

TANDEM NEWS

A PUBLICATION BY STRONG ENTERPRISES FOR TANDEM INFORMATION

Tandem Fatality in Montréal

A Vector tandem fatality occurred in the Montréal area on 27 July, 1991. Tandem Master Steve West, his passenger and a cameraman were all killed on impact.

At some point after moving out onto the step of the C-182 the three were jumping from, the cameraman noticed that the closing loop on West's main container had broken, allowing the D-bag to hang down behind the jumpers. After some discussion with the cameraman, it appears West elected to handle the situation in freefall. All three exited the aircraft. West deployed the drogue and attempted to pull the drogue release, located on the left rear bottom of the container, but he was unable to locate it. At some point, West pulled the cutaway handle, while the drogue bridle was still attached to the drogue riser. The cutaway of the risers activated the reserve and caused the reserve to entangle with the trailing drogue and main. It appears that the cameraman was trying to disentangle the reserve from the main and drogue when all three impacted.

The situation may have been compounded by West's inability to locate the drogue release, but let us all remember that **it started with a simple, broken closing loop.**

**MAINTAIN YOUR EQUIPMENT
AND PRACTICE YOUR
EMERGENCY PROCEDURES!**

Untwist Those Lines

A twisted steering line is the start of a knot! Take the time to untwist lines to help prevent unnecessary problems. When a twisted line gets slack in it, the line will coil up, making it possible for a pressure knot to develop. This could lead to a cutaway. It's not worth it!

Tandem Fatality In Florida

Tandem Instructor Ron Sinclair and his passenger were killed on 23 September during a Vector Tandem jump in Homestead, Florida, the scene of an earlier Tandem fatality in 1989. Sinclair was an experienced jumper with over 300 jumps last year.

The accident was apparently caused by the drogue bridle being mis-routed during packing. A proper pre-jump inspection should have detected this error and prevented the tragedy.

It seems that Sinclair never pulled his reserve. The situation may have been compounded by the fact that the drogue collapses upon drogue release on the Vector system he was jumping. The tandem pair accelerated to a higher velocity and this may have thrown off Sinclair's timing and depth perception, leading to the no reserve pull.

As Tandem Instructors, we have a responsibility to our passengers. To date, there has not been a fatality on Strong Tandem gear, but that should not mean that we can let our guard down. Improper use of equipment and faulty techniques are the first steps to fatalities. You must stay in the habit of practicing your emergency procedures and checking your equipment in freefall.

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Third Jump at 81!

"I always wanted to make a parachute ride," said Central Florida resident Ed Dickerhoff. On 8 June 1991, Ed made his third tandem jump with Strong Tandem Instructor Michael Costello at the Paragators Parachute Center in Umatilla, FL.

"I was never afraid of height," beamed Dickerhoff as he proudly displayed his glass-framed plaque with his Mile High Skydive Award. He plans on making his fourth jump very soon.

Although he was "quite relaxed" according to Costello, "...he was quite anxious to go." At 81, Dickerhoff is the oldest student to jump at Paragators and he did a great job. Having been an athlete in his youth, he attributes his healthy appearance and stamina to his lifestyle—no drinking or smoking and walking as often as possible. By coincidence, his first jump "fell" on his wedding anniversary last year and because the jump was such a special experience, he plans to set all of his future jumps on significant dates.

Hook Knives

A hook-knife played a distinct role in averting a more drastic outcome during a recent Florida tandem jump.

A jumper had line entanglements after reserve deployment. He used a hook knife to cut a few lines, freeing the tangled lines and allowing the canopy to inflate.

More than one Incident Report has included the recommendation that Tandem Instructors carry a hook-knife, one stronger than the Z-knife.

If you're carrying a hook-knife as a matter of practice, and have an opinion as to where it should be carried, mounted, or attached, let us know so we can spread the word.

Strong In Europe

After spending a week in July near Helsinki conducting a Tandem Instructor Certification Course for 12 Finnish candidates, Bill Morrissey, Tandem Program Director, visited parachute centers in Austria, Germany and Switzerland. The trip brought to light some bad tandem practices that could lead to preventable tandem incidents.

- Bungee stows without plastic chokers.
- Drogues improperly stowed.
- Older Dual Hawks without the latest safety updates.
- Unauthorized alterations to the equipment.
- Bungee stows so long that the canopy could force its way out of the D-bag.

Please follow the manufacturer's guidelines for the proper use and maintenance of your gear. It will add to your longevity!

25 Jump Inspection Check List

Everyone is obligated to inspect their Tandem gear after each 25 jumps. Page 32 of your Dual Hawk Tandem Owners Manual provides a check list for you to use when performing an inspection. The following list provides some items that you should give particular attention:

- Check for fraying on diagonal back straps by the L-link at bottom of drogue riser.
- Bungee stows should have plastic chokers. Check each for proper length of 3 1/2"
- Check all grommets for burrs, loosening and other damage.
- Check for wear on stabilizer material adjacent to slider stops.
- Check type VIII riser at RW-1 ring for nicks in webbing. Check the ring itself for any burrs or wear.
- Check all lines.
- Look for torn mesh or wear in the drogue.
- Check canopy thoroughly. Examine upper and lower seams, on the ribs, as well as cross-ports for wear or damage.

Proper Drogue Technique

Several recent incidents have been reported where mislaunching the drogue and the improper technique for recovering from the resulting drogue-in-the-burble have resulted in problems.

In one such case, a tandem pair exited the plane, launched the drogue and had the drogue get sucked back onto the container, caught in the burble of air behind the pair. This resulted from a weak launch. It is necessary to vigorously launch the drogue, not wimp it out or hold it by the pud while 20 feet of drogue and bridle whip around behind you. A vigorous throw can help prevent the drogue from getting caught in the burble and entangling with equipment and jumpers.

In this case, the Tandem Instructor reached back with his right arm to try and clear the drogue. This resulted in his arm getting caught in the drogue bridle and a subsequent clockwise spin while suspended by his arm. He was forced to deploy his reserve into the inflated drogue, causing substantial damage to both drogue and canopy.

The proper technique for recovering from a drogue caught in the burble is stated in the current TICC instruction manual. "If the drogue gets caught in the burble...immediate action would be to pull both the passenger's and the pilot's arms in on one side and roll the other side up in a quarter barrel roll. The flow of air will move across the jumper's backs and should clear the drogue." Keep current on all emergency procedures and if necessary, USE THEM!

Drogue-In-Toe, I Mean Tow

A recent Tandem video sent to Strong Enterprises shows a tandem pair diving from an aircraft after a photographer, the female student's arms crossed on her chest. The exit produced a front-loop to a barrel-roll, during which the tandem instructor deployed the drogue.



Use your head—not your foot!

It took several seconds for the drogue to unravel, apparently caught in the burble above the tandem pair. An admittedly weak drogue launch caused the drogue to be drawn into the burble. As the drogue inflated, however, the drogue bridle whipped around the instructor's foot in a half-hitch, making it impossible to release the drogue and open the main parachute.

18 revolutions later, the instructor found the reserve ripcord and a normal reserve opening resulted in an otherwise uneventful, safe canopy ride.

Every instructor was taught that the drogue was developed as a decelerator, NOT A STABILATOR. 500 jumps and four hours of freefall is enough experience for any instructor to fly to stability. Using the drogue for stability is asking for trouble and it is not an acceptable practice. A proper drogue launch is essential for proper drogue deployment.

Instructor Certification Revoked

An incident was reported to SE involving a Tandem pair that had exited from a Skyvan at 14,000 ft. After exiting, the pair was observed to go onto their side, without ever deploying the drogue. During 65 seconds of freefall, the pair performed 84 revolutions spinning on their side (donuts) with their right side toward the ground. The reserve was deployed at 2500 ft. A Tandem Examiner who had witnessed the entire event revoked the Instructor's Tandem Certification on site.

Instructor Suspended

It took an anonymous telephone call a couple of weeks ago to bring to light a potentially very dangerous situation.

Over a year ago, a very active, long-time jumper earned his Tandem Instructor rating and immediately purchased a Dual Hawk Tandem rig. Having been involved in student instruction for almost 20 years, tandem jumping's attributes became instantly obvious to him and he made over 150 tandem jumps in that year.

But, on the way to altitude on a fun jump unrelated to tandem, the jumper suffered a mild epileptic seizure in front of two experienced jumpers. Evidently it had been five years since he had had a similar experience and was not very concerned.

Once again, **TANDEM JUMPING IS NOT JUST ANOTHER SKYDIVE** and everyone must assume responsibility for the continued safety of Tandem Jumping. Physical condition, just like skydiving ability, is important in determining a person's qualifications to be in charge of **two** lives in freefall. If you keep your mouth shut, you may help to kill two or more people.

Tandem Down-Plane

It was the second jump of the day for a Tandem Instructor and his student when, in drogue-fall, the instructor felt something flailing around in back of him. When he turned his head, he knew immediately he had a main bag and lines hitting him in the head.

Without hesitation, he pulled the student's ripcord, but nothing happened. He pulled his ripcord and still nothing. Within seconds, he cut-away and pulled the reserve, but instead of getting just one canopy, he got two.

Evidently, when the reserve pilot chute left the container, it went through the "Vee" formed by one of the main risers, allowing the main parachute to open as though it were still attached to the harness. Both student and instructor landed without injury in a tall stand of pine trees.

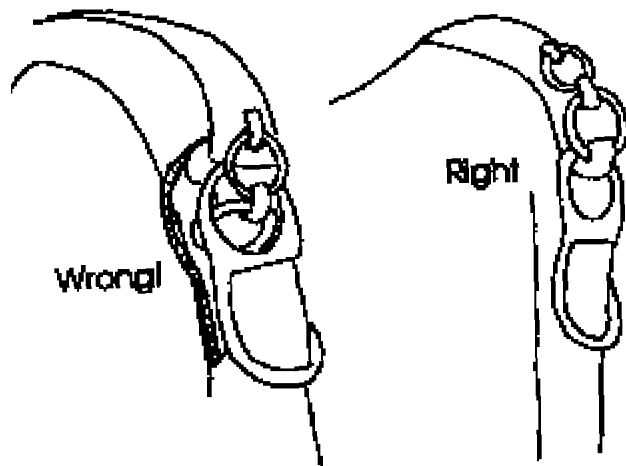
The instructor admitted later that although he had recently purchased the rig from someone else, he did not know about the safety bulletin issued by Strong Enterprises last January and had not modified the drogue bridle. The bulletin advised every Strong Dual Hawk Tandem rig owner to measure the distance from the confluence wrap above the main bag on the drogue bridle to the main container closing pin; and from the closing pin to the big ring on the drogue bridle line. Each bridle requiring modification was expected to be done before the next jump. On the day of the incident, the rig had over 100 jumps on it since the bulletin was issued. His Instructor license was immediately revoked for 30 days.

Although no one got hurt (only the trees saved them from any injury), SE recognizes the potential for disaster and hopes every owner, Instructor, and Examiner does, also. Due to this incident and others, SE has chosen to reprint the bulletin (see pages 5 & 6) and insists that everyone comply. Responding immediately to safety bulletins is everyone's responsibility so **PLEASE, DO YOUR PART!**

Rings Out of Sequence

Two cases of jumpers tearing the risers off of the assembly during main deployment have been attributed to failure to correctly align the two rings on the riser with the large ring on the harness during packing. One of the incidents was documented on video and clearly shows this misalignment. The middle ring of the riser had rotated around the large ring on the harness. A proper pre-jump inspection could have prevented this.

Always pack using the techniques taught by SB and always inspect your gear before you jump! The risk is too great, and the price of an accident is just too high!



Passenger Ripcord Use

Although it has rarely happened, there have been times when a ripcord pull did not result in drogue release and a "drogue-in-tow" has resulted. Because of the dangers of a drogue-in-tow, the Dual Hawk Tandem has a second drogue release ripcord. Pulling the second drogue release ripcord is the first step in proper emergency procedure. Yes folks—redundant releases! Space age technology! But, only if you use it! Unfortunately, some people forget about this procedure when things don't go as expected. That is why we teach Tandem Instructors to review emergency procedures, and to touch all of the handles before exit and

during freefall, on every jump. Pulling the second ripcord has worked for many jumpers!

Several incidents have involved the second ripcord being removed, and the thru-loop being secured on one end, giving away the safety of redundant release. Some Tandem operators don't want to put a main ripcord on a student. Instead, they coil up the passenger ripcord and stuff it inside the back pad. This is another case of throwing away the safety technology that comes with the Dual Hawk. You should at least keep the ripcord on your harness!

If you do not think that it is dangerous to deploy a reserve into a trailing drogue, then please refer to the tandem fatality on page 1 involving reserve/drogue entanglement. We assure you, you will have plenty of time to think about this if you ever deploy your reserve in this situation.

DZs about to Lose Exemption Privileges

Two DZ's that had reportedly been doing Tandem Jumps are about to lose that privilege. Because of the numerous malfunctions the drop zones have had and the lack of operators filing monthly log forms and incident reports, SB feels that it is in Tandem's best interest to inform the FAA that the DZ's are no longer operating under the umbrella of the Tandem Exemption No. 4943A.

Upcoming Events

Ball Boogie, 8-17 September 1991,
TICC and Examiner Training.

International Parachuting Commission
Technical and Safety Congress,
5-8 October 1991, Budapest, Hungary.
Tandem Topics and Single Jumpmaster
Freefall Training.

U.S. National Skydiving Championships,
5-14 October 1991, Eloy, Arizona.

Argentina Parachuting Championships,
17-29 October 1991, Córdoba, Argentina,
TICC.

**Larry Bagley Introduces
Tandem to Czechoslovakia**

Slavo Mulik, the American organizer for the World Championships in Czechoslovakia invited Strong Enterprise's Larry Bagley to introduce Tandem Jumping to the Slovakian skydiving world. After Tandem jumping into the opening ceremonies of the 9th World Championship, 27 July-14 August, Bagley was invited to make a Tandem jump with the Prime Minister of Slovakia amidst much publicity and excitement. The trip was made an even

greater success because of the response of jumpers in the championship to the performance of our Dual Hawk System.

Thank You For Referrals

We want to thank those of you who have referred other clients to our firm; friends of friends, we find, make ideal clientele. Most satisfying of all is the knowledge that you were pleased enough with our services to mention us to others.

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