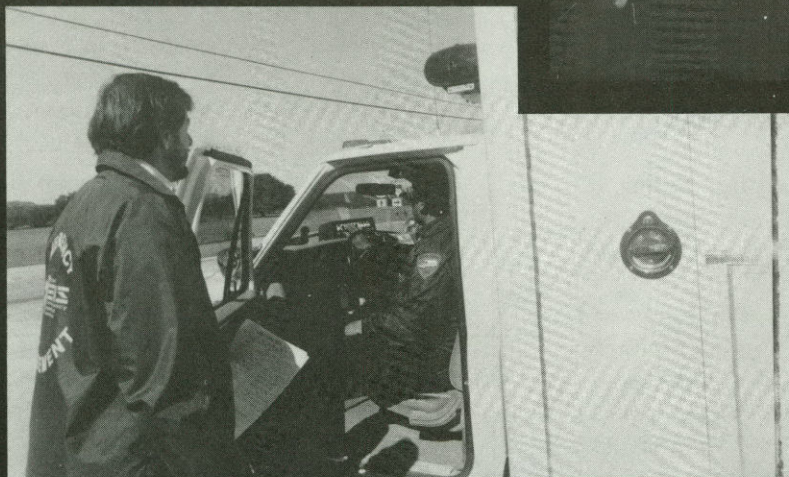
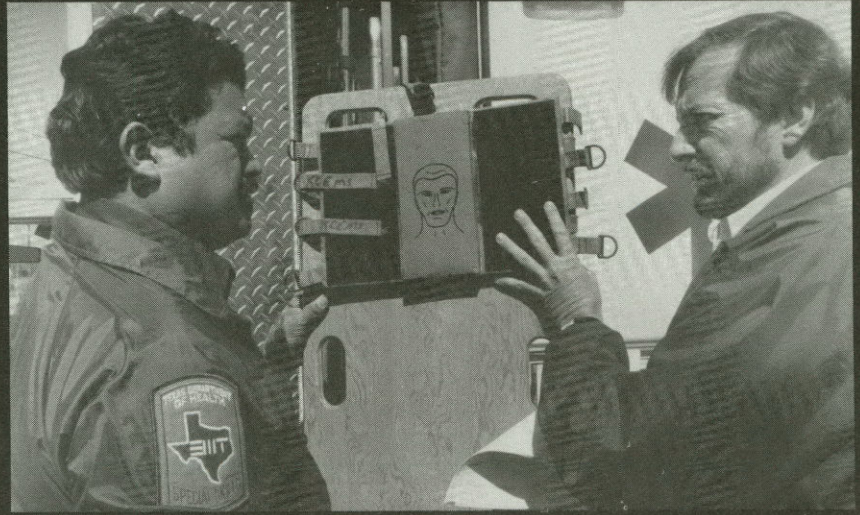
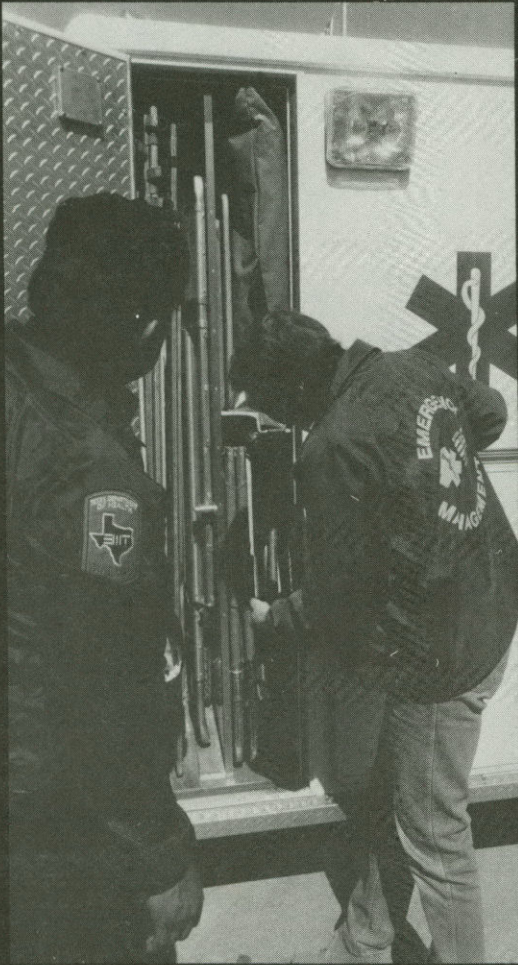


Texas EMS

M e s s e n g e r



**Final Adopted
Rules for EMS
Provider Licensing
on Page 11**

Texas Department of
Health

Frank Bryant, Jr.,
M.D., F.A.A.F.P.
Chairman, Texas Board
of Health

Robert Bernstein, M.D.,
F.A.C.P.
Commissioner of Health

Texas EMS Messenger

August 1990 Volume 11, Issue 7

Table of Contents

- 3 **From This Side** - Bureau Chief Gene Weatherall invites Texas EMS to the Texas Conference September 13 through 15.
- 4 **Local and Regional EMS News** - Monahans, Victoria, PHR 3, and McCulloch county make the news.
- 6 **Bites and Stings** - Donovan Butter, D.O., reprises his popular workshop presentation on spiders, wasps, reptiles, marine life injuries.
- 11 **Provider Licensing Rules** - Final Adopted Rules effective August 1.
- 31 **Trauma Systems** - The Trauma Technical Advisory Committee meets again August 30.
- 32 **Conference Crossword** - This puzzler by Vickie Sokol could win you a free registration to Texas EMS Conference '90.
- 33 **Volunteer Connection** - Wise thoughts collected from various volunteer groups.
- 34 **Texas EMS Conference '90** - Four pages of agenda, registration, T-shirt, mug, cap, Valsalva, volleyball, and golf information. Sign up now and come to Austin in September for 16 CE hours!
- 39 **Editor's Notes** - the choice for EMS Week? Injury prevention presentations, says editor Alana Mallard.



COVER PHOTOS: Lee Sweeten, Public Health Region 6 Program Administrator, does an inspection of EMS equipment and vehicle. See Provider Licensing rules on page 11.

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We are very pleased to have an outstanding article in this issue by Dr. Donovan Butter on the identification and treatment of indigenous bites and stings. Dr. Butter as you may remember was a working Paramedic several years ago and also a former employee of the Health Department. It really pleased us when he graduated from medical school and we are really pleased to have him as a current member of the Texas Emergency Medical Service Advisory Council and an author for the **Texas EMS Messenger**. I am certain that you will find his article in this issue both timely and interesting. Our staff has been informally calling this article "Butter's Biters" but they said we could not tell Dr. Butter of the pet name for his technical article. Please help us keep it a secret.

We would like for all of you to mark your calendars for September 13, 14, and 15 for our Texas EMS Conference '90. Draft agendas for this conference appear to be the strongest educational offerings we have had. After several years experience we feel we have assembled one of the most outstanding faculties in the country. Our staff has been excellent about implementing recommendations we receive each year from our conference evaluations.

One of the more timely topics to be covered this year at our conference will be a panel discussion regarding the issue of nurses working in the field and EMS personnel working in hospitals. The current shortage of nurses certainly makes this an interesting topic, especially in certain areas of the state where we have EMS personnel employed at the local hospitals. We are pleased to announce that one of the panel members will be Marion Garza of **JEMS Magazine**. Marion wrote an article titled "Trading Places" in their February 1990 issue which fostered the idea for this panel discussion. As a member of the audience, you will have an opportunity to participate in a question and answer format. Other members of the panel will be Mark Mallory, a paramedic from Texarkana; Steve Marshall, a paramedic from Amarillo; Carla Cantrell and Vicki Patrick, registered nurses from Dallas; and our special guest will be Clair Jordan, Executive Director of the Texas Nurses Association. This panel and audience discussion will be immediately following the opening luncheon on Thursday

Our staff has been excellent about implementing recommendations we receive each year from our conference evaluations.

September 13.

Doug Key from Fort Worth's MedStar has consistently been the highest rated instructor at our conference. We are honored this year to have him present his outstanding quality assurance lecture in the ballroom to all conference participants.

On Thursday evening we will have a challenge chili cookoff between the Texas Department of Health and the State Department of Highways and Public Transportation. This chili cookoff will be in the courtyard of the Doubletree Hotel and chili samples will be catered by Caliente Chili, Inc., makers of Wick Fowler's 2-Alarm Chili.

Friday, September 14, will be filled with some outstanding workshops in the morning and afternoon, with our annual awards ceremony during lunch. Those of you who are interested in making nominations for some of these awards should do so by September 1. Friday evening we have altered the agenda from past years as we will have the finals of the Valsalva Bowl after our dinner

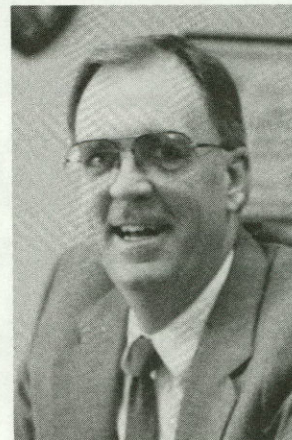
of chicken fried steak and cream gravy. Your evaluation from last year made it very clear that you wanted to return to a more basic meal of chicken fried steak. The other day we met the chef at the Doubletree and learned that he is from Boston, Massachusetts. The good news is

that he is willing for us to teach him how to make southern gravy. During our meeting we explained to him that mushrooms, or any other such products, do not go in southern gravy. After the finals of the Valsalva Bowl there will be music provided by a local DJ who just happens to be a certified ECA.

More workshops are scheduled for Saturday morning and the agenda will conclude with a general session presentation by Lieutenant Mark Warren of the Texas Department of Public Safety. Lt. Warren has always been a conference favorite and we are looking forward to another outstanding presentation from him this year when he talks about "Being in Control."

One of the best things about the conference this year is that the registration fee is still only \$50 and we are going to feed you five times for that price. We hope you can work your schedule to attend and if you need any additional information on the conference please let us know.

From This Side



*Gene Weatherall
Chief
Bureau of
Emergency
Management*

**Register for the
Conference now.
See page 34.**

Local and Regional EMS News

New course coordinators trained in PHR 3

Public Health Region 3 with its headquarters in El Paso, Odessa, and Midland has certified five new EMS Course Coordinators.

Jan Wobbenhorst is chief ranger at Guadalupe Mountains National Park. Laura Harper is EMS director in Van Horn and works for State Department of Highways and Public Transportation in Van Horn. Beverly Gressett is a member of Seminole EMS. Dana Hill works for Seagraves EMS. Robert Underwood works with Rankin EMS and is the principal at Rankin Elementary School.

"We welcome these new trainers," said PHR 3 EMS Program Manager Tom Cantwell, "and hope they will enjoy their role as EMS coordinators."

Teddy bears put to work in Victoria

The Victoria Girl Scouts of America program to supply teddy bears for Victoria EMS ambulances is "100 percent positive," said EMS director Bob Koonce in a recent article in *The Victoria Advocate*. "It's one of the few programs that really works great!"



With Greg Najvar, EMT-Intermediate, and paramedic Donna Odem, Sarah Odem hugs one of the teddy bears Victoria EMS personnel give to their patients.

Every EMS unit carries at least two teddy bears and the supervisor's unit carries an extra bear so a teddy bear is always available when a patient, whether it is an adult or a child, needs some extra TLC.

The Girl Scouts and several other organizations raise money to buy the bears, put each bear into a plastic bag decorated with bows and curly ribbon, and the supply is stockpiled at one of the Victoria Fire Department fire stations.

"We may not save any lives with the teddy bears, but you can't short sell making somebody feel better," said Koonce.

McCulloch county first responders group forms

Something new has happened in the heart of Texas - the citizens of McCulloch county have given life to the McCulloch County First Responders, a volunteer service to assist and back up Brady-McCulloch County EMS. The first responders cover special events, make emergency runs and transports when the paid crew is on a call, and assist EMS on emergency runs.

Five paramedics, one EMT-Intermediate, five EMTs, and two EMT students make up the volunteer service currently, and more volunteers will be added.

"The best thing we have going for us at this time is that our community is behind the first responder program one hundred percent," said Lee Henry, coordinator of the volunteer service.

It could have been worse, he could have rammed an ambulance

A DPS trooper in Brooks county investigated a possible vehicle crash west of Falfurrias recently and gave this report: "Upon arrival trooper found one cow dead and a second loose on the highway. Trooper began directing traffic so as to prevent accidents. The cow rammed trooper's patrol unit causing approximately \$700 damage. Cow also

Local and Regional EMS News

rammed a passing van, causing approximately \$500 damage, and a passing pickup, causing approximately \$100 damage. Cow was destroyed by owner."

Texan elected president of American Trauma Society

Robert V. Walker, DDS, was elected President of the American Trauma Society at the Society's annual meeting in Washington, DC. Walker chairs the division of oral and maxillofacial surgery at the University of Texas Southwestern Medical School in Dallas.

The American Trauma Society dedicates its activities to the prevention of trauma and the improvement of trauma care by educating the public about trauma and promoting injury control nationwide. Physicians, nurses, EMTs, citizens, hospitals, trauma centers, and corporations make up the society's 2,300 members.

For information on joining the American Trauma Society or on its activities call (301) 925-8811 or (800) 556-7890.

West Texas served by Monahans EMS

Monahans EMS is proud to state that they are beating the clock when emergencies arise in Ward County. "We have achieved rapid response, patient assessment and stabilization, and transportation to local hospital personnel with remarkable run times," said Kurt Young, supervisor of West Texas Ambulance Service-Monahans Division.

From the time the call is received until the patient is released to ER personnel is an average of under twenty minutes for the city, while county runs average approximately thirty minutes, according to Young. "The majority of Monahans EMS calls are cardiac and trauma related and the Golden Hour is so vital since we are a rural community. We feel we need to do as much as we can initially and complete all other treatment enroute to the hospital," said Young.

Monahans EMS has served Ward County since September, 1988, and employs two EMT-Intermediates and two EMTs full-time, and three EMTs part-time. Monahans runs approximately seventy calls each month.

Newsletter for EMS managers

Looking for information on EMS management and don't have a lot of time to read? Then don't miss this short, to the point four-page newsletter, **The EMS Leader**. Published ten times each year, the **Leader** offers articles geared to the people side of the business and brings you news of active EMS managers across the country.

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D-1

Identification and treatment of indigenous bites and stings

Arachnids

Black widow spider - The adult female black widow spider (*Lactrodectus mactans*) is responsible for most bites and is most likely to be found in protected areas such as under logs or stones, in barns or garages. The bite may not be felt initially and may or may not be evident by two tiny red spots. Initially, pain at the site may develop and last for several hours. Local muscular cramps can occur and spread to the thigh, shoulder, back and most characteristically to the abdomen. Other symptoms include nausea and vomiting, headache, dyspnea, and diaphoresis.

Lactrodectism, black widow spider bite, is usually self limiting and responds to calcium gluconate and muscle relaxants. Antivenin is effective when administered early, but is rarely necessary and may cause serum sickness. Hospitalization and possible treatment with antivenin are recommended in children, the elderly, and patients with significant chronic disease. Immediate treatment is limited to immobilization, elevation and a cold pack to the affected area.

Brown recluse spider - *Loxosceles reclusa* also prefers protected areas such as under rocks or woodpiles. "Reclusa" means recluse or the secluded one. Bites are most common from April through October.

The brown recluse venom is a complex enzyme which degrades skin and connective tissues as well as blood components. Studies have shown that the immediate cause of skin necrosis is rapid coagulation and occlusion of the small capillaries. The venom appears to act on fat cells which is exhibited by more severe reactions in fatty areas such as the buttocks, thighs and abdomen.

The clinical response ranges from mild local reaction to death. Usually signs and symptoms are confined to the bite site with

necrosis forming over hours or days. After a few hours, there may be itching, tingling, swelling, tenderness, and redness or blanching. The necrotizing lesion is a blue macule which gradually widens as the necrosis spreads. A black eschar (scab) develops which sloughs after several days, leaving a draining ulcer. In some cases chills, fever, nausea and vomiting have been reported.

An experimental antivenin has been developed, but is not yet commonly available. General wound care includes frequent cleanings, tetanus prophylaxis, immobilization, elevation and rest. Antihistamines are useful for itching and mild sedation. In addition, an antibiotic such as erythromycin and aspirin for antiplatelet activity are recommended. Cases have been shown to worsen with heat application and conversely to improve with cold application.

Dapsone, a leukocyte inhibitor, has been shown in several studies to be effective in limiting the degree of necrosis if given early. Surgical excision and local corticosteroids, although recommended by anecdotal cases, have not been shown to be beneficial. However, skin grafting may be necessary to close severely necrotic lesions.

Ticks - *Dermacentor variabilis* and *andersoni* have been shown to transmit bacterial, viral, and protozoal diseases. Of particular concern has been the role of ticks in the transmission of Lyme disease and Rocky Mountain spotted fever.

Rocky Mountain spotted fever - The causative organism is *R. rickettsii*, a gram negative, obligate, intracellular bacterium. Once infected, the ticks will carry the organism for their lifetime. After the introduction of *R. rickettsii* into the host, the organism invades and multiplies in the vascular endothelium, inducing a generalized vasculitis that leads to activation of clotting factors, capil-

Arachnids

Black widow spider
Brown recluse spider
Tick
Rocky Mountain spotted fever
Lyme disease
Common striped scorpion

Hymenoptera

Wasp
Bee
Fire ant

Marine Life

Sea urchin
Moray eel
Shark
Stingray
Jellyfish

Reptiles

Rattlesnake
Copperhead
Water Moccasin
Coral Snake

lary leakage, and microinfarctions.

The classic triad of Rocky Mountain spotted fever is fever, rash, and a history of tick exposure. The incubation period is from two to fourteen days and is followed by abrupt fever, headache, malaise, myalgias, nausea and vomiting. In addition, abdominal pain, diarrhea, stupor and ataxia may occur. The rash usually starts as small pink macules on the extremities and palms spreading inward to the trunk. The rash may be absent in ten to fifteen percent of cases. Death may occur in from four to fourteen days if not promptly treated. The most common cause of death includes cardiac arrest, intracranial hemorrhage, hypotension and disseminated intravascular coagulopathy. To diagnose Rocky Mountain spotted fever clinical criteria must be used and later confirmed with serologic testing.

Texas Department of Health performs isolation work for Rocky Mountain spotted fever rickettsiae and Lyme disease spirochetes. Rickettsial specimens must be collected within one week of onset and before antibiotic treatment. The Bureau of Laboratories at (512) 458-7615 can provide additional requirements for specimens.

Antibiotics shown to be effective for Rocky Mountain spotted fever include tetracycline and chloramphenicol for seven to fourteen days. Outpatient management may be appropriate for mild cases. However, patients with severe systemic symptoms should be hospitalized for IV antibiotics.

Lyme disease - Lyme disease is now the most commonly reported tick-borne disease in the United States. First reported in Lyme, Connecticut and now known to have worldwide distribution, Lyme disease is a multisystemic disorder caused by the spirochete *Borrelia burgdorferi* and transmitted by the ixodid ticks.

In the early stages, nonspecific flulike symptoms and characteristic rash (erythema chronicum migrans) are seen. Three stages of Lyme disease have been described with overlap in the signs and symptoms. The first stage includes the rash, malaise, fatigue, lethargy, headache, fever, chills, nausea and sore throat. The second stage of Lyme disease is characterized by cardiac and neurologic manifestations that can occur from weeks to months after the onset of the illness.

Neurologic complications may include encephalitis, meningitis, cranial neuropathies

and peripheral radiculopathy. Cardiac abnormalities occur in about eight percent of patients and include fluctuating AV block (some may require pacemaker), myopericarditis with typical ECG changes of T-wave inversion and ST segment depression, and/or left ventricular dysfunction.

Stage three of Lyme disease is associated with chronic arthritis most often in the knees. The diagnosis is based primarily on clinical features and a high index of suspicion. A history of tick bite is present in only about thirty percent of cases. Serological testing may be useful to confirm the diagnosis.

Studies indicate that dextrothymoxime, amoxicillin or cephalosporins have been effective in most early Lyme disease cases. IV ceftriazone or ceftriaxone has been shown to improve cases refractory to advanced stage 2 or stage 3 disease.

Common striped scorpion - The common striped scorpion (*Centruroides vittatus*) is nocturnal, and hides in damp, cool areas. Venom is injected by a stinger in the tip of the tail. *Centruroides vittatus* is a relatively innocuous species. The sting is followed by a sharp pain or burning sensation and a wheal, which soon disappears. Treatment is usually limited to local cold and an antihistamine. The Mexican species is much more dangerous and can be fatal.

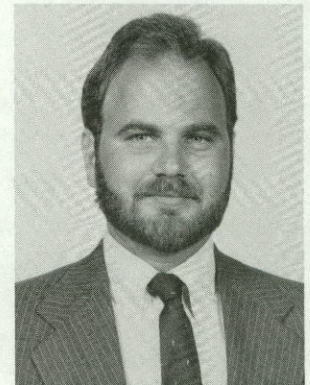
Hymenoptera

Honey bee (*Apis mellifera*), **bumble bee** (*Bombus* species), **yellow jacket** (*Polistes* species), **wasps** (*Chlorion ichneumonea*), **hornets** (*Vespula maculata*), **fire ants** (*Solenopsis* species).

The family of Hymenoptera includes the stinging insects such as bees, wasps, yellow jackets, hornets, and ants. This group of stinging insects is responsible for more deaths than any other dangerous or venomous animal. Patients that die from acute anaphylactic reactions to these stings usually die within one hour of envenomation. Most, however, die within fifteen to thirty minutes! Acute respiratory edema, anaphylactic shock, and subsequent cardiopulmonary arrest are the usual causes of death.

The majority of persons stung by these insects have only a localized reaction with redness, swelling, itching, pain, and a wheal at the site. These symptoms usually resolve within hours. A smaller percentage of persons have a serious allergic reaction with general-

The clinical response ranges from mild local reaction to death from the brown recluse spider bite.



Donovan Butter, D.O., serves as San Antonio EMS assistant medical director and heads up the Bexar county first responder program. Butter is a popular presenter at the Texas EMS Conference where he has spoken on Wilderness EMS and Bites and Stings.



Dermacentor species, tick. Photo provided by Paul Fournier, Bureau of Laboratories, Texas DEpartment of Health

ized urticaria, itching, wheezing and bronchoconstriction, rhinitis, headache, cramping, shock, and fatal anaphylaxis.

Recent observations show that patients on regular beta blocker therapy such as propranolol have an increased susceptibility to anaphylactic reactions as well as increased severity of anaphylaxis. It has been recommended that persons with known histories of systemic insect sting reactions should not take beta blockers if possible.

In mild cases, local cold application and antihistamines are sufficient. Locate and remove the stinger by gentle scraping using care not to cause injection of additional venom. If the individual has a history of sequentially increasing severity to insect stings, caution should be exercised in evaluation and treatment.

Personal self-administration epinephrine kits and instructions in their use should be prescribed for these patients. If generalized hives, itching, shortness of breath or wheezing are present, 1:1000 epinephrine 0.3 to 0.5 mg subcutaneously (repeated in fifteen to thirty minutes as necessary), diphenhydramine 50 mg IV or IM, and/or nebulized beta agonist inhalation treatments should be used.

Corticosteroids are often given following resolution of the acute symptoms to provide more prolonged therapeutic action. In the most severe cases of acute anaphylaxis with profound hypotension, rapid infusion of IV fluids, IV 1:10,000 epinephrine, IV diphenhydramine (Benadryl), MAST, intubation and respiratory support may be necessary. Recent cases have suggested that acute anaphylaxis which is refractory to conventional treatment (epinephrine, H1 blockers such as benadryl, or steroids) may respond to H2 blocker therapy. IV cimetidine (Tagamet) has been shown to relieve itching, flushing, hypotension, and dyspnea which was unresponsive to conventional therapy.

Marine Life

Sea Urchins (*Tripneustes ventricosus*, *Diadema antillarum*) Although there are many varieties of sea urchins in the Gulf of Mexico, several are both injurious and venomous.

Upon penetration of the skin, the sea urchin's spines produce rapid pain and burning. Erythema, swelling, numbness, tingling and paralysis can occur. Infections often will follow injury by the sea urchin spines.

The spines may or may not be visible on x-ray examination. Removal of the spines is very difficult due to the depth of penetration which can occur, and the brittle nature of the spines. Treat as a contaminated puncture wound with cleansing, warm soaks, tetanus prophylaxis, and antibiotics.

Moray Eel (*Gymnothorax* species) These eel-like fish have numerous very sharp teeth and have been known to injure SCUBA and skin divers. Treat as a contaminated puncture/wound.

Sharks (*Carcharhinus* species, *Sphyrna* species, and others) Although usually uncommon on the Texas coast, shark attacks do occur and can be quite severe. The very numerous and sharp teeth, powerful jaws, and violent attacks of the shark can cause immediate loss of an entire limb or major soft tissue loss. This can result in massive hemorrhage and rapid fatality.

The estimated worldwide fatality rate is eighty-five percent. Control of hemorrhage and hemodynamic support are most important. Due to the extent of sharp trauma inflicted, direct pressure and distal tourniquets may be necessary to control hemorrhage. Prompt surgical evaluation and treatment are required.

Stingray (*Aetobatus* species, *Dasyatis* species) These relatives of the shark inflict their damage with a sharp barbed spine located on the ship-like tail. Often found on the bottom in shallow water, stingray injuries usually occur to waders, swimmers, and fishers along the coast. The venomous barb pierces the skin, causing laceration or punctures and is often broken off in the wound.

Excruciating pain radiating proximally, muscle weakness, hypotension, chills, nausea and vomiting are the symptoms. Convulsions, dyspnea, and cardiac arrhythmias can occur.

The venom is a heat labile protein, quickly deactivated by soaking in hot water. After soaking for twenty to thirty minutes in hot water, irrigate and debride the wound of any foreign material, then soak again in hot water. Antihistamines, tetanus and antibiotic prophylaxis should be given. Bacteriologic studies of the marine environment have shown that the optima antibiotics to use in marine contaminated wounds include imipenem, trimethoprim/sulfamethoxazole, or chloramphenicol.

Jellyfish (*Physalia physalis*, *Chrysaora quinquecirrha*, *Stomolophys meleagris*, *Chironex fleckeri*)

Upon penetration of the skin, the sea urchin's spines produce rapid pain and burning. Erythema, swelling, numbness, tingling and paralysis can occur.

This large group of marine animals causes painful and potentially life-threatening stings. Each of the creatures' tentacles carry millions of nematocysts (stinging cells). Dead jellyfish or broken-off tentacles can retain their ability to inflict painful stings for extended periods of time. The most dangerous and deadly venomous animal known to man is the Australian box jellyfish which can cause death in minutes.

Along Texas coasts, the more common Portuguese man-of-war (*Physalia physalis*), with its characteristic blue sail-like body, is less dangerous. Most stings result in localized painful eruptions, but can cause death from shock and drowning or anaphylaxis.

Instant burning pain, hives which may become vesicular, hemorrhagic, or ulcerative; persistent delayed granulomatous nodules, keloids, hyperpigmentation, fat atrophy, gangrene, contraction, and scarring have been reported. Other symptoms include malaise, weakness, ataxia, dizziness, muscle cramps, fever, nausea and vomiting. Coronary vasospasm, respiratory arrest, renal failure, acute anaphylaxis and death have occurred from Portuguese man-of-war stings.

Optimal therapy for jellyfish stings requires accurate identification of the species. Supportive care for anaphylaxis, shock and respiratory failure will require conventional resuscitation therapy. Initial first-aid should be directed at neutralizing the remaining nematocysts to prevent additional envenomation.

For *Chironex fleckeri* or cases involving *Chrysora quinquecirrha*, a baking soda slurry should be used. Following neutralization, the remaining tentacles should be carefully removed from the patient's skin. Local hydrocortisone lotion may be applied to alleviate remaining discomfort. Antihistamines and nonsteroidal analgesics such as ibuprofen or indomethacin can be used. Advanced pharmaceutical and immunotherapeutic agents will probably become available as research progresses.

Reptiles

Rattlesnake, copperhead, and water moccasin, "pit-vipers," Family *Crotalidae*. Venom of the pit vipers is predominately hemolytic with damage of the walls of the blood vessels, inhibition of blood clotting, and destruction of red blood cells and blood proteins leading to reduced circulating volume

and shock. There is also a component of neurotoxin which is characteristically exhibited by numbness and tingling of the lips and a metallic taste.

Within one hour there is pain, swelling, tingling, and numbness at the bite site. Other symptoms of Crotalid (pit viper) envenomation include chills, fever, headache, blurred vision, tremors, purple or greenish discoloration of the area, blistering, regional lymph node enlargement, weakness, dizziness, cold and clammy skin, weak and thready pulse, and overt shock. Thrombosis of the superficial blood vessels may occur causing sloughing and necrosis. High soft tissue pressures from the swelling may cause compartment syndrome with decreased or absent distal pulses and severe pain in the extremity.

The patient should be immobilized to prevent venom spread by muscular movement. The patient should move as little as possible and keep the affected area elevated to the level of the heart.

Do not use arterial or tourniquets. A bandage or air splint that gently compresses the soft tissues without inhibiting normal vascular circulation is preferred. Inflate splints to 50 to 60 mm Hg.

IV fluids may be needed to treat any associated hypovolemic or neurogenic shock. Colloid fluids are preferred, but crystalloids such as normal saline or lactated ringers may be used. Antivenom should be obtained and as many as five to forty vials may be necessary depending on the extent of envenomation.

A major complication of antivenom therapy can be anaphylaxis to the horse serum used in the preparation. A history of allergy to horse serum should be sought and skin testing is necessary prior to the use of antivenom. Its use should be restricted to medical facilities capable of dealing with acute anaphylactic reactions or serum sickness. Corticosteroids have been advocated to treat some of the systemic symptoms seen with antivenom use.

Surgical consultation may be required in severe cases for debridement, tissue grafting and occasionally fasciotomy.

Tetanus and infection prophylaxis should always be given.

High voltage electrical shock treatments, despite some anecdotal reports, have shown no benefit in poisonous snakebites.

Coral snake: (*Micrurius fulvius*)

As many as five to forty vials of antivenom may be necessary depending on the extent of pit viper envenomation.



Loxosceles reclusa, brown recluse spider. Photo provided by Paul Fournier, Bureau of Laboratories, Texas Department of Health

All patients bitten by coral snakes should be observed for at least 24 hours with available respiratory support.

fulvius) Family Elapidae. The coral snakes range from North Carolina to Texas and are the only elapids native to the United States. Although famous as relatives to the dreaded Mamba and Cobra, coral snakes are shy and timid and account for less than two percent of all U.S. snake bites.

Coral snake venom is almost completely neurotoxic. There usually are no local symptoms and the neurologic effects may be delayed for several hours. Symptoms may include emotional changes, lethargy, euphoria, muscular weakness, ptosis, nausea and vomiting, cranial nerve palsies, convulsions and respiratory paralysis. All of the neurologic effects of the venom are reversible.

In patients with respiratory depression or arrest, endotracheal intubation should be available. Children developing the characteristic symptoms should be checked for fang marks. All patients bitten by coral snakes should be observed for at least 24 hours with available respiratory support.

Coral snake antivenom is available and effective for all but the Sonora coral snake of Arizona and New Mexico. Antivenom should be administered to coral snake bite victims with systemic symptoms of neurotoxicity. As with crotalid antivenom, skin testing should

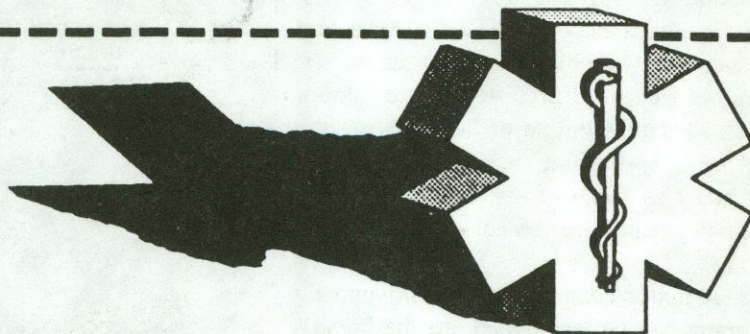
be done prior to administration. However, anaphylactic reactions have been reported despite negative skin testing.

The area should be cleansed as any other wound.

Tetanus and infection prophylaxis should be given.

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It's official!! Provider licensing effective August 1, 1990.

The Texas Department of Health adopted final rules for Provider Licensing at its June 30 Board of Health meeting and those rules went into effect August 1. An EMS provider whose current vehicle permit expires prior to September 1, 1990 will have until November 1, 1990 to meet the new provider licensing requirements.

The new adopted rules implement the requirements of Senate Bill 312 and House Bill 791 of the 71st Legislature, 1989, which require the department to update and clarify existing rules and establish new requirements. The new sections are adopted under the Emergency Medical Services Act, Health and Safety Code, Chapter 773, which provides the Texas Board of Health with the authority to adopt rules to implement the EMS Act.

Texas EMS Registry administrator Pam Price has prepared an EMS Provider License packet to help providers through the new application process and the packets are available through the public health region offices. The packet contains a listing of the requirements of the license and an instruction sheet on how to document the required elements in the provider's organization. Also, the EMS Provider License

packet contains descriptions of acceptable equipment, sample staffing plans, communications inventory forms, and forms to list vehicles and personnel.

Providers will be expected to complete the packet requirements and submit the application form with the nonrefundable fee, if applicable, to their public health region office. When the packet requirements are completed and vehicles inspected the provider's license will be issued from the Texas EMS Registry in Austin.

Provider licenses are issued for two years and, in addition to the license, providers receive vehicle authorizations for the number and types of vehicles operated.

Changes in the license such as personnel, vehicles, level of care, and medical direction must be reported to the public health regional office by certain times which are outlined in the rules.

EMS Division Director Pam West will present a provider licensing program at the Texas EMS Conference in September. Her presentation, entitled "The Why, When, What, and What's Next of Provider Licensure," will answer specific questions that providers have about the new process.

In what Bureau Chief Gene Weatherall called the biggest change in Texas EMS in years, provider licensing has replaced the old vehicle permitting process. Final adopted rules for provider licensing are on pages 12 through 30 in this issue of the Texas EMS Messenger.

- 157.2.
Definitions
- 157.3.
Processing EMS
Provider Licenses and
Applications for EMS
Personnel Certification
- 157.4.
Request for EMS
Training at the Local
Level
- 157.11.
Requirements for An
EMS Provider License
- 157.12.
Basic Life Support
Vehicle License
Requirements
- 157.13.
Advanced Life
Support Vehicle
License
Requirements
- 157.14.
Mobile Intensive Care
Unit License
Requirements
- 157.15.
Requirements for a
Specialized Vehicle
License
- 157.16.
Subscription Program
- 157.17.
Delegation of Vehicle
Inspection
- 157.18.
Unannounced Inspections
and Visits
- 157.19.
Emergency Suspension,
Suspension, Probation,
and Revocation of a
License
- 157.20.
Request for Variances
from Minimum
Standards

**§157.2.
Definitions**

§157.2.

The following words and terms when used in these sections, shall have the following meanings, unless the context clearly indicates otherwise.

Act - Emergency Medical Services Act - Health and Safety Code, Chapter 773.

Advanced life support (ALS) - Emergency prehospital care that uses invasive medical acts. The provision of advanced life support shall be under the medical supervision and control of a licensed physician.

Advanced life support (ALS) vehicle - A vehicle that is designed for transporting the sick and injured and that meets the requirements of a basic life support vehicle and has sufficient equipment and supplies for providing intravenous therapy and endotracheal or esophageal intubation or both.

Basic life support (BLS) - Emergency prehospital care that uses noninvasive medical acts. The provision of basic life support may be under the medical supervision and control of a licensed physician.

Basic life support (BLS) vehicle - A vehicle that is designed for transporting the sick or injured and that has sufficient equipment and supplies for providing basic life support.

Board - The Texas Board of Health.

Bureau - The Bureau of Emergency Management of the Texas Department of Health.

Bureau chief - The chief of the Bureau of Emergency Management of the Texas Department of Health.

Candidate - An individual who is requesting emergency medical services personnel certification from the Texas Department of Health.

Certificant - Emergency medical services personnel with current certification from the Texas Department of Health.

Course medical director - A physician licensed to practice in Texas who shall

provide direction over all instruction and clinical practice required in an EMT-I and EMT-P training course.

Department - The Texas Department of Health.

Emergency care attendant (ECA) - An individual who is certified by the department as minimally proficient to provide emergency prehospital care by providing initial aid that promotes comfort and avoids aggravation of an injury or illness.

Emergency medical services (EMS) - Services used to respond to an individual's perceived need for immediate medical care and to prevent death or aggravation of physiological or psychological illness or injury.

Emergency medical services and trauma care system - An arrangement of available resources that are coordinated for the effective delivery of emergency health care services in geographical regions consistent with planning and management standards.

Emergency medical services personnel -
 (A) emergency care attendant (ECA);
 (B) emergency medical technician (EMT);
 (C) emergency medical technician-intermediate (EMT-I); or
 (D) emergency medical technician-paramedic (EMT-P).

Emergency medical services provider - A person who uses or maintains emergency medical services vehicles and emergency medical services personnel to provide emergency medical services. See §157.11 of this title (relating to EMS Provider License) regarding fee exemption.

Emergency medical services volunteer provider - An emergency medical services which has at least 75 percent of the total personnel as volunteers and is recognized as a nonprofit corporation by the Internal Revenue Service, Section 501(c)(3). See §157.11 of this title (relating to EMS Provider License) regarding fee exemption.

Emergency medical services volunteer - Emergency medical services personnel who provide emergency prehospital care without remuneration, except for reimburse-

ment for expenses.

Emergency medical technician (EMT) - An individual who is certified by the department as minimally proficient to perform emergency prehospital care that is necessary for basic life support and that includes the control of hemorrhaging and cardiopulmonary resuscitation.

Emergency medical technician - intermediate (EMT-I) - An individual who is certified by the department as minimally proficient in performing skills required to provide emergency prehospital care by initiating under medical supervision certain procedures, including intravenous therapy and endotracheal or esophageal intubation or both.

Emergency medical technician - paramedic (EMT-P) - An individual who is certified by the department as minimally proficient to provide emergency prehospital care by providing advanced life support that includes initiation under medical supervision of certain procedures, including intravenous therapy, endotracheal or esophageal intubation or both, electrical cardiac defibrillation or cardioversion, and drug therapy.

Emergency medical services vehicle -
(A) basic life support vehicle;
(B) advanced life support vehicle;
(C) mobile intensive care unit; or
(D) specialized emergency medical services vehicle.

Emergency prehospital care - Care provided to the sick and injured before or during transportation to a medical facility, including any necessary stabilization of the sick or injured in connection with that transportation.

Fleet - For the purpose of determining fees, a fleet is twenty or more EMS vehicles operated by an EMS provider in any given service area.

Governmental entity - A county, a city or town, a school district, or a special district or authority created in accordance with the Texas Constitution, including a rural fire prevention district, a water district, a municipal utility district, and a hospital district.

Industrial ambulance - Any vehicle owned

and operated by an industrial facility including both ground vehicles at industrial sites used for the initial transport or transfer of the unstable urgently sick or injured and ground vehicles at industrial sites used to transport persons at those sites who become sick, injured, wounded, or otherwise incapacitated in the course of their employment from job site to an appropriate medical facility; provided, however, that the vehicle is not available for hire or use by the general public except when assisting the local community in disaster situations or when existing ambulance service is not available.

Medical supervision - Direction given to emergency medical services personnel by a licensed physician under the terms of the Medical Practice Act, (Texas Civil Statutes, Article 4495b) and rules promulgated by the Texas State Board of Medical Examiners pursuant to the terms of the Medical Practice Act.

Mobile intensive care unit (MICU) - A vehicle that is designed for transporting the sick or injured and that meets the requirements of the advanced life support vehicle and has sufficient equipment and supplies to provide cardiac monitoring, defibrillation, cardioversion, drug therapy, and two-way radio communication.

Operational policies - Policies and procedures which are the basis for the operation of the service and include, but not limited to such areas as vehicle maintenance, complaint investigation, multicasualty incidents, hazardous materials; but do not include personnel or financial policies.

Person - An individual, corporation, organization, government, governmental subdivision or agency, business, trust, partnership, association, or any other legal entity.

Recertification - The procedure for renewal of emergency medical services certification.

Reciprocity - The recognition of certification or privileges granted to an individual from another state.

Service area - A trade, market, patient flow, or other catchment area in which an emergency medical services provider provides

emergency prehospital care.

Shall - Mandatory requirements.

Sole provider - The only emergency medical services provider in a service area.

Specialized emergency medical services vehicle - A vehicle that is designed for transporting the sick or injured by means of air, water, or ground transportation, that is not a basic life support or advanced life support vehicle or a mobile intensive unit, and that has sufficient equipment and supplies to provide for the specialized needs of the patient transported. The term includes fixed wing aircraft, helicopters, boats, and ground transfer vehicles used for transporting the sick or injured.

Staffing Plan - A document which indicates the overall shift patterns of EMS personnel.

Trauma Patient - Any critically injured person who has been evaluated by a physician, a registered nurse, or emergency medical services personnel and found to require medical care in a trauma facility.

Trauma facility - A health care facility that is capable of comprehensive treatment of seriously injured persons and which is a part of an emergency medical services and trauma care system.

When in service - The period of time when an EMS vehicle is at the scene or when enroute to a facility with a patient.

are as follows.

(1) EMS provider licenses. The time periods are 21 days for the letter of application acceptance for EMS provider license, 21 days for the letter of deficiency, and 45 days after passing vehicle inspection for the issuance of the EMS provider license.

(2) EMS personnel certificates. The time periods are 21 days for the letter of application acceptance for testing for EMS personnel certification, 21 days for the letter of deficiency, and 45 days after testing for the issuance of EMS personnel certificate.

(c) Second time period. The second period is a time from the date of receipt of the last item necessary to complete the application, including inspection or testing, to the date of issuance of written notice approving or denying the application. The denial time periods include notification of the proposed decision and the opportunity for an informal or formal hearing. The time periods for each application are as follows.

(1) EMS provider license.

(A) The time period for the initial letter of approval for a license is 45 days.

(B) The time period for the letter of denial for a license is 120 days. The time period includes the applicant requests for a variance from minimum standards and the review necessary for this request.

(C) The time period for the issuance of a license is 45 days.

(2) EMS personnel certificates.

(A) The time period for the letter of approval for an examination is 45 days.

(B) The time period for the letter of denial for an examination is 180 days. This time limit reflects the applicant being investigated for acceptance for examination based on a criminal conviction or statutory action under the Health and Safety Code, Chapter 773 and rules adopted thereunder.

(C) The time period for the issuance of a certificate is 45 days.

(d) Reimbursement of fees.

(1) In the event the application is not processed in the time periods as stated in subsections (b) and (c) of this section, the applicant has the right to request of the bureau chief full reimbursement of all filing fees paid in that particular application process. If the bureau chief does not agree that the established periods have been violated or finds that good cause existed for exceeding the established periods, the

§157.3. Processing EMS Provider Licenses and Applications for EMS Personnel Certification

§157.3.

(a) Purpose. The purpose of this section is to set out the time periods by which the department processes applications for EMS provider licenses and EMS personnel certification.

(b) First time period. The first period is a time from the date of receipt of an application to the date of issuance of a written notice that the application is complete or that additional specific information is required. An appointment for the inspection of an EMS provider may be in lieu of the notice of acceptance of a complete application. The time periods for each application

request will be denied.

(2) Good cause for exceeding the period established is considered to exist if:

(A) the number of applications for licenses, registrations, certifications, and permits as appropriate to be processed exceeds by 15% or more the number processed in the same calendar quarter the preceding year;

(B) another public or private entity utilized in the application process caused the delay; or

(C) other conditions existed giving good cause for exceeding the established periods.

(e) Appeal. If the request for full reimbursement authorized by subsection (d) of this section is denied, the applicant may then appeal to the commissioner of health for a resolution of the dispute. The applicant shall give written notice to the commissioner that he requests full reimbursement of all filing fees paid because his application was not processed within the adopted time period. The bureau chief shall submit a written report of the facts related to the processing of the application and good cause for exceeding the established time periods. The commissioner will make the final decision and provide written notification of his decision to the applicant and the bureau chief.

(f) Contested case hearing. If at any time during the processing of the application during the second time period, a contested case hearing becomes involved, the time periods in §1.34 of this title (relating to Time Periods for Conducting Contested Case Hearing) are applicable.

(g) Application for EMS provider license by a corporation. An applicant for an EMS provider license who is a corporation under the Texas Business Corporation Act, Texas Civil Statutes, Article 2.45, shall provide the department with an affidavit issued by the comptroller's office attesting to the applicant's good standing under the Tax Code, Texas Codes Annotated, Chapter 171; and shall comply with department requirements regarding payment of franchise taxes by corporations contracting with the department or applying for a license from the department as described in §1.161 of this title (relating to Board of Health).

§157.4.

(a) Generally. A government entity that sponsors or wishes to sponsor an EMS provider may request the bureau to provide EMS training for emergency care attendants if the training is not available locally or can not be made available locally.

(b) Requests.

(1) Requests from governmental entities shall be signed by the mayor, city manager, county judge, chairman of a hospital district board, or appropriate authority of other governmental entities.

(2) All requests shall be in writing and sent through the appropriate public health region office to the bureau chief and shall contain:

(A) number of residents in service area;

(B) number of square miles in service area;

(C) number and names of trained personnel, their certification level and expiration date;

(D) number of vehicles;

(E) name and distance to closest known training site;

(F) source and amount of monetary support;

(G) local government support and fiscal and other resources;

(H) annual EMS budget;

(I) time and place preferred by provider for training;

(J) number of runs per month; and

(K) other EMS providers in service area.

(c) Evaluation of requests. The bureau will evaluate each request and give priority to those requests indicating the greatest need for training. The bureau may request additional information for clarification.

(1) Evaluation of the request shall be based upon:

(A) the determination of availability of training in service area;

(B) the number of trained personnel in the service area for vehicle numbers and run data;

(C) the level of care being provided by a sponsored EMS provider; and

(D) the cost of training.

(2) The request may be denied if the

§157.4.

Request for EMS Training at the Local Level

bureau concludes from data presented that training is unnecessary or the training is available locally or can be made available locally.

(d) Response to requests. The bureau shall respond in writing, to the request within 30 days of receipt of the request.

§157.11. Requirements for An EMS Provider License

§157.11.

(a) License application process shall be as follows.

(1) Initial application process.

(A) An EMS provider shall request an application form from the bureau.

(B) The EMS provider shall submit the completed, signed and dated application and the nonrefundable fee, if any, as provided in subsection (b) of this section.

(C) The EMS provider shall submit a legal document which records the name of the business and specifies the name(s) of the person(s) legally responsible for the organization.

(D) The EMS provider shall complete and submit the radio/electronic communication capability form.

(E) The EMS provider shall submit names of all employees indicating paid or non-paid, level of certification, and identification number.

(F) An EMS provider shall provide evidence of:

(i) staffing plan;

(ii) treatment and transport protocols and/or standing orders, reviewed, dated, and signed within 90 days prior to the license period; original signature of medical director required at advanced levels;

(iii) a sample patient run report form; and

(iv) a run review process which shall consist of evaluation and action.

(G) The EMS provider shall provide proof of vehicle liability insurance as required by state law.

(H) An EMS provider who is operating at an advanced level either on a full-time or part-time basis shall submit a copy of the contract and/or letter of agreement with the medical director.

(I) The BLS EMS provider who operates intermittently at an advanced level on a part-time basis, i.e. when advanced level personnel are available, shall be responsible

for having the equipment, and medical director necessary for the level of advanced care.

(J) An EMS provider claiming volunteer status shall submit verification and letter of governmental sponsorship or recognition.

(K) The EMS provider shall submit a list of all vehicles with the vehicle identification number (VIN).

(L) Each EMS provider shall have current operational policies in place and shall submit evidence of such by January 1, 1992.

(2) License renewal process.

(A) The bureau shall notify the EMS provider 60 days prior to the expiration date of the provider license. If a provider does not receive notice of expiration from the bureau, it is the duty of the provider to notify the bureau and request a license renewal application. Failure to apply for renewal shall result in expiration of the license.

(B) The EMS provider shall submit the completed application and the nonrefundable fee, if any, as provided in subsection (b) of this section. An application shall be submitted at least 30 days prior to the expiration date.

(C) The EMS provider shall submit a revised/verified radio/electronic communication capability form.

(D) The EMS provider shall provide proof of vehicle liability insurance as required by state law;

(b) License fees.

(1) Fees shall be \$100 for each EMS vehicle operated by the provider, not inclusive of reserve vehicles, or a maximum of \$2000 during the two-year registration period; except however, an EMS provider who exclusively uses volunteers and has no more than five full-time staff or their equivalent to provide emergency prehospital care is exempt from the fees.

(2) If a license is issued for less than a two-year period under Subsection (f) of this section, the following fees per vehicle shall apply:

(A) \$100 if the license is valid for 19-24 months;

(B) \$75.00 if the license is valid for 13-18 months;

(C) \$50.00 if the license is valid for 7-12 months; or

(D) \$25.00 if the license is valid for 6 months or less.

(3) If the EMS provider has met the

maximum \$2,000 fee during a license period, no fee shall be required for additional vehicles added during the license period.

(c) Vehicle Inspections shall be as follows.

(1) Prior to the issuance of a license, each of the EMS provider's vehicles shall be inspected by the department.

(2) Each vehicle shall have a current motor vehicle certificate of inspection prior to the department's inspection.

(3) The inspection shall include:

(A) visual and physical inspection of each vehicle for the purpose of determining compliance with the vehicle specifications as described in §157.12 of this title (relating to Basic Life Support Vehicle License Requirements), §157.13 of this title (relating to Advanced Life Support Vehicle License Requirements), §157.14 of this title (relating to Mobile Intensive Care Vehicle License Requirements), or §157.15 of this title (relating to Requirements for a Specialized Vehicle License);

(B) visual and physical inspection of the equipment on each vehicle for the purpose of determining compliance with the vehicle equipment specifications as described in §157.12 of this title (relating to Basic Life Support Vehicle License Requirements), §157.13 of this title (relating to Advanced Life Support Vehicle License Requirements), §157.14 of this title (relating to Mobile Intensive Care Vehicle License Requirements), or §157.15 of this title (relating to Requirements for a Specialized Vehicle License);

(C) visual inspection of safety equipment as follows:

(i) one fire extinguisher securely mounted and readily accessible;

(ii) two "No Smoking" signs, one mounted in patient compartment and one in the cab which are easily visible from each entry way;

(iii) a minimum of three visible warning devices on the vehicle, i.e., reflective triangles, etc. which are safe and effective and visible for at least 500 feet; and

(iv) one functional flashlight (excluding penlight).

(d) A Vehicle shall fail the inspection if the requirements in subsection (c) of this section are not met and an EMS provider license shall not be issued. The department shall give the EMS provider a written report at the time of the inspection indicating the

deficiencies.

(e) A provisional license may be issued as follows.

(1) The department may issue a 60-day provisional license if:

(A) it finds that the public interest and the community needs would be served;

(B) staffing requirements are met;

(C) vehicle specifications are met;

(D) the required fee is received and any part of application process is incomplete; and

(E) the following equipment is present:

(i) one small, one medium, and one large size extrication cervical collar (soft foam rubber cervical collars are not acceptable);

(ii) one portable suction unit with connecting tubing and suction tips; (bulb syringes, syringes, or foot pumps not acceptable);

(iii) three bag valve mask units in adult, pediatric, and infant sizes with appropriate size masks which can be used with an external oxygen supply;

(iv) oropharyngeal airways (nonmetallic) in adult, pediatric, and infant sizes;

(v) two portable medical grade "D" cylinders or equivalent oxygen units with one regulator or one portable medical grade "D" cylinder or equivalent oxygen unit with one regulator and piped in medical grade at least "M" cylinder (107 cubic feet) oxygen unit in working order with current inspection stamp, and adequate tubing and semi-open valveless, transparent masks in adult, pediatric, and infant sizes;

(vi) padded board, cardboard, or aluminum splints as follows:

(I) two at least 15 inches long by at least three inches wide;

(II) one at least 48 inches long by at least three inches wide; or

(III) may be, but not limited to, any of the following types of splints:

(-a-) inflatable splints;

(-b-) foam-type rapid splints;

(-c-) wire ladder splints;

(-d-) commercial fracture pack;

(vii) long and short spine boards to include:

(I) one long six-foot board or commercial device; and

(II) one short spine board or commercial device; or

(III) commercial device which serves the purpose of both spine boards

described in subclauses (I) and (II); of this clause;

- (viii) sphygmomanometer with adult, pediatric, and infant size cuffs;
- (ix) stethoscope;
- (x) one multilevel stretcher with two clean sheets and two clean blankets; and
- (xi) dressing and bandaging materials.

(2) A second 60 day provisional license may be issued if:

(A) written documentation is submitted showing that equipment repair and/or part is back ordered; or

(B) written documentation is submitted showing that equipment was ordered but not received.

(f) An EMS provider who meets the requirements of this section shall be issued a license valid for a period of two years, except that the department may issue an initial license for less than two years in order to conform expiration dates to existing inspection schedules for a locality. An initial license shall be valid upon the date of issuance. A renewed license shall be valid on the day after the expiration of the previous license.

(g) A license may be issued for various levels of service. Vehicle authorizations may be issued for the following types or combination of types of vehicles:

- (1) BLS vehicles;
- (2) ALS vehicles;
- (3) MICU units; and
- (4) specialized emergency medical services vehicles.

A vehicle authorization may be used interchangeably between vehicles in the fleet. However, the number of vehicles in operation at any given time shall not exceed the number of vehicle authorizations.

(h) A license is not transferable from one EMS provider to another.

(i) Responsibilities of the EMS provider during the license period shall include:

- (1) notification of the bureau if a vehicle is added with submission of the prorated license fee, if applicable, after which the vehicle shall be inspected to determine compliance with §157.12 of this title (relating to Basic Life Support Vehicle License Requirements), §157.13 of this title (relating to Advanced Life Support Vehicle License Requirements), §157.14 of this title (relating to Mobile Intensive Care Vehicle License Requirements), or §157.15 of this title (relating to Requirements for a Specialized

Vehicle License);

(2) completion of the annual run response summary.

(3) notification of the bureau within 30 days of a change in the provider name. If ownership changes a new application and fee is required for an EMS provider license.

(4) notification of the bureau within one working day of any change in medical director and written notification within 30 days of the change in medical director and submission of a copy of the new contract and/or letter of agreement with the medical director;

(5) notification of bureau within 48 hours of any permanent or long term change in level of service provided. A new application and prorated fee, if applicable, shall be submitted. Inspection shall be required if level of service is increased, e.g., BLS to ALS. A replacement vehicle authorization shall be issued;

(6) notification of the bureau within 30 days of any changes in:

(A) name(s) of the person(s) legally responsible for the organization; or

(B) communication status, capability, or equipment i.e. base stations or frequency;

(7) notification of the bureau if a vehicle is substituted for 15 days or longer. No vehicle shall be substituted longer than 90 days; and

(8) that a vehicle when in service is staffed and equipped in accordance with the Act and the rules adopted thereunder for each level of care provided.

(j) The EMS provider shall have the name of the service prominently displayed on the sides of the vehicle.

(k) The vehicle authorization shall be prominently displayed in the patient compartment and the licensure decal shall be displayed on the lower right rear window.

(l) An EMS provider shall not advertise as a volunteer provider unless at least 75% of all personnel are volunteer.

(m) An EMS provider who has a check returned for "insufficient funds" shall be subject to revocation of the EMS provider license and this may be used as grounds for nonrenewal of the EMS provider license.

(n) An EMS provider whose current vehicle permit expires prior to September 1, 1990, shall have until November 1, 1990, to meet the requirements of this section.

§157.12.

(a) Staffing requirements. When in service, a basic life support vehicle shall be staffed with at least two emergency care attendants. However, a basic life support provider who does not provide service 24 hours per day, seven days per week, shall publish notice of the hours of operation in the local media and all advertising shall contain hours of operation.

(b) Vehicle specifications. After June 30, 1990, all vehicles which have not previously been issued a vehicle authorization under the current EMS provider license shall meet the current document entitled "Federal Specification Ambulance Emergency Medical Care Vehicle" as published by the General Service Administration as regard to type (I, II, III).

(c) Required equipment. The following BLS required equipment must be clean and in working order to provide safe transport for patients in the individual service areas:

- (1) one small, one medium, and one large size extrication cervical collar (soft foam rubber cervical collars are not acceptable);
- (2) one portable suction unit with connecting tubing and suction tips; (bulb syringes, syringes or foot pumps not acceptable); with connecting tubing and suction tips;
- (3) three bag valve mask units in adult, pediatric, and infant sizes with appropriate size masks which can be used with an external oxygen supply;
- (4) oropharyngeal airways (nonmetallic) in adult, pediatric, and infant sizes;
- (5) two portable medical grade "D" cylinders or equivalent oxygen units with one regulator or one portable medical grade "D" cylinder or equivalent oxygen unit with one regulator and piped in medical grade at least "M" cylinder (107 cubic feet) oxygen unit in working order with current inspection stamp, and adequate tubing and semi-open valveless, transparent masks in adult, pediatric, and infant sizes;
- (6) two multi-trauma dressings approximately 10-inch by 30-inch in size;
- (7) a minimum of five dozen sterile gauze pads;
- (8) 12 soft roller adhering bandages;
- (9) six sterile petroleum jelly impregnated gauze or suitable occlusive dressing;
- (10) four rolls of adhesive tape;

- (11) four sterile burn sheets;
- (12) one traction splint with all attachments suitable for an adult and pediatric patient or one adult and one pediatric traction splint;
- (13) padded board, cardboard, or aluminum splints as follows:
 - (A) two at least 15 inches long by at least three inches wide;
 - (B) one at least 48 inches long by at least three inches wide; or
 - (C) may be, but not limited to, any of the following types of splints:
 - (i) inflatable splints;
 - (ii) foam-type rapid splints;
 - (iii) wire ladder splints;
 - (iv) commercial fracture pack;
- (14) long and short spine boards to include:
 - (A) one long six-foot board or commercial device; and
 - (B) one short spine board or commercial device; or
 - (C) commercial device which serves the purpose of both spine boards described in subparagraphs (A) and (B) of this paragraph;
- (15) 12 triangular bandages;
- (16) two pairs of bandage scissors; (table shears are not acceptable);
- (17) sealed obstetrics kit. A commercial kit is acceptable. A non-commercial kit shall be autoclaved or otherwise suitably sterile with the expiration date attached and shall be labeled and include the following:
 - (A) sterile gloves;
 - (B) one disposable sheet;
 - (C) cleansing cloths;
 - (D) umbilical clamps;
 - (E) nylon cord tie-offs;
 - (F) disposable scalpel;
 - (G) bulb aspirator;
 - (H) four inch by four inch sterile gauze pads;
 - (I) obstetrical pad;
 - (J) receiving blanket;
 - (K) disposable towels; and
 - (L) plastic bag;
- (18) nonporous infant insulating device;
- (19) sphygmomanometer with adult, pediatric, and infant size cuffs;
- (20) stethoscope;
- (21) penlight;
- (22) one multilevel stretcher with two clean sheets, and two clean blankets;
- (23) two-way radio or cellular phone

**§157.12.
Basic
Life Support
Vehicle
License
Requirements**

communication capability between vehicle and dispatch, hospital or law enforcement. (Citizen's band radio is not acceptable);

- (24) two pair protective goggles;
- (25) one box latex gloves; and
- (26) one current copy of the DOT document titled "Emergency Response Guide Book."

**§157.13.
Advanced
Life Support
Vehicle
License
Requirements**

§157.13.

(a) Staffing requirements. The requirements for staffing an advanced life support (ALS) vehicle shall be as follows.

(1) The EMS provider shall be capable of providing this level of care 24 hours per day, seven days per week and the provider shall make available such records or information as requested by the department to confirm the availability of certified EMS personnel to provide ALS level of care.

(2) When in service, an ALS vehicle shall be staffed with two EMS personnel, one of whom shall be at least an EMT and the other shall be at least an EMT-I.

(3) A medical director is required.

(b) Vehicle specifications. After June 30, 1990, all vehicles which have not previously been issued a vehicle authorization under the current EMS provider license shall meet the current document entitled "Federal Specification Ambulance Emergency Medical Care Vehicle" as published by the General Service Administration as to type (I, II, III).

(c) Special waste. The EMS provider shall have puncture proof containers on all vehicles for the disposal of sharps and shall have an arrangement with a hospital for the exchange of full containers or shall comply with the department rules regarding special waste in §§1.131-1.137 of this title (relating to Definition, Treatment and Disposition of Special Waste from Health Care Related facilities).

(d) Required equipment. ALS required equipment shall include all BLS equipment as provided in §157.12 of this section (relating to Basic Life Support Vehicle Requirements) and the following which shall be in sufficient quantities, clean, and in working order:

- (1) intravenous fluids with administration sets for volume replacement or to keep vein

**§157.14.
Mobile
Intensive
Care Unit
License
Requirements**

open in quantities and types as in EMS provider's medical treatment protocols/standing orders;

- (2) 50% Dextrose;
- (3) esophageal intubation devices and/or endotracheal tubes in sizes specified by the medical director with laryngoscope and blades in adult, pediatric, and infant sizes;
- (4) demand valve oxygen unit or a mechanically operated positive pressure ventilation device which is capable of manual or automatic operation;

- (5) intravenous catheters and/or butterflies;
- (6) one copy of the medical treatment protocols/standing orders reviewed, dated and signed with original signature of the EMS provider's medical director within 90 days prior to the license period;
- (7) a list signed by the medical director which contains the following items as identified in the medical treatment protocols/standing orders:

(A) types and quantities of intravenous solutions;

(B) quantities and sizes of intravenous catheters and butterflies;

(C) quantities and sizes of endotracheal tubes and/or esophageal intubation devices; and

(D) any specialized equipment required in medical treatment protocols/standing orders.

(A) types and quantities of intravenous solutions;

(B) quantities and sizes of intravenous catheters and butterflies;

(C) quantities and sizes of endotracheal tubes and/or esophageal intubation devices; and

(D) any specialized equipment required in medical treatment protocols/standing orders.

(A) types and quantities of intravenous solutions;

(B) quantities and sizes of intravenous catheters and butterflies;

(C) quantities and sizes of endotracheal tubes and/or esophageal intubation devices; and

(D) any specialized equipment required in medical treatment protocols/standing orders.

(D) any specialized equipment required in medical treatment protocols/standing orders.

§157.14.

(a) Staffing requirements. The requirements for staffing a mobile intensive care unit (MICU) shall be:

(1) The EMS provider shall be capable of providing this level of care 24 hours per day, seven days per week and the provider shall make available such records or information as requested by the department to confirm the availability of certified EMS personnel to provide this level of care.

(2) When in service, MICUs shall be staffed with at least two EMS personnel, one of whom shall be an EMT-P and the other shall be at least an EMT.

(3) A medical director is required.

(b) Vehicle specifications. After January 1, 1991, all vehicles which have not previously been issued a vehicle authorization under the current EMS provider license shall meet the

current document entitled "Federal Specification Ambulance Emergency Medical Care Vehicle" as published by the General Service Administration as regard to type (I, II, III).

(c) Special waste. The EMS provider shall have puncture proof containers on all vehicles for the disposal of sharps and shall have an arrangement with a hospital for the exchange of full containers or shall comply with the department rules regarding special waste in §§1.131-1.137 of this title (relating to Definition, Treatment, and Disposition of Special Waste from Health Care Related Facilities).

(d) Required equipment. MICU required equipment shall include all equipment as provided in §157.12 of this title (relating to Basic Life Support Vehicle License Requirements) and §157.13 of this title (relating to Advanced Life Support Vehicle License Requirements) and the following which shall be in sufficient quantities, clean and in working order:

- (1) cardiac monitor with defibrillator and electrodes;
- (2) drugs as prescribed by the service's medical director;
- (3) one copy of the medical treatment protocols/standing orders with original signature of the EMS provider's medical director within 90 days prior to the license period; and
- (4) quantities and types of drugs included in the list as required in §157.13 (d)(7) of this title (relating to Advanced Life Support Vehicle Requirements).

§157.15.

(a) Helicopter emergency medical services (EMS) vehicle.

(1) General requirements shall be as follows.

(A) The aircraft operator shall comply with all applicable federal regulations regarding helicopter operations.

(B) The helicopter shall have the following specifications:

- (i) be configured in such a way that the medical attendants have adequate access for the provision of patient care within the cabin to give cardiopulmonary resuscitation;
- (ii) allow supine loading of the patient by two attendants;

(iii) have radio communication with hospitals and public safety vehicles;

(iv) be equipped with radio headsets that insure internal crew communication and transmission to appropriate agencies; and

(v) have hooks and/or other appropriate devices for hanging the intravenous fluid bags.

(2) Requirements for an EMS provider license shall be as follows.

(A) General. An EMS provider who provides helicopter service shall be licensed to provide advanced life support.

(B) Initial application process. The EMS provider shall meet the requirements of §157.11 (a) (1) (A)-(F) of this title (relating to Requirements for an EMS Provider License) and in addition shall:

(i) provide proof of vehicle liability insurance as required by U.S. Department of Transportation (DOT), Part 298 requirements for liability insurance for aircraft; and

(ii) submit a list of all helicopters with the registration number or N number for the helicopter(s) in the possession of the provider. The license fee as required in §157.11(b) of this title (relating to Requirements for an EMS Provider License) shall be based on the number of helicopters;

(iii) if the helicopter is leased from a pool, provide letter of agreement that all helicopters shall meet the specifications of paragraph (1)(B) of this subsection. The license fee as required in §157.11(b) of this title (relating to Requirements for an EMS Provider License) shall be based on each complete set of equipment.

(C) License renewal process. The EMS provider shall meet the requirements of §157.11 (a) (2) (A)-(C) of this title (relating to Requirements for an EMS Provider License) and in addition, shall provide proof of vehicle liability insurance as required by DOT, Part 298 requirements for liability insurance for aircraft.

(3) Inspections shall be as follows.

(A) Prior to the issuance of a license, each of the EMS provider's helicopter patient care equipment shall be inspected by the department.

(B) The inspection shall include visual and physical inspection of equipment for the purpose of compliance with the equipment specifications of these sections. If the vehicle is rented or leased, all equipment shall be available for inspection prior to the issuance

§157.15. Requirements for a Specialized Vehicle License

of a license.

(4) Inspection failure shall be as follows.

(A) An EMS provider shall fail the inspection if the requirements in paragraphs (1)-(3) of this subsection are not met and an EMS provider license shall not be issued.

(B) The department shall give the EMS provider a written report at the time of the inspection indicating the deficiencies.

(5) A provisional license may be issued as follows.

(A) The department may issue a 60-day provisional license if:

- (i) it finds that the public interest and the service needs would be served and;
- (ii) staffing requirements are met;
- (iii) vehicle specifications are met;
- (iv) the required fee is received and any part of application process is incomplete; and

(v) the following equipment is present:

(I) cervical spinal immobilization devices in small, medium, and large sizes;

(II) one portable suction unit with connecting tubing and suction tips (bulb syringes, syringes, or foot pump not acceptable);

(III) three bag valve mask units in adult, pediatric and infant sizes with the appropriate masks which can be used with an external oxygen supply;

(IV) oropharyngeal/nasopharyngeal airways (nonmetallic) in adult, pediatric, and infant sizes;

(V) medical grade oxygen with adequate tubing; if in cylinders shall be in working order with current inspection stamp and capable of being strapped down;

(VI) semi-open valveless, transparent oxygen masks in adult, pediatric and infant sizes;

(VII) three splints which may be, but not limited to, any of the following types:

- (-a-) inflatable splints;
- (-b-) foam-type rapid splints;
- (-c-) wire ladder splints; or
- (-d-) commercial fracture pack;

(VIII) one each long and short spine immobilization device;

(IX) sphygmomanometer with adult, pediatric, and infant cuffs;

(X) stethoscope (a doppler or electronic stethoscope is acceptable);

(XI) one stretcher capable of

being secured to the aircraft frame, with restraining belts to safely secure the patient to the stretcher and with clean sheets and blanket; and

(XII) dressing and bandaging materials.

(B) A second 60 day provisional license may be issued if:

(i) written documentation is submitted showing that equipment repair and/or part is back ordered; or

(ii) written documentation is submitted showing that equipment was ordered but not received.

(6) An EMS provider who meets the requirements of this section shall be issued a license valid for a period of two years, except that the department may issue an initial license for less than two years in order to conform expiration dates to existing inspection schedules for a locality. An initial license shall be valid upon the date of issuance. A renewed license shall be valid on the day after the expiration of the previous license.

(7) A license is not transferable from one EMS provider to another.

(8) The EMS provider shall meet the responsibilities required in §157.11 (i) of this title (relating to Requirements for an EMS Provider License).

(9) The vehicle authorization shall be prominently displayed in the patient compartment.

(10) The EMS provider shall have puncture proof containers on all vehicles for the disposal of sharps and shall have an arrangement with a hospital for the exchange of full containers or shall comply with the department rules regarding special waste in §§1.131-1.137 of this title (relating to Definition, Treatment, and Disposal of Special Waste from Health Care Related Facilities).

(11) Staffing and equipment shall be as follows.

(A) Staffing shall be:

(i) the medical director shall:

(I) be a physician licensed to practice medicine in Texas; and

(II) be knowledgeable and experienced in emergency trauma, critical care, and the effect of flight on the patient. If the medical director is not experienced in this area, he shall request aeromedical consultation by a physician knowledgeable about the effect of flight.

(ii) the medical flight crew, excluding the pilot, shall:

(I) consist of at least one EMT-P;

(II) show proof of additional training in flight physiology and aircraft and flight safety; and

(III) be familiar with survival techniques appropriate to the terrain as described in the federal regulations, as in paragraph (1)(A) of this subsection.

(iii) the helicopter pilot shall comply with the applicable federal regulations as described in paragraph (1)(A) of this subsection.

(B) The equipment required for each flight, except when transporting a neonate or a patient in a hyperbaric chamber, shall be as follows:

(i) medical grade oxygen with adequate tubing; if in cylinders shall be in working order with current inspection stamp and capable of being strapped down;

(ii) semi-open valveless, transparent oxygen masks in adult, pediatric, and infant sizes;

(iii) one portable suction unit with connecting tubing (bulb syringes, syringes, or foot pump not acceptable);

(iv) two soft suction catheters;

(v) two tonsil tip suction catheters;

(vi) three bag valve mask units in adult, pediatric and infant sizes with the appropriate masks which can be used with an external oxygen supply;

(vii) one stretcher capable of being secured to the aircraft frame, with restraining belts to safely secure the patient to the stretcher;

(viii) clean sheets and blanket;

(ix) receptacle for emesis;

(x) sphygmomanometer with adult, pediatric, and infant cuffs;

(xi) stethoscope (a doppler or electronic stethoscope is acceptable);

(xii) penlight;

(xiii) three splints which may be, but not limited to, any of the following types:

(I) inflatable splints;

(II) foam-type rapid splints;

(III) wire ladder splints; or

(IV) commercial fracture pack;

(xiv) oropharyngeal/nasopharyngeal airways (nonmetallic) in adult, pediatric, and infant sizes;

(xv) one each long and short spine immobilization device;

(xvi) cervical spinal immobilization devices in small, medium, and large sizes;

(xvii) one copy of the medical treatment protocols/standing orders reviewed, dated and signed with original signature of the medical director within 90 days prior to the license period;

(xviii) esophageal intubation devices and/or endotracheal tubes with laryngoscope handle and blades in adult pediatric and infant sizes;

(xix) intravenous fluids in non-breakable containers with administration sets and intravenous catheters and/or needles in quantities and types as prescribed by the medical director;

(xx) cardiac monitor with defibrillator and the following additional equipment:

(I) one spare electrocardiogram electrode for each lead;

(II) spare roll of electrocardiogram recording paper; and

(III) drugs in quantities and types as prescribed by the medical director; and

(xxi) a list signed by the medical director which contains the following items as identified in the medical treatment protocols/standing orders:

(I) quantities and types of intravenous fluids;

(II) quantities and sizes of intravenous catheters and/or needles;

(III) quantities and sizes of esophageal intubation devices and/or endotracheal tubes;

(IV) quantities and types of drugs;

and
(V) any specialized equipment required in medical treatment protocols/standing orders;

(xxii) two pair protective goggles;

and
(xxiii) one box latex gloves.

(C) Additional equipment to be carried to meet the special medical needs of the patient shall be:

(i) dressings and supply kit to include:

(I) two multi-trauma dressings approximately 10 inches by 30 inches in size;

(II) sterile gauze pads in sizes and quantities as determined by the medical director;

(III) soft roller adhering bandages in sizes and quantities as determined by the medical director;

(IV) three sterile petroleum jelly impregnated gauze or suitable occlusive dressings;

- (V) adhesive tape;
- (VI) triangular bandages; and
- (VII) one bandage scissors.

(ii) burn kit, to be carried when required, to include:

- (I) sterile burn sheets;
- (II) sterile gloves; and
- (III) 12 four inch by four inch sterile gauze pads.

(iii) sealed obstetric kit to be carried with all pregnant patients. A commercial kit is acceptable. A noncommercial kit shall be autoclaved or otherwise suitably sterile with expiration date attached and shall be labeled and include the following:

- (I) sterile gloves;
- (II) one disposable sheet;
- (III) cleansing cloths;
- (IV) umbilical clamps;
- (V) nylon cord tie-offs;
- (VI) disposable scalpel;
- (VII) bulb aspirator;
- (VIII) four inch by four inch sterile gauze pads;

- (IX) obstetrical pad;
- (X) receiving blanket;
- (XI) disposable towels; and
- (XII) plastic bag.

(iv) pediatric kit, to be carried when the patient is under 12 years of age and always with the obstetric kit, to include:

- (I) two bulb syringes;
- (II) one DeLee suction device;
- (III) one pediatric laryngoscope handle with blades;

(IV) one each pediatric endotracheal tubes in sizes 2.5, 3.0, 3.5, and 4.0 French with stylet;

- (V) one pediatric Magill forceps;

and

(VI) two pediatric drip intravenous tubings.

(b) Fixed-wing aircraft EMS vehicle.

(1) General requirements shall be as follows.

(A) The aircraft operator shall, in all operations, comply with all Federal Aviation Regulations (FAR), Part 135, or part 91 which the department adopts by reference. Copies of the Federal Aviation Regulations are on file in the Bureau of Emergency Management offices, 1100 West 49th Street, Austin, Texas 78756, and may be reviewed

during normal working hours.

(B) The fixed-wing aircraft shall have the following specifications:

(i) be configured in such a way that the medical attendants have adequate access for the provision of patient care within the cabin to give cardiopulmonary resuscitation;

(ii) allow supine loading of the patient by two attendants;

(iii) have radio communication with hospitals and public safety vehicles.

(iv) be equipped with radio headsets that insure internal crew communication and transmission to appropriate agencies; and

(v) have hooks and/or other appropriate devices for hanging the intravenous fluid bags.

(2) Requirements for an EMS provider license shall be as follows.

(A) General. An EMS provider who provides fixed-wing aircraft service shall be licensed to provide advanced life support.

(B) Initial application process. The EMS provider shall meet the requirements of §157.11 (a) (1) (A)-(F) of this title (relating to Requirements for an EMS Provider License) and in addition shall:

(i) provide proof of vehicle liability insurance as required by DOT, Part 298 requirements for liability insurance for aircraft; and

(ii) submit a list of all fixed-wing aircraft with the registration number or N number for the fixed-wing aircraft in the possession of the provider. The license fee as required in §157.11(b) of this title (relating to Requirements for an EMS Provider License) shall be based on the number of fixed-wing aircraft;

(iii) if the fixed-wing aircraft is leased from a pool, provide letter of agreement that all fixed-wing aircraft shall meet the specifications of paragraph (b)(1)(B) of this subsection. The license fee as required in §157.11(b) of this title (relating to Requirements for an EMS Provider License) shall be based on each complete set of equipment.

(C) License renewal process. The EMS provider shall meet the requirements of §157.11 (a) (2) (A)-(C) of this title (relating to Requirements for an EMS Provider License) and in addition, shall provide proof of vehicle liability insurance as required by DOT, Part 298 requirements for liability insurance for aircraft.

F i n a l A d o p t e d R u l e s

(3) Inspections shall be as follows.

(A) Prior to the issuance of a license, each of the EMS provider's fixed-wing aircraft patient care equipment shall be inspected by the department.

(B) The inspection shall include visual and physical inspection of equipment for the purpose of compliance with the equipment specifications of these sections. If the vehicle is rented or leased, all equipment shall be available for inspection prior to the issuance of a license.

(4) Inspection failure shall be as follows.

(A) An EMS provider who provides fixed-wing aircraft service shall fail the inspection if the requirements in paragraphs (1)-(3) of this subsection are not met and an EMS provider license shall not be issued.

(B) The department shall give the EMS provider a written report at the time of the inspection indicating the deficiencies.

(5) A provisional license may be issued as follows.

(A) The department may issue a 60-day provisional license if:

(i) it finds that the public interest and the service needs would be served;

(ii) staffing requirements are met;

(iii) vehicle specifications are met;

(iv) the required fee is received and any part of application process is incomplete; and

(v) the following equipment is present:

(I) cervical spinal immobilization devices in small, medium, and large sizes;

(II) one portable suction unit with connecting tubing and suction tips (bulb syringes, syringes, or foot pump not acceptable);

(III) three bag valve mask units in adult, pediatric and infant sizes with the appropriate size masks which can be used with an external oxygen supply;

(IV) oropharyngeal/nasopharyngeal airways (nonmetallic) in adult, pediatric, and infant sizes;

(V) medical grade oxygen with adequate tubing; if in cylinders shall be in working order with current inspection stamp and capable of being strapped down;

(VI) semi-open valveless, transparent oxygen masks in adult, pediatric and infant sizes;

(VII) three splints which may be, but not limited to, any of the following types:

(-a-) inflatable splints;

(-b-) foam-type rapid splints;

(-c-) wire ladder splints; or

(-d-) commercial fracture pack;

(VIII) one each long and short spine immobilization device;

(IX) sphygmomanometer with adult, pediatric, and infant cuffs;

(X) stethoscope (a doppler or electronic stethoscope is acceptable);

(XI) one stretcher capable of being secured to the aircraft frame, with restraining belts to safely secure the patient to the stretcher and with clean sheets and blanket; and

(XII) dressing and bandaging materials.

(B) A second 60 day provisional license may be issued if:

(i) written documentation is submitted showing that equipment repair and/or part is back ordered; or

(ii) written documentation is submitted showing that equipment was ordered but not received.

(6) An EMS provider who meets the requirements of this section shall be issued a license valid for a period of two years, except that the department may issue an initial license for less than two years in order to conform expiration dates to existing inspection schedules for a locality. An initial license shall be valid upon the date of issuance. A renewed license shall be valid on the day after the expiration of the previous license.

(7) A license is not transferable from one EMS provider to another.

(8) The EMS provider shall meet the responsibilities required in §157.11 (i) of this title (relating to Requirements for an EMS Provider License).

(9) The vehicle authorization shall be prominently displayed in the patient compartment.

(10) The EMS provider shall have puncture proof containers on all vehicles for the disposal of sharps and shall have an arrangement with a hospital for the exchange of full containers or shall comply with the department rules regarding special waste in §§1.131-1.137 of this title (relating to Definition, Treatment, and Disposition of Special Waste from Health Care Related Facilities).

(11) Staffing and equipment requirements shall be as follows.

- (A) Staffing shall be as follows:
- (i) the medical director shall:
 - (I) be a physician licensed to practice medicine in Texas; and
 - (II) be knowledgeable and experienced in emergency trauma, critical care, and the effect of flight on the patient. If the medical director is not experienced in this area, he shall request aeromedical consultation by a physician knowledgeable about the effect of flight.
 - (ii) the medical flight crew, excluding the pilot, shall:
 - (I) consist of at least one EMT-P;
 - (II) show proof of additional training in flight physiology and aircraft and flight safety; and
 - (III) be familiar with survival techniques appropriate to the terrain as in FAR, Part 135 as adopted by reference in paragraph (1)(A) of this subsection.
 - (iii) the fixed-wing aircraft pilot shall comply with Federal Aviation Regulations, as adopted by reference in paragraph (1)(A) of this subsection.
- (B) The equipment required for each flight, except when transporting a neonate or a patient in a hyperbaric chamber, shall be as follows:
- (i) medical grade oxygen with adequate tubing; if in cylinders shall be in working order with current inspection stamp and capable of being strapped down;
 - (ii) semi-open valveless, transparent oxygen masks in adult, pediatric, and infant sizes;
 - (iii) one portable suction unit with connecting tubing (bulb syringes, syringes or foot pump not acceptable);
 - (iv) two soft suction catheters;
 - (v) two tonsil tip suction catheters;
 - (vi) three bag valve mask units in adult, pediatric and infant sizes with the appropriate masks which can be used with an external oxygen supply;
 - (vii) one stretcher capable of being secured to the aircraft frame, with restraining belts to safely secure the patient to the stretcher;
 - (viii) clean sheets and blanket;
 - (ix) receptacle for emesis;
 - (x) sphygmomanometer with adult, pediatric, and infant cuffs;
 - (xi) stethoscope (a doppler or electronic stethoscope is acceptable);
 - (xii) penlight;

- (xiii) oropharyngeal/nasopharyngeal airways (nonmetallic) in adult, pediatric, and infant sizes;
 - (xiv) one copy of the medical treatment protocols/standing orders reviewed, dated and signed with original signature of the medical director within 90 days prior to the license period;
 - (xv) esophageal intubation devices and/or endotracheal tubes with laryngoscope handle and blades in adult and pediatric sizes;
 - (xvi) intravenous fluids in non-breakable containers with administration sets, intravenous catheters, and/or needles in quantities and types as prescribed by the medical director; and
 - (xvii) a list signed by the medical director which contains the following items as identified in the medical treatment protocols/standing orders:
 - (I) quantities and types of intravenous fluids;
 - (II) quantities and sizes of intravenous catheters and/or needles;
 - (III) quantities and sizes of esophageal intubation devices and/or endotracheal tubes;
 - (IV) quantities and types of drugs;
 and
 - (V) any specialized equipment required in medical treatment protocols/standing orders.
 - (xviii) two pair protective goggles; and
 - (xix) one box latex gloves.
- (C) Additional equipment to be carried to meet the special medical needs of the patient shall be:
- (i) a trauma kit to include:
 - (I) three splints which may be, but not limited to, any of the following types of splints:
 - (-a-) inflatable splints;
 - (-b-) foam-type rapid splints;
 - (-c-) wire ladder splints; or
 - (-d-) commercial fracture pack;
 - (II) two multi-trauma dressings approximately 10 inches by 30 inches in size;
 - (III) sterile gauze pads in sizes and quantities as determined by the medical director;
 - (IV) soft roller adhering bandages in sizes and quantities as determined by the medical director;
 - (Va) three sterile petroleum jelly impregnated gauze or suitable occlusive dressings;
 - (VI) adhesive tape in sizes and

quantities as determined by the medical director;

- (VII) triangular bandages;
- (VIII) one bandage scissors;
- (IX) one each long and short spine immobilization device; and

(X) cervical spinal immobilization devices in small, medium, and large sizes.

(ii) burn kit, to be carried when required, to include:

- (I) sterile burn sheets;
- (II) sterile gloves; and
- (III) 12 four inch by four inch

sterile gauze pads.

(iii) sealed obstetric kit to be carried with all pregnant patients. A commercial kit is acceptable. A non-commercial kit shall be autoclaved or otherwise suitably sterilized with expiration dates attached and shall be labeled and include the following:

- (I) sterile gloves;
- (II) one disposable sheet;
- (III) cleansing cloths;
- (IV) umbilical clamps;
- (V) nylon cord tie-offs;
- (VI) disposable scalpel;
- (VII) bulb aspirator;
- (VIII) four inch by four inch

sterile gauze pads;

- (IX) obstetrical pad;
- (X) receiving blanket;
- (XI) disposable towels; and
- (XII) plastic bag.

(iv) a pediatric kit, to be carried when the patient is under 12 years of age and always with the obstetric kit, to include:

- (I) two bulb syringes;
- (II) one DeLee suction device;
- (III) one pediatric laryngoscope

handle with blades;

(IV) one each pediatric endotracheal tubes in sizes 2.5, 3.0, 3.5, and 4.0 French with stylet;

(V) one pediatric Magill forceps; and

(VI) two pediatric drip intravenous tubings.

(v) a medical kit to be carried when the patient is suspected of having a cardiac condition to include:

- (I) cardiac monitor with defibrillator;
- (II) drugs in quantities and types as prescribed by the medical director;
- (III) one spare electrocardiogram

electrode for each lead; and

(IV) spare roll of electrocardiogram recording paper.

§157.16.

(a) An EMS provider who operates or intends to operate a subscription program for the provision of emergency medical services shall meet all the requirements for an EMS provider license as established by the Act and rules adopted thereunder. In addition, the EMS provider shall have a written authorization from the governmental entity for the provision of emergency prehospital care within that governmental service area.

(b) The EMS provider shall submit a copy of the contract for subscription service and/or the application used to enroll participants.

(c) The EMS provider shall submit a copy of the advertising used to promote the subscription service, at the time of application for an EMS provider license. The EMS provider shall maintain a current file of all advertising for the service.

(d) The EMS provider shall meet all state and federal regulations regarding billing and reimbursement for participants in the subscription service.

(e) The EMS provider shall secure a surety bond in the amount equal to the amount to be collected or shall purchase and maintain contractual liability insurance and submit to the department evidence of such. The surety bond or contractual liability insurance must be issued by a company licensed by or eligible to do business in the State of Texas.

(f) The requirement for the surety bond or contractual liability insurance may be waived if the provider submits evidence of self insurance or the provider has a contract for service with a governmental entity which insures the contract.

(g) An EMS provider who provides subscription service shall not deny emergency medical services to non-subscribers or subscribers of non-current status

§157.17.

(a) Inspections of EMS vehicles may be delegated by the department to the governing body of a municipality or to the commissioners court of a county at its request.

§157.16.

Subscription Program

§157.17.

Delegation of Vehicle Inspection

(b) The requirements for delegation of inspections are as follows:

(1) The person requesting the delegation shall file an application with the bureau on a department prescribed form containing the:

(A) name of the municipality or county;

(B) name(s) of individual(s) to perform inspection;

(C) name(s) of firm(s) to be inspected; and

(D) signature of mayor/city manager or county judge or their agent.

(2) The department may delegate to the municipality or county the authority to inspect EMS vehicles in accordance with the Health and Safety Code, §773.057 and these sections upon the execution of a contract or binding agreement which includes, but is not limited to, the following provisions.

(A) The municipality or county shall employ an inspector(s) and shall have in place due process hearing procedures for such employees.

(B) The inspector(s) employed by the municipality or county shall meet the following requirements:

(i) the inspector shall be certified as at least an EMT; and

(ii) the inspector shall attend an inspection training program offered by the department. The inspector shall make three inspections with the department's vehicle inspector after which time the inspector will be evaluated, and, if necessary, retrained. The inspector must satisfactorily complete the training program in order to be approved by the department.

(C) The municipality or county shall immediately notify the department when any inspector leaves the employment of the municipality or county.

(D) The municipality or county shall provide the department with reports and information as requested in the format agreed to by the parties. The municipality or county shall agree to periodic evaluations of its inspection program.

(E) The municipality or county may collect the fee for an EMS provider license as required by Health and Safety Code, §773.057, and shall keep accurate records of the collection and deposit of such fees. The fee for an EMS provider license is \$100 per vehicle or a maximum of \$2000 for a fleet. The cost of inspection is \$25 per vehicle or a

maximum of \$500 for a fleet. The municipality or county shall retain 25% of the \$100 to \$2000 fee collected and send the remaining 75% to the department with the EMS provider license application.

(F) The municipality or county shall comply with all applicable state and federal laws and department rules, policies, and procedures for vehicle inspection.

(G) The inspector may not inspect municipality or county operated vehicles if the inspector is in any way affiliated with the particular division which operates the vehicles.

(H) The contract or binding agreement may be terminated by the municipality or county or by the department for cause upon 30 days written notice.

(c) Nothing in this section shall limit the authority of the department to conduct an EMS vehicle inspection of any vehicle.

§157.18. Unannounced Inspections and Visits

§157.18.

(a) The department shall conduct routine unannounced inspections on at least 10% of the licensed EMS providers annually. To determine vehicle and staffing compliance, night or weekend inspections may be conducted.

(b) Department personnel may perform unannounced inspection in response to a complaint. If the department substantiates the complaint, disciplinary action as authorized by §157.19 of this title (relating to Emergency Suspension, Suspension, Probation, and Revocation of a License) may be taken.

(c) Records or other documents related to patient care or to emergency medical services personnel maintained by the provider may be reviewed by the department during an unannounced inspection.

(d) All reports, records, and working papers used or developed in an investigation authorized under this section are confidential and may only be used for determining violations or deficiencies and for disciplinary action.

(e) Any violations or deficiencies noted during an unannounced inspection shall result in a written warning specifically outlining the violations or deficiencies. If the violations or deficiencies are not corrected, the department may take disciplinary action

as authorized by §157.19 of these rules (relating to Emergency Suspension, Suspension, Probation and Revocation of a License).

(f) Unannounced inspections may not be delegated to another agent.

§157.19.

(a) Emergency suspension.

(1) The bureau chief shall issue an emergency order to suspend any certificate or license issued under this Act if the bureau chief has reasonable cause to believe that the conduct of any certificate holder or license holder creates an imminent danger to the public health or safety.

(2) An emergency suspension is effective immediately without a hearing upon notice to the certificate holder or license holder. In the case of a provider who is exempt from the payment of fees under the Health and Safety Code, §773.057, notice must also be given to the sponsoring governmental entity.

(3) On written request of the certificate holder or license holder, the department shall conduct a hearing not earlier than the 10th day nor later than the 30th day after the date on which a hearing request is received to determine if the emergency suspension is to be continued, modified, or rescinded. The hearing and an appeal from a disciplinary action related to the hearing are governed by §§1.21-1.34 of this title (relating to Formal Hearing Procedures) and the Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a, as amended.

(b) Nonemergency suspension.

(1) Reasons for suspension. An EMS provider license may be suspended for, but not limited to, the following reasons:

(A) the EMS provider fails to:

(i) notify the bureau of a vehicle which is added or operates a vehicle without a vehicle authorization;

(ii) submit annual run response summary;

(iii) notify the bureau of change in the provider name or file a new application if change in ownership;

(iv) notify the bureau of any change in medical director;

(v) notify the bureau of any permanent or long term change in level of service provided;

(vi) operate a vehicle staffed and

equipped in accordance with the Act and rules adopted thereunder;

(vii) display the vehicle authorization in the patient compartment and/or the licensure decal on the lower right rear window;

(viii) provide care at level authorized;

(ix) allow inspection of the place of business and/or inspection of an EMS vehicle;

or

(x) notify the bureau of change in communication status, capability, or equipment.

(B) The EMS provider commits an offense of a different nature within 12 months of a previous suspension; or

(C) The EMS provider provides an unauthorized level of service.

(2) Notification. If the bureau proposes to suspend a license, the bureau shall notify the provider by registered or certified mail at his or her last known address as shown in the bureau's records. The notice must state the alleged facts or conduct to warrant the action and state that the provider has an opportunity to request a hearing.

(3) Hearing request.

(A) The provider may request a hearing within 15 days after the date of the notice. This request shall be in writing and submitted to the bureau chief. If a hearing is requested, the hearing shall be conducted pursuant to the Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a, and §§1.21-1.34 of this title (relating to Formal Hearing Procedures).

(B) If the EMS provider does not request a hearing in writing, after being sent the notice of opportunity, the provider is deemed to have waived the opportunity for hearing and the license shall be suspended at least 10 days.

(C) If the provider requests a hearing and the findings are upheld, the license shall be suspended for at least 10 days.

(c) Probation. For just and sufficient reasons presented by the provider, the department may probate the suspension. Examples of just and sufficient cause may include:

(A) history of previous exemplary service;

(B) extenuating circumstances which affected the actions of the provider; and

(C) considerations of the local service area and needs.

(d) Revocation.

§157.19. Emergency Suspension, Suspension, Probation, and Revoca- tion of a License

**§157.20.
Request
for
Variances
from
Minimum
Standards**

(1) Reasons for revocation. An EMS provider license may be revoked for, but not limited to, the following:

- (A) operating the service while under suspension of a license;
- (B) tampering, altering, or changing a license issued by the department;
- (C) failing to correct deficiencies during the period of suspension;
- (D) any repeat offense, within 12 months of the initial suspension;
- (E) any third offense which may cause suspension which occurs within a 12-month period of a previous suspension;
- (F) issuing a check for an EMS provider license which has been returned to the department for insufficient funds;
- (G) a history of staff violations which result in disciplinary action as described in §157.21 of this title (relating to Criteria for Decertification, Emergency Suspension, Suspension, and Probation of Certificate); or

(H) continued disregard of violations noted on unannounced inspections and/or not correcting deficiencies noted on unannounced inspections as required in §157.18 of this title (relating to Unannounced Inspections and Visits).

(2) Notification. If the bureau proposes to revoke a license, the bureau shall notify the provider by registered or certified mail at his or her last known address as shown in the bureau's records. The notice must state the alleged facts or conduct to warrant the action and state that the provider has an opportunity to request a hearing in accordance with §§1.21-1.34 of this title (relating to Formal Hearing Procedures).

(3) Hearing request. If the provider does not request a hearing, in writing within 15 days, after receiving the notice of opportunity, the provider is deemed to have waived the opportunity for a hearing and the license shall be revoked.

(4) Reapplication. One year after the revocation of the EMS provider license, the person may petition the bureau, in writing, for reapplication of an EMS provider license. However, the department may deny the application if the reason for the revocation continues to exist. If the application is allowed, the person shall meet the requirements in §157.11 of this title (relating to Requirements for an EMS Provider License).

§157.20.

(a) An EMS provider may request a variance from a standard or rule adopted under the Act based on a specific hardship by applying to the bureau chief. A request from an EMS provider shall be signed by the county judge for the county or by the mayor/city manager or the designee for a municipality within which the EMS provider intends to operate. The request shall be made on a form provided by the department and accompanied by a nonrefundable fee of \$25, except for an EMS provider who is exempt from the payment of fees under Senate Bill 312, §3.04(1), Chapter 372 of the Acts of the 71st Legislature, Regular Session, 1989.

(b) A request for a personnel variance shall be accompanied by a plan to meet the minimum requirements of the Act.

(c) The request for variance and reasons for the request shall be publicized in the local area through the local media.

(d) Evaluation of the request shall be based on the following factors:

- (1) the nearest available service;
- (2) geography;
- (3) demography; and
- (4) other relevant factors.

(e) If a variance is granted, an emergency medical services provider license shall be issued subject to annual review by the department. The department shall issue a letter to the EMS provider that states the specific rule or standard waived.

(f) If a variance is denied, the EMS provider shall be notified in writing the reason for the denial. A copy of the denial shall be sent to the governmental entity signing the request for variance.

(g) After the annual review by the department, the variance may be continued for a period not to exceed one year.

Vehicles purchased by Texas EMS providers after June 30, 1990 must be Type I, II, or III and meet vehicle dimensions specified in federal regulations in order to be licensed by Texas. Vehicles owned by a firm on June 30 which do not meet these specifications will be grandparented in and will be considered in compliance.

Note: This clause applies to the vehicle only as long as it is owned by the same provider.

A grandparented vehicle cannot be sold or donated to another Texas provider firm and be in compliance with Texas rules.

T T A C

At its July meeting, the Trauma Technical Advisory Committee, chaired by Ray Mason of Levelland, heard reports on collection of uncompensated trauma care data, public education, and trauma care delivery areas. The subcommittees headed by physicians Erwin Thal and Kenneth Mattox reported on their hospital designation and trauma registry work. After the nearly four-hour meeting attended by over fifty individuals, Mason told the committee members that they were "progressing very well towards our task" of developing guidelines for a trauma system in Texas.

John V. Udell, Ph.D., of Udell Research Associates, Inc. gave his first report to the trauma committee on the Texas Trauma Data Project. This project, mandated by House Bill 18 and funded by the Texas State Department of Highways and Public Transportation through the Texas Department of Health, will collect data from the 403 hospitals in Texas that receive and treat trauma patients.

Udell said that his project would identify the total extent of traumatic injury and cost in Texas, particularly the extent of major traumatic injury. Although his report will focus on uncompensated trauma care, Udell explained to the trauma committee members that looking at compensated and uncompensated trauma care would give a truer picture of the demand trauma puts on Texas facilities.

The Udell project has completed two mailouts to hospitals requesting trauma data, and emergency department visit statistics have been collected from Texas Hospital Association. One barrier to collecting hospital information for this trauma data project is that reporting by hospitals is voluntary. "Some hospitals may not want to provide data because no good is perceived," Udell said. "The major facilities have almost uniformly agreed to provide the data. The suburban hospitals in large communities are hesitant to provide the data," he said.

The Texas Board of Health charged the trauma committee with being prepared to report to the Texas Legislature in January, 1991, on the cost of trauma in Texas. While House Bill 18 allowed no funding for trauma systems, it did mandate Texas Department of

Health to develop EMS/trauma systems for Texas and to determine the cost of unpaid trauma care. Informal estimates of the amount of trauma care in Texas that is unpaid exceed \$50 million.

The trauma committee members discussed the various ways the state could be divided into trauma service areas. Possibilities presented by the Bureau of Emergency Management included four geographic divisions: the eight current Public Health Regions, the twelve old Public Health Regions which corresponded to Health Service Areas, the twenty-four Regional Planning Councils or Councils of Governments, and the sixteen Texas Hospital Association divisions.

After hearing a Bureau report on public information and education possibilities for trauma, committee members identified two groups they wanted to target - the general public and public officials. The group considered joining with EMS Week in April, 1991, as their first public promotion of trauma awareness, but decided that designating the separate and earlier time of January, 1991, would put more emphasis on the crisis of trauma in Texas.

Both the hospital designation subcommittee

and the trauma registry subcommittee reported that they would soon be at a stage to begin the rulemaking process for trauma systems. The designation subcommittee headed by Thal will meet August 30 and possibly twice more before they present a document to the trauma committee for approval. Mattox's subcommittee on trauma registry presented a grid for trauma severity and surgery which they proposed to be used by hospitals to categorize patients for the trauma registry.

The Trauma Technical Advisory Committee will meet August 30 at 1:30 p.m. at the Airport Hilton in Austin. Major work at that meeting will include trauma service areas and developing a coalition for trauma systems funding and legislation.

For information on Trauma Technical Advisory Committee or on EMS/trauma systems development in Texas contact Bureau of Emergency Management, 1100 West 49th street, Austin, Texas 78756, or call (512) 458-7550.

Mason told the committee members that they were "progressing very well towards our task" of developing guidelines for a trauma system in Texas.

- Ray Mason, Chair
Levelland
- Antonio Falcon, MD
Rio Grande City
- Jamie Ferrell, RN
Amarillo
- Ronald Hellstern, MD
Dallas
- Tommy Jacks
Austin
- Kenneth Mattox, MD
Houston
- Raj Narayan, MD
Houston
- Jack Peacock, M.D.
El Paso
- M. Tim Philpot
Fort Worth
- Vayden Stanley, MD
San Angelo
- Erwin Thal, MD
Dallas
- R. Russell Thomas, Jr., DO
Eagle Lake
- David Dildy, exofficio
Tyler
- Jay Johnson, exofficio
Tulia

Win a free registration to the Texas EMS Conference

Crossword Puzzle Contest

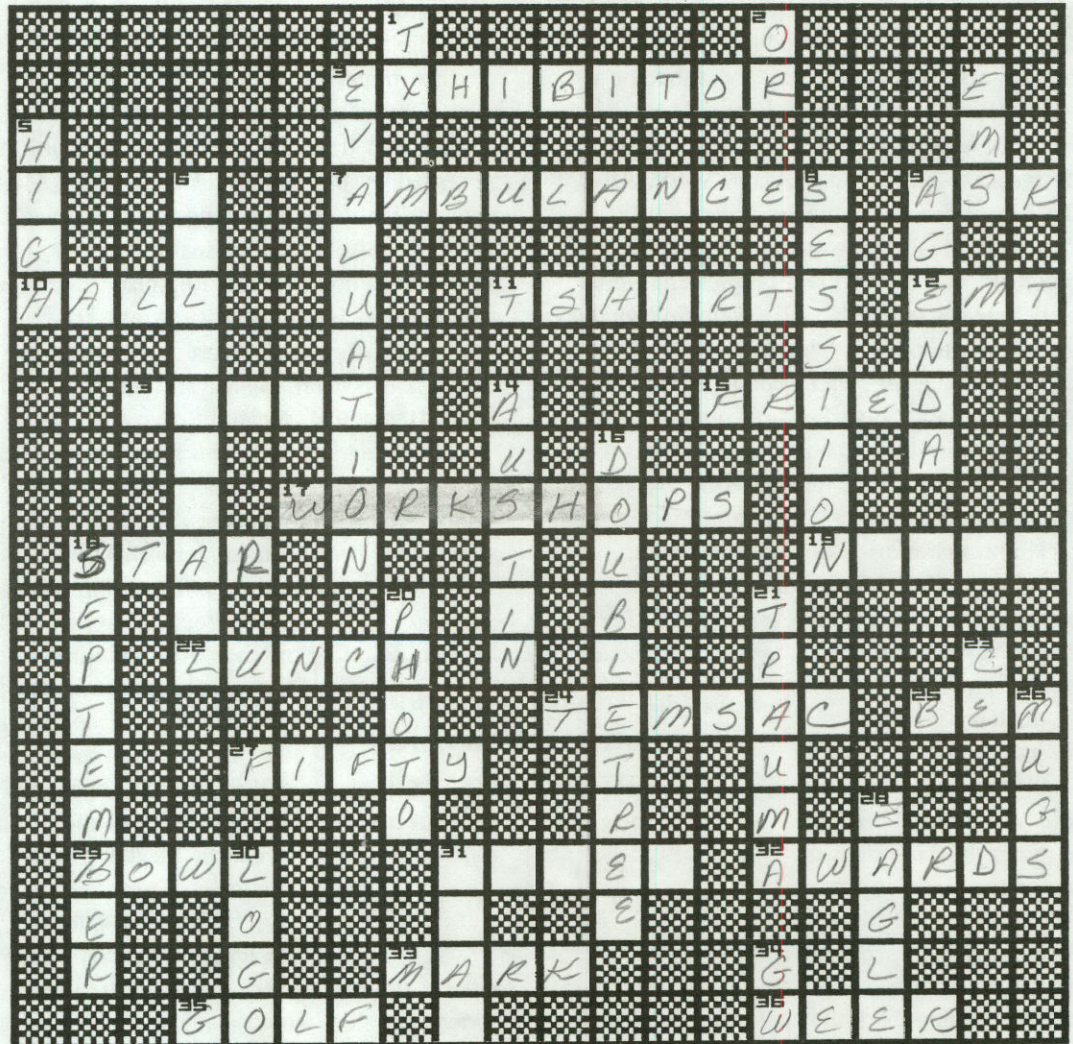
Conference '90 by Vickie Sokol

Across

- 3. Vendor
- 7. During the conference these are parked out front
- 9. If you don't know which workshops to attend, do this
- 10. ___ of Fame
- 11. Wearing these conference souvenirs is a fashion statement
- 12. 120 hours of training
- 13. The most cost-effective thing government does to disseminate ___ information
- 15. Chicken ___ steak is a favorite conference meal
- 17. Classes during the conference
- 18. ___ of Life
- 19. Volleyball lingo
- 22. Noon break
- 24. This group meets in Austin to discuss topics in EMS
- 25. The office where the tests are made and graded
- 27. Conference registration fee
- 29. Valsalva or soup
- 31. One over par
- 32. Special recognition in EMS
- 33. Lt. Warren's first name
- 35. Tournament
- 36. September 16-22, EMS

Down

- 1. There are over 40,000 certified EMS personnel here
- 2. Destination from the crash
- 3. How did you like the conference -- fill this out
- 4. Abbreviation for pre-hospital service
- 5. ___-angle rescue
- 6. Net work
- 8. Listed on agenda as Opening, General and Closing
- 9. Conference events schedule
- 14. Host city
- 16. Conference site
- 18. Month of the EMS Conference
- 20. Snapshot contest
- 21. America's costliest health problem
- 23. Credits needed to recertify
- 26. Drinking souvenirs
- 28. Golf term or national bird
- 30. Star of life with the shadow of Texas
- 31. Raffle prize
- 34. Bureau Chief



Fill out the form below and send it in with your completed puzzle to qualify for a drawing held September 5. Two puzzlers will win complimentary registrations to the Texas EMS Conference in September. We'll call you September 6 if you're a winner!

Rules: The puzzle must have the correct answers.

Name _____

Address _____

City/State/Zip _____

Telephone AC _____

Mail to: Texas Department of Health
Bureau of Emergency Management
1100 West 49th
Austin, Texas 78756-3199

Volunteer Connection

The Professional Volunteer vs. The Paid Professional

The Professional Volunteer:

1. Loves family and country
2. Works for a living
3. Is a friend, teacher, student
4. Feels pain, anger, joy
5. Responds day or night, if needed
6. Takes pride in a job well done
7. Risks life and limb for others
8. Educated
9. Can die in a heartbeat

The Paid Professional:

1. Loves family and country
2. Works for a living
3. Is a friend, teacher, student
4. Feels pain, anger, joy
5. Responds day or night, if needed
6. Takes pride in a job well done
7. Risks life and limb for others
8. Educated
9. Can die in a heartbeat

The list can go on and on, but the fact is that only money separates these two alike professions. What a crime it would be if there were no volunteers to fill the empty spaces, and in reverse, what if there were no paid professionals to continue the care? Don't let money or position stop you from getting to know some of the finest people in the world. (*Mary Bailey, EMT-B, IIC. We picked this up from Maine's EMS News who credited the New Mexico EMS newsletter.*)

Why do I volunteer? Let me count the reasons:

by Jim Sorensen

Recently I was asked by a co-worker why I volunteer my time as a paramedic for North Channel Emergency Medical Service and for Deer Park Fire Department instead of doing something I could get paid for.

Why am I a volunteer? For:

- The 30 year alcoholic who hasn't had a drink in over a year.
- The 6-year-old asthmatic in a room full of cigarette-smoking cocaine addicts.
- The 10-month-old who quit breathing after her mother's boyfriend had nearly beaten her to death.
- Those we saved, and the families of those I couldn't.
- The old man with cellulitis from the knee down, who hadn't eaten in four days (until we got back from the store).
- The times I've gone home and sat on the floor by my sleeping son's bed, and thanked God he's safe and well. Then I prayed to God to help those that aren't.

Why do I volunteer? It's an addiction God put in my soul a long time ago. I pray I never kick the habit.

(*Reprinted with permission from North Channel EMS Dispatch, August 1989.*)

Ten ways to kill a volunteer service

1. Don't go to meetings or drills.
2. If you go, go late.
3. Don't go in bad weather.
4. If you attend a meeting or drill, find fault with the rest of the members.
5. Never accept an office; it's easier to criticize than to do things.
6. Get sore if you are not appointed to a committee; but if you are do not attend committee meetings.
7. If asked by an officer to give your opinion on some matter, tell him you have nothing to say. After the drill is over, tell everyone how things should have been done.
8. Do your best to mess up the chain of command.
9. Always complain that you don't get paid.
10. Do nothing more than absolutely necessary, and if someone else does, be sure and razz them.

Don't let this happen to your service.

(*We picked this up from Iowa's EMS in the Field; they credited EMS Information Digest.*)

Registration Form

Pre-Conference Registration

HazMat \$ 20 _____
Water Rescue \$ 20 _____
 (choose only one)

Conference Registration

Before 9/1/90 \$50 _____
 After 9/1/90 \$75 _____

Golf Tournament \$35 _____

Volleyball Tournament \$10 _____
 Team Name: _____

Valsalva Bowl \$10 _____
 Team Name: _____

T-Shirt - great looking!
Mug - add to your collection!
Cap - new item!

(Total from box on right) _____

Grand Total \$

Texas EMS Conference '90

September 13, 14, and 15
DoubleTree Hotel
Austin, Texas

Item ordered	Size	Quantity	Price Each	Total
T-Shirt			\$ 10.00	
Mug	(one size only)		\$ 5.00	
Cap	(one size only)		\$ 6.00	
T-shirt sizes: S M L XL XXL			Total	\$

Make out your check to:
Texas Health Foundation

Mail this registration form and payment to:
Texas EMS Conference '90
P. O. Box 26399
Austin, Texas 78755-0399

Please print or type

Name _____

Home Address _____

City _____ State _____ Zip _____

Employer Name _____

Level of Certification or Licensure _____

Phone: Home _____ / _____ Work _____ / _____

Conference Sponsors
 Texas Department of Health and Texas Health Foundation

For more information call 512/458-7550.

Texas EMS Conference '90 Highlights

Pre-Conference Events

Wednesday, September 12, 1990

Early Registration begins at 8am
HazMat Recognition and ID Workshop, 9am - 5pm
Confined Water Rescue Workshop, 9am - 5pm
Golf Tournament, 12:30pm - registration form on next page

Conference Events

Thursday, September 13, 1990

Registration begins at 8am
Exhibits Open, 8am - 5pm
Volleyball Tournament, 8am - 11am
Opening Luncheon and Welcome, Noon
"EMTs in the ER/RNs in the Ambulance"
General Session with Doug Key - Quality Assurance
Celebrity Rappel, Social Hour in the Courtyard
TDH/SDH&PT Chili Cookoff, Volleyball Finals

Friday, September 14, 1990

Valsalva Bowl Preliminaries
Continental Breakfast in the Exhibit Area
Four workshop sessions
EMS Week Awards Luncheon
Valsalva Bowl Semifinals
Dinner, Valsalva Bowl Finals and Dancing

Saturday, September 15, 1990

Continental Breakfast in the Exhibit Area
Two workshop sessions
Closing Session with Lt. Mark Warren
Drawing for Exhibitor Prizes and Teddy Bear
Adjourn at 1:00 pm, pick up CE certificates

Location

Doubletree Hotel
6505 N IH 35
Austin, Texas 78752
(Room reservation form on next page)

Continuing Education Credits

8 hours TDH EMS CE for pre-conference workshop
16 hours TDH EMS CE for conference
National Registry CE applied for

EMS Week Awards

Send in your nominations by September 1

Valsalva Bowl

Submit test questions to earn CE

Workshops

Clinical Programs

Medical Dispatch
Maxillofacial Trauma
Hemorrhagic Shock Management
Sports Injuries
Home Meds
Trauma in Pregnancy
Patient Assessment
Lifting and Moving - Protect Yourself
First Responder Defibrillation - AEDs

Rescue Programs

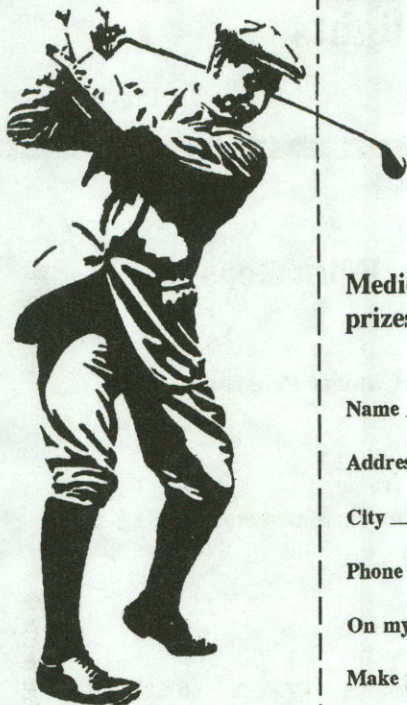
Civilian Rescue of Military Aviators
High Angle Rescue Considerations
High Angle Rescue Solutions
Trench Rescue
Street Sense - Hazard Awareness

Administrative Programs

Ethical Management
National Accreditation for Paramedic Programs
Texas EMS/Trauma Registry
Texas Medicaid Billing
The Budget Process
Run Form Documentation Review
DOT Drug Testing
New Concepts in Communications Systems
Provider Licensure Update

General Programs

Top Guns in EMS
DWI Awareness for EMS Public Education
Developing a Local DWI Awareness Program
Body Business Aerobics
(workout clothes a must)
Traffic Safety Programs for the Public



World Championship EMS Golf Tournament

September 12, 1990 - 12:30 pm Balcones Country Club

Medic Systems of Houston is this year's tourney sponsor and will be offering great prizes and a sumptuous meal at the 19th hole. Sign up now!

Name _____
 Address _____
 City _____ State _____ Zip _____
 Phone (H) AC _____ (W) AC _____
 On my EMS Certification, I swear my average score is _____
 Make your check for \$35 to: Texas Health Foundation. Mail to: P.O. Box 26399, Austin TX 78755-0399


DOUBLETREE HOTEL
 AUSTIN

512-454-3737
 6505 N. IH35
 Austin, TX 78756

DON'T FORGET
 MAKE CHECK OR MONEY ORDER
 PAYABLE TO DOUBLETREE HOTEL
 DO NOT SEND CURRENCY

ORGANIZATION: Texas EMS Conference 1990 DATE OF FUNCTION: Sept. 13-15
 ALL REQUESTS FOR THE ABOVE GROUP MUST BE RECEIVED BY August 22, 1990

Please reserve accommodations for: _____ Print or Type
 NAME _____ COMPANY _____
LAST FIRST
 ADDRESS _____ CITY _____
 STATE _____ ZIP _____ PHONE () _____
 SHARING ROOM WITH _____ NO. OF PERSONS _____
 SIGNATURE _____

MONTH	DAY	YEAR	ARRIVAL TIME	MONTH	DAY	YEAR	CHECK IN TIME	3:00 PM
ARRIVAL DATE				ARRIVAL DATE			CHECK OUT TIME	NOON

PLEASE CHECK PREFERRED ACCOMMODATIONS

- | | |
|--|--|
| <u>RATES</u> | <u>BED TYPE</u> |
| <input type="checkbox"/> ONE PERSON \$55.00 | <input type="checkbox"/> KING BED |
| <input type="checkbox"/> TWO PERSONS \$65.00 | <input type="checkbox"/> TWO DOUBLE BEDS |

(Suites available upon request.)

If tax exempt, please present exemption form at time of check-in.

IF RATE REQUESTED IS NOT AVAILABLE, NEAREST AVAILABLE RATE WILL BE ASSIGNED. THERE IS AN ADDITIONAL \$10.00 CHARGE FOR THE THIRD AND FOURTH OCCUPANT IN EACH ROOM. RATES ARE SUBJECT TO APPLICABLE 13% TAXES. NO CHARGE FOR CHILDREN UNDER 18 OCCUPYING THE SAME ROOM AS PARENTS.

ACCOMMODATIONS WILL NOT BE CONFIRMED WITHOUT A CHECK FOR THE 1st NIGHT'S DEPOSIT OR USE YOUR CREDIT CARD # TO GUARANTEE YOUR RESERVATION. YOU WILL BE CHARGED FOR THE 1st NIGHT IF RESERVATIONS ARE NOT CANCELLED 24 HOURS PRIOR TO ARRIVAL.

CREDIT CARD # _____ EXPIRATION DATE _____
 AMEX DINERS CLUB VISA MC CARTE BLANCHE

**Mail
to
Hotel:**

DoubleTree Hotel
 6505 N IH 35
 Austin, TX 78756

Valsalva Bowl Fun For All

- I Know That's Right!!

According to the Rules of Competition for Valsalva Bowl IV, the prime objective of the Valsalva Bowl is to "stimulate interest in the current knowledge and practices of prehospital and emergency care." But anyone who has watched or competed in Valsalva Bowl knows that what happens is a resounding good time for everyone!

Valsalva Bowl is the brainchild of Joe Tyson, a Houston EMS educator, who has also served as moderator at all three previous competitions. Held in the spirit of professionalism and good sportsmanship, it also helps if competitors and observers keep their sense of humor as ready as their correct answers, because they are liable to get some good-natured ribbing from Tyson on some of their responses.

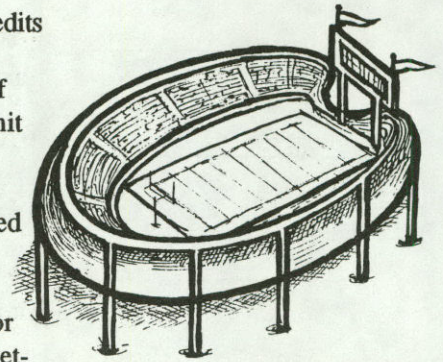
Doctors Donald Gordon and Donovan Butter from the University of Texas Health Science Center in San Antonio will serve as judges during this year's competition. Physician judges were added to this year's compe-

tion because for the first time advanced level questions will be asked. Twenty percent of the questions will be advanced level.

Those who want to earn some CE credits can do so by submitting multiple-choice questions for Valsalva Bowl. Ten hours of CE will be given to individuals who submit ten quality multiple choice questions to Education Program administrator Debbie Bradford. The \$10 entry fee will be waived for teams submitting ten questions.

Valsalva Bowl sponsor this year is Pro Med. Pro Med provides the awards for first, second, and third place and the perpetual trophy kept in Austin in the Bureau of Emergency Management. The Texas Health Foundation is providing an additional first place prize this year of \$100.

For more information on Valsalva Bowl competition or submitting questions for CE, contact Debbie Bradford at (512) 458-7550. To enter your team in the Valsalva Bowl, use the conference registration form.



1990 Volleyball Tournament

Thursday September 13, 1990 - 8:00 am

Team Name _____

Contact Person _____

Telephone (work)AC _____ (home)AC _____

Address/City/Zip _____

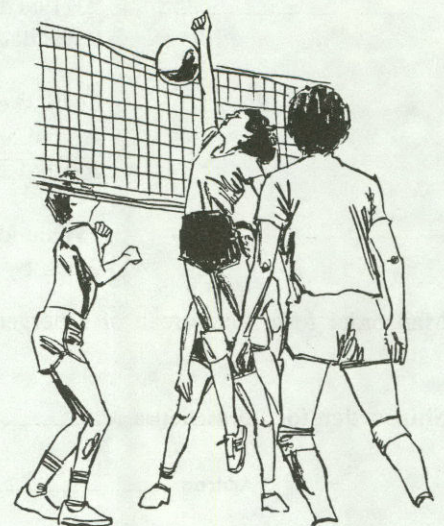
(\$10 per team - attach a list of all team members)

For information contact:
Bobbie Broadbent (512) 458-7550

Playoffs combined with horseshoes, washers, and social
Thursday evening 5:30 pm

Make check payable to: Texas Health Foundation

Mail to: Texas EMS Conference, P.O. Box 26399, Austin Texas 78755-0399



EMS Public Information and Education Materials

The Bureau of Emergency Management provides information and educational materials on EMS awareness and injury prevention. Call (512)458-7550 or use this form to order materials.

Amount Ordered	Description
_____	“When Minutes Count-A Citizen’s Guide to Medical Emergencies” brochure. A fold-out first aid guide first distributed in 1988. Can be personalized by the EMS service. (EMS014)
_____	“Don’t Guess, Call EMS” brochure. A reprint of a Department of Transportation brochure updated with Texas photos and logo. Back panel listing of Public Health Region offices and a “for more information call” box, 1989. (EMS013)
_____	“EMS Lifesavers-Career Information” brochure. Gives types of jobs, paid and volunteer, in various settings and salary ranges. (EMS007)
_____	“EMS-Questions and Answers About Citizen Participation” brochure. Answers questions about how to call, what to do, how the community can help EMS. (EMS008)
_____	“EMS-A System to Save a Life” brochure. A 1970’s title, 1990’s text, and it has public health region office info and “for more information call” box. Explains BLS and ALS, 1989. (EMS012)
_____	“Dedicated to Patient Care” poster. EMT and elderly woman pictured; featured during 1988’s EMS Week. (EMS009)
_____	“EMS-It’s a Lifesaver” poster. Features the scanned ambulance with an orange stripe and EMT. Our first EMS Week poster, 1985. (EMS018)
_____	“System to Save a Life” poster. Companion poster to brochure, 1990. (EMS011)
_____	“When It’s A Medical Emergency-You Need EMS” poster. Pictures closeup of EMTs resuscitating a child, 1987. (EMS010)
_____	EMS Week Community Action Packet. Speeches, activity blueprints, proclamations, public service announcement scripts, letters to the editor, newspaper releases. First distributed in 1988, updated in 1989 and 1990. Samples of brochures and posters included with an order form.
_____	“What does it take to be a lifesaver?” packet. A planning and promotion guide for EMS Week by American College of Emergency Physicians, 1990.

Mail order form to: Bureau of Emergency Management, Texas Department of Health, 1100 West 49th St., Austin, TX 78756.

Ship order to: Organization _____
Address _____
City/State/Zip _____
Telephone _____
Contact _____

by Alana S. Mallard

Emergency Medical Services and Injury Prevention: A Perfect Choice for EMS Week

Choices. It's what life is all about. And sometimes it's what death is about. The choices people make about the risks they take in their lives determines to a large extent the style in which they live or the style in which they die. Sadly, EMS sees mostly the style in which people die.

There is no argument that too many of us and of our friends and family are dying of trauma. Injuries kill thousands of Texans every year and almost three dozen Texans every day. EMTs and paramedics try to make sense of those injuries on many of the emergency runs they make. Teaching people about the injury-preventing choices they have could be a very productive way to rechannel the EMS stress of dealing with senseless severe trauma and accidental death.

EMS Week in 1990 is September 16 through 22 and our objectives for EMS Week this year are very similar to our objectives in past years: to make the public aware of EMS - how to call, what to expect, what to do before EMS arrives; to educate the public about personal behaviors and corporate decisions that reduce risks and prevent injuries; and to encourage community and global support of EMS as a necessary and effective medical service.

Toward these ends, the Bureau of Emergency Management again makes brochures, posters, videotapes, and community action packets available to EMS groups for EMS Week. A listing of our materials and an order form are on page 38. Between now and EMS Week we will be sending out to EMS organizations and local newspapers several information releases and fact sheets about emergency medical services in Texas and particularly about injury prevention and what to do in an emergency.

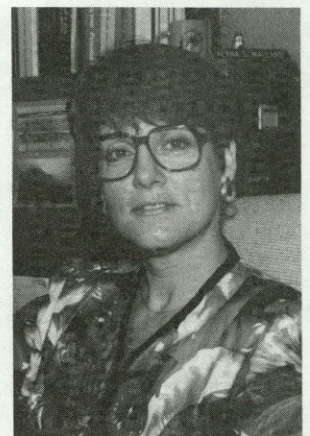
Our big promotion this year is aimed at

children and will be introduced September 13. Those of you who come to Austin to the Texas EMS Conference will be able to pick up materials such as coloring books, stickers, brochures, and a presentation sample to take home. This public information and education campaign teaches elementary school-aged kids ways to stay safe by helping them make choices for less risky behavior. The classroom presentation also tells the children to "stay calm, act fast, get help" in an emergency as it acquaints them with EMS.

Patching the public up after they mangle themselves is kind of like the parable where you are standing on a riverbank and pulling people out of the water as they flail by. Before you get absolutely exhausted saving near-drowning victims, someone needs to run upstream and see why everyone is falling into the water. EMTs and paramedics are lifesaving heroes to the public, and people will listen when you go upstream to tell people that you have witnessed too many mangled bodies in vehicles, too many drownings, too many cyclists with head injuries, too many drug and alcohol induced horrors.

People are never too old and never too young to make the choice for injury-preventing behavior. We can have a larger part in reducing death and disability caused by injuries by helping to reduce those injuries before they happen.

Injury prevention for EMS Week -- an excellent choice for your public information and education efforts.



Alana S. Mallard
Editor
Texas EMS Messenger

Around The State

August 24 - 26, 1990, **Idaho Emergency Medical Conference**, Boise, Idaho. Linda Ady 208/334-5994.

August 25, 1990, **Incident Command Conference**, Coastal Bend Society of EMS Educators, Corpus Christi, TX Rothy Moseley 512/888-7762; Fern Coker or Craig White 512/526-2321.

August 30, **Trauma Technical Advisory Committee**, Austin, 1:30 p.m. at Airport Hilton. Contact Bureau of Emergency Management 512/458-7550.

August 29-31, **EMS Symposium**, Jekyll Island, GA. 404/94-6505.

September 7, 1990, **5th Annual Air Rescue Seminar**, Beaumont, TX, Air Rescue, Baptist Healthcare System, P.O. Drawer 1591, Beaumont, TX 77704, 409/839-5620.

September 7 - 9, **Fundamentals of Search and Rescue**, Cleburne State Park Contact Jess Tarin at 915/628-3251.

September 13 - 15, 1990, **Texas EMS Conference 90**, DoubleTree Hotel, Austin. Call the Bureau of Emergency Management at 512/458-7550.

September 16 - 22, 1990, **EMS Week**.

September 22-23, **Basic Vertical Rescue**, \$60, MCC Waco 817/750-3512.

October 5, 6, 7, **13th Annual Wilderness Rescue**. Stan Irwin at 512/684-8268 or write to : TAEMT Region 3, 10356 Mt. Evans, San Antonio, 78251.

October 9 - 11, 1990, **Second Annual Industrial Rescue Competition**, Sweeny, TX Kay Roop, Baton Rouge, LA 1-800-647-7626.

October 12 - 14, 1990, **20th Scientific Assembly**,

Chicago, IL. Emergency Nurses Association, 230 E. Ohio, Suite 600, Chicago, IL 60611; 312/649-0297.

October 19, **Haz-Mat Recognition and ID**. Texarkana \$10. Kathy Jordan 214/838-4541

October 26, **Emergency Care Seminar**. Texarkana \$30. Kathy Jordan 214/838-4541

October 27 - 28, **Basic Vertical Rescue**, \$60, MCC Waco 817/750-3512.

November 1, 2 & 3, **Advanced Vertical Rescue**, \$110, MCC Waco 817-750-3512.

November 14 - 15, **PHTLS Course**, Texarkana \$125. Kathy Jordan 214/838-4541

November 15 - 17, 1990, **10th Annual Trauma Symposium**, Marriott Hotel, El Paso, TX Wendy Younger, 217 Vista Rio Circle, El Paso 79912-2125.

December 8 - 9, **PHTLS-Basic Course**, Texarkana. Kathy Jordan 214/838-4541.

April 16 - 19, 1991, **Industrial Fire World Exposition**, Houston, TX Tammy Randermann, 409/693-7105. Fax 409/764-0691.

Prof. Liability available to EMS organizations, Contact Bert Peterson at 713/622-7161 or 1-800-537-7497

EMT-I, EMT-Ps needed offshore: \$795/week + overtime. Texas or Nat'l Certification. Resume: OPI, Health Services, 96 W. Front St, Orange, TX 77630.

EMT-I/Paramedic: TX Dept. of Corrections. \$1622/mo. Texas certification EMT-I/Paramedic. TDC, Box 99, Personnel, Huntsville, TX 77342 409/294-2755.

Paramedic: Firefighter trainee, EMT-P. Resumes:

Houston Fire Dept, Personnel Dept., Selection Services Div., 500 Jefferson, Houston 77002.

Assoc. Medical Director: Coordinate ALS training/CE for EMTs. Paramedic, RN. ACLS cert. Exp. in paramedic educ. & EMS operations. Dept of Surgery, Texas Tech Univ, RAHC, 4800 Alberta Ave., El Paso, TX 79905. Sandra Mendez 915/545-6860.

Paramedics: Offshore oil production. Texas or National Registry. ACLS, BTLs. Resume: Medic Systems, P.O. Box 690928, Houston, TX 77269.

EMT Training Coordinator. UTSW Medical Center. Vitae to Debra Cason, 5323 Harry Hines, Dallas, TX 75235-8890. 214/688-3131.

Paramedic Instructor: UTSW Medical Center. Vitae to Debra Cason at 5323 Harry Hines, Dallas, Tx. 75235-8890. 214/688-3131.

EMTs, EMT-Ps: Resumes: Offshore Emergency Medical Systems, Chris Hardage, 5919 Charles Schreiner Tr, Austin, TX 78749.

Huntsville EMS Administration: State correctional system. \$34,032/benefits. Resume: TDCJ, Box 99, Personnel Annex, Huntsville 77342. 409/294-2755.

LifePac5 monitor, defibrillator, 512/449-1902.

Resusci Anne, manikin repair, 713/484-4382.

Horton Modular Ambulance, 814/226-7276.

3 Motorola Mx-340 Radios, 512/729-2112.

1988 Collins Ambulance, 512/776-0025.

Thumper, Resuscitator, 713/466-6159.

Liteguard 6-B, defib./monitor, 817/236-8044.

Two Laerdal defibrillators, 713/922-1108.

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Texas Department of Health
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