

TANDEM NEWS

A PUBLICATION BY STRONG ENTERPRISES FOR TANDEM INFORMATION

Strong Tandem Fatality

Strong Enterprises experienced its first tandem fatality on November 3, 1991, when Sergeant Major Santos Matos and his student died at Phoenix/Zephyrhills Parachute Center, in Florida.

A thoroughly documented on-site investigation by the Pasco County Sheriff's Department, the FAA, the U.S. Army, Strong Enterprises and DZ owner George Kabeller, revealed that although the parachute system was in functional condition and the passenger main ripcord had been pulled, neither the drogue had been deployed nor the reserve ripcord been activated. Although the exact cause of the accident is pending autopsy results and conclusion of the Sheriff's Department and the FAA investigation, it has been determined by the investigators that the equipment was not at fault.

Matos, 48, was attached to the Special Operations Command at McDill AFB near Tampa, Florida. He earned his Strong Tandem Instructor rating in December 1984, had made over 1,000 tandem jumps, and was a Tandem Examiner for Strong Enterprises. He was considered a very proficient, current Tandem Instructor who jumped regularly at Z-Hills. His student had two prior tandem jumps and was being trained for solo freefall.

Strong Enterprises has 525 tandem systems in use by 1300 tandem instructors who have made over 180,000 tandem jumps since the program started in January 1983.

Think Reserve

An experienced Tandem Instructor recently experienced some difficulty when trying to deploy the drogue. She apparently became fixated on drogue deployment and using her main. As a result, although she did get the drogue deployed, she was below normal opening altitude for the main. Upon reviewing her situation, she became very alarmed at the realization that she never once thought about using her reserve. Maybe that's why we have people dying without deploying their reserve, they just don't think about it.

When things are not going normally on a jump, we must "Think Reserve" while we are sorting out our problem. If you are in freefall below 2000 feet on a tandem jump, stop whatever else you are doing and deploy your reserve.

Emergency Procedures

About 80% of all reserve deployments into drogues-in-tow result in drogue release and simultaneous main/reserve deployment. Therefore, each Tandem Instructor is reminded of the emergency procedures to be followed anytime the unexpected happens:

1. Pull a main ripcord;
2. Pull the other main ripcord;
3. Make sure the drogue is out and fully deployed;
4. CUT-AWAY
5. Pull the reserve ripcord handle.

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Passenger Ripcord Use

If for some reason you do not want to put the passenger ripcord onto the passenger harness, keep that ripcord attached to the Tandem Instructor's harness. Emergency procedures require you to pull that second ripcord in the event that the first one does not release the drogue. You won't be able to use it if you have it stowed away in the slit in the back of the container.

There have been several incidents of the Tandem Instructor activating the reserve without first pulling the second ripcord. This practice is unnecessarily endangering the lives of both the passenger and instructor. Use the equipment as specified in the manufacturer's guidelines.

A Little Help From a Friend

Just after exit, Joe Taylor and his student were in freefall on a tandem jump over South Carolina when the passenger's cable housing came un-snapped. Freefall videographer, Vance Frierson, noticed it back by the drogue riser and thought he'd help out.

So, Vance swooped in on the pair, grabbed the end of the cable and handed it to the instructor. The jump continued down to 5,000 feet AGL where Joe offered the ripcord to the student so he could pull. Everybody landed without incident.

Sliders Between Stabilizers

Travelling around the world has revealed some very interesting, and in some cases unsafe, methods of packing the Master 425 and T-520 main canopies. How the slider is packed is one example.

To quote the Dual Hawk Tandem Owner's Manual, page 12: "Spread the slider out flat...and stow it between the two stabilizers." Packing the slider on the top (or outside) of the

stabilizer inhibits the opening of the main and is not recommended.

Nylon and Sun

Everyone has known for years that the sun's ultra-violet rays damages nylon and ruins parachutes in a very short time. According to The Parachute Manual, about a 70% reduction in strength is experienced in parachutes after two weeks of exposure to the sun.

If a parachute is exposed to ultra-violet rays ten minutes each jump, in 500 jumps it will have over 83 hours of exposure, or about two weeks. Tests show that once nylon has been exposed to UV rays, the damage is done and regaining its strength is not possible.

In addition, heat has a dramatic affect on suspension line, especially spectra. To quote Paragliding Magazine, "Exposure to heat in a closed vehicle in the sun can weaken the lines drastically, much the same as a video tape can melt in the car."

Take care of your equipment, be especially conscious as to where it's stored and keep it out of the sun and heat as much as possible.

Main Deployment Bag Chokers

The idea of stowing the main parachute suspension lines with bungee cord and plastic sleeves was developed to prevent line slump during main parachute deployment. However, because evidence suggests that the plastic sleeves on the middle four bungee loops is causing line damage, it is recommended that tandem rig owners remove only the center four sleeves on their bags. The sleeves along the two sides of the bag—the stows immediately after the first four—must remain on the bungee loops and pulled tight when packing.

It is important, however, that the owners make sure the size of the bungee loop is sufficiently short to hold the line in the loop until parachute

deployment extracts the lines during opening. If not, the lines can fall out of the loop, causing an out-of-sequence opening which is an undesirable situation and one that should be avoided.

Bulletin #14--Riser Exchange

Over the last four months Strong Enterprises has received notification of five main risers failing during the opening sequence of tandem main canopies. The manufacturing dates on the risers spanned over several years and neither age nor number of jumps has been helpful in determining when the failure might be expected. The failures occurred at the toggle pocket location on the rear riser and most required the Tandem Instructor to cut-away and deploy the reserve.

Therefore, Product Service Bulletin #14 was issued 14 November 1991 to all Strong tandem rig owners, requiring them to notify Strong of the rigs in their possession so new risers could be exchanged for the old ones on the rigs. Compliance is required by 2 January 1992 and, so far, response has been very good.

If you have not received the service bulletin, or you know someone who has not, please notify Strong Enterprises immediately.

Trade-In Gear

With the days growing shorter and business slowing down, now's the time to consider the offer made by SE a year ago on harness/container exchanges.

Here are the conditions:

1. The rig must come to SE with all components, preferably packed and ready to jump;
2. SE will inspect the entire rig to determine airworthiness;
3. SE will use some experienced parts, i.e., drogue riser, ripcords, etc.;
4. Custom colors can be ordered, allow eight weeks;
5. Rig will be returned with a fresh repack;
6. Prepayment of \$620 is necessary.

Of course, the offer is made so owners of early systems can avail themselves of the latest technology in tandem equipment as well as have new gear. It represents a \$385 savings. Some other update to the drogue may be necessary at additional cost.

Promoting Strong Tandem

Every year in August, Strong Enterprises participates as a commercial exhibitor at the largest airshow in the world—the EAA Fly-in Convention in Oshkosh, Wisconsin.

Sponsored by the Experimental Aircraft Association, this year's event drew 815,000 people, 12,000 airplanes and was considered to be the most successful airshow in the association's history.

Not only are the visitors to Oshkosh adventurous, "out-doorsy" kind of people, they like aviation sports with many of them owning parachutes for their aerobatic airplanes or gliders. "The perfect crowd to introduce to skydiving and parachuting," says Ted Strong.

So, next year, for a nominal fee (yet to be determined), Strong Enterprises will make space available in their booth for brochures of all parachute centers that have Dual Hawk tandem jumping. The brochures, provided by the parachute centers, will be able to promote such things as: tandem jumping; the location of the center; the cost of an introductory skydive; or whatever the center wishes.

If you're interested in having your brochures in the booth, or have any questions on the program, contact SE.

Strong at International Symposium

For the third time in four years, Strong Enterprises' Bill Morrissey has been invited to address the IPC TECHNICAL CONGRESS OF PARACHUTING, an annual event conducted under the auspices of the International Para-

chuting Committee (IPC) of the Federation Aeronautique Internationale (FAI) in Paris, France.

The attendees of this years Congress in Budapest, Hungary, represent the worldwide parachute federation members of the FAI, manufacturers of parachutes and related equipment, other interested persons, and guest speakers.

The group gathers annually to exchange information on equipment and training programs that are being developed or are being used throughout the world.

The October 5-8, 1991, conference was hosted by Mr. Miklos Gajan on behalf of the Hungarian Aeronautical Association. The Congress was chaired by Finland's Mr. Eero Kausalainen, chairman of the Technical and Safety Subcommittee of the IPC.

The subject of Mr. Morrissey's presentation was "Tandem Equipment as a Training Device". He focused on the "Single Instructor Assisted Freefall Program", the development of which was initiated at the 1991 PIA Symposium in Orlando, Fl., by a group of 73 persons, most of whom are practitioners of both Tandem and AFF programs.

This program is still being developed, but worldwide interest in this technique was in evidence at the Congress. Mr. Jean Coupe of France revealed that "Single Instructor Assisted Freefall" pilot programs are being conducted at no less than three drop zones in France.

Mr. Bill Hayes, USPA's Safety and Training Committee Chairman, informed the Congress that USPA's present doctrine dictates that, prior to making any single instructor assisted freefalls, a student must have made a release dive while jumping with two instructors (J/M).

Because that requirement is part of the AFF program that USPA uses, it will have to be

changed if USPA is to adopt this new concept. Mr. Hayes suggested that videos of students' first freefalls, in single instructor programs that are now being operated, should be part of the consideration that USPA would give to any proposed doctrine changes regarding "Single Instructor Assisted Freefall". It would be very helpful if DZ owners, videomen, instructors, or other interested persons would start to collect video documentation on students' first single instructor freefalls (Level 5 of the "Single Instructor Assisted Freefalls"—See Tandem News # 9).

Let's not forget that the "Single Instructor Assisted Freefall" program was started by DZ operators, and that it needs continuous input in order to formulate the information that will be necessary for the implementation of the program. Strong Enterprises will continue to volunteer its services as an information collection point for this program, so please send in your comments, data, and videos: Attn. Tandem Dept., (where requested, your privacy will be protected).

FAA Up-Date

Although FAA Exemption 4943A—which allows tandem jumping in the United States—expires in June 1992, Strong Enterprises must apply for an extension to the exemption in February. Therefore, the company is preparing documentation for the FAA to validate the need for the extension and current statistics are needed from every Strong tandem rig owner. It is painfully obvious that not all parachute centers using the Dual Hawk tandem rig in their operation are keeping and/or sharing adequate records as to the tandem jumps being made.

The FAA is adamant about the importance of such records and Strong Enterprises can not defend the need for a new rule allowing tandem jumping if the parachute centers do not cooperate by supplying Strong with the appropriate information.

Many areas of the nation are experiencing a bit of a recess in business, with the weather, holidays and all, and now would be an ideal time to completely update and mail in the tandem statistics required by the FAA and Strong Enterprises. Please do your part now because time is very short and your cooperation is very important.

CYPRES Testing

Strong Enterprises recently made the first test jumps on a Dual Hawk tandem rig and Helmut Cloth's innovative Automatic Opening Device called the CYPRES (CYbernetic Parachute RElease System) AAD. Although initial conversations between Strong and Cloth dealt with the idea that an AAD that would fire the drogue release at one pre-set altitude and the reserve at a slightly lower altitude, Test jumps so far have been planned to only activate the reserve. Two jumps were made where the drogue was never deployed and the reserve fired as expected. Two other tests were made where the AAD fired the reserve into the drogue. All four live jumps were made at the Air Adventures Parachute Center in Clewiston, Florida with a Master Main 425 and a 100 pound box as "passenger," with video and 35mm documentation. In all cases, the reserve deployed without incident.

Since Cloth visited Strong Enterprises early last year, Strong has maintained an open mind as to the AAD's possible effectiveness and usefulness in tandem jumping operations. However, Strong's long-time stand on AADs has been unwavering: AADs are not required and because they have not proven themselves to have the reliability required for tandem jumping, we do not yet have enough data to offer a recommendation. We still have to satisfy our questions about installation and use, but we anticipate that a CYPRES installation on the Dual Hawk Tandem designed to deploy the reserve at 600 meters AGL (1968 feet) will be approved by this summer.

Newest Nation Gets Tandem

Newly independent Slovenija, formally a republic within Yugoslavia, lost no time in moving into tandem jumping. While the war still raged "down the road a piece", Bill Morrissey slipped in to beautiful Bled. Host, Srecko Medven, convinced Bill that the fighting down south would keep those folks too busy for the military to return to making war within Slovenija.

The beauty of the area around Bled, and the flying of the pilot "Cowboy", as he sought free lift within what seemed like inches of these ragged mountains, helped to keep the war out of mind of the candidates and Examiner.

Of the six candidates, three were former members of the Yugoslavian Team, with Brane Mirt being the reigning World Champion in Accuracy, and Roman Pogacar being the World Champion in Para-Ski; Srecko Medven, a world class judge; and Dusan Inthiar, former team member; the other celebrities, were complemented by two outstanding younger jumpers, Matjaz Pristavez, and Roman Karun.

The talent of these candidates was evident in the attention to the lecture, their desire to do everything in accordance with the syllabus, and the ease with which they adapted to the tandem technology. They made it a "most pleasurable experience" for the Examiner.

If you ever have the desire to jump in a beautiful setting—it rivals Switzerland—drop in to the Bled Lesce Airport. Don't forget to eat at the airport restaurant. The hospitality and food are outstanding—try the "Bled Cake". You can also take soaring lessons from the "Cowboy", or play golf at the nearby 18 (soon to be 36) hole course. Put it on your wish list!

Student Tandem Intro Video

Over a year ago, Strong Enterprises commissioned the production of a video showing a

student progress through a tandem first jump training course. Eventually, the tape was produced in Utah and used a course of instruction approved by the SE's tandem department.

The purpose of the tape is to help parachute centers demonstrate to potential first jump students what they can expect on their first tandem jump, from signing the Hold-Harmless Agreement, through the classroom portion, the ride to altitude, the actual tandem jump, and flying the parachute to landing. With the majestic snow-capped mountains in the background, the catchy music and lovely student skydiver, the tape appeals to just about every type of student operation employing tandem jumping. In addition, the video can be used to introduce other non-jumpers—the airport manager, other aviators, FAA officials—to the world of tandem.

If you need a concise, 14-minute video tape, either PAL or NTSC, on a student's first tandem jump course, write or call SE and order the "1991 Dual Hawk Tandem Training Video for \$19.95, plus shipping.

**STRONG ENTERPRISES
WISHES EVERYONE A VERY
HAPPY HOLIDAY SEASON!**

STRONG ENTERPRISES
11236 Satellite Blvd.
Orlando, FL 32837

New Tandem Pin

A new addition to the inventory at Strong Enterprises is the Tandem Pin, designed by Suzy Nichols, a Graphic Artist in Orlando. The handsome, six-color, round lapel pin measures one inch across and depicts a tandem pair in freefall.



The pins are an excellent promotional item and a perfect souvenir of a student's first tandem jump. At such a reasonable price—1-5: \$4/ea; 6-11: \$3.25/ea; 12-50: \$2.50/ea; 51 & up: \$1.50/ea—everybody should have at least one. To order, call SE.

1992 Coming Events

3 JAN 9 am (until completion)—TICC,
Phoenix/Z-hills, Florida

15 FEB 9 am (until completion)—TICC,
Phoenix/Z-hills, Florida

11 APR 9 am (until completion)—TICC,
Skydive City, Florida

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