



Space Shuttle Columbia and the Houston Saints

Space Shuttle Columbia and the Houston Saints

"We woke up to the sounds of a bunch of F-16's taking off from Ellington AFB, and then our cell phones started going crazy." My brother Bruce Carling is the Young Men's President of the Clearlake 2nd Ward LDS Church in the Houston, Texas area, and went on a ward camping trip Friday night. Among his boy scouts early Saturday morning was the son of Rick Husband, the Columbia shuttle commander.

The Clearlake Bayou camping area is between the Johnson Space Center and the Ellington AFB runway. Many in the Clearlake Wards and the Friendswood Stake in S. E. Houston work for NASA, Boeing, or other contractors on the space station. Ron Dittmore, the Shuttle Program Manager and NASA spokesman seen a lot on TV, is the high council representative to the Clearlake 2nd Ward.

When my brothers and I were in scouts, we lived in Livermore California. Our father worked at the Lawrence Radiation Laboratory (now called Lawrence Livermore) when the USA was trying desperately to catch up to the Russians and put a man into space. Many of our scout leaders were rocket scientists, computer scientists, mathematicians, etc. Between doing the obnoxious things all scouts do, we got to listen to campfire discussions between some of the brightest scientific minds in the world.

One man I remember particularly, John Cahoon Sr. (now deceased) was one of the country's leading ceramic engineers. His team was trying to develop a ceramic material that could be machined like a metal, and used as the heat shield for space capsule reentry. The challenges were formidable. He described it as like "gluing a china plate to a piece of metal, heating it with a blow torch, then shooting it out of a cannon.....hoping it will stay in one piece."

They solved the ceramic machining problem (no small feat) but then found that no adhesive could withstand the 3,000-degree re-entry temperature. They solved that problem with a phenomenon, and a word I haven't heard since, "ablative," which describes what happens when the surface of a material melts, turns to liquid, then drops away taking the heat with it. THAT is what allows the aluminum structure directly under the ceramic shield to live, and that was the key to success. Pretty bright guys.

When I heard the shuttle was missing, and then saw the video of it burning up on re-

entry, I was taken back to those early scout trips. I don't know if the heat shields for Columbia (which is the oldest of the shuttles and was built in 1981), are of the same material, but I suspect that today's ceramic engineers are standing on the shoulders of those guys around our camp fire.

Who would have thought my brother was camping with the shuttle commander's son. Rick Husband is not of our faith, but lives in my brother's ward directly across the street from the LDS scoutmaster. Their sons are best friends. Since the rest of the Husband family was going to Florida to watch the shuttle land, Rick's son decided to go on the ward camping trip.

The scoutmaster's wife was the first to call. The police and National Guard had quickly closed off their street, and she wasn't sure what to do, except "Let's bring everybody home."

The remainder of the Husband family arrived back in Texas Sunday, and as you can imagine it has been a surreal period in everyone's life. Debris was still falling from the sky as late as 7 PM Saturday, and searchers have been combing East Texas for even the smallest pieces. The homes of all the astronauts are still sealed off from the curious and the media.

Church services were very subdued Sunday, even the Primary. My brother returned from an emotional memorial service Sunday night, and describes the mission culture as "A passion, a real community. Everyone is dedicated to the success of the program, and even though it's dangerous, no one expects it will happen to you or to those you know and love." Hundreds of people in the LDS community in Houston work on the shuttle programs or affiliated contractors and know the families of those who were lost.

Will the program go on? Of course it will. Will the remaining astronauts step up to renew the challenge? Of that there is no question. There's a lot that can go wrong with a trip to space, and the shuttle design which is over 20 years old now, has been described as "Like flying a rock." But those ceramic engineers back in scout camp, all those years ago, would probably describe it more like "Flying a rock surrounded by an egg shell."

Duane Carling is a freelance writer and occasional contributor to Meridian Magazine. Duane lives in Farmington, Utah.







