

On Sunday evening, August 7, 2005, my Basic Flight Instructor, Dave Sharafinski, and I lifted off the water in front of my house on Carr Inlet on Puget Sound in Washington State for an instructional flight in my amphibious Seawing. It was about 7PM. The sky was clear and sunny. The winds were calm. The water surface we were taking off from was glassy smooth. In short, a perfect evening for flight!

After a total of 23.8 hours of flight instruction. . .13 hours with BFI Art Thompson in a land based Apex ultralight and 10.8 hours with BFI Dave Sharafinski in my Seawing amphib. . .I had just soloed my Seawing on July 21, 2005.

Since July 21, I had flown an additional 11.8 solo hours in my Seawing under Dave's tutelage, gaining flight experience and working toward the day when I, too, will become a Basic Flight Instructor.

On our August 7th flight we decided to fly over the Key Peninsula to Case Inlet to gain some cross country flying experience. After a thorough preflight by both of us and a smooth take off, we began a long, steady climb to 1700 feet in preparation for flying over the Key Peninsula. Both Dave and I continuously scanned the sky around us for other aircraft and noted the small lakes and fields below which could be used as emergency landing areas should we experience an "engine out" condition. We flew over a narrow part of the Key Peninsula, between Minter Creek on Carr Inlet and Vaughan Bay on Case Inlet. As we passed over Vaughan Bay I began a slow, leisurely descent. Just a few seconds after noting that my altimeter read 670' we heard a loud, "POP!!!" on our right (starboard) side.

INSTANTLY my Seawing was corkscrewing rapidly clockwise in what we perceived to be an EXTREME, nose-down attitude. Beyond the front of my floats I could see the surface of the water racing toward us as we spun TOTALLY out of control!

In the confusion, I distinctly remember two things:

1) How fascinated I was by the surreal scene racing before my eyes--How dark blue the water was! The tiny ripples on the surface of the bay! The LOUD "FLAPPING" of the damaged right wing! The BRIGHTNESS of the wing fabric brilliantly back lit by the sun! and thinking purposefully. . .

2) "PARACHUTE! PARACHUTE!! PARACHUTE!!!"

I reached for the chute handle, but Dave (sitting in the back seat) had just yanked it!

Dave remembers hearing a loud, "SWOOSH!!!" probably as the BRS rocket propelled the parachute from its cannister.

Not having any sense of WHEN we were about to impact the surface, neither of us had time to take ONE LAST BIG GULP of air! Dave remembers the SPLASH and water rushing around him. I remember nothing except SUDDENLY it was dark. We were upside down under cool, refreshing water.

My lungs were BURNING for air. I instinctively took a breath. Tasting the saltwater in my mouth I stymied my breathing instinct before the water entered my lungs.

"SEATBELT! SEATBELT!! SEATBELT!!!" I remember yelling to myself in my mind.

I fumbled around my abdomen, felt the seatbelt's hard and smooth metal clasp and pulled.

My lungs were SCREAMING for air! Again I FORCED myself not to breathe.

A moment later my life jacket and foam-filled helmet popped me into the bright light above the surface of the water and air. . .sweet, ABUNDANT AIR!!!

My next thought was Dave. I did not see him anywhere. I remember feeling PANICKED! I thought he must still be underwater, strapped in! I didn't even know where to begin to look for him. In reality, even if I had tried, my life jacket and helmet would have prevented me from being able to dive under and search.

Then, I think Dave called my name first.

"BOB!" I heard from the other side of the overturned floats.

"DAVE!!" I hollered, feeling an OVERWHELMING sense of relief.
"YOU OK?" Dave shouted.
"OK!" I yelled. "YOU OK?"
"OK!" Dave replied.

"THANK GOD!" I remember thinking. Then I just felt myself go limp and let the life jacket keep me afloat. . .

Within minutes boats were racing to our rescue. I remember the water still feeling SOFT and REFRESHING.

The first boat to our rescue looked beautiful and new! It had a swim step just above water level on its stern. A beautiful, young woman was lowering a shiny, aluminum ladder into the water from it.

I looked at Dave and motioned for him to go up.

"No. You go first." Dave said.

I think I remember him saying his back was hurting.

The arms of two men reached down and carefully helped me aboard.

The two men were especially careful helping Dave aboard. Fortunately this beautiful boat had a soft, upholstered "sun lounge" atop its transom which was broad enough for Dave to lie flat on his back atop it.

"I'm a doctor." One man said, assessing my face. "We have facial bleeding here."

I put my left hand to the left side of my face, pulled it back and saw blood on my fingers. I felt no pain.

"He's going to need some stitches." The doctor said.

I think it was Dave who questioned, "You're a doctor?"

"I'm a chiropractor. My name's Brian." The doctor replied. "Is there a towel for this man's bleeding?"

The pretty lady handed me a colorful beach towel.

I thanked her.

"Does anybody have a cell phone?" Dr. Brian called out to the people in another, nearby boat.

A man said, "I've got one."

"Toss it here!" Brian told him.

The man hesitated.

"I'll catch it!" Brian assured him.

The phone sailed over 8 or 10 feet of water and safely into Brian's hands.

I'm not sure whether Brian called 911 or someone onshore had. I was aware of hearing sirens in the distance. I think I remember hearing Brian making phone arrangements for aid vehicles to meet us at the public pier at the nearby, little, shoreline town of Allyn.

"Either of you want to call anybody?" Brian asked.

"Our wives." I replied.

"What's your number?" Brian asked.

I told him. Brian dialed it and handed me the phone.

After a few rings I heard my wonderful wife's voice.

"Hello?" Dory answered.

"Hi dear!"

"Hi!" She replied hesitantly.

I could tell she was surprised to hear my voice, knowing that I should be in the air.

"Well, we out did ourselves this time!" I remember saying, jokingly.

I told her briefly what had happened, where we were, and that she needed to come and pick us up.

"Trooper" that she is. . .and vaguely remembering the road from our house to Allyn, Dory said she'd be immediately on her way.

I think Dave asked me to ask Dory to please call his wife, Pam.

On the Allyn pier the Medics were waiting for us. The sun had dropped below the tree line by then and that side of the shore was in shadows. Dave and I were wet and cold, somewhat in shock and mildly shivering. The Medics wrapped us in wool blankets. The blankets helped a bit, but our wet clothing still kept us from feeling warm.

Each of us was carefully reassessed by the medics.

Dave's back injuries needed a hospital's attention and it was decided to transport him to Mason General Hospital in Shelton, Washington. . .about 20 miles away.

My facial laceration was assessed as needing a few stitches. Apart from that I felt amazingly fine! At first I declined to go to the hospital because I didn't think it was necessary.

But I gathered my wits about me. . .

Dory was on her way to the Allyn pier, Dave was going to be transported to Mason General and I wanted to stay with him.

I asked a very nice Washington State Patrol officer, who had arrived and taken information about the accident and our conditions to please stay and watch for my wife's arrival at the pier and to direct her to Mason General. He said he would.

Dave and I were strapped to boards and gurneyed into the ambulance for transport.

We both were cold and shivering in the ambulance and the Medic turned up the heat for us. That made us feel a bit better but, still, our wet clothing was keeping us from feeling comfortably warm.

Mason General is a small hospital. This was LUCKY because when we arrived we were immediately wheeled into examining rooms, tended to and very shortly after examined by Dr. Roy Belville, the ER doc on call that evening.

What a GREAT PLACE and a GREAT STAFF!

The few previous experiences I have had with larger hospital ERs have consisted of LONG waits, brief exams, then LONG waits again. . .

EVERYTHING at Mason General went quickly. . .including getting out of our cold, wet clothes and into warm, dry, donated clothing.

Dave was wheeled into X-ray while Dr. Belville put 5 stitches into my facial laceration.

Shortly Dave was back. Dr. Belville read Dave's X-ray and determined that it appeared there was a fragment of a vertebrae that was worrisomely close to the nerves extending out of the base of his spinal column. So Dr. Belville ordered a CT scan of Dave's back to get a "closer" look.

From the CT scan Dr. Belville determined that Dave had a "fragmented" vertebrae with a fragment, indeed, very close to the spinal nerves.

Mason General did not have an orthopedic surgeon on call to make an expert evaluation of Dave's condition, so Dr. Belville called EVERY surrounding hospital until he found one with both an "on call" orthopedic surgeon AND a hospital bed available that could take Dave for evaluation.

Harborview Hospital in Seattle. . .the State's largest and best equipped trauma center was the only hospital capable of evaluating Dave that night. So, it was determined to transport Dave by ambulance there.

At that point -- about 2 AM -- Dave, Dory and I decided that Dory would drive me home and Dave would go by ambulance to Harborview, where his wife, Pam, would meet him.

I remember waving goodbye to Dave and THANKING all the wonderful, smiling people at Mason General ER for their excellent care.

MONDAY MORNING:

I spent the rest of the night resting, partly sleeping in my recliner chair with a microwave-heated bean bag on the small of my back to keep my sore, lower back muscles as "loose" as possible. Dory slept on the couch beside me.

At dawn I woke up achy and desperate to pee! Dory was sleeping soundly. So very tenderly I used the arms of my recliner to raise myself onto my feet. It was a long, sore walk to the bathroom!

Next I slowly toddled to the kitchen. The coffee had already been made and programmed to turn on by that time. I poured a cup and popped a couple of pieces of whole grain bread into the toaster.

I was HUNGRY!

I walked back to my recliner, tenderly stooped down, gathered my bean bag and toddled to the microwave to reheat it. The pee, the food, the warmth and the movement. . . ALL helped!!!

By about 8AM my primary concern was to call Harborview and learn how Dave was doing. To my GREAT

SURPRISE I was able to talk with him! He had a LONG, SLEEPLESS night of travel and tests and morphine for his pain. The doctors had not been in to evaluate his tests yet. . .

GREAT NEWS!!!!

By afternoon the doctors had determined that Dave DID NOT need surgery! He would have to wear a custom fitted back brace for three months in order for the fragmented vertebrae to heal. He had eaten and he was trying to catch some sleep.

After talking with Dave in the morning, I took a long, HOT shower, dressed and slowly kept moving around the house. My soreness quickly began to go away. By afternoon I felt pretty good! The State Patrol officer had provided Dory with the name of the towing company which had hauled my Seawing out of the water. I called the towing company in Belfair, Washington to see what would be needed for me to retrieve my Seawing. After talking with the towing company I felt good enough to TRY driving over to Dave's house and hitching up his Seawing trailer. I thought, if I could do that much, then that would be enough for one day. But I was able to hitch the trailer to my vehicle easily and felt fine by the time I drove it to my house. So I then decided to TRY driving to Belfair with Dory and SEE what would be involved in winching the remains of my Seawing onto Dave's trailer. The drive to Belfair went fine! By the time we got there it was sunny and HOT!!! The warmth felt good on my back muscles!

I had brought my camera with me to take LOTS of pictures and, hopefully, to document what had caused my Seawing's wing to break.

Dory said it really hadn't fully "hit her" how AMAZINGLY LUCKY and what a MIRACLE it was that Dave and I were even alive until she saw the MANGLED MESS that was now my Seawing before her eyes at the towing yard!

My Seawing really was a SAD sight!

I began taking pictures of my Seawing after it had been dragged onto the beach, winched onto a flatbed tow truck, then unloaded onto the ground at the towing yard.

A few details quickly became apparent:

1) A bolt was missing which connects the right wing strut to the right side of the Seawing's control bar. MY HEART SANK!!!

Could I have overlooked checking that bolt during my pre-flight check?

NO!

I distinctly remember checking those bolts on BOTH sides because to do so requires raising an elastic "sock" out of the way to visually see that the bolts' nuts and catch rings are securely in place. I REMEMBERED DOING THAT!

A follow up to this observation is that "Dr. Brian" , the chiropractor who helped in our rescue, mentioned in a later email to me that they had to remove a bolt from a tube during my Seawing's haul out from the water because the tube got hung up on the shore. This comment was later confirmed by another rescuer, Scott, who was also involved in the beach haul out of my Seawing.

2) The stainless steel, stranded and plastic sheathed cable running from the right side of the control bar to the rear of the wing keel was broken about 2/3 of the way up!

I'm no metallurgist, but the separating of a stranded cable like this under extreme stress might well make a loud "POP", like the sound Dave and I heard in flight.

Two other observations about this cable caught my eye:

a) the stainless strands of the broken cable which was attached to the right, aft wing keel extended STRAIGHT DOWN, as if drawn tight in that direction, while the broken strands of the cable extending UP from where the cable attaches to the control bar are flayed and somewhat randomly "curled" as if they had recoiled after a stress-induced failure.

b) there appear to be dried particles of salt intermixed with the strands of the cable.

The owner of the towing company, after seeing these particles, suspected saltwater corrosion might be the cause of the failure. He said that whenever they have to make a saltwater retrieval with their tow trucks, they have to replace their cables because they very quickly become

corroded and unreliable. I don't know if this applies to stainless steel, however.

The owner of the towing company suggested that the plastic sheathing be peeled back from the cable at another point along its length to see if similar salt particles exist along the entire length of the cable. If salt particles do, in fact, exist along the entire length of the cable AND stainless steel can, in fact, be corroded by salt, then the CAUSE of the cable failure might be the result of the failure to replace the cables after they were completely submerged in saltwater after my Seawing tipped over in saltwater on June 21, 2004 -- a little over a year ago.

3) The fabric of the right wing had a series of connecting rips in it. The rips were straight. They begin at the trailing edge and about in the middle of the wing's length. The rips go straight, along the side of a sewn, fabric seam. The rips make a 90 degree turn to the left along another sewn seam. The rips then turn 90 degrees upward within the "field" of the Dacron fabric for about 8". The rip then makes a 90 degree turn to the left until it meets another sewn seam. The rip then follows that seam toward the right wing's leading edge.

Could fabric failure be the cause of our wing collapse and the source of the loud, "POP!" which Dave and I heard?

4) All other bolts and connections were observed to be properly in place and secured. No other possible causes of wing failure were determined at that time.

An interesting "aside" to mention at this point is that Don, the owner of the towing company, had been most helpful to me and VERY interested in hearing the story of Dave's and my fall from the sky. I suppose it might be because he sees the tragic remains of many vehicles involved in crashes, that he was truly amazed that I was standing before him that day. . .both alive and well!
"You two are the LUCKIEST GUYS ON THE PLANET!" he exclaimed.
A little later, as I walked into his company's office to "settle up" for the costs involved in my Seawing's haulout and towing Don called out, "DEAD MAN WALKING!"

With the help of my wife, Dory, and a few of the crew of the tow truck company, I was able to winch the wrecked remains of my Seawing onto Dave's Seawing trailer, tie them down and transport them home where they now rest in a series of neat piles in my garage.

Dave has a very trained and skeptical eye for spotting things, so I look forward to the day when he can look over my Seawing and see if he agrees with my findings or sees something else which might be the cause of our in flight wing failure.

As I write this, it is Saturday, August 13, 2005. My stitches came out Friday morning. Almost all of my soreness is gone!

With the wearing of his back brace, Dave is able to be mobile and comfortable. Each day he feels better! He says he sleeping well, eating well and seems to be in his good, old "Finski" high, fun-loving Spirits! If anything, our close friendship seems to be closer and stronger than ever as a result of this new "twist" in a long and growing list of shared flying experiences! Our Natures are similar and we ENJOY sharing our thoughts, feelings and observations about this accident and all of our other flying experiences.

In our talks since the accident we have had several CONSTRUCTIVE THOUGHTS about what can be learned and shared from our accident:

1) Even if flying entirely over land, it might not be a bad idea to always wear a life jacket! The extra padding a life jacket affords most certainly kept me from sustaining broken ribs or worse when the control bar slammed into my chest upon impact.

2) Helmets, too, not only protect against head injuries but, if they are lined with foam, provide great buoyancy which helps to float your head to the surface if submerged.

3) Though they are expensive, a Ballistic Parachute System, can be CHEAP life insurance and, hopefully, GREATLY decrease the need for a lengthy and costly medical recovery. In our particular incident witnesses have told us that the parachute appeared to fully open at almost the exact instant that we hit the water.
HOW LUCKY WAS THAT?!!!

Also, Dave and I have tried to estimate the amount of time it took us to fall that 670 feet. We both sensed that it took about 10 seconds. . . 15 seconds maximum. This is just a guess, but another shoreline witness said that he first looked up when he heard a "BANG!". This witness estimated we hit the water about 10 seconds after

that. I would estimate that 3 to 5 seconds passed between the "POP!" of the wing and Dave's pulling of the parachute handle.

4) If flying in an ultralight with a "front and back" seat configuration, a "harness-type" seatbelt system for the back seat might keep a passenger from sustaining the type of back injury Dave experienced. The harness configuration might keep the torso from being violently thrown forward while the hips are retained by a "lap only" belt system. In my Seawing's passenger seat Dave did not have any foot braces. His feet simply rested atop the inflated, Full Lotus floats. Perhaps a couple of foot braces might have allowed his feet and legs to brace his body at impact and help prevent the compression fragmentation to his vertebra.

Being in the pilot's seat, my feet were braced against the aluminum cross strut connecting the two floats. Perhaps that is why I did not experience a similar injury.

5) For the pilot in the front seat, the control bar seemed to keep my torso from flying forward like Dave did in his passenger seat. However I did experience significant bruising to the front of my chest as a result of the control bar slamming into it upon impact. For this reason I am THANKFUL that I was wearing a THICK-WALLED life jacket! A side thought about this is that a few days before Dave and I each flew our Seawings on a wonderful 4 hour flight around Puget Sound. During that flight I had a camera and a walkie-talkie strapped around my neck and tucked into the front of my life jacket. Had these two objects been between my life jacket and my chest at the time of the accident, I am sure they would have been crushed into my chest by the control bar and MUCH GREATER chest injury would have occurred! I will NEVER hang things from my neck and in front of my chest again!

A second side thought is that it might be a good idea to securely fasten foam padding (like pipe insulation) around the central part of the control bar BETWEEN the points where the pilot's hands normally grip the bar. This is the area of the bar which, most likely, would impact the chest.

6) When flying over water it would be a very good idea to carry an available emergency air supply. Perhaps this could be an air bladder similar to the "camelback" design bicyclers carry in a small backpack with a long, flexible tube accessible for drinking liquid while biking. In an emergency submersion, especially when you don't have time to take a deep breath before going under, like we were unable to do, having a gulp or two of air to suck in while trying to free yourself underwater, may just save a person from drowning! The breathing end of a flexible, plastic tube could have a "thumb-flip" cap, like those on inflatable water toys, and be comfortably tucked under a helmet chin strap. . . readily available in a desperate time of need!

7) Another thing that both of us have, but neither of us had with us, is an emergency "space blanket". These are sheets of aluminized mylar which are folded into a very compact packet and can be easily attached to the inside of a life jacket. After surviving an accident and you find yourself or your passenger cold and in shock, these space blankets can be quickly opened and unfolded to provide a waterproof source of reflected body heat to a victim. Carry one! They're not much more than a 2"x3"x1 1/2" thick packet, so they're feather light and not bulky at all!

Dave brought up this thought which might be helpful to anyone who has lost a loved one in a plane accident. From the instant Dave and I heard that loud "POP!" to the instant we hit the water, NEVER ONCE did either of us experience a feeling of terror or fear. Frankly, we were BOTH too busy trying to comprehend what had happened and then to DO something, for which we had trained and prepared ourselves, about it! If we had not been so amazingly lucky. . .if we had died. . .both of us sincerely feel that we would have died doing something that we truly and voluntarily LOVED. We would be OVERWHELMINGLY sad for our loved ones left behind, of course, but our last moments WOULD NOT have been spent in wrenching fear. If this revelation can in anyway bring some small comfort to a survivor wondering what might have been racing through the mind of their loved one during their last seconds, then we feel it is important and necessary to share this element of our experience.

There aren't too many of us around! Dave and I feel a profound responsibility to SHARE our experience with everyone who loves and dares to fly, or who loves the flier(s) in their lives! We'd LOVE to be flying again as soon as possible! However, we are very much aware of the emotional trauma our wives have gone through since our accident and their feelings will weigh heavily on our future decisions about flying. When I told my 88 year old mother about our accident, she was very concerned and expressed dismay when I said that I was not afraid to fly again and looked forward to the day when I can. Then my mom just shrugged her shoulders, smiled at me and said, "Well, we can't live our lives in fear." That was that. She set me free.

Finally, Dave and I would sincerely like to THANK EVERYONE who so generously, competently and caringly offered their help to us. During the next few days and weeks I hope that we can meet or talk with each of you to THANK YOU personally!

Most appreciatively,

Bob Cliff

--- Robert Cliff

--- cliffsflowers@earthlink.net

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