training were Texas Department of Health's **Jay Garner**, Chief **Tony Abrigo** of Weslaco Fire Department, and **Salvadore Robles**, president of Rio Grande Valley EMS Educators.

A staff of some 25 instructors and support personnel provided both classroom and hands-on activity to over 100 students from 23 Fire and EMS Departments throughout South Texas. The event was judged to be an unqualified success by all participants, and will be repeated yearly. Contact Jay Garner at (512) 423-0130 for information.

* * * *

Montague County was the scene of a fatal motor vehicle accident involving an EMS vehicle in early January. Three individuals died when a Nocona funeral home ambulance slid out of control on icy streets, slamming into oncoming traffic. ECA **Robin Morris** was killed and her husband and fellow ECA **John Morris** was critically injured. A patient in the ambulance also died.

(Awareness continued)

vides technical assistance and grant funds to existing and emerging sexual assault programs. Resources on various topics of sexual assault, a directory of programs and other publications are available from TDH. Contact the Program Administrator, Sexual Assault Prevention & Crisis Services, Texas Department of Health, 1100 W. 49th Street, Austin, TX 78756-3199 (512/465-2601).

Texas Association Against Sexual Assault: TAASA is a coalition of rape crisis programs and other concerned citizens who have joined together to support each other in their work and to provide the State of Texas with a central source of information on sexual assault. To join or obtain more information, contact the Vice-President, c/o Baytown Area Women's Center, P. O. Box 3735, Baytown, TX 77522 (713/422-9173).

Ann J. Robison is the Program Administrator of the Bureau's Sexual Assault Prevention and Crisis Services Program. She has an MPA from Lamar University and was Executive Director of Beaumont's Sexual Assault Center.

I N T E R V I E W

JACK AYRES

by Alana S. Mallard

Jack Ayres, a Dallas attorney, serves in a consumer position on the Texas Board of Health through 1988. He authored the EMS Law and recalls working through five legislative sessions to finally see it passed. Mr. Ayres has been a popular speaker at the Texas EMS Conference and is a supporter of EMS causes.

Although Texas Board of Health member R. Jack Ayres, Jr. had his interest in medicine piqued by courses he audited at Southwestern Medical School in the 1960's and worked toward becoming a thoracic surgeon, it was a dramatic experience as a Richardson police officer that started him in EMS.

Ayres began working as a police officer during college to help pay his tuition. After his graduation from law school in 1971 he stayed on with the Richardson Police Department and was promoted to Captain in the special operations division where he "was responsible for everything from parades to S.W.A.T. operations." It was during this time that his unit responded to an incident where a child had been shot in the yard of a house and then the shooter barricaded himself in the house and continued shooting. Because the child was lying in the line of fire, no civilian could be sent in and by the time Ayres and his men were able to assault the house and end the shooting, the child had died. Having to watch the child bleed to death provoked Ayres to get ECA training for himself and his first line police officers.

Jerry Roberts and Diane Reid taught that first EMS course Jack Ayres was involved in. Ayres recalls that he felt "functionally incompetent in the course because although (he) was a veteran of medical school, having to actually perform bandaging and splinting is a lot different from having a nurse hand you a scalpel in surgery."

At the same time Ayres was in the ECA class, he was also teaching some classes with Dr. Charles Petty to fourth year medical students at Southwestern. After Diane Reid sat in on one of his presentations she talked Ayres into teaching the classes to Dallas Fire Department paramedic students. While Richardson Police Captain Jack Ayres was training to be an ECA, he began teaching medical jurisprudence and forensic medicine to paramedics. Is it any wonder he wound up working in the Dallas Fire Department system as a paramedic at station 6?

But even that transition was a convoluted one.

What Ayres found when he rode out with the paramedics to familiarize himself with problems they encountered, were people who were not adversarial as police officers often must be, but people who were compassionate and caring. Station 6, "sixes" in the Dallas jargon, was where Ayres first rode out because station 3, the nice clean station where they usually took dignitaries, was full. So Ayres started out at "sixes" in South Dallas where there were eight trauma CPRs per shift and where the handle on the "thumper" had been worn smooth silver with wear. Ayres rode out with Dallas, taught Dallas paramedic classes and eventually wound up in a Dallas fire department paramedic class himself. But after Ayres finished the paramedic rotations at Parkland, he had to go back and finish an EMT course in order to be state-certified as a paramedic.

In 1976 Ayres went through the entire Dallas fire department course from rookie school on. With that he had trained as a police officer, firefighter and paramedic, as well as having attended law school and medical school. "I guess," said Ayres during our interview "if there had been Indian Chief school I would have done that too!"

Ayres was in Austin recently to have dinner with Texas EMS Advisory Council members and to attend a Board of Health meeting. High on the agenda of topics TEMSAC and Ayres discussed was the proposed rule making Automatic External Defibrillation an optional skill in ECA and EMT training. Ayres philosophy of being "progressive about rulemaking to save patient's lives" led him to first request that TEMSAC members and Bureau of Emergency Management staff work on the research and development of this rule. Ayres intends to support rules and regulations that are "best for the people of Texas and for patient care." He vowed to "stimulate and encourage the growth of EMS, of technology and planning, and to do it with the best patient care possible in mind."

"I am extremely proud of the Bureau of Emergency Management," said Ayres, "and I look forward to working with the new TEMSAC chairperson, Faye Rainey Thomas. Being a member of the EMS community right now is one of the most exciting things an individual could be doing. It is purely public service, and EMS personnel are richly deserving of the public's respect. They are as deserving as any profession - as much as lawyers and doctors. Individuals in EMS do what they do out of a sincere desire to help people. I admire and respect them."

Alana Mallard is the Director of the Bureau's Information Program and Editor of the ***EMS Messenger.***

Facts and Fallacies About AIDS

by Don Haas

An EMT is called to a local hospital to transport a patient to another treatment center. Upon arriving, the hospital staff tells the EMT that the patient is a victim of AIDS. The hospital offers no apparent infection control. The EMT has been given few if any instructions about dealing with infectious patients. The EMT refuses to transport, leaves the hospital and reports back to his supervisor, who concurs with his actions.

A team of EMTs arrives at a residence to complete a non-emergency transport of an apparently very ill patient who is suffering from AIDS. No treatment is necessary. Gloves, masks, and protective clothing are available. Realizing there is no need for utilizing that equipment, but following established protocols for infection control, they transport the patient to a treatment center and return to duty.

The outcome of situations like these very often depend on the level of understanding and knowledge the EMTs and the managers of EMTs possess about AIDS.

According to the Surgeon General's report on AIDS, which was published this year, there is more information available concerning health care workers and exposure to the AIDS virus than there is for the general population, " . . . because health workers had much more contact with patients and their body fluids than would be expected from common everyday contact, it is clear that the AIDS virus is not transmitted by casual contact."

There is an abundance of information available. There are facts to replace the myths and maybes attributed to the deadly virus. Public health officials that develop policies or suggest procedures base those decisions on a preponderance of evidence and not isolated incidences or occurrences. For instance, transmission of the virus has not been reported because of exposure to saliva, tears, or insect bites. In fact, according to the Center of Disease Control in Atlanta in the August 21, 1987 Morbidity and **Mortality Weekly Report, "**. . . .evidence has implicated only blood, semen, vaginal secretions and possibly breast milk . . . ."

Education is key in combating this frightening and oft misunderstood epidemic. Perhaps this is the only epidemic in the history of this planet that is totally preventable.

Health care professionals can receive resources and information regarding clinical aspects, educational opportunities, AIDS testing and counseling. The number is 1-800-248-1091. Many answers to your questions and requests for information can be delivered through local city and county health departments. Testing for exposure to the virus and resultant counseling should be done at the local level whenever possible. Anonymous testing and reporting is always available.

One of the most helpful and educational publications currently available is the U.S. Surgeon General's **Report on AIDS.** That brochure and others can be requested from the Literature and Forms Division, Texas Department of Health, 1100 W. 49th, Austin, Texas, 78756. That request should include name, address, and organization you represent (if any), number of copies required and catalog number. A list of these publications available is printed in this issue of the **Messenger** with an order form.

The fear associated with the spread of AIDS has caused irrational decisions to be made not based upon facts or established research. For instance, many blood banks across the nation report a decline in donations. When former donors are questioned answers reflect a fear of exposure to AIDS. DONATING BLOOD WILL IN NO WAY EXPOSE YOU TO AIDS OR ANY OTHER INFECTION. Children are prevented from attending school, a family is burned out of their home, patients are denied their basic right to treatment----all because the facts are either not known, or even worse, ignored.

According to the Center for Disease Control in Atlanta there have not been any cases of AIDS reported as a result of casual contact. Health care professionals who do not protect themselves from the bodily fluids of individuals are tempting fate. Infection control measures, decontamination procedures and basic precautionary protocols are not new. EMT's that respond to traumatized patients need to protect themselves first.

Don Haas is a member of the Bureau's Information Program and a frequent contributor to the EMS Messenger.

Federal Agencies Encourage Infection Education and Precautions

This article was excerpted from a letter signed by William E. Brock,Secretary of Labor, and Otis R. Brown, M.D., Secretary of Health and Human Services.

The Centers for Disease Control (CDC) which is part of the U.S. Department of Health and Human Services (HHS) believes that as many as 18,000 health-care workers per year may be infected by hepatitis B virus (HBV). Nearly ten percent of those who become infected become long-term carriers of the virus and may have to give up their profession. Several hundred health-care workers will become acutely ill or jaundiced from hepatitis B, and as many as 300 health-care workers may die annually as a result of hepatitis B infections or complications.

Infection with the human immunodeficiency virus (HIV) in the workplace represents a small but real hazard to health-care workers. Fewer than ten cases have been reported to date, but it is not clear that these include all such infections. The CDC expects that with 1.5 million persons now believed to be infected by HIV, the number of AIDS cases in the general population may grow to as many as 270,000 by 1991 from the 40,000 which had been reported by August, 1987. The increases in AIDS cases and in the number of individuals who are infected with the virus will mean an increased potential for exposure to health-care workers.

Fortunately there are reasonable precautions which can be taken by health-care workers to prevent exposure to HBV, HIV, and other blood-borne infectious diseases. Precautions for HBV and HIV have been published by the CDC on several occasions, most recently on June 19, 1987, and on August 21, 1987. The advisory notice entitled "Protection Against Occupational Exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV)" available from HHS reflects many of the precautions addressed in the CDC guidelines and includes other precautions which should be considered.

It is the legal responsibility of employers to provide appropriate safeguards for health-care workers who may be exposed to these dangerous viruses. For that reason, the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor (DOL) is beginning a program of enforcement to insure that health-care employers are meeting those needs. OSHA will respond to employee complaints and conduct other inspections to assure that appropriate measures are being followed. OSHA is currently enforcing its existing regulations and statutory provisions relating to the duty of an employer to provide "safe and healthful working conditions." OSHA is also seeking input about what additional regulatory action may be needed in an Advance Notice of Proposed Rulemaking which will be published in the Federal Register.

DOL joins HHS in urging the widest possible adherence to the appropriate precautions as exemplified by the CDC guidelines and the joint advisory notice. All health-care workers who may be exposed to HBV or HIV should receive training and should utilize appropriate precautions.

If you have further questions, please contact your State public health department of OSHA office, or call the Public Health Service National AIDS Hotline, 1-800-342-AIDS. Every effort will be made to respond to your questions in a timely and informative manner. Your unions, and professional and trade associations are also available to answer your questions. We are making every effort to keep all interested parties informed.

The dangers of HBV and HIV are very real, but you can prevent or minimize those dangers for health-care workers through the utilization of the appropriate precautions recommended by the CDC.

Infection Precaution —

I.V.

START KIT/DISPOSAL CONTAINER

by Jay Garner

This kit is an "organizer" for gloves, prep pads, tourniquet, bandaid, ointment, dressing, etc. -- everything needed to start an I.V. line except the needle/ catheter, solution set, and fluid. Nothing particularly new . . . except, the empty bottle serves as a disposal container for the used needle, dressing, and gloves.

The container is a plastic pill bottle, 60 Dram size, with a child-proof cap. It is large enough to hold needles, a couple of 4x4's, latex gloves, etc. — all the contaminated flotsam left over from an I.V. start.

Victoria EMS personnel, including Bill Alex, Robin Carville, and Kenneth Gabrysch designed this container to carry in the jump kits on their ambulances and wanted to share the idea with other EMS providers. We think it's a great idea, both timely and practical, and it's small enough to carry outside the ambulance.

We'd like to hear from other EMS providers who want to share ideas. Let us know and we'll spread the word.

Jay Garner is Public Health Region 8's Program Administrator. Contact him at (512) 423-0130.

Safe disposal of alcohol preps, cotton balls, or 1x4s used in needlesticks is imperative.

AIDS Information Available!

The following printed material can be ordered at no charge from the Literature and Forms Division of the Texas Department of Health.

TITLE	STOCK NO.	No. of Copies
WHAT EVERYONE SHOULD KNOW ABOUT AIDS AND HIV	4-141	_____
AIDS AND THE IV DRUG USER	4-145	_____
AIDS AND THE BLACK COMMUNITY	4-143	_____
AIDS AND WOMEN	4-146	_____
AIDS AND THE WORKPLACE	4-148	_____
SURGEON GENERAL'S REPORT ON AIDS	6-22	_____
YOU CAN'T GET AIDS BY... (Poster)	4-147	_____
TEXAS AIDS COMMUNITY RESOURCE DIRECTORY	4-113	_____
WHAT EVERYONE SHOULD KNOW ABOUT AIDS	4-149	_____

Name _____

Organization _____

Number of people in organization_____

Address _____

City_____ State _____Zip _____

Please mark number of copies and send this form to the address below. If ordering multiple copies please list organization.

Literature and Forms Division
Attn: Warehouse Facility
Texas Department of Health
1100 W. 49th Street
Austin, Texas 78756
(512) 458-7761

(Some Spanish versions are available)

TDH Protocols for Bloodborne Viruses

AIDS or Acquired Immune Deficiency Syndrome is caused by a virus called HIV and transmitted through blood or semen. Hepatitis B Virus (HBV) is a bloodborne virus and is hardier and more infectious than HIV. Both viruses are transmitted through sexual contact, exposure to contaminated blood, and from pregnant women infected with the virus to their offspring.

The risk of acquiring HBV infection, for health-care workers following a needle stick from an HBV carrier ranges from 6% to 30%, far in excess of the risk of HIV infection following a needle stick involving a source patient infected with HIV, which is less than 1%. In recent studies, only 1 out of 820 documented exposures by needlestick or through mucous membrane (eyes, mouth) with infected blood or body fluids become serum positive.

Recommended procedures to prevent transmission of HBV and HIV are as follows:

1. Handle all body secretions carefully. Disposable plastic gloves can protect you from blood or semen. If gloves are not available, good handwashing as soon as possible is effective as well as using alcohol or alcohol pads. Dispose of gloves after use in proper containers.

2. Wash hands with soap and water as soon as possible.

3. Dispose of used needles in puncture proof containers. DO NOT recap and try to break. DO NOT reuse needles.

4. The virus is rarely present in saliva and even then in such a small quantity, it is not a significant risk. However, for added safety, an "S" tube or other mouth piece devices may be used for mouth to mouth resuscitation.

(See Protocols continued page 12)

Communications Corner

Radio Communications Operations

by Pat Worsham

In this COMMUNICATIONS CORNER, I want to discuss radio communications operations under an existing Federal Communications Commission (FCC) license that is assigned to another entity. This applies to all Special Emergency Radio Service (SERS) radios frequencies as well as law enforcement, fire, local government and any other radio frequencies in use by the EMS provider which is not licensed directly to the EMS provider. An example of this is EMS operations on the "inter-city" 154.950 MHz radio frequency. This frequency is assigned by the FCC for those who are eligible to be licensed in the law enforcement radio service. The EMS provider must obtain the permission of the local law enforcement agency that is assigned the FCC license for this frequency in order to operate on this radio frequency. Without this permission the EMS provider is in violation of the FCC Rules and Regulations.

The Federal Communications Commission (FCC) Rules and Regulations Part 90.113 states "No radio transmitter shall be operated in the services governed by this part except under and in accordance with a proper authorization granted by the Commission."

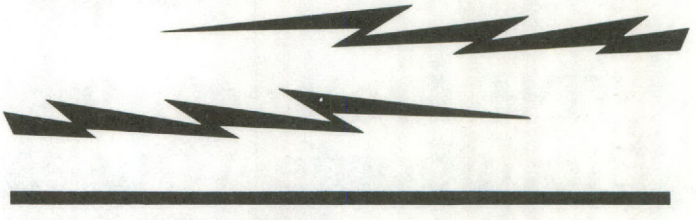
This authorization may be in the form of a radio license issued directly to an eligible entity such as a hospital, ambulance service or rescue squad, or, in the case of mobile units operated in vehicles not under the control of the licensee, by a letter of authorization from a currently authorized agency.

The FCC Rules are not specific on the exact content of such a letter of authorization; however, it is generally felt that the following information must be included:

1. Letter should be on the official letterhead of the granting agency,
2. Must state in which radio service the grant is made. Usually this will be the Special Emergency Radio Service (SERS) but could also be the Local Government Radio Service, Police Radio Service, Fire Radio Service, or other service governed by FCC Rule Part 90. The radio service is stated on the radio license.
3. Must state the frequency or frequencies for which the grant authorization is made.
4. Must state the radio Call Sign of the licensee making the grant of authorization.
5. Must state that the license has sufficient capacity for the number of mobile units being authorized.
6. Must state the number of mobile, portable or handheld units being authorized.
7. Must state the expiration date of the license, and the period for which authorization is being granted.
8. Must state the granting agency is responsible for all operation and control for the radio station and system.
9. Must state that the grant of authorization requires operation in strict compliance with FCC Rules and Regulations.
10. Must state that the licensee (granting agency) reserves the right to withdraw the authority granted by the letter at any time, by furnishing written notification.
11. Must state that the authority to operate pertains only to transmissions made to the granting agency.
12. Must be signed in accord with the requirements of FCC Rule and Regulations Part 90.125 requiring an original signature by the licensee.
13. A copy of the letter should be retained in the station records of the licensee, available for inspection by an authorized FCC representative.
14. A photocopy of the radio license should be attached to the letter granting authorization.

Operation of a radio base station, or fixed radio without a license from the FCC is not permitted. Therefore the authorization to operate a radio under an existing FCC license only applies to mobile, portable and handheld radios.

As in all cases if you have any EMS communications questions please call Pat Worsham, EMS Communications Specialist at (512) 465-2601.



(Protocols continued)

5. All equipment contaminated with blood or semen, including resuscitation bags, stretchers, and vehicle floors, should be washed with soap and water while wearing disposable gloves. Disinfect with a fresh solution of 1 part household chlorine bleach (Clorox, Purex, etc.) to 9 parts water (1 cup bleach to 2 1/4 quarts of water).

6. Use disposable equipment as much as possible.

7. Cover all personal cuts or sores with bandages while on duty. This is not a substitute for using gloves.

Approved: Texas Department of Health AIDS Policy Committee 8-20-87

TEMSAC

TEMSAC Sends AED Rule to Board of Health

by Don Haas

The TEMSAC met in Austin at the Hilton Hotel on Friday, January 22, 1988.

New officers for the coming year were elected. Faye Rainey-Thomas will serve as chairperson; Nancy B. Polunsky and Vicki Patrick will serve as Vice-Chair and Parliamentarian, respectively.

Dr. Albert Randall, during his Associate Commissioner's report, emphasized the necessity for council involvement in the legislative process. Proposals are now being drafted for the approval of the Board of Health's legislative committee's approval. Input at this time is very pertinent.

Gene Weatherall gave the Bureau Chief's report and mentioned the preparations currently ongoing involving the 1988 Texas EMS Conference which is to be held in late September at the Stouffer Hotel in Austin. Mr. Weatherall recognized the efforts of three members of the Bureau's EMIS program, Gene Willard, Richard Harris, and Greg Black who authored a research article published in the current **jems** magazine. He also reiterated the need for the council to involve itself with the legislative process and praised the regional managers for their determination at their last meeting to get Texas EMS back to putting patient care as the first priority.

The council discussed the proposed and emergency rules regarding the utilization of automatic external defibrillators (AED) and the challenge of the ECA level of certification by firefighters. The council unanimously recommended the amended rules to the Board of Health. The following resolution also passed the council regarding the use of AEDs:

"TEMSAC recognizes that the AED and similar life support devices constitute the practice of medicine and as such should be used in the State of Texas by physician prescription or direction. Therefore, TEMSAC recommends that the AED be used only by trained individuals as identified by the EMS rulemaking authority of the Bureau of Emergency Management".

The two rules were extended as emergency rules for 60 days by the Board of Health on January 23 and will go to the Board on March 6 for final adoption.

The council recommended to the Board of Health a package of rule changes that had previously been re-

(See TEMSAC continued page 14)

Rescue!

Figure 8 Descenders

by Rod Dennison

Figure 8 descenders get their name from their shape, which is superficially like that of the number "8", and they are probably the most popular rappelling devices in use in North America. While the primary use of 8's is as a rappelling device, there are a number of other applications for them.

Figure 8's function as a rappelling device by providing friction on the rope, thus slowing the descent of the rappeller. The ability to create friction also allows 8's to function in lowering systems by slowing and controlling the lowering of heavy loads-equipment, litters, patients, rescuers. . .

Several styles of Figure 8's can be used as "sticht" plates - that is, as belay devices. Russ Anderson/SMC (RA/SMC) and CMI 8's are constructed so that the small hole in the device is oval shaped. This shape allows a bight of rope to be fed through the hole, and by clipping this bight onto an anchored carabiner, a belayer can stop the flow of rope by forcefully separating the two traveling strands, causing the Figure 8 to jam against the 'biner, locking the rope and stopping the descent of the object or person being belayed.

An often unappreciated use of Figure 8's is as multi-point hook- up devices. Figure 8's can be loaded in at least four directions simultaneously. This capability is particularly useful in Tyrolean (telfer, high line) systems in which the load must be supported by a device which allows loading top and bottom in a vertical plane while being stressed by haul lines pulling in opposite directions in a horizontal plane.

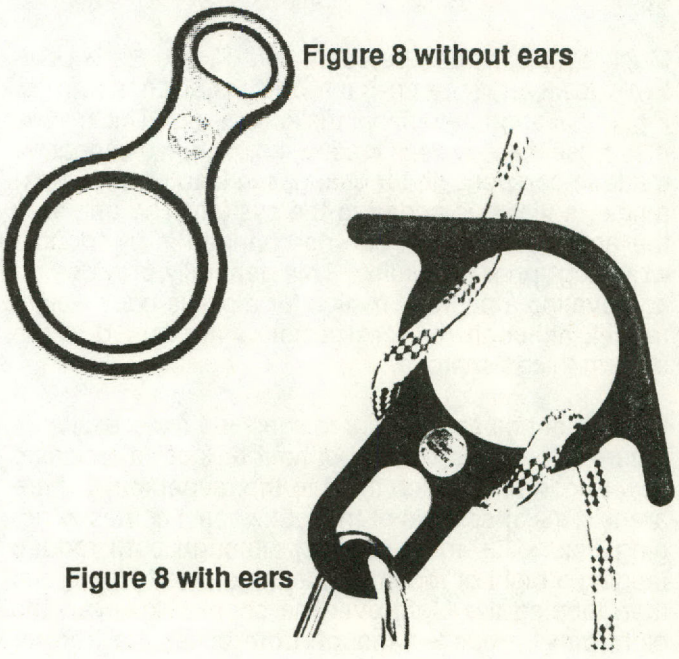


Figure 8 without ears

Figure 8 with ears

Probably the most appealing characteristic of Figure 8's is their simplicity. They have no moving parts and there is no right or wrong way to attach a rope to an 8 (at least not in the sense of right and dead as with a rack). Fast on-off times appeal to tactically oriented rappellers, and the compactness of 8's makes them a favorite with space-conscious mountaineers, cavers and rough terrain rescuers - people who also lean toward 8's made of aluminum for lightness rather than the considerably heavier steel 8's made for wear resistance and durability and usually preferred by industrial and fire service personnel.

Besides being made from different materials, Figure 8's also differ in size and shape. The classic 8, popular with the mountaineering/climbing community and made by such manufacturers as Chouinard Clog and CMI, looks very much like its namesake numeral with virtually circular holes and no ears. These 8's are made of aluminum, are small and light, but, because they lack ears, are subject to a situation in which the rappel rope girth hitches over the 8, creating either an inconvenience or serious problem depending on the competence of the rappeller. "Rescue" 8's are larger, stronger and have ears which prevent girth hitching and make it easy to "tie off" at a given point during a rappel. These 8's are usually the ones with the oval small hole which gives them belay plate capability. On the other hand, the small hole of the CMC 8 is elongated along the long axis of the 8. This larger hole allows for the attachment of carabiners in addition to the rescuer's main 'biner which attaches to the seat harness. These additional 'biners can hold loads such as equipment, rope bags or a victim, and, being attached directly to the 8, place no direct strain on either the rescuer or his harness. The RA/SMC and CMI 8's have a completely independent 3rd hole. This can also act as an attachment point for extra 'biners just as the enlarged hole of the CMC 8 can act as a point of attachment for the main 'biner so that the 8 does not have to be detached from the harness to allow the rappel rope to be rigged - a potential hazardous maneuver for rescue workers who might drop their descender in a stressful, low visibility environment.

Most things that can be said about Figure 8's is positive. However, they do have one major shortcoming. Figure 8's are non-variable friction devices. This means that, once the device is loaded, adjustments cannot be made to compensate for changes in load when, for example, a victim is added to the system. The only way the amount of friction can be changed is by "double wrapping" prior to loading. This generally provides an aggravating amount of friction for a single body weight rappel, although once extra points are added to the system things improve.

It would not be appropriate to conclude a discussion of Figure 8's as descenders without at least mentioning how to correctly attach them to the rappel rope. There are two major schools of thought when it comes to rigging Figure 8's for rappelling although both require feeding a bight of rope thru the large hole in the 8 and then looping the bight over the shank. However, the bight can be pushed though from either the front or the back. There is some possibility that a bight that ends up on the side of the 8 away from the rappeller (a bight fed through from the back) can hang on an edge and girth hitch, leaving the rappeller hung up. However, this is virtually impossible with an eared Figure 8. The bight of rope can be fed in from the front which places the loop around the shank toward the rappeller - keeping the rope away from edges but making it harder for many persons, especially those with small hands or poor grip strength, to hold the rope securely while tying off. Like so many other techniques in rope work, few procedures which are not dangerous are really right or wrong - just a matter of experience and personal preference.

In summary, Figure 8's are the simplest and one of the most versatile descending devices available. They are made in a wide enough variety of styles, sizes, weights and materials to satisfy most rappelling needs of climbers, mountaineers, cavers, rough terrain rescuers, and industrial/fire service rescuers. Besides rappelling there are several other important uses for 8's so that, no matter what one's rope specialty, a Figure 8 is almost a must in the gear cache.

As a final thought, it is worth remembering that the simplicity of the Figure 8 should not mislead a potential user into taking its use lightly. No one should use this or any other rappel device without first getting professional instruction. This instruction should include not only the proper use of the device itself but should also include appropriate back up measures, anchoring, belaying techniques and self rescue.

Rod Dennison is Public Health Region 1 EMS Program Administrator and a member of STAR Team, a training and rescue group based in Temple, Texas. He is a paramedic and one of the instructors for McLennan Community College's Basic and Advanced High - Angle Rescue Courses.

(TEMSAC continued)

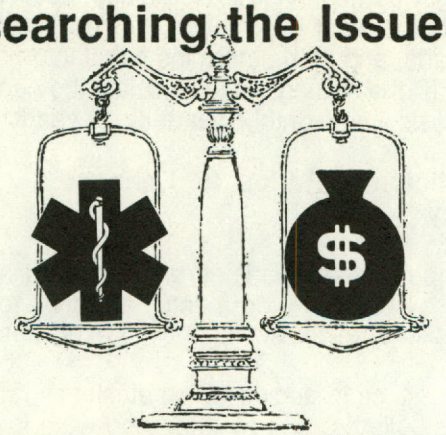
viewed by TEMSAC and its committees. Those changes will be presented to the March 6 Board of Health meeting for proposal.

Mr. David Eaton of the LBJ School of Public Affairs of the University of Texas presented a data collection and automation system of EMS patient data. He asked the council for their assistance and input in determining particular items and suggestions to improve the system.

Pam West, EMS Division Director, delivered the Regional EMS Program Administrator's report in the absence of Terry Bavousett, who could not attend the meeting. The managers have developed a list of legislative priorities and suggestions for rule changes for the next rulemaking process.

April 15, 1988 was set as the next council meeting date in Austin.

Researching the Issues



EFFICIENCY IN EMS

by Rick Harris

Webster defines efficiency as "effective operation as measured by a comparison of production with cost (as in energy, time, and money)."(1) The Emergency Medical Services Act (Article 4447o, Vernon's Texas Civil Statutes) establishes the requirement for a "State Plan," which provides for, "... prompt and efficient delivery of adequate emergency medical services to acutely sick and injured persons."(2) If Webster's definition is applied to the EMS act's requirement for efficiency, one sees the need to relate costs for operating an EMS system to the "products," (or in this case, service) that the system is providing.

Webster's "cut and dried" definition is not all inclusive, however, particularly when applying the term efficiency to sound business management. Petersen and Plowman expand on Webster's definition by stating, "There is widespread misunderstanding concerning the meaning of the term efficiency as used in business management. It is often assumed that efficiency merely denotes a reduction in cost, or that it is a kind of engineering technique. Such interpretation of the word is too limited. Efficiency is the quality of effectiveness, competence, and capability in productivity. Efficient operation of a business means good management and adequate performance of work, in combination. Efficiency is a fundamental concept in the whole management process."(3) Petersen and Plowman introduce a less quantitative or empirical definition of the term. This paper discusses the topic from both the quantitative and qualitative perspectives of efficiency as they relate to EMS. Wherever possible, it will also give the firm manager some practical tools by which to both measure and impact efficiency in his or her organization.

Quantitative Measures of Efficiency Relating to EMS

Delivering emergency medical care is an expensive proposition. EMS "costs" translate into those resources necessary to run an emergency service: vehicles, medical and communications equipment, station houses, and personnel. These essentials require money. To manage the money required to finance the essentials, many managers develop a budget. There are probably as many kinds of budgets as there are people developing them. Two standard types are the operating budget and the capital expenditure budget. Operating budgets track those costs required to keep a service going: salaries, supplies, utilities, fuel costs, etc. Capital expenditure budget's track expensive items that usually depreciate in value over a period of time. Example items are: station houses, vehicles, and expensive medical equipment (such as defibrillators or cardiac monitors). Both money and resources are often called "inputs" or "input measures" because they are the components that "go into" (or comprise) a system.

EMS "products" (often called "outputs" or "output measures") are those quantifiable indicators an ambulance firm amasses in the process of delivering patient care. Some examples of these indicators are: the total number of calls made by a system, the total number of transports of a particular type of patient (e.g., heart patients), and the total number of patients delivered to the emergency room "alive" (based on a stipulated set of vital signs). A system's response time can also be considered an EMS product.(4) Response times, by their very nature, imply a certain level of efficiency. Many people believe that the faster an ambulance arrives on the scene, the more efficient the service. This may not be a fair generalization to make.

Case in Point: Suppose Firm A is a rural firm with an average response time of 8 minutes. Firm A has to travel an average distance of 7 miles to pick up each patient. Firm B is another rural firm with an average response time of 6 minutes. Firm B has to travel an average distance of only 2 miles to pick up each patient. Even though Firm A's response time is longer that Firm B's, Firm A may actually be more efficient because it has a greater distance to travel and does so more quickly (on a per mile basis) than does Firm B. However, if one simply looked at the two response times without considering the distances involved, Firm B might appear to be the more "efficient" firm.

Efficiency can be measured quantitatively. It may appear as a ratio of one input measure to one output measure. This ratio means that one number (the input value) is divided by the other number (the output value). The resultant quotient then serves as a single numerical indicator for the particular efficiency measure. One ambulance firm's efficiency indicator can then be compared to the same indicator for a different ambulance firm. To reiterate, however, it is important not to make "snap judgements" about one firm being more efficient than the other, because other factors (unknown to the casual observer) may cause one's judgement to be incorrect.

Input Values

The following are some inputs or input measures: "operating budget, capital budget, total personnel, total vehicle sites."(5)

Output Values

The following are some outputs or output measures: "total calls, total patients transported, response time, lives saved."(6) ("Lives saved" is a very subjective measure unless strictly defined.) Mortality rates for various injuries/illnesses are also output or outcome measures.

Using a Grid System to Calculate and Monitor Efficiency

Since inputs and outputs are the two components that comprise efficiency, a set of grid boxes (shown below) is both a simple and useful tool in calculating efficiency. The input measures appear on the left side of the grid (starting with "Operating Budget") and are listed from top to bottom. The output measures appear at the top of the grid (starting with "Total Calls") and run from left to right.

		OUTPUTS A.	B.	C.	D.	E.
		TOTAL CALLS	TOTAL PATIENTS TRANS-PORTED	LIVES SAVED	RESPONSE TIME	MORTALITY RATES
INPUTS	1. OPERATING BUDGET (IN $)					
	2. CAPITAL BUDGET (IN $)					
	3. TOTAL BUDGET (1. + 2.)					
	4. TOTAL PERSONNEL					
	5. TOTAL STATIONS					
	6. TOTAL VEHICLES					

SOME POSSIBLE COMBINATIONS AND WHAT THEY TELL THE MANAGER:

Operating Budget/Total Calls - Tells the manager the average cost per call

Operating Budget/Total Patients Transported - Tells the manager the average cost per patient transported

Operating Budget/Lives Saved - Tells the manager the average cost per life "saved"

Operating Budget/Response Time - Tells the manager the average cost per minute to the scene

Total Personnel/Total Calls - Tells the manager the average number of staff per call made

Total Personnel/Total Patients Transported - Tells the manager the average number of staff per patients transported

Total Personnel/Lives Saved - Tells the manager the average number of staff per lives "saved"

The manager can continue to combine inputs and outputs, determine what information the resulting combination imparts, and then determine if that information is useful. If it is, the manager can calculate the number on a regular basis, i.e., monthly, quarterly, or yearly.

Using Efficiency Ratios to Enhance Efficiency

The following scheme outlines one way that an EMS manager may use the aforementioned ratios to evaluate and encourage improvements in firm efficiency:

1. Take the time to decide which efficiency ratios you wish to collect and how often you wish to update them.
2. Monitor these ratios over a period of time and see if there are any ratios that appear a) to exceed maximum (or minimum) requirements per a stipulation in a contract, etc. b) to be excessive when compared to some stated or accepted standard. 3. When you detect a ratio which may point to less than optimal efficiency (i.e., inefficiency), begin thinking of new ways to utilize those resources (inputs) which impact this ratio e.g., If your capital outlay cost/call ratio is too high because you are purchasing new vehicles every two years, consider revising your vehicle maintenance procedures to increase the life of your vehicles. This should result in your having to purchase new vehicles less often.
4. Implement the change, e.g., put the new maintenance procedures in effect.
5. After implementing the new procedures, review the efficiency ratios for a period of time for the post implementation period.
6. Compare the ratios from the pre-implementation period to the ratios from the post-implementation period to ascertain whether or not the change affected the efficiency measure.

Less Empirical Yet Important Factors Impacting Efficiency

Harrington Emerson, in his book, **The Twelve Principles of Efficiency,** talks about twelve intangible principles that contribute to more efficiency in the work place (more efficiency on the part of personnel - managers and workers): "clearly defined ideals; common sense; competent counsel; discipline; a fair deal; keeping reliable, immediate, and adequate records; despatching; standards and schedules; standardized conditions; standardized operations; written standard - practice instructions; reward"(7) One might add conscientiousness, attention to detail, and toughness (when required) as additional elements.

Petersen and Plowman discuss efficiency in terms of management and the need to balance the elements of "quality, quantity, time, method, and cost."(8) At the higher executive level, it is necessary to see to it that "...any one of these elements is not out of proportion to the others."(9) At the lower levels, however,

(See EFFICIENCY continued page 18)

Education Corner

C. E. Programs Available from Bureau

The Bureau's Education Program now has available the following programs for continuing education credit:

Pediatric and Neonatal Emergencies — Video by Kathy Mazak of Driscoll Children's Hospital

S.T.A.R.T. — A Triage Training Module (Video)

The Carbusters! (Three separate videos)
a. **The Principles of Extrication**
b. **Techniques of Extrication**
c. **Hand Tools and Pneumatics**

EMT—A Continuing Education Recertification Program Teaching Manual. These are outlines for instructors and follow the D.O.T. curriculum. There are 20 separate lessons in this manual as well as slides and pre and post test for each lesson.

1987 State EMS Conference — Three separate videos of Dr. Rolph Habersang's Pediatric workshops. These were among the most popular of this year's workshops.
a. **Pediatric Assessment**
b. **Pediatric Medical and Respiratory Emergencies**
c. **Pediatric Poison and Overdose**

Pediatric Emergencies — Six separate units with slides and cassettes. Available soon—on order!
a. **The Child and Family, General Assessment**
b. **ABC's: Airway, Respiration, Hypoperfusion and Cardiac Arrest**
c. **Medical Emergencies (2 separate units)**
d. **Trauma**
e. **The Newborn, SIDS and Child Abuse**

Six separate tapes on **Down and Out** (Intoxication and Seizures) and **What's Bothering You?** (Overdoses). by **Dr. Copass, Medical Director for Seattle, WA, EMS** AVAILABLE EARLY 1988.

Autonomic Nervous System and Drugs - Three separate tapes by Dr. Bass. AVAILABLE EARLY 1988.

Report Writing — Legal Concerns in EMS - Farm Emergencies Three separate tapes. AVAILABLE EARLY 1988.

For further information or to reserve a copy of any of these contact Paul Tabor, Education Program, EMS Division, Bureau of Emergency Management, Texas Department of Health, Austin Texas 78756, or call (512) 465-2601.

Injury Control

Risk Management for EMS Groups

by Rodger Mitchell

When was the last time you were in a wreck? Statistics indicate that each of us can expect to be in a motor vehicle crash every 10 years. One out of three people can be expected to suffer a disabling motor vehicle injury. If you spend above average amounts of time in a motor vehicle or if you are exposed to the risks of emergency driving, it is reasonable to assume that you are at greater risk.

Risk management is based on the idea that we can lower our risks if we know what they are and develop strategies to modify the environment or our behavior to eliminate or control risk factors. Consider these questions. Does your organization have a risk reduction program? If yes, could it be improved? I recently talked with Mike Martinez, La Porte, EMS Chief and Executive Director of American Trauma Society - Texas Division. Here are some of the risk management ideas he shared with me along with a few of my suggestions.

1) Pre-employment driver testing along with investigation of driving records;

2) Familiarize personnel with state laws and local regulations pertaining to emergency driving;

3) Require training in defensive and emergency driving;

4) Establish and enforce written safety policies including:

   a) required use of seat belts at all times, (One study of 102 ambulance crashes found that nearly all severely injured victims had failed to buckle up.)
   b) drivers taught to drive no more than 10 miles per hour above posted speed limits,
   c) head protection required during emergency driving,
   d) protective clothing required during potentially hazardous scene situations including extrications,
   e) vehicle backing guidelines requiring that the driver be guided by someone outside of the vehicle,
   f) smoking banned on units,
   g) establish policies similiar to those for aircraft operators which encourage drivers to request replacement if they feel their driving may be impaired by fatigue, illness, medications, etc.;

5) Designate a risk manager and appoint a safety committee;

6) Conduct back injury prevention training (Contact the American Red Cross for information on their new program.)

7) Implement the new National Highway Traffic Safety course in occupant protection available for $7.00. Order Occupant Protection Systems (DOT HS 807 181) from Superintendant of Documents, U. S. Printing Office, Washington, D.C. 20402.

These few ideas illustrate the kinds of things you may want to consider in developing comprehensive risk management strategies. I would like to hear from readers who are willing to share what you are doing. With your help we could compile a more detailed risk management file which could be shared with others.

My goal is to increase the number of EMS professionals who are involved in injury prevention and control programs. Let's begin by being sure that we've protected ourselves.

Contact Rodger Mitchell, PHR 2 EMS Program Administrator, at 4709 65th Street, Lubbock Texas 79414 or 806/797-4331.

(EFFICIENCY continued)

"supervisors rarely have control over all the factors; hence it is their duty to secure efficient performance of the work to be done within already established limits."(10) This proper balance will help ensure a firm's existence for years to come.

NOTES

1. **Webster's Ninth New Collegiate Dictionary.** Springfield: Merriam-Webster Inc., Publishers, 1983 p., 397.
2. Emergency Medical Services Act (Article 44470, Vernon's Texas Civil Statutes), Article 2, Section 2.02.
3. Elmore Petersen and E. Grosvenor Plowman. **Business Organization and Management,** Homewood: Richard D. Irwin, Inc., 1941, p.506.
4. Richard M. Wiggans. **Procedures for Evaluating Emergency Medical Service Systems,** Independent Research Report (MPA Thesis), the University of Texas at Austin, May 1979, p. 25.
5. Ibid, p. 25
6. Ibid.
7. Harrington Emerson. **The Twelve Principles of Efficiency.** New York: The Engineering Magazine Co, 1917 p. xiii - xviii.
8. **Business Organization and Management** - p.507.
9. Ibid. pp. 507 - 508.
10. Ibid. p. 508.

Rick Harris is with the Bureau's Emergency Medical Information System (EMIS) Program and his "Researching the Issues" column is a regular ***Messenger*** *feature.*

THE LAST FRONTIER

A Texas Paramedic Looks at Alaska EMS

by Wendy J. Aston

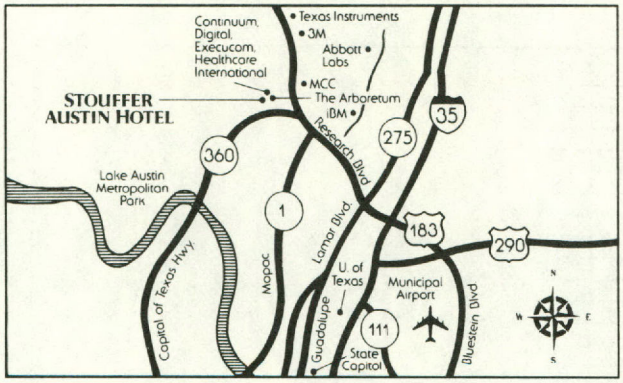
I was fortunate last July to take a position as EMS Coordinator for Southeast Region EMS Council based in Sitka, Alaska. My job is to assist in EMS and Clinical Training programs, coordinate EMS system development, and provide Continuing Education for about forty communities, large and small, in the Southeast Region of Alaska. On the map, this region is from Yakutat south to Metlakatla and includes Juneau, Ketchikan, and Sitka. As a South Texas veteran Paramedic, I expected a backwards, virginal territory as far as emergency services. What I found was amazing.

Only two of these communities have road systems that connect with the mainland. The region is mainly islands that rise from the Pacific and inland waters, forming some of the country's most spectacular scenery. The waves of dark blue waters slap against the bases of majestic green mountains reminiscent of the fjords of Norway. I look out my windows to the open Pacific and the snow-capped Mount Edgecumbe, an extinct volcano, and wonder why the world hasn't migrated to this seductive land of many moods. Since my duties take me out to the "bush" communities frequently, I have found that the entire region is as lovely as my home base. The stark beauty is not habitable without some sacrifice, though, and that is where I found the difference in EMS here and EMS in Texas.

The good news and the bad news here is isolation. In the "bush", residents enjoy the cozy, warm freedom from the hectic life of mainland USA. For those who choose to live without some of the modern conveniences taken for granted elsewhere, there is an overwhelming sense of peace, purity, and total freedom in bush Alaska. The people who fish and hunt for a living, as well as subsistence, form these villages and towns which dot the harbors and anchorages throughout this island-filled area. A few of these settlements do not even have telephones or electricity. So, you ask, what do they do in an emergency?

The answer was a revelation of the enthusiasm and self-help among those strong-willed souls who are determined to overcome the obstacles of isolation and nature. Each community has an EMS system — it may not have an emergency vehicle — but the system exists. In quite a few areas EMS is the only form of medicine available. All of them are volunteers and they enter training programs with a fervor and dedication heretofore unseen by this Paramedic. The need is so great that it instills a desire to be the very best. Training, itself, is unique here. Sometimes a course is taught in the community that needs it. Other times a regional

(See FRONTIER continued page 20)



Texas EMS Conference

Sepember 22-24, 1988

REGISTRATION FORM

EMS IN TEXAS - DEDICATED TO PATIENT CARE

NAME _____
please print (last) (first) (MI)

EMS Organization _____ Level of Certification _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

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FOR REGISTRATION INFORMATION CONTACT: Jan Brizendine (512) 465-2601

PLACE: Stouffer Austin Hotel
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Austin, Texas 78759
512/343-2626 or
1-800-HOTELS 1

ROOM RATE: $55 Single/$65 Double

CONFERENCE REGISTRATION: $30 Person (by Aug. 31)
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MAKE CHECKS PAYABLE TO: Texas Health Foundation-EMS
P.O. Box 610333
Austin, Texas 78761

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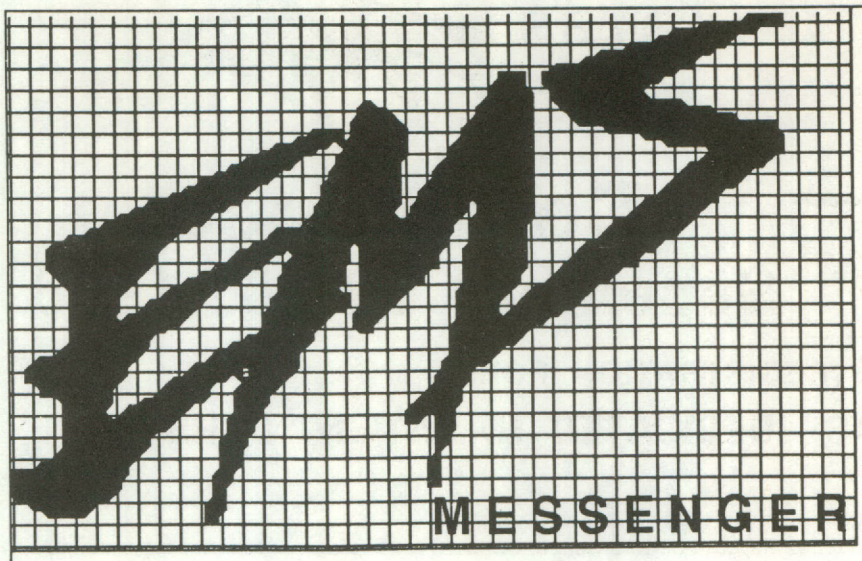
For further information on Conference activities call the listed contact person at (512) 465-2601.

Conference T-shirts and coffee mugs will be available for order before the Conference.

12 Hours C.E.

Mail registration form & check to Texas Health Foundation-EMS, P.O. Box 610333, Austin, TX 78761



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(FRONTIER continued)

course is taught in one of the larger towns and students are flown in and housed for the duration of the class. I just completed an EMT course that was taught in two weeks. That is quite a change from the nightly classes over a period of months that I taught in Texas. There are pros and cons to each method. It is harder work, but I enjoy these classes more.

All of these towns and villages are accessible only by plane or boat, which means that a Code 3 run to the hospital is virtually non-existent. Patients are cared for by the First Responders, usually EMT's, packaged carefully, and sent to the hospital by plane. One of the courses that I teach is Medevac Escort, which deals with the hazards of altitude and plane loading and unloading. The planes are mostly floatplanes, which are small so patient care room and maneuverability are at a minimum. Strapping a victim to a backboard is a major skill taught and tested here. The patient should not move at all when tipped and turned in order to load a small plane.

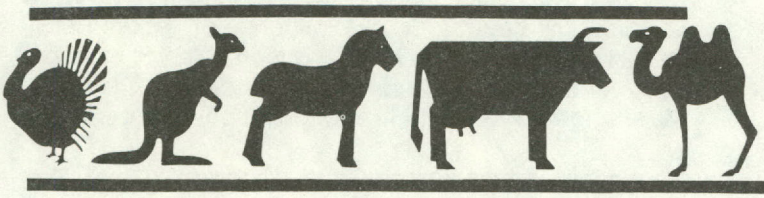
Another obstacle here is Mother Nature. The lush green of the area is the product of many rainy days, which is measured in feet here rather than inches. Storms attack without warning, bringing violent winds and drenching rains. This means that many times, planes don't fly. One of the lectures incorporated into EMS training here is entitled, "When planes don't fly...." This is a critical problem which is currently being addressed. Some of the communities have small clinics and health aides providing a measure of "holding time," but the smaller villages do not have that luxury. In the days of teaching load and go again for trauma victims, this is certainly one of our most gripping problems. Trauma is the leading cause of death in Alaska, with a rate that is four times the national ratio. That is not surprising, given the average age and the hazardous careers. To aid in this dilemma, the State of Alaska has developed guidelines for MAST and Cold Water Near Drowning/Hypothermia that are outstanding. They are integrated into every course taught here. However, training and equipment needs are all areas of focus in the solution of this problem.

I could write for days about the EMS activities in Alaska as compared to Texas, but I would like to stress one point. Alaska is by no means backward in this field, and is probably well ahead of several states that I have visited. There are wonderfully intelligent and progressive leaders in our state office who deserve applause for their vision and insight into the ongoing development of EMS in Alaska. Mark Johnson, our State Coordinator, and Matt Anderson, the Training Coordinator, can

take a great measure of pride in their efforts to weave consistency in this enormous state with all of its diversities. I was impressed and amazed to find very little snow, a mild climate, no igloos or polar bears, but a well-developed EMS system that welcomed me with its closely-knit family.

Texas will always be "home" and I intend to visit frequently and maintain my certification there. I think we should have an exchange of ideas between the nation's two largest states. Alaska is divine, but I miss you all. These people talk funny!

Wendy J. Aston was director of Sinton EMS in South Texas and was involved in Texas EMS for "forever" before she relocated to Alaska.



Animal Tales?

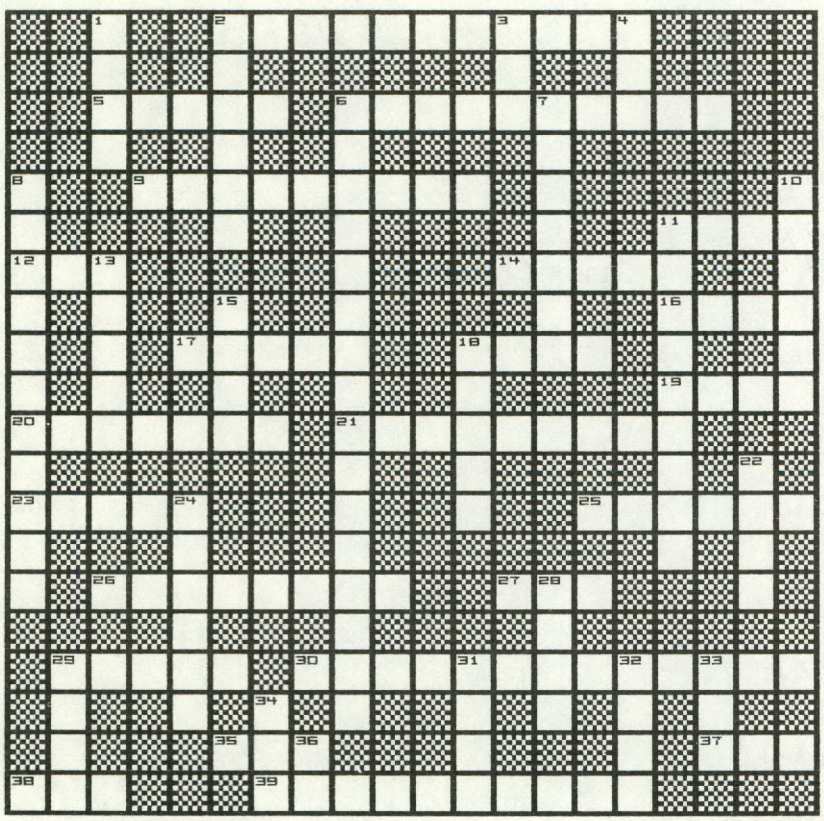
Animals have been known to complicate matters at an emergency scene. It has even been reported that EMS personnel are occasionally called upon to render emergency medical assistance to animals in need (e.g. the fireman and the stranded cat). Have animals caused an amusing (or not so amusing) turn of events during one of your calls? Have you had to treat a supine equine, splint a drumstick, delivered kitties on a litter...? Or, has an amimal caused a problem you had to solve before you could treat or transport an ill or injured human? If so, please send your story to us! We're interested in printing your account of animal and EMS incidents.

Send your story to Phil Lockwood, Bureau of Emergency Management, 1100 W. 49th Street, Austin 78756 or call (512) 465-2601.

CROSSWORD PUZZLE

EMS "STUFF"

by Phil Lockwood



Across Clues

2. Aspirator (2 words)
5. Produces Emergency Vehicle Warning Sound
6. Helps Provide Vertebral Stabilization
9. Sterile Covering For Thermal Injuries
11. To Become Filled Or Overflowing
12. Short For Esophageal Obturator Airway
14. 4x4s Are Made Of This
16. Clear Portion Of The Eye
17. Communication Device
18. John Wayne's Nickname
19. Failure To Hit
20. May Be Air, Foam, Wire Ladder, Or Padded Boards
21. EMS Vehicle
23. Contains Supplies For Assisting In The Delivery Of Babies
25. Oropharyngeal _____
26. Used To Dress And Bind Up Wounds
27. Premature Atrial Contraction
29. The Liquid Portion Of Clotted Blood
30. Used To "Jump Start" A Heart
35. Frequency Band For Med Channels
37. Central Nervous System
38. Estimated Time Of Arrival
39. Used To See In The Dark

Down Clues

1. What You Don't Do "With Texas"
2. Cutting Implement
3. To Take Advantage Of
4. Transient Ischemic Attack (abbr.)
6. BP Cuff
7. Device Designed To Allow Manual Delivery Of Air To A Patient
8. Emergency Medical Amplifier
10. _____ Basin
11. Patient To Hospital EKG Signals
13. Used In Shaping Horseshoes
15. Military Anti-Shock Trousers
18. Medicinal Substances
22. May Be Cloth Or Paper With Adhesive Back
24. General Adjustment Of Vital Vehicle Components
28. Second Cervical Vertebra
29. Medical Abbreviation Meaning Immediately
31. _____ And Socket Joint
32. Spoils Of Plunder
33. Spasmodic Twitching Of Facial Muscle
34. Ambulance To Hospital Frequency
36. Fluid (abbr.)

Letters from the Front

Public Health Regions Investigate Complaints

As usual I found this month's issue of the **EMS Messenger** to contain some very good articles. I felt compelled to answer the question that was posed in the "Ask the Messenger" column about operating with non-certified personnel (January 1988). That particular complaint was forwarded to this Public Health Region where it was quickly established that the EMS service in question had a personnel variance which allowed them to operate at below the State's minimum requirements.

The issue, however, is bigger than that. The EMS Act does not regulate transfers or transfer vehicles. To complicate matters it allows TDH-approved vehicles to be used for non-emergency transfer of patients. To sum this up, it simply means that a permitted vehicle may be used to transfer patients from one facility to another without TDH-certified personnel on board as long as the vehicle does not use lights and/or sirens. Unfortunately, many people do not realize this and feel that each time an ambulance is called, for whatever the purpose, it will be staffed with certified personnel.

When you feel that inappropriate care has been rendered to a patient or that other areas of the EMS Act have been violated, contact your Public Health Region Office. After only a short discussion, they will be able to ascertain whether there is a possible violation or not. When you make this initial contact please try to have times, dates, names, vehicle license numbers and any other pertinent aspect of the complaint.

Lee Sweeten, EMS program Administrator, Public Health Region 6, Uvalde.

The transfer law will be a workshop topic at our September Texas EMS Conference in Austin —Editor.

* * * *

Messenger mailed late?

I have enjoyed each issue of **EMS Messenger** but I wonder if there is a problem with my mail delivery.

I receive the current issue so late during the month that, although there have been several seminars that I would like to consider, there are always several taking place much earlier in the month, so that they have already taken place, or I receive the **Messenger** just a day or two before and don't have time to make arrangements to attend.

Jodi Schaefer, Victoria

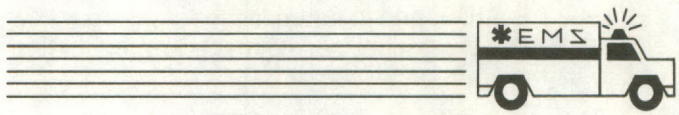
You're absolutely right. We have had some scheduling and production problems that we are trying to correct. See the new schedule on page 23.—Editor.

Lights and Sirens Award

We all love positive feedback, but there is usually just not enough of it to go around. So we thought we would make it easier on everybody to say "Good work!!"

If a Bureau of Emergency Management employee or a Public Health Region EMS employee has made life easier for you, helped you in a particularly special way, or somehow been a positive influence on Texas EMS, let us know by sending in this coupon. We will mention some of the winners and their nominators in the **EMS Messenger.** We would like to give money, but . . .

Send your nominations to Gene Weatherall, Chief, Bureau of Emergency Management, Texas Department of Health, 1100 W. 49th Street, Austin, Texas 78756.



Lights and Sirens Award

Awarded To

_____
Name

Reason Chosen: _____

_____

_____

_____
Date

Awarded by

_____
Name

_____
Address

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City , State, Zip

Phone _____

Editor's Notes

Now that you have made it to the next-to-the last page of this issue of the **Messenger**, what do you think? Are we giving you what you want?

Our new format is almost one year old and if I can count increases in subscriptions as an indicator of approval, I would have to say you readers like our new look and editorial content. Subscriptions have increased by more than 100 with each issue; new subscriptions with this issue increased by nearly 200. So we are definitely reaching more EMS people.

In our editorial content we try to include technical articles you can learn from — that is the purpose of Rod Dennison's "Rescue!" column, Pat Worsham's "Communications Corner," Rodger Mitchell's "Injury Control," and Rick Harris' "Researching the Issues." And in each issue we try to focus on one subject in several articles. Last issue it was Baby Jessica's rescue, this issue it is AIDS, and in future issues we will explore disaster response, patient assessment, and marketing EMS. If there is a topic you want us to treat, let me know. Our goal is to inform and educate our EMS readers.

Learning is a very important part of EMS because technological advances require new skills or changed protocols. We want the **EMS Messenger** to foster that need to learn in EMS individuals.

In the next issue of the **Messenger** Renee Michalski does "show and tell" on her week at the rescue training at Joshua Tree, California; we will interview Faye Rainey-Thomas, TEMSAC's chair for 1988 to get her views on directions for rules and legislation, as well as new TEMSAC members appointed at the March 6 Board of Health meeting; we will feature disaster response articles on incident command and disaster planning; and the Education Program's Paul Tabor, Tom Ardrey, Eileen Hartman, and Kaylene Farthing will discuss several testing issues. Join us. It sounds like another fine issue!

Diana S. Mallard

EDITOR

Child Safety Seats Available!

TDH's Passenger Safety Program will be purchasing a limited number of child safety seats for distribution statewide. Agencies serving low-income families will be favored but others are urged to apply. For more information and an application, call David Zane, Public Health Promotion Division, at 1-800-252-8255. The deadline for his receiving your application is April 4, 1988.

EMS Messenger Mailing Schedule Altered

This second issue of 1988, the March/April issue, represents a revised mailing schedule for the **EMS Messenger**. The **Messenger** will be mailed six times per year, on the following schedule:

January/February issue - mailed January 1
March/April issue - mailed March 1
May/June issue - mailed May 1
July/August issue - mailed July 1
September/October issue - mailed September 1
November/December issue - mailed November 1

Deadlines for submissions of articles, news stories for "Local and Regional EMS News" and calendar items for "Around the State" are:

January/February issue - November 15
March/April - January 15
May/June - March 15
July/August - May 15
September/October - July 15
November/December - September 15

ATTENTION

Attention Course Coordinators: this is the last issue of the **EMS Messenger** that will be sent free of charge to individual educators. Beginning with the April/May issue the **Messenger** will go to training institutions free of charge. Individual Course Coordinators will be required to pay the $15 fee for a four-year subscription.

ANSWERS TO CROSSWORD PUZZLE

ACROSS

2. SUCTION UNIT
5. SIREN
6. SPINE BOARD
9. BURN SHEET
11. TEEM
12. EOA
14. GAUZE
16. LENS
17. RADIO
18. DUKE
19. MISS
20. SPLINTS
21. AMBULANCE
23. OB KIT
25. AIRWAY
26. BANDAGES
27. PAC
29. SERUM
30. DEFIBRILLATOR
35. UHF
37. CNS
38. ETA

DOWN

1. MESS
2. SHEARS
3. USE
4. TIA
6. SPHYGMOMANOMETER
7. BAG MASK
8. STETHOSCOPE
10. EMESIS
11. TELEMETRY
13. ANVIL
15. MAST
18. DRUGS
22. TAPE
24. TUNEUP
28. AXIS
29. STAT
31. BALL
32. LOOT
33. TIC
34. VHF
36. FL
39. FLASHLIGHT

Around the State

March 11-13, 1988, **Swiftwater Rescue Technician I,** $150, contact; Arthur Verona, Training Chief, Fire Department, 212 "A" Street, Kerrville, Texas 78028, 512/257 -8449or 257-5255.

March 14-15, 1988, **Swiftwater Rescue Technician II,** $120, contact; Arthur Verona, Training Chief, Fire Department, 212 "A" Street, Kerrville, Texas 78028, 512/257-8449 or 257-5255.

March 16-9, 1988, **Swiftwater Rescue Instructor Course, $285,** contact; Arthur Verona, Training Chief, Fire Department, 212 "A" Street, Kerrville, Texas, 512/257-8449 or 257-5255.

March 18-19, 1988, **Fourth Annual Tri-State Trauma Symposium,** Hilton Hotel, Amarillo, $60; contact Joyce Cheek 806/353- 7537.

March 19-20, 1988, **Second Annual TAEMT Skills Competition, Austin,** $75 per two person team, ALS & BLS categories; contact Ricci Elkins 512/892-4627.

March 25-26, 1988, **Emergency and Trauma Management** College of the Mainland, Texas City, Texas, an Educational offering for EMTs, Paramedics and Emergency Department Nurses; call 409/938-1211, Ext. 255 or 713/280-3991, Ext. 2455.

March 26, 1988, **Fifth Annual Traumatology Conference—Trauma: Intervention Update**, Beaumont, $65; contact Linda Chudzinski, Lamar University, Continuing Education Department, P.O. Box 10008, Beaumont, Texas 77710, 409/880-8429.

March 26 -27, 1988, **Basic Vertical Rescue, Waco;** 18 hours CE, $55, rappelling, belaying, SRT and an introduction to stokes basket; contact Renee Michalski, McLennan Community College, 817/756-6551, ext. 212..

April 7 or 8, 1988, Medical Incident Command, $45, ($5 student rate); contact Continuing Education Division Texarkana College, 2500 North Robison Road, Texarkana, Texas 75501, 214/838-4541, Ext. 384.

April 14-17, 1988, **Problem Wounds and Hyperbaric Oxygen,** San Antonio, Texas $250 - $400; contact Helen Turcotte, One Elm Place, 11107 Wurzbach Rd., Suite 204, San Antonio, Texas 78230, 512/690-1005.

April 15, 1988, **Texas EMS Advisory Council,** Austin; contact Don Haas 512/465-2601.

April 18-20, 1988, **Basic and Intermediate Structural Rescue,** Houston, Texas $350; contact Roco Training Specialist, P.O Box 40216, Baton Rouge, Louisana 70835, 1-800-647-7526.

April 27-29, 1988, **Texas Alcohol Traffic Safety Education Association Annual Conference** "Beyond Intervention", Marriott Hotel, 701 North Shoreline Dr., Corpus Christi; contact Terri Wendland, P.O. Box 2018, Corpus Christi, Texas 78403-2018.

April 29-May 1, 1988, **Emergency Care Symposium, Fort Worth,** Tarrant County Convention Center, Ft. Worth; contact Ruth Dean, Texas Chapter ACEP, 214/580-0367.

May 12, 13, & 14, 1988, **Advanced Vertical Rescue,** 32 hours CE, Fire Department Training Center, Waco, Texas, $100; contact Renee Michalski, McLennan Community College, 817/756-6551, Ext. 212.

May 18-21, 1988, **American Trauma Society's 1988 Annual Meeting,** Washington, DC; contact American Trauma Society, P.O. Box 13526, Baltimore, Maryland 21203, 1-800-556-7890 or 301/528-6304.

May 18-21, 1988, **NASAR'S 17th Annual Conference,** Response '88, Climbing Toward Excellence, Salt Lake Sheraton Hotel & Towers; contact Peggy at 703/352-1349, NASAR, P.O. Box 3709, Fairfax, Virginia, 22038.

June 1-4, 1988, **NAEMT Annual Education Conference,** Bally's Hotel, Reno, Nevada; contact National Association of EMT's, 9140 Ward Parkway, Kansas City, Missouri 64114, 816/444-3500.

June 9-10, 1988, **CareFlite Sixth Annual Emergency Care Update,** $75, Hyatt Regency, Dallas, Texas; contact Jane Wynn, CareFlite, 214/944-8584.

June 17-25, 1988, **National Cave Rescue Commission Seminar '88,** Wind Cave, South Dakota; call Rod Dennison for information 817/778-6744.

August 11-13, 1988, **Medic Update '88,** Fountainhead Lodge, Lake Eufaula, sponsored by the Oklahoma EMT Association, contact Bruna Varalli-Claypool, OEMTA, P.O. Box 6244, Moore, Oklahoma 73153, 405/381-4469.

August 27-30, 1988, **Annual IAFC Conference,** (International Association of Fire Chiefs) Washington, D.C.; "IAFC 88: The Future is Today. . . International Improvement Through International Ex-change"; contact IAFC On Scene, Cathy Lemmon, Managing Editor, 1329 18th Street N.W. Washington, D.C. 20036

September 22-24, 1988, **Texas EMS Conference,** Austin, sponsored by Texas Department of Health, $30; contact Don Haas or Alana Mallard for more information 512/465-2601.

POSITIONS AVAILABLE

Paramedic and EMT; Harlingen EMS is the largest provider of EMS in Rio Grande Valley; 7 MICU units operate from 4 stations serving 9 cities and Cameron county; must possess clean driving record, be in good health, and pass comprehensive physical exam; sick leave vacation, paid health and hospital insurance, holidays, retirement and our own in-house C.E. For information call Leonard Callier, 512/428 - 3087.

EMT-SS: Texas Department of Corrections is hiring 171 EMTs with Special Skills. Choice of locations in Texas, excellent benefits, $1515/month. Requires Texas certification as EMT-SS or TDC certification as EMT-Additional Skills. Contact Hugh Robb, Medical Recruiter, Texas Department of Corrections, P.O. Box 99, Personnel Annex, Huntsville, Texas 77342 or call (409) 294-2755.

FOR SALE

Laerdal Cardiac Rhythm Simulator. 4 months old. 72 rhythm variations. $1,000. Contact John Keller, Rt. 2 Box 226 C-2, Fredericksburg Texas, 78624. 512-997-3409 or 512-997-8495.

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