

Attachment 5

to Organizational Factors Group Chairman's Factual Report

CHI04MA182

**National Transportation Safety Board
Office of Aviation Safety**

CHI04MA182

Organizational Factors

November 22, 2004

Interview Summary: Chief Pilot

Location: Med-Trans Corporation (MTC)
Tucson, AZ

Interviewers: Georgia Struhsaker NTSB NWRA, Seattle, WA
Aaron Sauer NTSB CMRA, Denver, CO
Robert Drake FAA AAI-100, Washington, DC

Interviewee: Mr. Don Savage MTC, Chief Pilot

During the interview, Mr. Don Savage stated the following:

He joined the military in 1972 and graduated from flight school in 1973. He did not serve in Vietnam. Three years later he became a CFI for the military. He was assigned to the military flight standardization team. He did that work for 8 years and then retired.

Med Trans was his second job. He was hired in 1995 at their first base outside North Dakota, Wings Air Rescue in Johnson City, TN. He started as a line pilot, and then became lead pilot, instructor, and finally, chief pilot about 4 years ago in 2000. He gave up flying the line in January 2004; he was too busy to continue to fly the line.

He has 7,000 total flight hours, all rotorcraft, 3,500 hours as an instructor, almost all in the Bell 206. He is a commercial helicopter instrument rated pilot; he has no civilian CFI rating.

In January 1997, he started training new hires. He trained his first new hire under Bert's supervision. He also started doing recurrent training every 4 months. He felt it was his job to be eyes and ears for Bert and Dennis, and he traveled to all the bases. This was easy at first with 4 bases. He was able to keep up with it until the first accident this year. Each base has had training at least once this year.

Before the 120-day recurrent training was started, the pilots only had an annual ride. After about 2 years of the 120-day recurrent training, there was steady improvement

and a level of sustained proficiency. This year, he and Bert are evaluating how rusty the pilots are from the slip this year.

During the original 120-day training, he covered most maneuvers on the 135 checkride, such as the normal approach, autorotations, engine failure at altitude, and hydraulics off. Instrument work done included inadvertent IMC, basic instruments, and unusual attitudes.

He simulated inadvertent IMC by having the pilot put on foggles, then having him takeoff looking under the foggles. He would tell the pilot he was in clouds, and then have him climb and contact ATC.

In the new 120-day recurrent training, he will focus on more instrument training. He plans to carry it into night and do instrument training at night. Almost half the recurrent time will be on instruments. The training will be 1 hour minimum ground school and 1 hour flight training. He will do simulated inadvertent IMC at night. This will not be briefed. He will tell the pilot to go to instruments, and expects to see them execute a 180 turn or enter a climb as appropriate.

There have been changes in regard to documentation. They no longer do anything they don't document. Bert had the opinion that putting things in writing subjected the company to liability. Since the FAA inspection in July, "it is document everything."

Don with the help of another instructor in the company wrote a maneuver guide that is now part of training manual. It is a new section that documents the way they teach maneuvers.

There have been some slight changes in initial training. The same amount of flight and ground training are still required. They switched from maintenance hobbs time to billing hobbs time. They have added special training on CRM, hazardous materials, hot refueling, and oxygen refilling. They have increased instrument training to ½ hour minimum. Before there was no minimum amount of instrument time.

Mike Lemee has a background in CRM training. They thought about contracting out and having a vendor do it, but after seeing Mike's presentation, Don felt there was no way they could go outside company and get something better. Mike is doing CRM training in Aberdeen, SD, on December 2. Mike has already been to SC, TN, both TX bases and AZ. This is to be recurring training.

There is a 2-page safety orientation checklist in the training manual. This includes CRM, and CRM has always been part of training. Mike's new program formalizes this. The target audience includes all pilots, all medical crew, and the dispatch personnel if possible.

For a pilot to be hired they would like to see 2,000 hours total time, and never less than 1,500, at least 200 hours night, and an instrument rating. It is getting harder and harder to find pilots. The way to get them is to give better pay and benefits.

During the hiring in Lexington, KY, they flew 3 out of 12 interviewees that they had concerns with about flying at night. They ended up hiring one. They put the applicants in the air at night and did inadvertent IMC and unusual attitudes. When they took over the base in Aberdeen, one pilot already there had less than 200 hours at night, so they flew with him at night before offering him a job.

If a pilot has R22 time or Bell 206 time, he will not have trouble with transitioning to the 407. Pilots of big helicopters sometimes have trouble with the 407. They consider hiring pilots who can be trained in 10 hours or less.

All the Med Trans instructors have gone to the Bell course. Mike Lemee has been once. Don Rogers, the new check airman, is going to the Bell course. Bert and Don have each been twice. They go to initial training at Bell, not recurrent training.

Don has probably trained 50 pilots for the company. Company instructors do all 407 pilot training in house.

He recently attended a mountain-flying course at Western Helicopters in Rialto, CA. The reason he went to the course was for credibility and safety. He didn't want to give training without being current himself in mountain flying. It cost \$4000 and was in a Hughes 500. They did mountain landings at 10,000 feet.

Med Trans salaries are at the top of the bottom third of the industry. The company has come a long way in pay and benefits. Since he started at 27k as an instructor, pay and benefits have gone up significantly. The demand for pilots is now high. The way to attract pilots is with company policy. He tells pilots there is no pressure on them to fly when it is unsafe. Pilots come from operators who call the pilots and ask why they turned down a mission due to weather. He has gotten a lot of pilots just by the way Med Trans operates.

No pilots start at a salary less than 40k. Salaries vary with bases. The pilots in TX started at 45 to 46k. It is not enough; "we don't pay them enough."

They do background checks. He calls all the references on their list. He asks the pilot questions – have you had any violations, any accidents, any DUIs? It is an HR function to do a background check.

One out of a hundred resumes results in a hire.

In the interview process, they ask, how many times have you been inadvertent IMC? Answers range from never to 20 times.

They just had their very first inadvertent IMC encounter since he has been with Med Trans. At Med Trans One, Greenville, they picked up a patient and headed back to the hospital. The helicopter flew into cloud at 1,700 feet. The pilot climbed up to 2,500 feet, called ATC, climbed further to 3,500 feet, and was given vectors to Greenville Downtown. He descended to 3,000 feet, got VFR, and canceled IFR. It worked out the way it was trained and intended. Don sent out an e-mail to all base managers that this happened.

Many aborted flights due to darkness and weather are logged on the duty logs. Weather declines and weather aborts are logged. There is usually a good balance between declines, aborts and the number of missions performed.

He had an inadvertent IMC experience in the military. He was fresh out of flight school with a more experienced pilot. He saved that guy's life because he was current and proficient.

He instructed in night vision goggles (NVGs) for many, many years. He doesn't understand why everybody doesn't use them, because with them you can see in the dark. On his first EMS mission, it was clear but very dark. He questioned whether he could do this job, but the more he did it, the more comfortable he was. However, he kept thinking, why don't we have goggles? He made a plan and presented it to the company, 4 years ago and then again the next year. It boils down to no FAA regulations to cover it, so a small group in Texas at FAA Region is trying to control it. His boss is afraid to spend money when it is at the whim of the individual inspector. It is now a difficult process to get certified, and it does not have to be difficult. Permanent modifications to the cockpit are required now. The FAA is focused on tiny light leaks and this is ridiculous. He believes they would pay for goggles by being able to do missions that they are now turning down because it is too dark. NVGs are a tool, but they won't solve all problems.

He doesn't think TAWS/EGPWS will help them.

He thinks pilots are having problems the first couple of seconds after entering cloud. He is interested in computer-generated terrain. A screen would show the terrain. When the pilot enters cloud, he could look at the screen and maintain orientation while transitioning to a climb.

A pilot's first instinct when entering cloud is to get back to the ground, although his training is to climb. He feels this is what may have happened to Bob Giard. A pilot's instinct is to stay in touch with mother earth.

The procedure for inadvertent IMC recovery is attitude, heading, torque and airspeed. Check attitude, turn only away from known obstacles, pull climb torque and use climb airspeed of 60 knots.

If Bob had had goggles, he would not have had an accident. He was very conservative about the weather. This may have been what got him. He may have gotten into something that overwhelmed him.

He always trained the pilots to use the radar altimeter, and at night, to put it at 400 or 500 feet. Some of systems are very loud, and pilots say the alarm is too loud, and it scares them. If it is off, they are not using it. We want them to use it. The radar altimeter is essential in what we do. Now it is in the ops manual to use it; it has been made mandatory.

They have discussed increasing weather minimums. The weather minimums are absolute minimums. He does not want new pilots to be flying at the minimums. He wants them to grow into the job, be very conservative, don't do anything they are uncomfortable with. Med Trans lets the pilots make the weather decisions. If they don't want to fly on a clear night, they don't have to. The minimums don't really tell you the story. "Weather minimums are about being legal, you need to be safe."

He developed a risk management matrix for the company about 5 years ago. He developed a risk assessment form. It involved weather, how experienced the pilot was, duty time, etc. They did not complete it before a flight, they evaluated after the flight. The worst case would be at night, a scene call in the mountains, marginal weather, on the last day of the pilot's duty schedule. All other missions have less risk. The idea was to find ways to mitigate risk. They did this for three months, and it focused everybody's attention on what the risks were and mitigating and eliminating them.

Don sent an e-mail to all base managers in November 2003 to reemphasize to all the pilots that there was no pressure to fly in weather.

As line pilot, he never saw an FAA inspector come to the base to do an inspection. The nearest FSDO is Nashville. During the last 3 years, they have come to see the base regularly, at least twice a year. When they first started inspections, the FAA inspector checked everything, but now it is more cursory. He feels they have pretty good reputation with the FAA. Don actually told an inspector from the Nashville FSDO about the new TN base. The geographic inspector did not know about the new base.

Med Trans has new copies of their ops manual and training manual for all the FSDOs.

The rapid growth period was a very big concern and a topic of discussion with Bert on many occasions. He thought that as they grew "we were going to spread ourselves a little too thin." He worried they would lose control of standards. They handled this by continuing to do all the training and checking. Bert wanted to maintain checks and balances, so Bert did the checking, and Don did the training.

In 1999, they started hiring company instructors. He was very meticulous about choosing instructors. He wanted them to be a Don Savage clone. Jason Brandenburg

moved for more money. Mark Gann, SC, had a family problem that caused him to resign. Mike Lemee is now instructing.

Bert and Don traveled a lot. Don quit working at Wings and went almost to full time training, instead of working 7 days on and 7 days off.

The next planned restructuring is to make Mike Lemee a full time instructor, taking him off the line in Aberdeen. He also wants to train one more instructor, an AZ pilot, Tim Vesley. This time the ops side will grow before company expansion. Due to closure of KY bases and McCook, at this time, the company is shrinking and ops/training is getting bigger, which is good.

The new check airmen are Don Rogers and Mike Lemee.

He is comfortable that Bert and he did things the right way. Dennis spent a lot of money for Bert and Don to travel around and do training in person, face to face. Taking the viewpoint of an outsider, he can see why rapid growth would be perceived as diluting safety and standards, but actually the opposite happened. He and Bert did the training personally. No matter how many pilots needed training, they did it the way they always did it. All the pilots knew who he and Bert were because they trained them.

The company will continue to grow, and this time he wants to be ready. "No more frequent flyer miles for me."

Don did the research for Dennis to find a safety auditor. The first thing the auditor will say is, where is your safety guy? Don's answer is that everybody is responsible for safety. He sees the point that one safety guy would be the point of contact for all safety issues. A problem now is that all bases are not getting information from incidents at other bases. Don tries to pass information around so that everybody knows. He sends out e-mails when he finds out about things. A safety guy would have this as a job. He always felt that having a safety guy would be an excuse for not pursuing safety. They would get lazy, saying we are safe, we have a safety guy.

He wants the auditor to find stuff. The Med Trans attitude is to welcome the audit findings; tell us what we can do to improve safety.

He commented that anyone on the medical crew can stop a mission with no questions asked. This is a Med Trans strong point. Once a new flight nurse stopped a mission because it was her first flight, and she was nervous. The mission was aborted. The nurse later left, as she was not cut out for the job.

He interviewed Bob Giard in person in SC with Bert. Bob came from Air Evac. They hire a lot of pilots from Air Evac. Air Evac has a lot of bases; they are flying 206L1s. Bob was not comfortable at Air Evac. He liked Bob because he was already working EMS. He was very safety minded, the kind of guy he was looking for. He felt he would bring more pilots from Air Evac. He had EMS experience and an instrument

rating. He was one of those kinds of guys that people instantly liked. He did not fly with him before hiring him.

He gave Bob his initial training. It was not a problem, normal. He flew 6 or 7 hours with him. Bob had new hire training, recurrent training, recurrent training again, a check ride, and then the accident. He does not know what more they could have done in training. Bob was a very conservative pilot. Maybe his downfall was that he did not fly in a lot of crappy weather so when it came he was not prepared for it.