

## **The Biggest Rivets I Ever Saw!**

In August of 1964, Dick Fortenberry of the United States Army Parachute Team and Anne Batterson, a civilian, both U.S. Team members at the time were given press in *Parachutist Magazine* in a photograph that captured them doing relative work over the team drop zone at Fresno, California. What I saw in that photo sent shivers up my spine and I knew that I would be broke from that moment on. (See photo of Dick and Anne.) I had to have the gear they were using at all costs, even if it meant giving up my apartment and eating out of restaurant garbage cans.



What I had seen was Security Parachute Company's innovative and revolutionary new container system called, the "Crossbow." It was the forerunner of every skydiving rig in use today. Its purpose was simple: Eliminate the front mounted reserve and move it on to the jumper's back along with the main container. It would come to be known as a "Piggyback." But Security didn't stop there.



Beyond the initial design of having both the main and reserve on the jumper's back, it sported a large, cast aluminum ripcord handle, a zippered main container closure device (in addition to either a two pin or a three pin closure option), new One-Shot Capewell canopy releases replacing the widely used shot-and-a-half Capewells, and a static line deployed reserve designed by Perry Stevens dubbed the Steven's CutAway System.

The Steven's system worked in unison with the new One-Shot Capewells. Simply put, when the jumper had a reason to cut-away the main canopy, all that was necessary to deploy the reserve was to pull the One Shot covers down

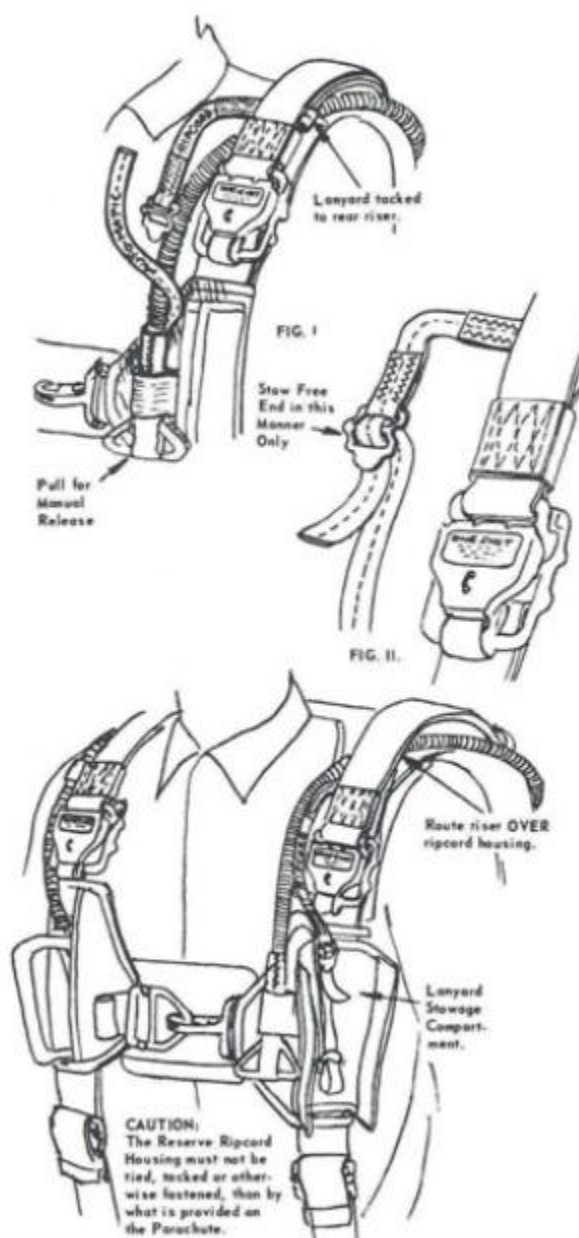
thereby jettisoning the main, and in so doing a small static line attached to the left riser of the main would pull the reserve ripcord and the reserve would deploy.



For its time, the Crossbow, even while laying the groundwork for the future of skydiving equipment, was not without its problems in the rig's early days. Two major problems cropped up early on. The first was that whether or not it was a two pin or a three pin model, there was no stiffener under the closure cones, and that would cause the fabric to buckle and hang up the ripcord pins creating a total malfunction. So the Perry system was useless

then, and the jumper would need to deploy the reserve using the blast handle that came standard on the Crossbow. The problem with blast handles, either the ball or dart type, was that, even though unobtrusive, they could be difficult to find in a crisis. (In the photos, you can see the buckling between the second and third pins. You can also see the One Shots and a ball type blast handle on the rig's left main lift web.)

Also, the Perry CutAway System, even though unique, wasn't flawless. If improperly rigged, during a normal main deployment, it could accidentally open the left One Shot cutting away the left riser which would deploy the reserve potentially causing a double malfunction.



Another nasty little issue was the use of a large, cast iron ripcord handle which was held in place in a right outboard pocket by metal clips. If that ripcord got away from you during a deployment, it could take out a few teeth. And the ripcord was expensive to replace, so early on, Security equipped their ripcords with a “swedge,” a lead ball compressed on to the ripcord’s cable to prevent the loss of a ripcord during deployment. (The swedges, the zippered pack closure device, the One Shots, the Steven’s system, all disappeared from later models of the Crossbow. But the basic design continued in popular use well into the Seventies.)

Also, very soon after the Crossbow's introduction, Pioneer Parachute Company would produce a version of a 'piggyback,' one with a detachable reserve.

Soon after I had seen the photograph of Fortenberry and Batterson, Susie Clements, not yet Clements-Joerns, from Houston, showed up at our drop zone with a prototype three-pin Crossbow just like the one in the posted photo. As soon as I wiped the drool from the corners of my mouth, I fell to my knees at her feet and begged her unabashedly to let me jump it. Now, as I have often alluded, I was young and stupid, and as the man once said, I had the "habit of writing checks my ass couldn't cash." Particularly when it came to low pulls.

In the Crossbow's main container was Susie's sleeved Para-Commander, and in the reserve container was an unmodified, 26' Navy conical. She briefly showed me the new One-Shots and how they worked along with the Steven's CutAway System, which we both agreed we didn't like. She had disconnected the little static line, preferring to pull her own reserve if needed. I agreed to that, too. What she didn't say anything about was the lack of a stiffener under the main container's pack closing pins. She would confess later that she wasn't even aware of the problem until I jumped it that day.

In my haste to jump the Crossbow, all I could think about was how much easier it would be to jumpmaster students with no front mounted reserve to contend with, no danger of an accidental reserve deployment if someone snagged my reserve ripcord handle on the way out the door, and the fact that I would soon be the World Accuracy Champion now that I didn't need to swing my reserve out of the way to see the disc. Glory would be mine and fast women would worship me just like they did the Golden Knights. Seriously, I knew for a fact that the U.S.A.P.T. had camp followers. But that's another story.

Anyway, it was time to jump the rig. It was decided that I would put two students out, and then we would climb to five grand, and I would exit. It took a little getting used to the full weight of the Crossbow on my back and the fact that I had no altimeter to reference once I got out but that didn't really matter as, back then, I pretty much depended on ground rush to open anyway. That usually occurred around 1,500 feet. In the equipment room, I slid the Crossbow off of the packing table and hefted it on to my shoulders, snapped the legs straps shut, connected the belly band and did the same with the chest strap. As I was tucking the strap ends into the elastic keepers, it suddenly dawned on me that once I had opened and was in the saddle, I would be able to see my feet. A front mounted reserve had always prohibited that in the past. And that's why I would be the next World's Accuracy Champion and get laid every night!

So, once everybody was suited up and pins were checked, the two students who were slated to do clear-and-pulls and me as the jumpmaster waddled out and got in the 170 and took off. It was a clear day with just a bit of a breeze, so the spot was pretty much over the ramp and hangars about seventy-five yards away from the pea gravel target. During climb out, I was tickled with my new found ease of movement and, from the start, I had quickly adjusted to the weight of everything being on my back.

After putting the students out, we climbed and swung back around on jump run and I adiosed. Oh, boy! Once I was out and stable, for the next few seconds, I was in another world. A world of free-fall freedom! For a few seconds, I just fell. Then I tried a left turn, right turn sequence. That was easy. I absolutely loved the Crossbow. Then, I tucked and did a back flip. Then, the earth suddenly jumped into my face! Ground rush! Time to get it out!

Back then, in a sort of egotistical and nonchalant way, I prided myself on casually sitting up and hooking my thumb slowly into my right-mounted ripcord handle and easing the handle out to full extension as I pulled. I thought I was cool. I never had hard openings and would sort of slowly settle into the saddle as my canopy opened. I did things that way just in case somebody had a camera and wanted to take a picture of Mister Skydiver himself. (Which, eventually, somebody did.) Hell, most days, I didn't even count, I was so blasé about things. Once I had pulled, I just naturally assumed that I'd have a good canopy over my head, but just in case, I'd glance up to make sure that there were no extra holes or lines where there shouldn't be and then I'd get on with the business of becoming the next World's Accuracy Champion.



Anyway, on this particular jump, things started to unravel about the time that I hooked my thumb into the big, cast aluminum ripcord handle that was very securely affixed in its metal clips – a “brilliant” and I use that word loosely, Security innovation – and the clips decided to be a whiny bitch about turning it loose. So...I snatched at it and pulled it away and extended it all the way...nope...midway out. The hangar below me was coming at me and getting

bigger and bigger as I first tried to bump the container open with an elbow strike. That didn't work. I knew I had a total. So, I went for the blast handle with both hands. The conical exploded over my head. The last thing I remember seeing before the reserve opened were the rivets on the sheet metal roof of the hanger below me – they seemed as big as pie plates – the biggest rivets I had ever seen!

These things then happened in extremely rapid succession: The conical opened – ka-boom! The big ripcord handle gave me a right cross to my upper lip. My main then shook itself loose and immediately fell out the open bottom of the backpack - the last pin being the only one that had cleared - and the sleeved bundle went down and then immediately up between my legs past my face as the pilot chute caught air and all of that proceeded up into my open conical where it then partially un-sleeved itself while trying to deploy up inside of the conical and...

...WHOOM! After two, or was it three, oscillations of the conical, I honestly don't remember, I hit the ground at a bazillion miles-an-hour landing on my back in an undignified heap just off of the tarmac in a two foot high, uncut patch of weeds and grass. For a very long time, only half-conscious, I lay there hidden by the tall grass, warm blood trickling from my upper lip, looking up into an azure blue sky swarming with hundreds of very pretty, sparkling and blinking stars in orbit swirling about my head. As the stars began to fade away, I asked myself, "Is this heaven?" And a voice answered from above appearing from within the stars and it said, in a distinctly heavy southern drawl, "You awright?! I thought you was da-ed."

Soon, a slightly ugly, leathery, deeply etched, tan face, a face that only a mother could love, one seemingly about to cry, appeared within the stars and it was attached to the gangly, long neck of a jumper named Carl Kempf of New Orleans. "You awright?" the face asked again pleadingly. Carl was one of my favorite people. He was a tall, string bean of a guy, who weighed about 130 pounds dripping wet. He stood nearly six foot, six inches tall with long, spindly legs, often reminding me of a slow moving, circus stilt walker, and he was a devoted skydiver. We didn't see him at the drop zone very often as he was always at home recuperating between jumps. You see, Carl had brittle bone disease.

A very good natured guy, always with a smile on his face, poor Carl would show up, rent some gear, stuff himself into the airplane, make a jump, and break something, usually a leg. It took a few times of that before we began to dissuade Carl from trying again. Hell, the man couldn't even climb a set of stairs without risking breaking a leg before getting to the top. The last time I saw Carl, he had convinced us that he was okay to jump, so we rented him a T-10, and let him try an accuracy jump during a novice meet. I was a judge on the target that day when he set up for what was going to be a perfect dead

center landing. When his toe touched the disc, I heard a sickening snap, and that was it. Another broken leg. The last I saw of Carl was when we left him in the emergency room of the local hospital that day. He raised his head off of the gurney, smiled weakly and waved good-bye, and I told him that the next round (sic) was on me. We never saw him again.

Anyway, Security fixed the stiffener problem on the Crossbow, eliminated the big, cast aluminum ripcord that kept the dentists busy, the Stevens CutAway System fell out of favor after some nasty incidents that involved improper rigging, and everyone pretty much converted the One Shots to shot-and-a-halves and life went on. As for me, I did buy a Crossbow and used it for several years, along with a Style Master.

I also stopped using ground rush as an altimeter.