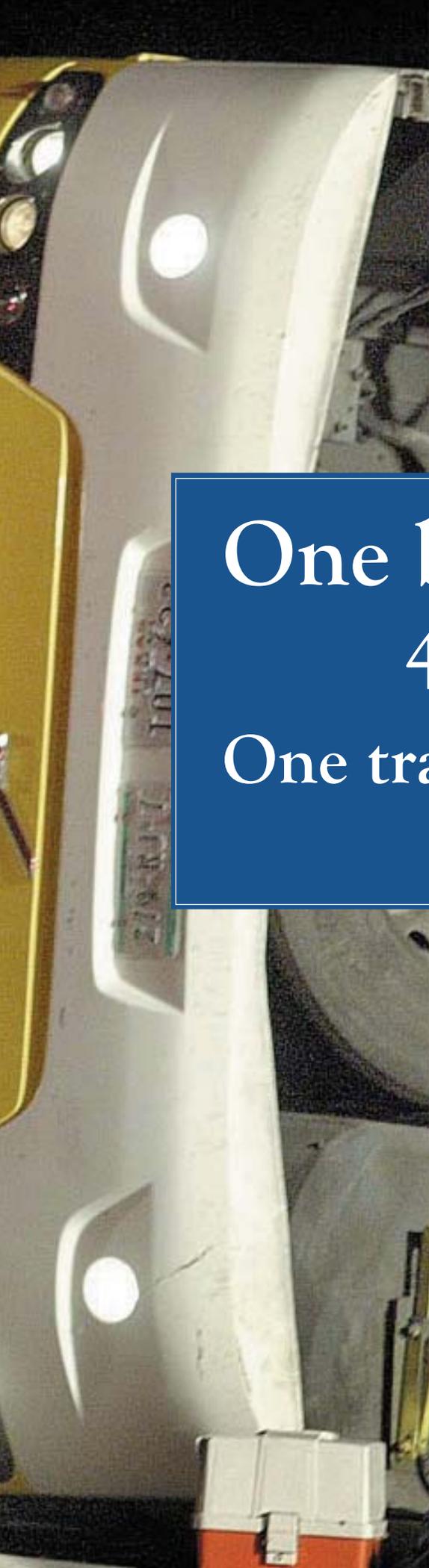


A firefighter peers into the wreckage of a 47-passenger bus that overturned on Hwy. 59 in January. Photos by Frank Tilley of the Victoria Advocate.





It's the stuff nightmares are made of, the kind of this-couldn't-happen-here scenario that elicits jokes on drill day. A 47-passenger bus overturns on a highway, dragging some people along the asphalt while others are tossed out into the early morning cold. Oh, yeah – and almost no one speaks English.

But it did happen, just outside Victoria. It called upon all the system resources of one Trauma Regional Advisory Council (RAC) and some from a neighboring RAC. And in the end, the system worked.

**One bus.
47 passengers.
One trauma system.**

BY KELLY HARRELL

Predawn on January 2. A fully-loaded, bright yellow bus glides in darkness along Hwy. 59, returning holiday visitors from a trip to Monterrey, Mexico. Just after 4 a.m., the bus driver veers off the road and overcorrects. The bus flips on its right side, shattering windows and sending passengers tumbling on top of each other. The bus skids for about 50 feet along the pavement. Identification and

personal belongings scatter along the dark highway.

A short time later, the first frantic calls – in Spanish – came into Victoria dispatch. Two dispatchers fluent in Spanish send three ambulances immediately while someone there calls Victoria Fire Chief Vance Riley at home. Riley does just what he needs to do – starts contacting responders and hospitals.

Riley radios the two trauma centers in Victoria – Citizens Medical Center and DeTar Navarro Hospital – and tells them to activate disaster plans and to expect 20 to 30 patients – each. Mutual aid is requested from several nearby volunteer fire departments, two private ambulance providers and an air provider. Meanwhile, Victoria Police Department hears what was going on in the county and restricts its own radio traffic. The regional EMS-trauma system is activated.

Twenty years ago, a good outcome would not have been as likely. The idea of a statewide trauma system began in 1989 when legislation directed the Texas Department of Health to develop a statewide trauma system, designate trauma facilities and develop a statewide EMS/trauma registry. By 1992, TDH divided the state in 22 trauma service areas, which in turn created Regional Advisory Councils, now simply called RACs. Each of the 22 areas was tasked with developing its own regional trauma system. All the regional systems would then make up the Texas Trauma System. The end result? Better patient

care.

“A working trauma system assures that every piece of the system is coordinated and working together so that a patient gets the best possible care,” says Kathy Perkins, assistant commissioner of DSHS Division of Regulatory Services. From 1989 to 2000, Perkins worked in the state’s trauma system development program.

Regional trauma systems were a tough sell in the beginning and would have failed save for the vision and perseverance of people around the state committed to the vision of a working system. They encouraged separate, independent – very independent – entities to start working together toward regional trauma systems. Like what happened outside Victoria on a lonely stretch of Hwy. 59.

The bus had come to rest on the right side, perpendicular to the road, only its black undercarriage visible to other drivers. Before rescuers can respond, a passenger truck slams into the bottom of the bus. Fortunately, that driver is unhurt.

The others were not so lucky. The impact injures 46 bus passengers, nine critically. Many have broken bones, lacerations, abrasions and head injuries. At least one woman has an arm amputation. One man pinned under the

bus dies on scene.

By the time Vance Riley arrives on scene, bright lights showed firefighters extricating patients from the bus. A few victims lay on the ground waiting for triage or transport, while others stood in the cold. Hoods and coats hid injuries in some cases, making it difficult to get an accurate read on the number of injured. It could have been chaos. But early responders set up an incident command system, one of the many things that contributed to the success of the incident response.

“There were an overwhelming number of patients (with) injuries ranging from minor to severe,” says Riley, who served as operations section chief during the incident. “Incident command created organization to the chaos and created a reasonable span of control.”

Paramedic Roger Hempel, a battalion chief for the Victoria Fire Department, assumed the role of incident commander when he arrived on scene. He quickly used all available personnel to set up rescue and triage sectors. As more personnel arrived from Victoria and surrounding volunteer fire departments, he staffed sectors for operations, landing zone, transportation and treatment. The county fire marshal was named public information officer.



The bus flipped on its side after the driver veered off and overcorrected. It came to rest a short distance from a ditch.

Translators were assigned to the triage and transport sector officers, who worked quickly to assess and transport the most critical patients to hospitals. The system worked; all critical patients arrived at area hospitals within 80 minutes of the first call.

“We were successful because of the 110 percent effort everyone put into their jobs,” Hempel says. “It all just clicked. It could have gone a whole lot worse. There are things we could tweak, but if the same call went out today, I’d want it to go the same way.”

Carolyn Knox, the trauma program coordinator for Citizens and chair of Golden Crescent RAC, was awakened by the phone around 4:25 a.m. After listening to the hospital staff explain the situation, she waited for them to say it was a drill. It wasn’t. She checked the outside temperature. It was 29 degrees. She quickly dressed in warm clothes. By the time she arrived on scene a short time later, the scene was under control and patients were already being transported in ambulances lined up along the highway.

“There were terrible injuries, but it was very controlled,” Knox says. “The fire departments just amaze me. They think of everything.”

She and Safety Officer John Wallace of DeTar served as scene liaisons for the hospitals, relaying information back to the hospital so staff would know what to expect.

“Our job was to find out how many patients and criticality,” Knox says. “I communicated between (the transport coordinator) and our hospital to inform them of how many patients they could expect at any given time.”



Responders from across the Golden Crescent RAC extricated and transported patients in the 29-degree morning after the bus crash.

Meanwhile, hospital staff had jumped into action once they got the notice to activate the disaster plan. The early notification allowed hospital staff to take care of patients already in the ER and to get extra blankets and supplies ready. Robbie Kirk, another liaison at Citizens, drove immediately to the hospital after he was notified. He was astonished at what he saw when he walked in.

“It was absolute organized chaos. The ER was full. Both trauma rooms had patients. When I got past the trauma rooms there were beds along the wall and every bed had at least three caregivers.”

One of the challenges on scene and at the hospitals was the fact that many patients didn’t speak English. On scene, a Spanish speaker was assigned to both the triage coordinator and the transport coordinator. In Citizens and DeTar, Spanish-speaking staff was recruited from all areas.

“We had different personnel from all areas of the hospital and it became their job to translate for the day,” says Lisa Price, trauma program manager for DeTar Navarro. “If a patient had no English at all, we would assign a Spanish-speaker to them.”

In truth, the odds were against the incident going as well as it did. But these passengers were lucky: the Golden Crescent RAC, which encompasses six counties around Victoria, had been working as a team for several years. Vance Riley knew from his experience in the RAC that an early heads-up meant more organized response for those on the front and more time to prepare for those on the back end. As Kirk notes, “The early notification allowed the staff to have everything ready when the patients arrived.”

Other pieces fell into place. Dispatch sent all available medic units initially and then put PHI Air Med 3 on standby. Neighboring first responders got called early. Quail Creek VFD, another RAC participant and first on scene, immediately called for a wrecker to lift the bus off pinned passengers. An incident command system had been



Responders on scene had the most critical patients extricated and packaged in about 80 minutes. One man pinned under the bus died on scene.

set up early on with clear lines of authority. Representatives from Citizens and DeTar Navarro, both Level III trauma facilities, worked the scene to let their ERs know what was coming and later worked to reunite families who had been split up during transport. MEDCOM, a regional medical communications center in San Antonio, helped get the most critical patients transferred by San Antonio AirLife to a higher level of care in San Antonio. Southwest Texas RAC (STRAC), in San Antonio, called early on to offer resources from its area. It wasn’t perfect – no response ever is – but a National Traffic Safety Board investigator told Vance Riley that the bus crash response was one of the best he’d ever seen.

“I’m most proud of the fact that the system functioned so seamlessly from the scene into the operating room,” Riley says, “and the way everyone worked together, from the dispatchers to law enforcement to the fire departments, private providers, air medical and hospitals.”

One incident, many entities, all working toward one goal: taking care of patients.

Responders to the bus crash on January 2 in Victoria:

- * Victoria Fire Department
- * Bloomington Volunteer Fire Department
- * Edna Fire & EMS (cancelled en route)
- * Ganado EMS (cancelled en route)
- * Quail Creek Volunteer Fire Department
- * Raisin Volunteer Fire Department
- * Refugio EMS
- * Regional Ambulance Company
- * Southern Cross Ambulance Company
- * Victoria County Fire Marshal

- * HALO Flight (Corpus Christi-cancelled en route)
- * PHI Air Med 3 (scene to hospital and transfers)
- * San Antonio AirLife (transfers)

- * Citizen Medical Center
- * DeTar Hospital Navarro