

# BASLINE



# BASELINE Update

## Art Appreciation

Many thanks to artist Neil "Neilsen" Smith for his contributions to this issue.

## Check Your Labels!

Beginning with this issue, we have transferred our mailing list to a new computer system. Please carefully *check your label* to insure that all of the address information is correct. If there are any errors, or if you ever have a change of address, please let us know: all it takes is a postcard, or a call to the BASELINE numbers.

## Three In '87

We regretfully report the death of three BASELINE subscribers in 1987: Bud O'Connor was killed while making a tandem jump in Illinois, and U.S.P.A. staff member Dolly Paquin died of cancer. In the first week of December, Kansas subscriber Andy "Tag" Tucker was killed when he was unable to find his reserve ripcord behind a chest-mounted videorecorder after performing an intentional cutaway.

## Who Are We?

Enclosed with this issue is BASELINE's "Who Are We?" survey. Unlike Joseph Biron's on-going study which is geared towards drawing a psychological profile of BASE jumpers, this survey attempts to formulate a far more general demography: age, profession, education, experience level, etc. You can greatly help us by filling in the survey, affixing a stamp, and returning it to the address shown. *Even if you have never made a BASE jump*, we are interested in your input; part of the survey is just to determine how many of our readers are actually BASE jumpers. We will publish the results in a future issue.

## Cameramen Wanted

Are you interested in shooting BASE video for fun and profit? Do you have any experience operating a video camera, or own any video equipment? Would you like to video at next year's New River Gorge Bridge Day, and be **guaranteed** of a prime shooting spot where *no one* will get in your way or ask you to move?

Andy Calistrat is currently collecting information from cameramen interested in participating in an organized approach at producing commercial Bridge Day tapes in 1988. If you are interested, please jot down your name, number of skydives and BASE jumps (helpful but *not* necessary), level of experience as a video camera operator, and the type of your equipment you own or have access to, and mail it to Andy at 3202 La Quinta Drive, Missouri City Texas 77459-3145. Also please include a day-time and evening phone number; you will be contacted shortly with details.

## BASE Directory to be Published

Travelling out of state? Like to know the names and numbers of the local BASE jumpers, or maybe some local BASE sites? BASELINE plans to publish a BASE Directory with the names, addresses, and phone numbers of jumpers across the country. If

you would like to be included, please fill out the relevant information on the "Who Are We?" survey (included with this issue), check the "yes" box indicating you want your name published in the directory, and mail it back to us at the address provided.

## BASE Numbers Correction

The BASE Numbers List on page 16 of BASELINE #5 contained a couple of errors. Gary Wirth was listed as residing in Van Wert, Ohio; he actually lives in Goleta, California. Frank Donnellan was incorrectly listed as being alive; Donnellan was killed on a building jump in England in 1982.

## Wedding Bells for BASE Jumpers

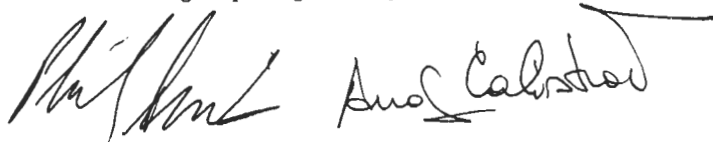
Congratulations to Florida BASE jumpers Pat Valley and Jon Roberts, who were married November 13, 1987.

*Merry Christmas*

To Our Subscribers & Friends:  
**Thanks!**

*It's you who make BASELINE worth all the time and effort and we put into it. We wish every one of you a very joyous Holiday Season, and the very best wishes for a safe and happy 1988.*

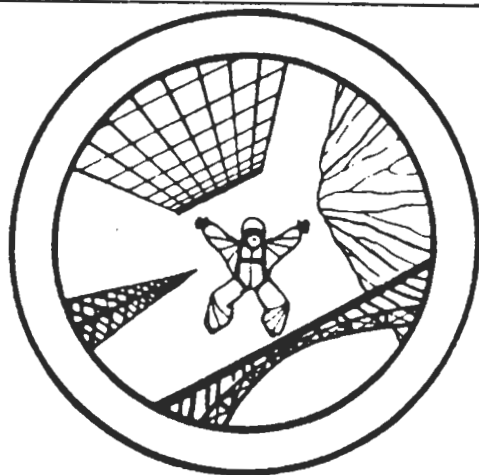
*Straight openings and soft landings!*



## WOULD THE PTA APPROVE?

Arizona jumper J.D. Walker, BASE 37, had always been pleased with the good grades and favorable comments on the report card of his 7-year old daughter, Christie. So Walker was a bit concerned to receive a note from school one day about Christie having an over-active imagination.

"It's nothing to really worry about," explained one of Christie's teachers at the next conference, "but your daughter does have a very active imagination. She likes to pretend that you jump off buildings in the middle of the night with a parachute." "I do," replied J.D. -- and he had the pictures to prove it. The next day, it is rumoured, Christie brought a 48-inch pilot chute to show-and-tell.



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**Cover Photo:** Nick Feteris follows his jump partner off the New River Gorge Bridge.

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BASELINE Magazine (Tm) is a quarterly periodical published by Outlaw Publishing Company of Houston, Texas.

Subscriptions cost \$9/year domestic, \$15/year overseas. BASELINE is sold by the volume, not year; readers subscribing in the middle of the year will therefore receive all back-issues bringing them up to date.

BASELINE is looking for jump stories, news articles, pictures, cartoons, anecdotes, letters, incident/accident reports, and editorials or opinions/commentaries. All due credit will be given, and all requests for anonymity will be honored.

### Correspondents:

United Kingdom: *Nigel Slee*  
Australia & New Zealand: *Nick Feteris*  
U.S. BASE Association: *Jean Boenish*

**Disclaimer:** Any time a person leaves the ground, he is risking the threat of injury and even death. BASE jumping, like skydiving, brings along a set of inherent dangers. BASELINE is interested in accurately reporting all news and information pertaining to BASE jumping, controversial or not, in as free and unlimited a manner as possible.

BASELINE Magazine, its editors and staff do *not* advocate that anyone should BASE jump, nor that anyone should break the law in an attempt to make a BASE jump. Furthermore, we do not endorse or approve any BASE site or specific BASE jump. Any ideas, information, or concepts gleaned from this magazine should not be attempted by any reader, except at his own risk and sole responsibility. Beyond this, the ground's the limit.

*The Ground's The Limit!*

# BASE BITS

## BASE In The News

### Jump Again!

Nigel Slee, BASE #28, has just published another issue of *Jump Magazine*. The October 1987 *Jump* amounts to a very professionally packaged 16-page magazine in black-and-white, and is crammed from cover to cover with BASE-related news, information, stories, accident reports, editorials, pictures, cartoons, and even some poetry. It sells for \$3 (plus \$2 postage overseas).

As for the future of *Jump Magazine*, Nigel writes: "With [the readers'] help -- articles, letters, feedback, pictures, and ideas -- it should appear again next year; maybe sooner if I can get some help." Anyone interested in corresponding with Nigel, or getting a copy of the current issue, should contact Slec at the following address:

Jump Magazine  
c/o 50 Mount Pleasant Crescent  
London N4 4HP

### Eiffel Copy-Cats

Two unidentified people successfully parachuted from the 450-foot level tourist platform of the Blackpool Tower, a 512-foot high Eiffel Tower look-alike in England. Local papers claimed that the tower owners were offering a cash reward for information leading to the two BASE jumpers.

### Southwestern Mention

The *Southwestern Skies*, a progressive drop zone magazine covering "third coast skydiving," ran an article last April called "To BASE or Not To BASE." The piece, written by David Craigmile, included useful tips on gear, techniques, and safety.

The magazine, like Mike Truffer's *Skydiving*, treats BASE jumping as a part of sport parachuting. Subscriptions cost \$12/year, and although the journalism primarily relates to skydiving, the "Skies" has given numerous mentions to BASE jumping in the past. Ordering information is contained in an ad in this issue.

Craigmile ended his article with a fitting warning for jumpers to stick to BASE sites that match their experience levels: "Start out with an object that's over a thousand feet, and will afford you some time to make

a mistake. A 500-foot building or tower is no place to test your wings -- unless, of course, you want to become an angel."

### Off The Wall

Nigel Slee reports that BASE jumping was featured in a very positive front-page article last summer in the European version of *The Wall Street Journal*. "It was an objective and well-researched article," reports Nigel, who also stated that the piece included quotes from many of the sport's leading personalities.

The apt final quote was from Doug Maddy, organizer of West Virginia's annual Bridge Day: "You'd think you'd have to be stark raving mad, but it's just another sport, like sailing, to those folk."

## People

### Jumper Survives High-Speed Impact

California jumper Mark "nine lives" Hewitt, BASE #46, narrowly escaped injury early last September when he rode in a high-speed spinning malfunction. According to eye witnesses, Mark was descending at over 50 MPH when he rode his crippled square into the 100-foot pine trees at the base of the cliff he had jumped.

Hewitt, a veteran of numerous jumps from the same site, and over 200 total BASE jumps, performed the 3,060-foot leap with only a main canopy, and no reserve. After a 10 second stable delay, Mark's slider entangled with his upper cascade lines, and he never gained control of his parachute prior to impact. Fortunately the pine trees significantly broke his fall, and Hewitt escaped with only minor scratches and bruises.

After landing, Mark was able to cut away, lower himself safely to the ground, and then elude the park rangers. At press time, he had still not recovered his gear from the trees.

### Gates offer Bridge Awards

Indiana jumpers Greg and Libby Gates are currently administrating the New River Gorge Bridge Awards program. Anyone who has ever jumped this Bridge is eligible to receive a number,

and this service is *absolutely free*.

Jumpers who registered, and subsequently jumped, at this year's Bridge Day should automatically receive a number in the mail. Anyone who was overlooked, not registered, or who made the jump at some time other than Bridge Day, should contact Greg and Libby to receive their number.

Also available is a host of related items, such as an ID card, certificate, patch, decal, and T-shirt transfer. These items are attractively made and well worth the price. Ordering information, including the Gates' address, appears in an ad in this issue.

### Ripped Off?

By now, most jumpers will probably be familiar with "Eye of the Sky" videos, a Florida company advertising that they sell Bridge Day Video tapes. According to reports in *Skydiving Magazine*, many people have sent in money and never received anything in return. Mike Truffer, editor of *Skydiving*, also recommended that jumpers should contact the postmaster general if they were unable to get their money returned.

Last month, Jean Boenish contacted us to report that "Eye of the Sky" has also operated under the name "B&B Air Video Supply," and that both of these enterprises are run by Florida jumper Bert Bowden. Jean's 1985 Bridge Day literature listed Bowden's name as a source for videos, and gave his address as c/o the Titus Parachute Center.

That address is no longer accurate, and Jean pointed out that anyone who has sent money to either Bowden, "Eye of the Sky," or "B&B Air Video Supply" can contact Bowden at the following address:

Bert Bowden  
145 Richland Avenue  
Merritt Island, Florida 32953-3377

### Hit and Run Parachute

Oklahoma jumper Neil Smith escaped injury last September after making a Dallas building jump, landing by a freeway, and having his canopy fall onto the off-ramp. Neil reported that a car was exiting the freeway at that moment, and its driver slammed on the brakes. The car then screeched to a halt -- sliding on Neil's parachute the whole way.

Smith was quick on his cutaway handle, but the car stopped before it would have begun dragging him. Neil's canopy was shredded, "to the point where it would be cheaper to buy a new one than get this one fixed," he said. Neil also mentioned that the driver, a 16-year old girl who had apparently just gotten her driver's license, was understandably shaken by the event. "They never taught us about anything like this in Driver's Ed class!" Neil quoted the girl as saying.

### Jumper Sentenced

New Jersey jumper Bill Legg, who made national headlines last August after jumping from the George Washington Bridge, was ordered to pay a fine and serve six months' probation. Legg was originally charged with criminal trespass and reckless endangerment, but the latter charge was eventually dropped. Bill wrote in to say: "The jump cost me \$1.67 per foot and two days missed from work. Who ever said BASE jumping was cheap?!"

### Held Again

Denver jumper Robin Heid ended up in jail September 18 after making a publicity-stunt jump from a local 530-foot skyscraper. Robin received permission from the building owners to be on the property, claiming that he was trying to get publicity for his new book.

Robin then snuck onto the roof, jumped, landed below, and began signing copies of his story at a pre-placed table. Few people besides Heid, however, seemed amused. The building owners kicked Robin off their property, stating that he had taken advantage of his permission to be on the premises. The police, meanwhile, did not fall for Robin's trick of attempting to avoid trespassing charges, and arrested him for reckless endangerment.

Robin reported to BASELINE that he spent over four hours behind bars, attempting all the while to appease authorities by concocting plans to save the city jail money, and by trying to point out how BASE jumps would draw shoppers into the downtown area. But at presstime, Robin admitted that he was still awaiting full prosecution.

Heid is no stranger to making BASE jumps for the purpose of advancing unrelated causes: in 1984 he made a day-time leap from an Ohio smokestack, for the purpose of promoting Greenpeace, an environmentalist group.

## Places

### Kamikaze BASE

English jumper Mike McCarthy, BASE #24, made headlines in Japan after he jumped from a 470-foot Tokyo hotel. According to *Jump Magazine*, frightened locals quickly summoned the police, convinced they were witnessing a Japanese leftist attack! Mike was arrested, questioned, and then released on the promise of "good behaviour" while in Japan.

McCarthy has previously made international headlines after jumping both the Eiffel Tower and the Empire State Building.

### BASE Demo Down Under Goes Under

Australian correspondant Nick Feteris reported that he recently managed to line up a BASE demo jump into a football stadium in Sydney, using a 275-foot crane for exits. Feteris made all the necessary arrangements, including insurance and waivers.

A week before the scheduled event, however, the crane company was bought out, the workers went on strike, and the demo went down the tubes.

## Events

### Bridge Day 1987

Jumpers at West Virginia's annual New River Gorge Bridge Day were greeted this year by warm weather, gentle winds, and one of the largest sandbar landing areas yet. Jean Boenish reports that 275 registered jumpers made over 630 jumps in a five-hour period.

A one-hour hold was put on jumping at 2:38 P.M. when Steven Gyrrsting, of Paoli Pennsylvania, was killed after towing his 36-inch pilot chute to impact. Gyrrsting pulled his reserve after eight seconds, but had only received line stretch at impact.

A full report of this year's event is included in this issue.

### Angel Falls Legalized

Venezuelans Rodolfo Gerstl and Pedro Luis Gonzalez have negotiated with various officials in that country for the right to legal BASE jumps from Angel Falls, a 3,000-foot waterfall originally researched and jumped by several Arizona jumpers early in 1980.

The pair have begun their own commercial operation, charging jumpers \$11,000 each for an 8-day, 7-night all-expenses paid stay (the price goes down to \$2,000 per person if you bring along nine friends).

According to Gerstl, this price includes all necessary permits, a \$100,000 insurance policy for accidents and death, and three jumps: two from Angel Falls, and one helicopter jump at the BASE camp. Gerstl also mentioned that a U.S.P.A. "D" license (or F.A.I. equivalent) is required, and that the price does not include parachute equipment, alcoholic beverages, or air transportation to and from Venezuela.

## Close Encounters of the Unkind

### The Security Guard Who Cried "Wolf"

When the new building under construction in downtown Phoenix had reached a safe altitude, Arizona jumper J.D. Walker wasted no time in seizing an opportunity for a jump. J.D. and two friends, armed with rigs, ground crew, and two-way radios, entered the building shortly after midnight on a no-moon night.

Unknown to them at the time, a security guard working across the street had seen them, and radioed to his dispatcher: "I just saw three guys wearing parachutes sneak into the new building across the street! They're gonna jump off it! Get the cops fast!"

By the time the three jumpers reached the tenth floor, they heard the approaching sirens. Walking to the corner of the building to get a better look, they were shocked to see a fleet of police cars arrive and surround the building from every corner. Within minutes the area was swarming with ambulances, and shortly thereafter an armada of fire trucks arrived, and busy workers began setting up suicide nets in the streets!

The jumpers continued to watch long enough to see their ground crew frisked, hand cuffed, and whisked away in a police car, and then they heard footsteps approaching from the stairwell. The three hid in an empty elevator shaft as an army of cops, armed with their flashlights and guns, began searching every nook and cranny in the entire building. As the search continued for nearly two hours, a police helicopter buzzed over the building the entire while, shining its powerful searchlight into the floors.

"There were many times that I even held my breath," recalls J.D. "The cops sometimes passed so close by us that I could have spit on their shoes."

After a two-hour fruitless search, the cops, firemen, and paramedics eventually wrote off the entire incident as a hoax and went home. The jumpers waited an extra hour before emerging, just to be sure, and then walked to the edge of the building to check out the street. Sure enough, everything was quiet, and there was their

ground crew smoking a cigarette by the get-away car below! "The cops had apparently tried to scare him with a quick tour around the block," J.D. noted, "but he steadfastly stuck to his story that he was just out for a late-night drive. His coolness under fire probably saved us all."

The jumpers then took their time climbing the rest of the way to the roof. All three jumps passed without incident, with each of the three landing right across the street from the security guard who had

called in on them in the first place.

The wide-eyed and disbelieving rent-a-cop picked up his radio, and called in. "Those parachutists ... they're back! They just jumped! They landed right before my eyes! Call the cops again!!"

The jumpers calmly took their time in gathering up their gear and leaving the area. The cops, needless to say, never bothered to return to the scene.

## ANTENNA TOWER RADIATION HAZARDS

by Damien Hansen

I have long been concerned over the possible ill-effects of radiation exposure associated with climbing and jumping antenna towers. After reading the incident report in the last issue of BASELINE, and also hearing of some injuries to BASE jumpers right here in Australia directly related to high-power radiation from antenna towers, I finally decided to do some research on the subject.

I first spoke to a scientist from "The Occupational Health Group of Victoria." He supplied me with information from a recent study of men working near A.M. towers. The study included findings of radicular (slowing of the heart rate), disturbances in the heart rhythm, heart stress, and lethargy.

Other reports claim that the electromagnetic radiation may cause cancer, but most reports agree that no one really knows. The scientist had no data about the effects of working on the antenna itself, because prior to commencing work the transmitter is usually turned off and the tower is "earthed out" (ie: electrically grounded). [Editors' Note: Although both FM and AM towers emit high levels of electromagnetic radiation, only AM towers carry an electrical difference of potential. FM towers do not sit on insulators, and are therefore continuously grounded.]

The scientist also noted several other possible hazards associated with AM towers:

1. The "box coaxial" configuration, which is the group of wires that runs to the bottom of the AM antenna, and usually

carries a lethal dose of electrical charge. The cables are often low to the ground, and have five or six wires in the group: four in a square, and one or two in the middle (this configuration prevents interference).

2. Other objects near the tower, which are not earthed out, may have also picked up a lethal charge.

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*"He looked down to his skin  
bubbling white as his flesh  
began to melt around the steel  
pipe. He let go, and raised  
his palms to reveal ugly third  
degree burns..."*

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3. The AM tower itself. Since the entire structure is "live," any contact between it and an earthed-out object (like the earthing rod, the ground itself, or a guy wire on the earthed side of the insulator) will also give you a very big, possibly even fatal shock. The scientists to whom I spoke recommended that when mounting an AM tower, you should stand on a shed or a log, jump up, and only grab the tower while in mid-air [AM towers can be easily identified because they rest on large glass insulators. --Eds]. Again, contact with an AM tower and the ground at the same time could be fatal.

Power outputs from AM towers can be obtained from an "En Route Supplement" commonly used by pilots. In Australia these brochures are sold by the Department of Aviation. They will show which towers

are really hot. Identifying the hot towers is important, because the damage they can do is significant. In a recent case here in Australia, a BASE jumper leaped up onto an AM tower, but it was so hot he had to let go and jump back down. He tried it again, determined to hold on until the radiation no longer caused the heat, and then to climb and jump.

Well when he jumped up the second time and grabbed the antenna, he managed to hold on for a second or two. His hands became hot very quickly, and he looked down just in time to see his skin bubbling white as his flesh began to melt around the steel pipe. He let go, screaming, fell on his back, and raised his palms to reveal ugly third-degree burns. The pain was so intense that he didn't even realize until later that his belt buckle had scalded its outline on his stomach! Looking at an En Route Supplement, we later learned that the tower put out over 100,000 watts!

In reply to a question about T.V. transmitters, I was told that they are not in the same class, and that to stay 100 feet below the actual transmitter would not be nearly as hazardous as climbing an A.M. tower.

Good health and long free falls!

About the Author: Damien Hansen, BASE #159, is a frequent contributor of photographs, cartoons, technical information and articles. He lives in East Kew, Australia, and is an active BASE jumper.



# Letters

## Bridge Day Thanks

Just a note to say how much I appreciated the efforts of Jean Boenish, and all of the "yellow shirted staff" in making Bridge Day possible. Most of us have no idea how much time and effort have to be given on a project of this nature. These people have made the impossible a reality!

Bridge Day is more fun than a week at the best skydiving boogie in the country! Keep up the good work!

If there is ever any way that I can be of assistance, feel free to contact me.

Jim Nelson, BASE #120  
Van Wert, Ohio

*Thanks for the letter; it's nice to know we're appreciated! Most people don't realize that "staff member" is a completely volunteer position: each person pays all his own expenses (including air fare and accommodations), spends all day Friday working with jumpers in the park, and at least a third of the jumping hours on Saturday working as a "jumpmaster"! But the reward of it all comes in watching the people we have helped subsequently make their first BASE jump. And, of course, in getting letters like yours.*

*We're always looking for qualified and experienced BASE jumpers who would like to help by serving on the Bridge Day staff. Anyone interested should contact Jean Boenish.*

-- Eds.

## First BASE Jump

Please enter my name for a subscription to BASELINE. I made my first Antenna jump on June 5, 1987 in Miami, at night, naked, along with Steve Jester. Yahoo!

Marlen Burford  
Titusville, Florida

## Wants Help

I am a skydiver with only 51 jumps to my credit, and would like to be logging some BASE jumps. I'm waiting to read about your line release keepers, in an upcoming issue, and I think I could then

modify my rig without too much trouble. And with knowledge gained from past issues of BASELINE, I think I could make a safe first BASE jump.

At the same time, I would like to get together with an experienced (and hopefully local) BASE jumper to be sure. I could also sure use some ideas on local BASE

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***"Bridge Day is more fun than  
a week at the best skydiving  
boogie in the country!"***

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sites, if any. My hometown is real low-level stuff, but not unthinkable. If there is anyone out there who could help, please do!

Neil Mason  
St. Maries, Idaho  
(208) 245-2015

*Sorry, Neil, but you're our only subscriber in Idaho, and we sure don't know of any sites in the area. Hopefully publishing your letter will help. Good luck!*

-- Eds.

## Safety First!

I have about 70 skydives, and would like to try BASE jumping. I had planned to make my 100th jump from a tower near Austin, with a friend of mine who has a couple of tower jumps. But your magazine made me change my mind. I am more excited than ever about making a BASE jump, but I want to do it safely, and preferably with the help of someone more experienced than my friend.

Another hesitation I have concerns gear: right now I am jumping a borrowed rig ("...the deceased, jumping borrowed gear..."). The rig is an old Centaurus with a 5-cell Cirrus Cloud on which I haven't been able to get consistent openings. Do you have any suggestions on a good skydiving rig that I could use for BASE jumping? I would appreciate any help you could give me.

Don Griffiths  
College Station, Texas

*It's refreshing to get a letter from someone who has put off a BASE jump until he can do it more safely. If there were more skydivers like you (especially amongst the relatively inexperienced crowd), perhaps there would be less injuries in this sport!*

*As far as your rig is concerned, borrowed gear is fine as long as you are familiar and current with it. Furthermore, Cirrus Clouds make ideal BASE canopies because of their low aspect ratio, which is conducive to on-heading openings. No parachute, however, will open on-heading if your bag turns on deployment. If you choose to bag-deploy for BASE jumps, you may find some helpful hints in the "Back to Basics" section in the last issue of BASELINE. Either way, it would be wise to practice from bridges, where on-heading openings are not critical.*

-- Eds.

## Line Release Keepers

I wrote in about a month ago to say that I had a toggle keeper in the works, and I finally finished it. It is fairly simple, and should prove to give the canopy the same performance as was in the first place. The toggle and brake keeper are the same as with a conventional riser, but the whole keeper detaches when released.

I call these the "safety brakes." I sure could have used them at one time!! Please call me if you have any comments or suggestions.

David Craigmile  
Plano, Texas

*Craigmile is one of many jumpers throughout the country working on toggle keepers for use in conjunction with the line release modification. More information is contained in the article Line Release Toggle Keepers in this issue.*

-- Eds.

I have a quick question regarding the line release modification. Why couldn't you sew a single large loop on the riser, and route the steering line through it. It would be wide enough for the toggle to pass through in case of an emergency

release, but still keep the angle between the steering line and riser normal.

John Winkler  
Cleveland, Ohio

*Although a good idea, a single large ring would only solve that one problem: the angle between the steering line and riser. It would not prevent the possibility of jammed lines in the event of a hard opening, nor would it prevent emergency actuation of the modification if the jumper accidentally lets go of one of his toggles. With so many jumpers around the country working on a solution, people have been realizing that the problem is not as easy as it sounds.* -- Eds.

At long last, here's the letter I've been threatening to write. I was very shocked to see such a blunt attack towards Mark Hewitt's letter in the last issue and I felt compelled to come to the defense of one of BASE jumping's most prolific people.

I can't understand why whoever wrote the reply took such a line of attack, if you will, against the line-over mod. So, in reply, I'd like to give a line-by-line reply in the same fashion as your writer did, addressing the faults I see in that reply.

First off, it was stated "the line-over mod if predicated on the fact that you will get an inflated canopy." Hell yes!! Your reply goes on to mention all the other problems that the mod won't help, then states that a tersh is the only viable safeguard. Well, in over five years of this sport, I have never heard of a container-open malfunction that was **not** a line-over, specifically a brake line. Every Bridge Day we see one or more. The mod would have saved a lot of pain and plaster in most of these instances, but you insist your tersh method is a better idea. Maybe, just maybe, it may have worked, of course providing that it does not entangle, opens in time (the only tersh save I know of had to be reeled back in and re-deployed), and used in time for these things to happen. I watched a very prominent jumper ride in a partially open main this year, and get busted up, with a tersh on his chest, never deployed.

I agree that the testing must go on, but, in all reality, I think that you overlooked the most single important fact, and that is time. Out here, most our jumps are from under 500 feet, and after a two to three

second delay, you're going in if you have a problem with almost any of the things you stated that a tersh would fix. A tersh would merely give you something to do before you frap. Remember, again, the mod only clears line-overs, not baglocks, pilot-chutes in tow, or anything else, and **neither will a tersh!!**

---

**"I was shocked to see such a blunt attack towards Mark Hewitt, and I can see that you guys are always getting in the last word"**

---

Also, I'll address point-by-point your reply, just as you did Mark's letter.

1. The keeper is just that: a keeper. Except when daisy chaining, the keeper has nothing to do with the factory setting. It only allows you to free your hands without losing a toggle. And on a BASE jump, do you have time to let go of your toggles for anything else?

2. The angle of attack is easily maintained by simply keeping your toggles in front of you. The "changes" in flight are more speed, better glide as the canopy is flatter, and I for one, like them.

3. When you lose a toggle, you merely

steer with risers. A few inches of riser equals a lot of toggle. I've seen it done many, many times on skydives with busted brake lines, and three times on BASE jumps. I'd rather land (a square) with risers (in the target) than bust my ass under an unmodified tersh which is at the mercy of the winds.

4. In regards to your stupid statement about a jumper getting hurt when he crossed his brake lines, only a bozo doesn't do a line check. It is his fault, not the mod's, that he didn't use it. I was on that "accident load," and if a jumper doesn't take the time to pack right, or use what's available to him, he gets hurt (not because of his back-up system -- how can it?)

Furthermore, in response to your other responses, a clear look at the reply, I feel, only points to one thing -- the editor is selling his idea as best, and goes to great lengths to show fault with other systems. Instead of presenting information on a "you decide" basis, you choose for the novice, or other, who is looking for information -- that is wrong.

Finally, where is this release?! I didn't see it at the Bridge!! From the description, it sounds like a lot of crap to send up into a canopy -- velcro and lines don't mix too hot. Sounds like an entanglement device to me. Besides, will your keeper prevent or

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fix a pilot chute in tow, container lock, slider hang-up, or those other things? (By the way you wrote it up, it fixes flat tires, too).

I consider your reply an attack on Mark, and I can see that you guys are *always* getting in the last word. It just seems to me that you should change the name from "BASELINE" to "The Phil and Andy Show."

Joe D. Walker  
BASE #37  
Night BASE #25  
161 BASE Jumps  
Chandler, Arizona

### Golden Gate Jumps

On Sunday night, September 13, at 11:25 P.M., Dan Conable and I jumped from the Golden Gate Bridge in San Francisco. We both did direct-bag ployments from the roadway into the water. I went first and had a clean opening on an old Strato Cloud. After a very quick (seven second) canopy ride, I splashed down about 15 feet from our pickup boat. Ten seconds later Dan made his jump. He experienced a line-over malfunction. His ride was a little quicker. After two spirals under his canopy, he hit the water about 40 miles per hour. He was uninjured, and after surfacing, the pickup boat got to him and we made our getaway. Later investigation showed that our assistant may have dropped Dan's direct-bag as Dan jumped, but we still don't know for sure.

Everyone we had talked to prior tot he jump said that we were going to have to worry about the low temperature of the

water, but actually it was relatively warm. We both had flotation gear inflated prior to jumping and had no difficulty. The ocean was calm with only one foot swells, our boat had no trouble.

We'd like to know who else has jumped this bridge. As far as can be determined at this point, Ron Broyles, Spider McKenna, Rich Berke, and an unnamed jumpmaster from Lodi preceded Dan and me. If there is anybody else out there who has also made the jump, we'd really appreciate if they would get in touch with Dan or me. Also, if someone is keeping a log of this bridge, please add the both of us to it!

"The Sky Wizard"  
N. Hollywood, California

*As far as we know, Ron, Spider, and Rich preceded Dan and you. We've never heard of a jumpmaster from Lodi making the leap!*

*Ron Broyles has written us an article on his jump from the Golden Gate Bridge; it will appear in the next issue.*

--Eds.

### More On Spoilers

I just earned my BASE number and wanted to share it with your readers. I earned the BASE award on a leap off a 2,000-foot antenna in Walnut Grove, California. Dale Kimm and I climbed it in the middle of the night, and launched at first light. It was spectacular to say the least.

Dale mentioned something that I think is worthy of repeating. There is a

1500-footer up there with a platform on top of it (a perfect BASE object) that is now inaccessible because the elevator was used by BASE jumpers. The object is now alarmed. I heard the same story about an antenna in Colorado. Hey, folks, let's stay away from the elevators. Dale summed it up when he said: "you have to work for it."

After the antenna I went out to do Auburn Bridge, and that was good fun. Granted, the authorities are hot on Auburn jumps right now, but I still think it can be done with a relatively low risk factor. Here are a few hints, if you want to chance it:

1. When you walk out to the exit point, keep your rig below waist level.
2. Once you get to the launch site, get geared up below the guardrail, out of view of the traffic.
3. Once there, don't waste any time. Get geared up and go as soon as you get to the launch point.

Keith J. Jones  
Tempe, Arizona

*Thanks for some good tips on Auburn. J.D. Walker's article on spoiling sites should be ready for publication in the next issue.*

--Eds.

### Likes Commentary

Congratulations to Andy Calistrat on a great piece: "Whuffo They Jump Off Buildings?" Our local ASO (short for ass-hole) fits the mold perfectly!

LeRoy Gallenstein  
Lexington, Kentucky



Troy Fink makes "the plunge" into Lake Powell

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# Bridge Day 1987

By Andy Calistrat

On October 10, 1987, Fayetteville West Virginia hosted the tenth annual New River Gorge Bridge Day celebration. For the eighth year in a row, BASE jumping was permitted from the 876-foot high span during the normal hours of festivities, 10 A.M. - 4 P.M. In many respects, this year's event was the most successful yet; in other ways, it was by far the most tragic.

Preparations for Bridge Day '87 began late last year, when organizer Jean Boenish announced that registration limits would once again be imposed. The popularity of the annual jump fest has been steadily increasing, and climaxed in 1985 at nearly 500 jumpers. Fearing that such large crowds would preclude individuals from making as many jumps as they wanted, Jean began a postal pre-registration scheme beginning with Bridge Day '86, intending to limit participation to no more than 200 people. However, several delays occurred that year in printing the application forms, and 405 jumpers ended up attending.

At the debriefing meeting in Canyon Rim Park, Jean announced that the pre-registration scheme would once again be imposed, with a 250-jumper limit set for Bridge Day '87. Despite numerous complaints aired at the time, it came as a pleasant surprise to Jean, the Bridge Day staff, and the jumpers alike to discover that instead of skyrocketing, the registration level for Bridge Day '87 seemed to taper off by itself. Jean received only 300 applications (some had speculated that as many as 500-600 people would try to register), and decided to accept all of them. Only 200 of the registered jumpers actually showed up. An additional 25 people registered on-site on Friday afternoon, and 50 more arrived during jumping hours Saturday. Although that brought the "official" number to 275, it did not include a dozen or so staff members, and the handful of people who never registered at all. In actuality, there were closer to 300 jumpers at this year's event.

By 7 A.M. Friday morning, the usual armada of gold-shirted staff volunteers was on hand to assist jumpers with registration, packing, gear preparation, and general methodology. Jean Boenish raised the

donation amount from \$15 to \$20, which jumpers payed without hesitation. Many even donated larger amounts, some up to \$50!

Unlike previous years, when there were numerous informal seminars held throughout the day, this year saw far more one-on-one instruction between staff members and individual jumpers. One very interesting and pleasing development the

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*"In many respects, this year's event was the most successful yet; in other ways, it was by far the most tragic"*

---

staff noticed was the use by many jumpers of an effective compromise to the "slider up-or-down" issue: mesh sliders. In previous years, when most jumpers were packing slider-down, improper pack jobs resulted in excessively hard openings, long delays resulted in damaged canopies, and bad body positions resulted in line-over malfunctions. As a direct result, Jean Boenish recommended in 1986 that all jumpers pack slider-up. Many did, and although this effectively solved the aforementioned three problems, the slider-up pack jobs resulted in scary-looking openings, dangerously long snivels, and numerous water landings.

Seeing the need for a compromise, many jumpers this year opted for mesh sliders, bikini sliders, or spider sliders. Although this technology has been known to BASE jumpers for years, Bridge Day '87 marked its first wide-spread use. A mesh slider is constructed of a fine mesh similar to the material used on the bottom of pilot chutes. A "bikini" slider is a gutted-out standard skydiving slider; a spider slider is basically four grommets connected by webbing, with no material inbetween. All three devices provide very little air resistance, thus allowing for very rapid inflation of the canopy, yet without the worry of damaged gear or line-over malfunctions. At least two vendors were on hand to sell the special sliders.

One very disquieting development noticed this year concerned another aspect

of gear: pilot chutes. More than ever before, jumpers chose to use their standard skydiving pilot chutes, ranging in size from 24 to 36 inches, for the 876-foot BASE jump. At least four vendors present selling and renting BASE pilot chutes, but most jumpers complained about the high cost, or the high drag created once the canopy is flying. Still others pointed out that they had used small pilot chutes in previous years, and they had worked just fine.

Needless to say the staff was very much alarmed at this development, especially amongst those of us who had watched Jeb Williams die in 1986, when he towed his 36-inch pilot chute to impact on a jump from a Dallas antenna. However, since there was no clearly established policy at the Bridge Day event regarding pilot chutes, the most the staff could do was recommend against small pilot chutes (little did anyone know at the time that tragedy would strike before the weekend was over).

As the sun set Friday afternoon and Canyon Rim Park closed for the day, the staff gathered in Jean Boenish's hotel room for the usual pre-jump staff meeting. Jean told of many welcome improvements: the fleet of trucks carrying jumpers back to the top of the Bridge had been increased, and Jean had also purchased special magi BASE jumper logos to clearly mark the vehicles. Unfortunately, the state police again turned down requests this year that one of two roadways leading to the landing area be reserved for jumper use only.

Jean also purchased plastic stands and chains to use for cordoning off the exit area, and they proved very useful in keeping out whuffos and curious observers. Most welcome, however, was the addition of a new staff member: Jean's brother, Don Campbell. Although not a jumper, Don proved invaluable in helping with organization, logistics, and especially crowd control. Don payed his own way to West Virginia, and also saved a major strain on the Bridge Day budget by sharing in half of Jean's remaining expenses.

One hot topic for debate at the staff meeting was the railroad landing area. With wind gusts reaching 30 M.P.H. last

year, many jumpers opted to land on the railroad tracks on either side of the river instead of getting wet. Jean pointed out many of the possible hazards associated with that landing zone, including the fact that the tracks are active and trains pass by throughout the day, the area is very tight, surrounded by rocks, trees, and high tension wires, and gear is subject to getting dirty with soot and tar from the tracks. Jean also claimed that a canopy's lateral drive is inhibited by high head winds, and so many jumpers might find themselves unable to reach the tracks in the first place.

On the other hand, most of the staff themselves had used the railroad tracks for a landing site the previous year, and found it to be an ideal location as long as a check was made before jumping to insure that no trains were coming. The staff also pointed out that given the choice between a tight ding zone and the middle of the New

River, most jumpers would opt for staying dry.

Fortunately the entire discussion turned out to be academic, for jumpers were pleasantly surprised the next morning to be greeted with the lowest winds since Bridge Day 1984. Although the sun only came out briefly amidst overcast skies, the temperature remained pleasantly warm, and the sandbar landing area was the biggest yet.

As 10 A.M. rolled around Saturday morning and jumpers filed onto the Bridge, staff member Brad Smith of Wichita, Kansas started off the day with a beautiful three second delay and perfect on-heading opening. There were cheers and applause when Brad executed several steep S-turns in order to bleed off altitude before making a final approach on the sand bar, which he easily dead-centered. Second off was Southern Californian Rich Stein, who with less than 10 skydives, became the third person ever to make his 200th BASE jump. Things quickly picked up after that, and by 11:30 A.M. the line had completely disappeared, so that jumpers could stroll up and jump at their leisure. There were many moments when the jumpmasters at the exit point would simply sit down and wait around until another jumper came to the exit point! It was clear that the only limits on how many jumps an individual could make were how long it took him to get back to the top of the Bridge and re-pack.

A somewhat disheartening turn of events was the return of stability problems, especially amongst the inexperienced and first-time BASE jumpers. In 1986, the staff was thrilled to watch just about every jumper execute a stable launch and free fall.

This year, many people were plagued with the familiar head-low body positions, the worst cases resulting in front-loops and upside down deployments. The staff regretfully learned that one-on-one instruction is not an efficient way of teaching essential skills to a mass of people, and vowed to reinstate the various seminars next year.

Several group exits were made throughout the day, consisting mostly of two-ways. In many cases the jumpers did not realize that there is vast difference between taking a piece off the strut of a Cessna and launching a two-way off a

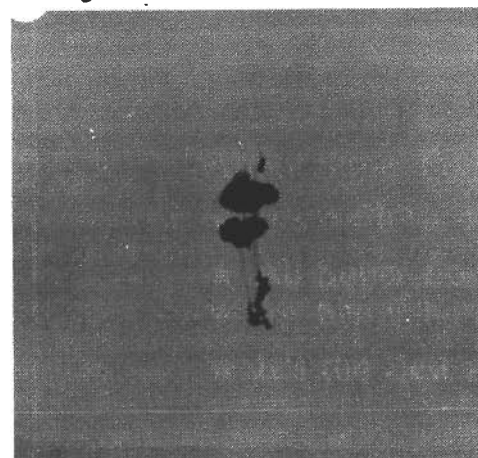
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***"A somewhat disheartening turn of events was the return of stability problems, especially amongst the inexperienced and first-time BASE jumpers"***

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bridge. Owing to lack of technique, many of the two-ways subsequently broke apart, or ended up in one of the jumpers pulling the other upside down. In one instance, a poorly-timed launch resulted in the top man going low and dumping in the other's face; the second jumper barely missed his partner's deploying canopy and lines.

A few three-ways were attempted, and a couple of four-ways. The first of these was by four experienced Canadian BASE jumpers, and resulted in a momentary wrap on opening which netted some spectacular photographs and videos. The entanglement cleared within seconds, but both jumpers landed in the water and had to be rescued by



Two Canadian jumpers, part of a four-way launch, begin to entangle immediately upon opening. Photo by Linda "Garfield" Dimitroff.

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the pick-up boats. The second four-way was much more cleanly executed, and two of the jumpers flew together a successful two-stack several seconds after opening.

Other jumpers amused the crowd with their humorous antics: one person jumped wearing a dinner jacket and bow-tie, while another donned a complete clown's outfit, declaring before exit: "I'm just clowning around." When Ohio jumper Gabby Gaskill's turn came, he stood on the ledge and stated quietly: "Mom, Dad, I know you raised me to be better than this, but hey, shit happens." He then jumped amidst much laughter from the crowd and jumpers alike.

Still others thrilled the staff and fellow jumpers simply by their choice of gear: one person used a conventional B-12 container with a ripcord and spring-loaded pilot chute. Two others static-lined their T-10s, using free bags attached to 60-foot long static lines in order to clear the Bridge's understructure. They opened fine and were actually able to penetrate towards the sandbar, although both jumpers landed in the river.

Overall it seemed as if the day was going quite smoothly, with almost no waiting line at the exit point and very few injuries in the rocks below, since most jumpers could easily make the sandbar. The boat crews were kept far less busy than in previous years, and it seemed that the only water landings were from people who had packed slider-up, or used small pilot chutes and subsequently experienced long hesitations. Jumpers were able to make as many leaps as they pleased, and it was rapidly looking as if Bridge Day '87 would



Stan Meyer's exit is caught by Paul Cochran's rear-facing helmet-mounted camera.

go down as the most successful ever. Unfortunately, events quickly turned sour in the last hour and a half of jumping.

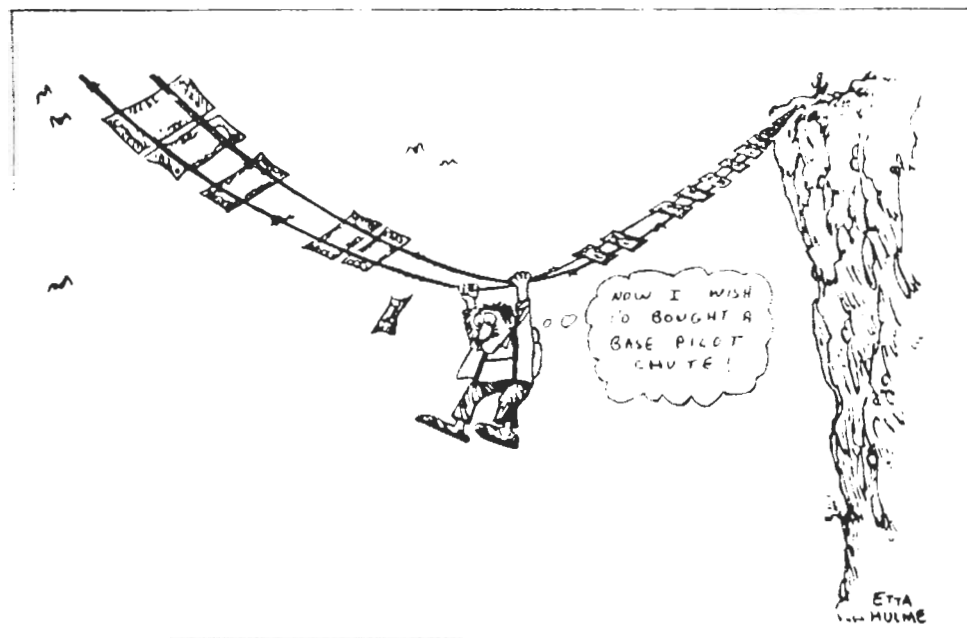
At about 2:45 P.M., 25-year old Steven Gyrsting of Paoli, Pennsylvania came to the manifest area for his third jump of the day. As staff member John Hoover gave Gyrsting an equipment check, he pointed out Steve's tight container, short bridle, and under-size 36" pilot chute. Steve insisted that he had already made two jumps earlier in the day using the same gear, and everything had worked fine. What

happened next is all too well known by now.

As the staff watched in nervous anticipation of yet another jumper using improper equipment, Steve mounted the ledge and prepared to go. It was to be his fourth BASE jump -- and his last. Fate had been kind throughout the day to the many jumpers who insisted on using small pilot chutes, and so there was a moment of relief when Steve executed a flawless exit and rock-stable free fall.

After a relaxed three-second delay, Steve tossed his pilot chute, which was quickly sucked up into the burble over his head. The pilot chute began to oscillate helplessly in the breeze, as most small pilot chutes on BASE jumps will do. But in this case, there was simply not enough drag to extract the main canopy from its container.

By six seconds into the jump there were shouts from people at the top of the bridge as well as spectators at the bottom. After almost eight seconds Steve pulled his reserve, but by then it was too late. Just as the canopy reached line stretch and the free bag was extracted off his Raven III reserve, Steve impacted the New River at nearly 100 M.P.H. The ensuing splash left little doubt in anyone's mind that Steve was instantly killed. A hold was put on jumping for nearly an hour as the rescue boats fought the swift river in an attempt to recover Steve's body from the water.







Rick Payne is shown moments before he spiraled in at over 40 MPH. Photo by Linda Dimitroff.

In another unfortunate incident only minutes before Gyrsting's death, fellow BASELINE editor Phil Smith was injured when he struck a large rock on landing. It was Phil's second jump of the day, and he executed a two-way launch with Nick Feteris for pictures. After a four second delay Phil's slider-up Cruisite XL began a horrendous snivel, causing line twists in the process. This further inhibited the opening, and Smitty spent several seconds fighting to kick out line twists and pump down his slider.

The canopy eventually cleared, with the slider coming all the way down and the parachute fully inflating and flying. However, he was too low to avoid a large rock on the shoreline; instead of landing on top of it, he was low enough that he flew into it. Phil fell back into the water, dazed, and was rescued by the pick-up boat. He received a broken left foot and right knee cap, was treated by paramedics at the scene, and then taken to the Plateau Medical Center.

Two other incidents during the day ended without injury. In an almost eerie likeness to Steve Gyrsting's death, Ohio jumper Scott Tuttle experienced a 600-foot streamer of his 36-inch pilot chute, then pulled his reserve after almost eight seconds in free fall. Tuttle's Preserve III round reserve opened, whereupon his main container also opened and the bagged main canopy fell out -- it hit the water before all the lines had unstowed.

In an equally scary incident, Californian Rick Payne jumped his slider-up Raven IV

and experienced several line-twists on opening. Rick attempted to fire his brakes but only the right one released, and this caused a radical spin. Unable to clear the problem, Payne immediately dumped his reserve, but there was insufficient drag for it to deploy, and insufficient time to hand-feed it out. Rick impacted at over 40 M.P.H. flat on his back, missing the rocky shoreline by mere feet. Had the landing not been into water, this incident would most likely have ended in certain death.

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***"As the staff watched in nervous anticipation of yet another jumper using improper equipment, Steve mounted the ledge and prepared to go. It was to be his fourth BASE jump -- and his last."***

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Payne also pointed out that contrary to popular rumours, he did not have a malfunction or a line-over, and the line-release modification would have done him absolutely no good: Rick admitted that only a tertiary reserve would have been effective in his situation. Furthermore, many people around the country have been confusing Phil's and Rick's accidents in pictures and videotapes: Phil was jumping a rainbow-colored canopy with a white pilot chute, and his parachute was completely open and flying when he impacted the rock. Rick was jumping a solid black canopy with a blue-and-white pilot chute, and was in a hard spiral turn when he landed.

Jean Boenish spent most of the day in Canyon Rim Park, assisting jumpers who needed help in re-packing. At 2:00 P.M. Jean drove back to her hotel room to get her gear, pack, and hopefully make a jump herself. Unfortunately there was simply not enough time remaining in the day, and Jean never got to jump this year.

As 4:00 P.M. rolled around and the event came to a close, jumpers gathered in Canyon Rim Park for the usual debriefing meeting. Gyrsting's name was not given out at the time, pending notification of his family. Several speeches were made on such topics as sliders, pilot chutes, and reserves. Jean proudly gave the day's statistics: 633 recorded jumps over a mere five-hour period, establishing a new record for Bridge Day, as well as the most BASE jumps in a single day anywhere in the world. The crowd applauded heartily when Greg Gates announced that Phil Smith's

injuries were not as serious as first suspected, and that Phil would recover fully.

Last year, after serious image problems with the local media, Doug Maddy (the organizer of Bridge Day) suggested that one representative be appointed to talk to reporters in the future. His suggestion was overlooked, and relations with the press deteriorated even further this year. Reporters were frustrated that they had no official source for information, that they were constantly being kicked out of the jumper exit area (including one confrontation which almost became physical), and that they had no one to explain to them the details or logistics of BASE jumping (one reporter even thought that exiting "head high" made some reference to taking drugs).

The day's fatality only added ammunition to the media's arsenal, and the next day headlines in the local paper read: "Fatality Mars the Bridge Day Fun." Things quickly went downhill from there: the papers made a convenient twist of facts to claim that three fatalities had actually taken place during the day. Another reporter bluntly stated that a jumper had landed in the river, been washed downstream, and was never seen again.


The local media then telephoned Steve Gyrsting's family for an interview, and painted a grotesquely distorted picture of the family's views towards jumping and their son's death. In an attempt to clear up the entire matter, Jean Boenish volunteered for a face-to-face interview with a local paper. But things turned sour when Boenish's comments were both misquoted and taken out of context, and the local papers continued to publish editorials against BASE jumping for more than a month after Bridge Day.

Jean also reported that there were major financial troubles this year. At Bridge Day

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'86, jumpers paid a \$15 donation each, and Jean's financial accounting for that year shows that she made a profit of nearly \$100. This year the donation amount was raised to \$20 per jumper, yet Jean claims that she had to pay nearly \$3,000 out of her own pocket to meet all the expenses. She also said that jumpers have already begun requesting financial accountings, and although the final summary has not yet been prepared, roughly her expenses included \$1,000 for rescue boats, \$500 for truck transportation, \$550 for the plastic stands and chain barricades, and \$300 for magnetic BASE jumper logos to identify the trucks.

Boenish also noted that her other expenses, such as printing, postage, and telephone calls, had significantly increased, and mentioned that any jumper wishing a detailed financial summary should contact her by mail requesting it (12619 S. Manor Drive, Hawthorne California 90250). Jean promised a copy of the money account for publication in the next issue of BASELINE, and pointed out that part of the financial problem was due to the 50 jumpers who registered on-site Saturday, none of whom were willing to pay their donation. This caused at least \$1,000 of the \$3,000 deficiency, and Jean requested that any jumper who did not pay their donation should send her \$20 immediately.

There was an increase this year in vendors selling Bridge Day tapes, with at least three people videoing throughout the day and subsequently offering 1987 Bridge Day tapes for sale. Unfortunately, competition between camera men for photographing slots often resulted in less than ideal footage, and interest was quickly expressed for some kind of an organized effort in 1988 to produce videos for sale.

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***"Jean did state that this is the last year she will pay money out of her own pocket to support the event, and noted that 'if some people refuse to pay the donation, it's a shame that everyone else will have to make up the difference.'"***

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As for the future of Bridge Day, a lot depends on how much jumpers are willing to do right now. Although the local media has let up to a large extent on their editorials against jumping, the future of Bridge Day is still very much up in the air, and there will no doubt be legislation once again introduced to outlaw BASE jumping during the annual event. Doug Maddy has requested the jumpers' help in the form of sending postcards and letters of support, of

Bridge Day in general and BASE jumping in specific. Our "USBA Update" section contains the address and a sample letter.

With increased interest in video coverage for profit, photographers have been seeking an organized method of filming the jumping; BASELINE is currently collecting information regarding available equipment and experience levels of anyone interested in participating (see "BASELINE Update" for more information).

Jean Boenish reports that she will once again be operating a postal pre-registration scheme, but will be accepting all applications "unless registration starts to get out of hand." Although Jean refused to speculate on a registration fee increase, she did state that this is the last year she will pay money out of her own pocket to support the event, and noted that "if some people refuse to pay the donation, it's a shame that everyone else will have to make up the difference."

On Saturday evening after jumping this year, the partying was much subdued owing to the day's fatality. But the Bridge Day spirit lives strong, for eight years now the largest BASE jumping event and the world's only BASE jumping boogie. Let's keep the tradition going! Be responsible (at least where the New River Gorge Bridge is concerned), jump safely, and I'll see y'all next year.

# The Lord's Prayer

## BASE Jumper Style

By John Winkler

Our Bridge which art in West Virginia,  
New River Gorge be thy name!

Jumping is fun, it will be done, on earth as it is from airplanes.

Give us this day our adrenalin rush,  
And forgive us our trespasses  
As we forgive those who arrest us for trespassing.

And lead us *into* temptation, but deliver us from jail.

For Yours is the Kingdom of Buildings, Antennas, Spans, and Earth  
Forever and ever. Yahoo!



# Book, Video, & Equipment Review

**Bridge Day 1987 Video Cassettes.**  
VHS Only

**BASE Hits Productions, c/o J.T. Williams, 2504 Larkin Road #282, Lexington, Kentucky 40503 \$15 plus \$2 shipping.**

Ever since parachutists in droves began throwing themselves off West Virginia's New River Gorge Bridge, seemingly endless scores of photographers have been putting in their shot at capturing the unique annual event on film. In recent years, as the popularity of the jump fest continues to rise, many of these photographers have directed their efforts towards producing commercial tapes for sale to the jumpers. The success has been tremendous, as people anxiously purchase these videos to re-live the once-a-year event, and hopefully to see their own jumps on film.

So far, at least three producers have been advertising 1987 Bridge Day videos for sale. They vary widely in price, quality, format, length, and features. Among these, and among almost every Bridge Day tape ever produced since 1982, BASE Hits Productions (BHP) is offering a product that is truly unique.

The first thing one notices about the BHP 1987 Bridge Day tape is its length: 97 minutes of back-to-back jumps. The next most prominent feature is the camera

angle: unlike other tapes, in which the cameramen experimented with various locations for filming, the BHP tape is filmed exclusively from the jumpers' exit point. The result of this is up-close clarity, where every jumper is clearly recognizable as they mount the ledge and prepare to jump.

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**"This video could easily sell for three times its price, and it would still be worth the money."**

---

The folks at BHP have dubbed their tape with a 50/50 blend of popular music, meaning that you can hear the tunes amid the background noise of the crowd, the jumpers' screaming, and the crack of canopies opening. The effect turns out very nicely, and the tape has a humorous beginning that is sure to entertain. A staggering 375 jumps were captured on film; this tape is hard-core back-to-back jumping, without any interruptions for interviews or people flying in for a landing. Compared to some 20-minute tapes which sell for upward of \$50, the hour-and-a-half long BHP production sells for a remarkable \$15.

There are, however, some other points

which need to be mentioned. First, the jumps were recorded with a mini-camcorder, not a broadcast-quality 3/4" deck. Although this does not significantly detract from quality, the picture image is nonetheless not as sharp as from other sources. Unless you compare it side-by-side, though, you will never notice the difference; the tape is perfectly acceptable as it comes.

Second, be aware that you are purchasing only the raw footage. What you buy is exactly what came out of the video camera. There are many times, therefore, when a jumper waits around on the ledge for several minutes before finally going. At other places, the camera is just turned on after an apparent hold on jumping, and only a canopy opening is shown. These problems are minor, though, and the "fast-forward scan" button (or just a little patience) will get you through the slow parts nicely.

Third, although 375 jumps on film is a truly impressive figure, and certainly more than any other commercial tape has ever carried before, don't forget that over 633 jumps were made on Bridge Day '87. The moral is that although you have a much better chance of seeing yourself on the BHP tape than on any other Bridge Day tape currently available for sale, your \$15 doesn't *guarantee* you anything.

Finally, this is truly a jumpers' tape, and a whuffo would quickly become bored. BHP features back-to-back jumping with none of the niceties of narration or interviews. This is an ideal video for a jumper, but hardly a Christmas present for Grandma.

However, none of the aforementioned items manage to detract from the value of the BHP 1987 Bridge Day tape, especially considering its price tag. This video could easily sell for three times its price, and it would probably still be worth the money. As the producer told us about pirating: "there is always the temptation to make a copy and give it to your friend; we hope that by keeping the price dirt cheap, we can offer a good product with one less generation of copying." Indeed!

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# USBA Update

## BASE Numbers

Jean Boenish reports that there have been 188 BASE awardees, and 36 Night BASEs; 534 people have earned El Cap numbers to-date. Australian correspondent Nick Feteris reports that there have been 21 BASE awardees "down under," and *all* of them have qualified exclusively within Australia.

## El Cap Meeting Scheduled

Al Warsh wrote in with the following comments: "I just called Roger Rudolph in Yosemite, and he said he'd brought up BASE jumping in a couple of different meetings with a variety of responses. It's basically up to Jack Moorhead, the Superintendent, and his decision will largely rest on Jean's presentation early next month."

Jean Boenish confirmed that she is scheduled to make a formal presentation, in favor of BASE jumping, to the Superintendent, Assistant Superintendent, and Chief Ranger on January 11, 1988.

Warsh, who has been working closely with Boenish in the on-going effort to re-legalize jumping from El Capitan, also said: "Moorehead did give Rick Sylvester permission to jump in the early 70s, and he is giving Jean a hearing, so I'd say they are approaching the proposal with apparent reasonableness.

"On the other hand, Moorehead is in a position of a lot more responsibility and pressure these days, and he may just be having the meeting because his chief law enforcement officer recommended it. I am also aware that he gave permission for one jump, and somehow Rick worked that into three leaps, so he's had experience with jumpers before!

"But all that being said, it really does look more favorable than I thought possible."

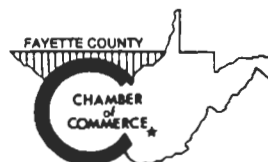
BASELINE will contain a report on the presentation next issue.

## Bridge Day

We recently received a letter (shown at right) from Synthia Blake, Secretary for the Oak Hill Chamber of Commerce.

Synthia joins Doug Maddy (the organizer of Bridge Day) and Jean Boenish in stressing the importance of jumpers writing in support of Bridge Day and Bridge Day jumping. Do *not* date your letters and do

214 MAIN ST.  
OAK HILL, WEST VIRGINIA 25901  
PHONE 304-465-5617



ANSTED  
OAK HILL - MT. HOPE  
FAYETTEVILLE

November 23, 1987

Andy Calistrap  
3202 LaQuinta Drive  
Missouri City, TX 77459-3145

Dear Mr. Calistrap:

I spoke to Cindy Dragen on Friday and she asked me to send you some examples of the news articles regarding Bridge Day 1987.

Cindy also told me that you are a writer for Baseline Magazine. We would appreciate it if you could let the BASE jumpers know that we are probably facing a legislative battle for Bridge Day and the jumping activities. We would appreciate it if any of your readers would write a letter of support for both of these activities and mail them into our office. We need some "ammunition" for the battle.

Thank you for your help. If you have any questions or comments, please call me.

Sincerely,

*Synthia Blake*

Synthia Blake  
Secretary

enclosures

*not* identify yourself as a jumper. Also, please send BASELINE a copy of all correspondence. Letters should be sent directly to the Chamber of Commerce, *not* to any of the local media!

## BASE List

Name	BASE #	Australian BASE #
Keith J. Jones	178	n/a
Ralph Presgrave	181	17
Dave Maher	184	18
Greg Olijnyk	185	19
Tim McCormack	186	20
Paul Rockefeller	187	n/a
Teo Thomas	188	21

# Are You Guys Nuts?!

## A Skydiver Looks at BASE Jumping

By Bill FitzSimons

*"Maybe some of your readers can tell me why they think a BASE jump off a 250-foot building is safe"*

I have always felt that ethnic jokes are crude, tasteless, and without redeeming social value. Nevertheless:

There are these two Pollacks, see, and one of them says to the other: "Let's become skydivers."

"Are you crazy?" says the other Pollack. "You can get killed jumping out of airplanes, and I'm afraid of heights."

"No problem," says the first Pollack. "We'll start at ten feet and gradually work our way up."

Let me say up front that I am a professional parachutist and wingwalker. I have performed in airshows from Maine to Florida, over the past seventeen years, and I have had my share of close calls. I hang off the wing, without a parachute, while the pilot performs aerobatics. People tell me that I'm crazy, but I know that what I do is good, clean fun. I enjoy the danger, the adventure, and the spirit of risk-taking. And, of course, they pay me to do what I do. So, what do I think about this BASE jumping business? I must admit that I know very little, having just subscribed to BASELINE Magazine, and ordered Jean Boenish's booklet. Perhaps it will be helpful for BASE jumpers to see the sport through the skeptical eyes of a skydiver toying with the idea of joining this kamakaze fraternity of low-altitude death cheaters.

Let me begin with a few observations. From the first day I ventured out to the local drop zone, I have been hearing the same old tired sermon: if we only cleaned up our act, sport parachuting would be embraced by the public. Stop drinking beer, trashing motels, and being obnoxious, and skydiving will become as popular as bowling and golf. Little League Skydiving teams will fill the skies of the future, as a delighted public learns how safe and wholesome our sport really is.

Let's face a few facts, folks. Skydivers

are risk-takers, and risk-takers have a tendency to drink, trash motels, and run afoul of the law. I consider myself to be an exception to the rule, and I certainly believe we should all be encouraged to behave. But I have known a lot of skydivers, and to those parachutists preaching restraint, I can only say: "lots of luck!"

Even if we all behaved like saints, the number of participants in the sport is not likely to increase substantially, simply because the number of neurotically adventurous people in any society is limited. The average person has no desire to do any dangerous thing. Most people cannot even begin to understand why

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*"How can any skydiver look up at the Empire State Building and accept the notion that office space is the best use of this beautiful building?"*

---

anyone would want to expose himself to the threat of bodily harm and death. (Stated that bluntly, I have to wonder a little, myself!) Skydiving will always be an esoteric, misunderstood sport, practiced by a limited percentage of the population.

Now, if my theory about the demography of skydivers is correct, then the world population of BASE jumpers at any given time in the future will probably fit in the meeting room of the local Holiday Inn. This does not translate into a lot of political or financial clout. Add to this the fact that by its very nature, the sport requires a blatant disregard for the law (even though no harm to property is usually involved), and you've got an image problem that makes skydiving look like a church picnic. So, if and when I ever become a BASE jumper, I know I will be joining one of the world's smallest and least-understood minorities.

And that part is O.K. I kind of like the idea of being a part of such an unusual group of people. Even now I like to think of myself as one of the few, "the elite, living on the razor's edge of danger, cheating death for the Sunday crowds. Air show spectators always tell me I'm crazy. I just smile and nod in agreement, because I know that everything is relative. What I do is tame compared to the activities of you people, with your truly psychotic need for adventure.

However, I'm reasonably certain that I will make a BASE jump in the near future. How can any skydiver, standing on Fifth Avenue in Manhattan, look up at the Empire State Building and accept the notion that office space is the best use of this beautiful building? I was there on business last March, and I made the pilgrimage to 34th street. My palms got sweaty, and endorphins poured into my blood stream as I threw myself vicariously into the fetid air above New York. I can certainly understand why people make BASE jumps, but fantasy and commitment are two distinctly different things.

Last summer, I accepted the reality that I might actually do something this crazy. My wife and I had taken a rafting trip down the New River in West Virginia. The Bridge came into view as we paddled around a bend, and my eyes were magnetically drawn to that magnificent span, so high overhead in the haze. I just sat there, my mouth hanging open, trying to cope with the awful certainty that I would have to do this thing. Time passed, how much I don't know, but I suddenly realized that my wife had taken note of my rapt expression and did not look exceptionally happy.

"My God, would you look at that," I said, trying to sound like a tourist.

"Oh, Christ, you're gonna jump off that Bridge, aren't you?"

"I'm only thinking about it, Animal Cracker." (I always call my wife "Animal Cracker" when she's on to me).

"You're going to do it, don't deny it."

If you are amazed at the injustice of being accused, tried, found guilty, and punished for something you haven't even done yet, then you probably have never been married. My wife, Lois, is a very patient and understanding woman, but that day she read me like a book. I was in big trouble, because I couldn't use my old stand-by argument ("... and, so you see, Animal Cracker, it's really quite safe.") A BASE jump may be thrilling, exciting, challenging, and lots of other dandy things, but safe isn't one of them; and even if it were, try telling that to your wife while you're drifting under the New River Gorge Bridge in West Virginia! (Actually, I think the line of reasoning I will pursue when the inevitable marital discussion transpires, is that so many people have jumped from the Bridge with so few accidents).

I am at once fascinated and repelled by the notion of BASE jumping. I think the thing that repels me is that it forces me to admit that danger is the key ingredient in my love of jumping. I know, in the depths of my being, that skydiving is dangerous. I also know, in those very same depths, that danger is the spice that makes the sport so exciting for all of us who jump. But I can always avoid the truth, if confronted with too much reality, by insisting, as we all do, that jumping is **really** safe. I mean, hey, we take along a spare 'chute, we open at two grand, and we have all sorts of safety rules. Few people are killed, right, and most of them because they screwed up,

which I would never do. So, we can have our cake and eat it, too. We have the danger, yet we "know" our sport is safe.

Here is where I have a problem with BASE jumping. Sure, El Cap is not too unreasonable, and neither is the Bridge in West Virginia. But try explaining the average BASE jump to your wife. It would probably go something like this:

WIFE: Where are you going, honey?

JUMPER: Me and the guys are just going downtown to jump off the Flatiron Building.

WIFE: At five o'clock in the morning? Why?

JUMPER: Well, the security guard will probably be asleep, and we don't want to get arres ... caught.

WIFE: I'm not getting you out of jail, Fred. Besides, you can't jump off the Flatiron Building. It's only twenty-five stories high.

JUMPER: It's perfectly safe, honey. See, I've got this big pilot chute, I packed with the slider down, and I've even got my tertiary reserve.

WIFE: Tertiary reserve?

JUMPER: Sure. We don't take any chances.

WIFE: Let me get this straight. You're going to jump off a 250-foot building. If your main streamers, you'll cut away and dump your reserve. If that fails, you've got a third parachute. Makes sense. Why not practice some style

while you're at it? Better yet, there's a revolver in the night stand. Why don't you and your friends just go out in the garage and play Russian Roulette? You'll save time and it's probably safer.

You can see the problem. Compared to skydiving, BASE jumping is extremely dangerous, and skydiving is not particularly safe, when you think about it.

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***"Add to this the fact that BASE jumping requires a blatant disregard for the law, and you've got an image problem that makes skydiving look like a church picnic"***

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In my mind, BASE jumps fall into two categories: Reasonable, and Insane. "Reasonable" BASE jumps are those with provide enough altitude for:

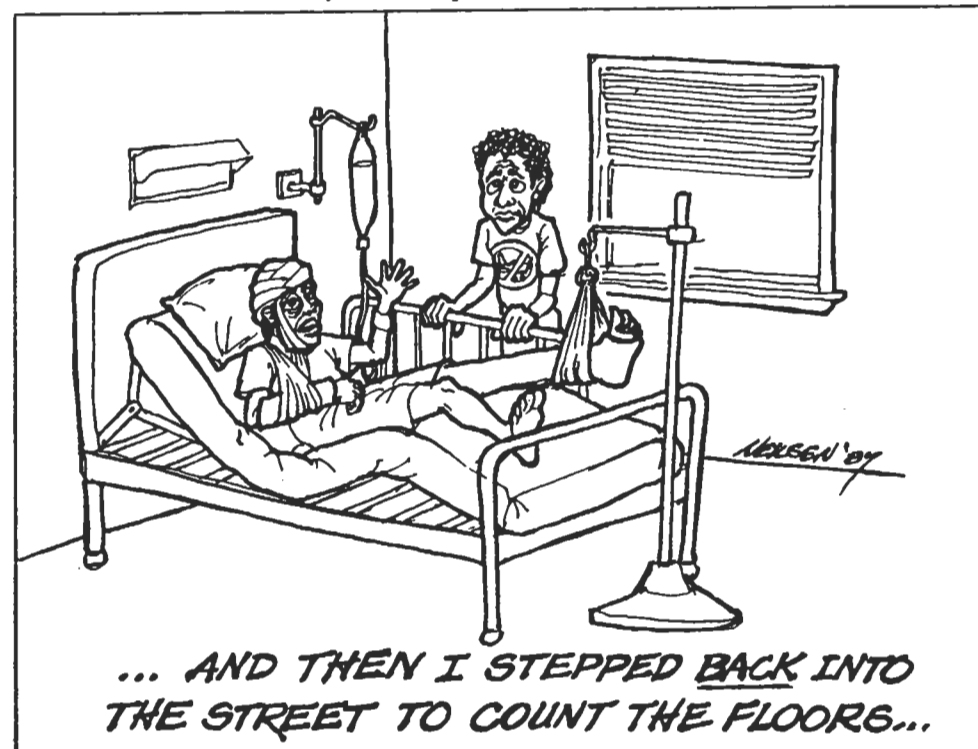
1. Tracking away from the wall, or a span which eliminates the wall, and
2. A shot at the reserve.

The rest are Insane because I have already had six malfunctions, which means if all my jumps had been low (Insane) BASE jumps, I'd be dead six times over. Okay, so maybe I could have packed more carefully, and avoided the malfunctions. That still leaves off-heading openings. I talked to a jumper who attended Bridge Day several years ago, and he told me that he kept count, and one in six openings was off-heading enough to go under the Bridge. That's about the same odds as Russian Roulette.

At this time in my life I simply cannot afford to spend time in the hospital or jail. If I don't work, I don't get paid. Furthermore, if I get myself busted up, I will probably lose my wingwalking job, and finding one of those is next to impossible. So, "Insane" BASE jumps are out of the question.

I really wish that there were more authorized (legal) locations for BASE jumps. I suppose that for many BASE jumpers, the possibility of getting caught adds to the adventure, but I'm one of those people who never has much luck with the law. I always get caught if I take a chance, I never seem to get off with a warning, and I'm sure if I were caught BASE jumping they would decide to make an example of me, and I'd be picking up trash along the highway for two years.

Perhaps I might try the Bridge Day



jump in 1988, although I read in *Skydiving Magazine* that only experienced BASE jumpers are welcome there. I think I could make the New River Bridge jump illegally, and get away with it. I drove out to the middle of the Bridge one day, and took my time looking over the side. Nobody said a word to me. (Of course, I could just go out to the DZ and open at three hundred feet, but I suppose a real BASE jumper would consider that to be cheating. Besides, I could only do it once. The DZ owner would kick my ass all the way out to his property line).

Well, I might consider the El Cap jump. I could arrange for a friend to fly over the mountain and declare an emergency, just before my jump. I could then argue (if caught) that my jump was from the aircraft, because of the emergency, and the fact that it happened over El Cap was just a coincidence. They wouldn't buy it, of course, but isn't one innocent until proven guilty? I know I would be convicted, but I should get time off for creativity.

This brings me to a question that I have, regarding your publication, specifically the article in *BASELINE* #4 on jumping El Cap: surely someone in the National Park Service must have a subscription to *BASELINE*. Any advice you give on eluding the rangers must, ipso facto, also

*"Even now I like to think of myself as one of the few, the elite, living on the razor's edge of danger, cheating death for the Sunday crowds. But I know that everything is relative. What I do is tame compared to the activities of you people, with your truly psychotic need for adventure."*

be advice to them on how to apprehend the BASE jumper. The answer to this Catch-22 is for a BASE jumper to infiltrate the ranks of the rangers, learn the name of the subscriber, and then send him a "customized" copy of the magazine, with inaccurate names and advice, a special article welcoming President Reagan's son into the BASE jumping fraternity, etc.

Actually, I'm a person who normally respects the law, but as a tax-paying citizen, I am a part-owner of that mountain. If people can climb on the damned thing, I don't know why I can't jump off it! Perhaps someone should appeal a conviction right up to the Supreme Court.

Well, this sums up my present notion of BASE jumping. I know I sound like a whining coward. No one should have to talk me into making a BASE jump. I guess part of my problem is that I have broken my leg three times already, so I know how expensive and painful an accident can be. And, I know how stupid I am going to feel, lying there on the pavement with bones poking out every-

where, when someone asks me why in the hell I jumped off the Flatiron building. I never got a whole shit-load of sympathy from the medical profession with my skydiving accidents -- I know what I'll get with a BASE jump disaster.

At any rate, I'm putting a rig together as soon as I get Jean's booklet. Maybe some of your readers can tell me why they think a BASE jump off a 250-foot building is safe (assuming some of them think that it is). Because I have a feeling it's just a matter of time until I'll need the argument.

About the Author: Readers of *Parachutist* will no doubt be familiar with Bill FitzSimons, and his many past humorous articles in that magazine. It is certainly an honor to publish one of his works in *BASELINE*!

Mr. FitzSimons is an active skydiver who wing-walks for a living and climbs mountains as a hobby. Hopefully he will someday add BASE jumping to his repertoire.

## Holy BASE Jumper

*"Maybe Christ is jumping off 120-foot cliffs these days to teach us all to quit being wimps."*

by Rick Reilly

The August 26, 1985 issue of *Sports Illustrated* contained an in-depth nine page article on BASE jumping, complete with 11 full-color photographs. Some thirty pages before the article began, many readers may have missed yet

another BASE photograph: Mike Ruth, an NFL football player, jumping from a 65-foot cliff -- *without* a parachute. The accompanying article, by Rick Reilly, begins thus:

Jesus Christ jumped from 120 feet the other day at St. Peter's quarry. That's what the guy goes by -- Jesus Christ. You'll just be hanging out at the quarry, which is about 30 miles northwest of Philadelphia, and you'll look up and you'll see this guy standing on the top rock, ready to jump -- 120 feet -- straight down. Mike Ruth saw him do it once. Watched him

stare straight out for a heartbeat or two and then step off, as if he'd been standing on a street curb or something.

You think the guy's dead, then, blip, his head pops up through the water and there he goes, swimming away, not saying squat. A few guys -- Ruth is one -- jump from 65 feet, but nobody in his right mind jumps from 120. Of course, no one

accuses this Jesus guy of being a neurosurgeon, either. Everybody laughs at him, but sometimes Ruth gets to wondering. *Jesus Christ*. Who's to say? Maybe the guy is Christ. Maybe Jesus Christ is jumping off 120-foot cliffs these days to teach us all to quit being wimps.



## Once Is Enough

By Andy Calistrat

*"The sayings goes 'live and learn.' It's just sad that some people only learn when others don't live."*

It's a sad, sad day in BASE jumping whenever one of our ranks is injured or killed on a jump. It's outright tragic, however, when a fatality is the senseless, needless result of a jumper using the wrong equipment.

November 16, 1986 was such a day. It was then that 27-year old Jeb Williams, a veteran of four BASE jumps, died when he towed his 36-inch pilot chute to impact. Jeb was not concerned about the "high" price of BASE pilot chutes: he had already bought one. And it was sitting in the trunk of his car.

Jeb's rationale for not using the one piece of equipment that might have saved his life amounts to what could easily be called "famous last words." Jeb's comment about his 36-inch pilot chute was: "It's always worked before." Well on jump number five, it didn't work. And Jeb paid with his life.

It was perhaps the first clear-cut, documented case of a jumper dying as the direct result of using an under-sized pilot chute. And I remember thinking to myself: "At least now people will learn. Someone has died as the result of a too-small pilot chute ... and once is enough."

Some 11 months later, I learned exactly how wrong I was. On the Friday before Bridge Day 1987, as jumpers began pouring in and registering, I noticed a flood of 24- 30- and 36-inch pilot chutes. It seemed that more than ever before, the prevailing attitude was that a pilot chute designed to function at 120 MPH was perfectly acceptable after a mere two or three second delay.

Despite the best efforts of the staff, we managed to convince only a handful of jumpers to beg, buy, or borrow a BASE pilot chute. To everyone else, \$50 was either not worth it, or they couldn't afford it, or they simply didn't have that much with them. To others, a BASE pilot chute

was out of the question because it created too much drag on the back of the parachute. And a third group saw absolutely nothing wrong with their small pilot chutes in the first place, pointing out that they had "always worked before." By Friday evening, I began seriously wondering if there wouldn't be a tragedy before the weekend was over.

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*"Jeb's comment about his 36-inch pilot chute was: 'It's always worked before.' Well on jump number five it didn't work. And Jeb paid with his life."*

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By 2:38 P.M. the next day, I wondered no more. 25-year old Steve Gyrsting was killed instantly when he impacted the New River at nearly 100 MPH. His under-sized pilot chute had never properly inflated. Gyrsting was travelling with a group of experienced BASE jumpers who knew better. Yet Steve had a perfectly good rationale for using his small pilot chute: it had always worked before.

Jumping continued within an hour of Gyrsting's death, but the mood was noticeably somber. And at the debriefing meeting in Canyon Rim Park that evening, I gave an impromptu speech on the merits of a proper-sized pilot chute. When I was finished, the jumpers applauded. Yet I couldn't help but wonder how many of those very same jumpers had used small pilot chutes themselves. And even worse, I wondered how many would continue to do so in the future. And so I found myself once again wondering: "Who's Next?"

Steve's death led to a number of suggestions from the Bridge Day staff. Some felt that we should require those jumpers who insist on using small pilot

chutes to sign a waiver, acknowledging that their gear is dangerous and that they may be killed as a result of it. Still others felt that we should outright disallow anyone from jumping who doesn't use at least a 42-inch pilot chute. But in the overall scheme of things, I can't see any of these suggestions as having much of an effect. As I pointed out in my diatribe to the jumpers on Bridge Day: "The one thing you can't legislate is common sense." Whether it be at the New River Gorge Bridge or any other BASE site, jumpers will continue to get injured and killed when they make poor gear choices based on ignorance, fear, or an advanced prejudice opinion.

When people tell me that a BASE pilot chute is either too expensive or simply not worth it, I always wonder the same thing: if I could somehow go back through time, and show Jeb and Steve a video of themselves bouncing, how much would they pay then for a 52-inch pilot chute? Would it be worth it? Would they somehow come up with the money?

For those who are concerned about a large pilot chute inhibiting their canopy's flight, I wish they would all realize one thing: a small pilot chute results in a slower inflation, and thus a lower opening! The advantage of the lower drag that a small pilot chute creates during the flight of a canopy is completely negated by the lower drag it creates during deployment sequence!

And finally there is the most formidable group: those who feel their small pilot chutes have always worked fine in the past. These are the hardest to argue with, because the fact is that small pilot chutes *do* work. However, this assumes that everything goes perfect: the pilot chute is thrown clear of the body, doesn't get caught in the jumper's burble, doesn't snag the bridle line or anything else. But with a small pilot chute, it would only take one of these



things to go wrong just once ... and as both Jeb Williams and Steve Gyrsting discovered, once is enough.

Of course, I have no delusions that a lot of editorializing or technical explanations will ever convince anyone to use a BASE pilot chute. Just as some dangerous intersections never get traffic lights until the first fatal accident occurs there, likewise some people will never use a proper pilot chute until they have witnessed a friend die because he didn't use one.

And that's where Steve's death is so different from Jeb's. For whereas Jeb's death was witnessed by only a handful of friends, Steve's fatality was seen by hundreds of BASE jumpers, and thousands of spectators. His story was picked up by wire services all over the country. And his final jump was shown repeatedly on cable news services.

It is never good when someone dies. But if there is some way we can profit from one individual's tragic misfortune, I hope it

will be in the form of people sitting up and taking notice: BASE pilot chutes work. And they save lives. Isn't it about time people accept this? I think so. After all, two people have died now. And wasn't once supposed to have been enough...?



Sport or Sport Death? Steve Gyrsting is shown moments before impact on his ill-fated final jump.

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## POINT-COUNTERPOINT

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Butch Rubb says that he wishes someone would explain to him what falling off high objects has even remotely to do with "the fine art of flying your body in free fall." Allow me to answer that: *absolutely nothing*.

Now in return, I have a question for Mr. Rubb: since when has "the fine art of flying your body in free fall" been the limit and extent of skydiving? Let's face it, the first few people to ever throw themselves out of an airplane did it because it was fun, not because they were trying to turn a 6.8-second style series or practice for an upcoming RW meet (back then they didn't know how -- or even believe it was possible -- to fall stable!)

Improvements in equipment and techniques have allowed that which we loosely call "skydiving" to expand into an amazingly diverse set of activities. Jumpers today use their parachutes to glide across the country side on windy days, hook up with other people's parachute in mid-air, break their falls after a hot RW jump, thrill spectators at demo jumps, or see how close they can land to a target -- and, most recently, to jump off fixed objects. Yet the common denominator which bonds all these people together is the parachute which sits on their back when they go into free fall, and above their heads when they come in for a landing.

Who is Butch Rubb, the U.S.P.A., or *anyone* for that matter, to arbitrarily decide what is and isn't a part of skydiving?

Rob May  
League City, Texas

After reading Butch Rubb's letter and having read and heard of similar letters elsewhere, I felt compelled to answer.

People who feel that BASE-type jumps have no place in our sport can't see beyond the ends of their noses. Since when have airplanes been the reason why we skydive? Most of the people I know don't really care what they step out of as long as they can make that next jump without delay.

An airplane is merely an elevator. A platform from which to skydive. A five-second delay is a five-second delay whether you step out of an airplane, or off of a bridge. It's all free fall and neither jump is less of a skydive than the other.

As for making leaps from low altitudes, that's the same choice everyone makes when they make their first jump. Some will feel it's worth it and some won't.

Besides, fixed object jumps are fun and a unique experience that you can't get at your DZ.

So our leaders should stop attacking these kinds of jumps and start spreading knowledge and information about them so everyone can *make their own choice*. In this sport, ignorance promotes death and there is already too much of both.

Peter Hammond  
Los Angeles, California

# Back to "Basics"

In trying to keep with appealing to as broad a cross-section of our readership as possible, BASELINE will feature a "Back to Basics" department with each issue. Although this is geared primarily to the novice BASE jumper, information contained herein might nonetheless

appeal to jumpers of all experience levels.

If there is any special topic you would like to see covered in this section, or if you would like to write something to be included here, please contact us at 3202 La Quinta Drive, Missouri City Texas 77459-3145.

A recent issue of *Skydiving Magazine* contained Robin Heid's article: "How to Select a BASE Site." In this piece, Heid discusses several aspects of BASE jumping, and draws five "General Rules." While some of these rules are correct and worthy of consideration (for example: "if it doesn't feel right, don't do it."), others are simply untrue, and we feel may lead jumpers to draw inaccurate, possibly even dangerous conclusions about their own abilities and the prerequisites necessary to make a safe BASE jump. Because selecting a BASE site is one of the BASE fundamentals, we feel it's important that we use this section to clear up a few points.

Heid begins his article by asserting that good accuracy skills are the single most important aspect of a safe BASE jump, even beyond gear, packing, altitude, and general methodology. He claims that "the dangerous landing at New River is about average for BASE sites," and draws his General Rule #1 as: "Don't BASE jump unless you can hit the pea gravel every time and be within 5 feet of the disk half of the time."

Let's set a few things straight. First, it should be fairly obvious that accuracy skills are not, by far, the "most critical question" in safe BASE jumping. Granted, no matter where you jump from you always have to land, and there are admittedly many BASE sites with fairly hairy landing areas. However, your award-winning accuracy skills aren't going to do you any good if you are dead on the pavement, splatted against the side of a building, or sliced in half by guy wires! The skills necessary for living through the BASE jump itself are vastly more important than those skills which will help you reach an ideal landing spot. After all, if your accuracy skills aren't appropriate for your landing site, you could very likely get hurt. But if your BASE skills aren't

appropriate for your BASE site, you will very likely be killed!

Second, it would be naive to believe that the landing area at the New River Gorge Bridge is standard for BASE sites. The author himself states earlier in his own article that with BASE jumping, "every jump, every drop zone, and every altitude is different." Indeed, some of the simplest and safest BASE jumps feature landing areas much easier than the one at the New River, while other more complicated BASE jumps have landing areas much tighter. Unfortunately, there is no set relationship between the difficulty level of BASE sites and landing sites. Some very complicated and hairy BASE jumps feature landing areas the size of football fields, while other very simple BASE jumps are complicated by landing areas so tight that even a hard-core accuracy jumper would balk!

All of this should show the obvious inapplicability of Heid's General Rule #1. Requisite accuracy skills should be decided based on the features of each landing site, not on some arbitrary rule which reads more like a U.S.P.A. license requirement. So we'd like to change Heid's General Rule #1 to: "Your own past experience as a skydiver should tell you whether you have the necessary accuracy skills to safely make any given BASE jump." And if you don't have the experience as a skydiver to make that determination, then you certainly don't have the ability to safely make the jump!

Heid then goes on with a discussion of time, altitude, and physics, and draws General Rule #2 as: "Do your physics homework and consider height as only one factor in a site decision." Although not incorrect, the argument misses the fundamental point: it is not the height of the object which is critical, but rather that height *minus the minimum altitude necessary to fly to a safe landing spot*. After all, if you can't safely land directly below your exit point, then you must

allow enough time and altitude for your canopy to reach a safe landing spot, taking into account such unexpected factors as adverse winds or time wasted correcting an off-heading opening. General Rule #2 should therefore read: "To calculate your effective working altitude, take the height of the jump object and subtract the minimum opening altitude necessary to fly to a safe landing spot." The effective working altitude is the figure you should then use to plan such factors as your canopy selection, packing technique, reserve procedures, and free fall delay.

Robin next discusses the "slider up-or-down" issue, and states: "Parachutes with their sliders down open with less control -- and precise control is the name of the game!" He also claims that slider-down canopies "surge violently upon opening," and that "they are also more prone to that otherwise very rare steering-line-group-over-the-end-cells malfunction." Robin then draws General Rule #3 as: "Leave the slider up when you start; the extra control is worth the slight altitude penalty."

None of these statements reflect the state-of-the-art BASE jumping technology. BASE jumpers today use proper pack jobs, and deep brake settings, to eliminate the opening surge caused by having the slider down. Modern BASE jumpers use line release modifications to cure the "steering-line-group-over-the-end-cells" malfunction, and proper pack jobs to prevent this problem in the first place! And finally, as any experienced BASE jumper will attest, slider-down canopies do not open with any lack of control. Years of research, beginning with Carl Boenish's extensive camera work in the early 1980s, have led to techniques and pack jobs which make slider-down canopies very refined, reliable parachute systems.

Heid's General Rule #3 regarding slider position is inaccurate simply because it is too general. The altitude penalty for

having the slider up will not necessarily be "slight," but will depend on the parachute, its age, the jumper's weight, and a host of other factors. Furthermore, the altitude penalty will certainly not be "worth the extra control" if the penalty means death! With jumpers around the country turning to lower and lower objects, altitude must be taken into consideration as a limiting factor in deciding slider position; it would be

sensless to attempt to pass of a rule so general that it suggests leaving the slider up for all jumps, without regard to available altitude or the individual parachute's opening characteristics.

Unfortunately, it would be difficult to find a hard-and-fast rule to replace Heid's General Rule #3. Robin was very correct when he stated: "Slider position is a matter of great debate among the low altitude

skydiving crowd." Indeed, entire articles in past issues of BASELINE have been devoted to the subject. Nevertheless, in lieu of leaving General Rule #3 as-is, we offer a very *rough* re-write: "Use General Rule #2 to calculate your effective working altitude. If you would not feel comfortable making a slider-up jump from a slow-

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**"It would be sensless to attempt to pass off a rule so general that is suggests leaving the slider up for all jumps, without regard to available altitude or the indiviudal parachute's opening characteristics."**

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flying Cessna at this altitude, then don't pack slider-up for the BASE jump, either." Also keep in mind that a jump from even the slowest-flying airplane will give you more relative wind than a BASE jump with an equivalent delay, so any decisions based on this rule will be on the liberal side.

Heid's final two rules are "Don't do it alone" and "If it doesn't feel right, don't do it." While both of these are absolutely true, they do little to advance the primary purpose of his article: "How to select a BASE site." To supplement this short-coming, and in keeping with the main goal of this "Back to Basics" section, here are some thoughts on selecting a BASE site:

1. Select a site based on *familiarity*. While there is a great thrill to discovering a new BASE site, and a great honor in being the first person to jump a new object, it is hardly a good way to be logging lots of BASE jumps. Extensive research and planning must be done for each new site, and it is often weeks (or sometimes even months) before enough is known about a new site to make safe jumps there. When you first start out, therefore, stick to familiar objects that have already been jumped.

2. Select a site based on *security*. If a skydiving student has enough trouble falling stable, then he's certainly not ready to begin learning relative work. Similarly, if you are still trying to perfect your exit and openings, then you don't want to be bothered with having to worry about dodging security guards and the police. Examples of low security-risk objects include buildings under construction, many



**JUMP RUN!**

antenna towers, and most objects located in the middle of nowhere. Such sites have the added advantage that they can be jumped during daylight, making the jump another step safer.

3. Select a site based on *available resources*. Most of the phone calls and letters we receive at BASELINE are from people whose problem is not choosing between sites, but rather trying to find an object to jump in the first place! If you absolutely don't have the advantage of a familiar object, then it is time to go scouting. BASE sites can be identified through a variety of resources:

a) Sectional maps (available from almost any airport) show the altitudes and

locations of any object tall enough to be of concern to pilots.

b) Topographical maps (available from the U.S. Geological Survey) might give you clues as to the location of sheer drops in the local terrain.

c) The Council on Tall Buildings and Urban Habitat at Lehigh University in Bethlehem, Pa., lists 5,479 buildings in the world over 10 stories tall.

d) Local newspapers, especially the business sections, will provide the locations and details of tall buildings under construction.

e) If your hometown is plagued with mostly low-level stuff, check with the state department of tourism. Anything in the

state tall enough that it can be jumped will probably also be featured in the tourism department's promotional literature.

The bottom line in selecting a BASE site is to choose an object which matches your level of BASE experience, *not* skydiving experience (the two are vastly different). Begin with a site that gives you significant room for error, then gradually work you way up to more advanced BASE jumps as you become confident in your exit, opening, reaction time, and accuracy abilities. As David Craigmile says: "A 500-foot building is no place to be testing your wings -- unless, of course, you want to become an angel."

## POINT-COUNTERPOINT

### Your Friend and Mine: Joy Burtis

*"If Phil Mayfield and Phil Smith jump from the Statue of Liberty, they should be tarred and feathered and strung up from the torch"*

**I**t seems that Joy Burtis has been receiving her share of publicity lately, apparently feeling that the U.S.P.A. has treated her unfairly. For those who don't know the story, Joy was at one time a Women's National Para-Ski champion, and the U.S.P.A. Board of Directors has recently banned her from participating in

any future international competitions. Well, many readers may not know that Burtis is a long-time friend of BASE jumpers.

In their August 26, 1985 issue, *Sports Illustrated* ran a comprehensive nine-page article on BASE jumping. The piece included eleven full-color pictures, and was

perhaps the best single piece of national publicity our sport ever received. Good ol' Joy was quick to write to *Sports Illustrated* and compliment the authors on a fine job. Here is her letter to the editor, which was published in the magazine shortly after the BASE jumping article appeared:

Sir:

If BASE jumpers Phil Mayfield and Phil Smith make the "ultimate patriotic jump" from the Statue of Liberty torch during centennial ceremonies for the statue next July 4, they should be tarred and feathered and strung up from the torch!

As a national parachuting champion who made a safe and legal jump from El Capitan in 1980, I know my limits. I cringe every time I read about BASE jumpers performing crazy, stupid stunts off buildings, bridges and antennas. These

people give the sport of parachuting a bad name and hurt every parachutist's image. BASE jumpers are not recognized by and are shunned by our governing organization, the U.S. Parachute Association, and by most skydivers. In the future I hope you cover and promote the many aspects of the safe sport of parachute jumping, instead of bandit BASE jumping.

Joy B. Burtis

1985 Women's National Para-Ski Champion  
Seattle, Washington

*What do you think of Joy Burtis and her letter? Send your comments, replies, and opinions to BASELINE Magazine, Point-Counterpoint, 3202 La Quinta Drive, Missouri City, Texas 77459-3145. We'll select the best letters for publication in the next issue.*

# Line Release Toggle Keepers

## *An Update*

The last issue of BASELINE made extensive reference to a new set of toggle keepers for use in conjunction with free-line brake modifications. Since then, we have been inundated with phone calls and letters from people requesting more information about everything from specifics of the toggle keepers, to general information relating to the entire problem. Perhaps a few words are in order regarding the background of line-over malfunctions, and an update on progress currently being made on development of specialized toggle keepers.

Many people don't realize that BASE jumpers did not invent the so called "slider-down" mode of jumping. Actually, when square parachutes were first invented, sliders did not even exist! They were a later invention aimed at saving ram-air parachutes from the ravishes of a 120 M.P.H. opening. As BASE jumping steadily evolved in the early and mid 1980s, and jumpers began turning to lower and lower exits, people realized that the opening speed of a square could be significantly increased by once again removing the slider (in other words, leaving it down). After a mere three- or four-second delay, the opening dynamics are not nearly severe enough to cause danger in terms of blown-up canopies or broken lines.

Unfortunately, leaving the slider down introduced a problem which had been prevalent with rounds for many years: the "mae-west" or so-called "line-over" malfunctions. With a square parachute, the problem is especially dangerous because (1) Ram-airs with their sliders down are far more prone to a line-over than a round, owing to the disproportionate length between the steering lines and the remaining suspension lines, and (2) a line-over on a square parachute results in a violent, uncontrolled spin, which will cause serious injury or even death if the problem is not corrected.

Almost since the first time that any jumper experienced (or witnessed) a line-over on a square parachute, the immediate impression has always been that if the offending steering line could be cut, or somehow released, the malfunction would

be cured. Since the only thing that holds the steering lines attached to the risers is the keeper ring (and the fact that the lines pass through the slider grommet), the next logical step was to route the steering line outside both the slider grommet and the keeper ring. A handful of experienced BASE jumpers made the modification to their rigs, and it wasn't long before the new method had its first "save."

When the inauguration of BASELINE was announced, California jumper Mark Hewitt wrote an article, complete with diagrams, to help jumpers in modifying their own gear. We published that article in the first issue of BASELINE, and it wasn't long before people around the country began jumping with their steering lines routed outside of their riser keeper rings; to-date there have been almost ten cases of

line-over malfunctions being cured using the system.

At the same time, problems with the brake stows were quickly realized. Because the steering lines no longer passed through the riser keeper rings, all of the force of opening was absorbed at the brake line finger trap. Several cases resulted in premature line release or even finger trap breakage, and subsequent off-heading openings. Jumpers were forced to then release the other brake line and fly in with rear risers, trailing both steering lines behind the parachute.

The free-lines also provided a very opportune chance for an entanglement or misrouting. Earlier this year, a jumper inadvertently hooked his lines backwards as the result of using the line-release modification, and was faced with an unsteerable





parachute. He hit a large boulder and received a broken heel.

Still other jumpers, attempting to place some of the opening shock back on the riser keeper rings, began doubling the steering lines back through those rings. This resulted in jammed brake lines, and in one case a jumper subsequently crashed into a large boulder, receiving a shattered knee cap, broken ankle and heel, smashed cheek bone, and serious injuries to his left eye.

As word of these mishaps spread, people soon began seeking a specialized toggle keeper which would eliminate the problems, yet still allow the steering lines to be released in an emergency line-over situation. As early as 1986, the USBA's annual Bridge Day literature warned jumpers to be cautious of using the line-release mod without proper toggle keepers. In the most recent issue of *Jump Magazine*, publisher Nigel Slee warns jumpers that without proper toggle keepers, steering lines may jam on opening, and that a hook-knife would then be the only hope of clearing the line-over. If jumpers need to resort to grabbing a hook-knife and attempting to cut a steering line, then they

may as well not use the modification in the first place; it rapidly became obvious that a set of proper toggle keepers in conjunction with the line-release mod was the most effective solution to clearing line-over malfunctions.

With this realization, jumpers around the country began their efforts at designing toggle keepers which would firmly hold a steering line attached to the riser under normal conditions, yet quickly and positively release the lines in case of a line-over malfunction. J.D. Walker and Mark Hewitt co-designed one system, but later abandoned it as being too complicated. David Craigmile recently mailed us a set of plans for a contraption which he designed, while Pennsylvania jumper Jack Kirk has just finished a series of test jumps on still another toggle keeper he invented.

At Bridge Day this year, east coast rigger Larry Riddle demonstrated a system which could be installed on-site and with a minimum of gear modification, while Phil Smith and Andy Calistrat displayed working versions of toggle keepers which they had independently designed. Jean Boenish recently reported to BASELINE that PEIA

president Manley Butler is also working on the problem.

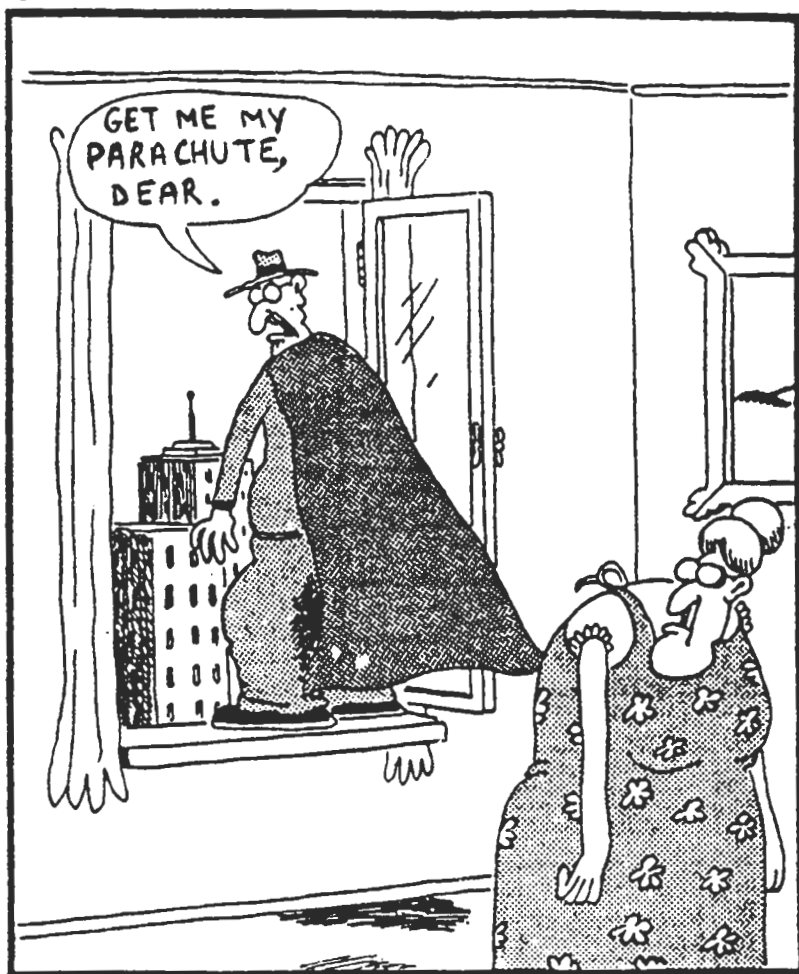
While most of the systems to-date have been fundamentally effective, no system so far has solved all of the problems while retaining maximum effectiveness. After Bridge Day, Larry Riddle, Phil Smith and Andy Calistrat all realized changes which needed to be made to their respective systems. Some jumpers continue to work on independent designs, while still others are in the process of modifying plans which they have already drafted.

In the meantime, the entire issue has created a fair amount of controversy with some California jumpers who maintain that the line-release modification is fine as-is, and that any attempt at adding toggle keepers would be an unneeded "improvement." These jumpers seemed to feel that the suggestion that toggle keepers are needed represents an attack on the line-release idea.

Although the problems with not having toggle keepers cannot be denied, an apology is in order for a phrase used in the conclusion to Troy Fink's accident report (in the last issue of BASELINE). The passage in question read: "Not having Zoo toggles makes using the line-release modification outright dangerous..." BASELINE did not mean to imply that the line-release modification is a bad idea (as the passage might have suggested). Rather, the conclusion to Fink's accident report was merely intended to show that without proper keepers, brake lines might jam when using the line-release mod; and at least in Troy's case, this subsequently resulted in serious injury.

BASELINE will hold off on printing diagrams for any toggle keepers until an ideal system can be found. Like three-ring releases, any system for use in conjunction with free-line brake modifications should be simple, hopefully fool-proof, and most importantly universal among all jumpers. In the meantime, anyone making the brake-line modification to their own gear is cautioned to use Zoo toggles, which are less likely to jam, and which will release more easily under the high loading caused by a line-over malfunction.

If anyone has any ideas for toggle keepers, please contact us!



Superman in his later years.



Reports in this section are compiled from information obtained from jumpers in the field. They are printed here for their educational value, and are divided into three categories: incident reports involve any BASE jumping mishap ending without injury, which others might profit from reading about; accident reports detail BASE jumps which resulted in injury to the jumper; and fatality reports involve any person who was killed as the result of making a BASE jump. Names are generally included with all

reports; however, anonymity will be granted to any subject who specifically requests it.

Please help us insure that the reports in this section are as accurate as possible: if you are involved in, or are witness to, any type of a BASE jumping mishap, contact us with the pertinent details. All it takes is a phone call to (713) 437-0323 or 931-7709, or simply jot down the essential information on a post card and mail it to us.

# Incident Reports

**Name:** Andy Calistrat **Age:** 21  
**BASE Jumps:** 49 **Skydives:** 800+  
**Main:** Strato-Flyer **Reserve:** None  
**Container:** Custom velcro-closed BASE rig.  
**Pilot Chute:** Para-Innovators 52"  
**Packing:** Free packed slider-down with lines stowed on tail diaper.  
**Object:** Antenna (no guy wires)  
**Altitude:** 285' **Delay:** 1.5 seconds  
**Type of Jump:** Night-time, solo exit.

## Description

The jumper went on a weekend trip to make some BASE jumps in another state. Because the intended site was a low object with a water landing, Andy brought only a five-cell Strato Flyer. Although he was no longer current with it, the parachute was known to open reliably, and accuracy and landing skills were not important, as all the jumps were into water.

Later in the evening, however, the group decided to make night jumps from nearby 285-foot antenna. Stuck with only one choice of gear, Calistrat decided to "go for it" anyway. After a 1.5 second stable delay he opened fine, made a quick turn to get into the wind, and flared hard with both toggles.

Because he was not familiar with the canopy, the jumper flared way past the parachute's normal flare point, and this resulted in an immediate stall. Too low to recover, Andy was then dumped heavily on the hard desert floor, and was lucky to receive only a sore back and bruised left elbow.

## Conclusions

Even worse than jumping gear with which he was no longer current, the jumper admits to having made a rash,

spur-of-the-moment decision about his equipment. Although not using the Strato-Flyer would have meant having to forgo the jump (since this was the only gear the jumper had available on-site), it would have been a far wiser decision to sit on the ground rather than attempt a jump with what was, in essence, unfamiliar gear.

This incident also brings to mind the good old rule of 1/4 to 1/2 brakes for landing on night jumps, instead of attempting a flare. This is especially true when visibility is poor, or when the nature of the terrain makes it difficult to accurately judge altitude. It is better to land with high forward speed and slide in on your knees, rather than with high downward speed and crash flat on your back!

**Name:** Withheld **Age:**  
**BASE Jumps:** 20 **Skydives:** 350  
**Main:** Cruislite **Reserve:** Round  
**Container:** Racer  
**Pilot Chute:** 48" hand-held  
**Packing:** Slider-down in bag, line release modification but no toggle keepers.  
**Object:** Antenna **Altitude:** 700'  
**Delay:** 3 seconds  
**Type of Jump:** Twilight (dawn), solo exit.

## Description

The first of two jumpers exited from a T.V. antenna supported by three sets of guy wires. After three seconds of free fall, the jumper threw his hand-held pilot chute and experienced a clean, on-heading opening. He flew away from the tower for several seconds, then turned back towards it in order to land into the wind.

However, the jumper realized that he had more altitude than anticipated, and began a series of shallow S-turns to bleed off altitude. One of these turns took him right into a guy wire approximately 40 feet off the ground. The collision swung him out, and as he struggled to get his feet back under him he hit parallel to the ground, flat on his back, and was knocked unconscious.

The jumper awoke a few minutes later; his head injury resulted in distorted vision for most of the morning and early afternoon, but apparently he suffered no further ill effects.

## Conclusions

Because most antenna towers are supported by guy wires, they present an extra challenge to BASE jumpers. Furthermore, because antennas are "porous" (they allow the wind to blow through them while creating a minimum of turbulence), jumpers must launch from the downwind side of the tower, then fly back towards it for a landing.

If the tower is less than 1,000 feet, canopy time will probably be brief enough that the landing will be within the range of guy wires. Extra care must be taken in this situation to avoid the obstacles. Many people don't realize that a set of guy wires does not converge to one point, but to as many as three or four points on the ground. Jumpers should be aware of the location of all obstacles before jumping any object (especially on night jumps, where visibility may be poor).

Lastly, the threat of guy wires should not be underestimated. Tower support cables usually consist of very heavy and thick steel. A collision with these cables (especially at the high forward speed of a ram-air parachute) can result in ripped lines, shredded canopies, broken bones and even death! The next issue of BASELINE will contain a special article on safety considerations

involved in jumping from antenna towers.

**Name:** Scott Tuttle      **Age:** 30  
**BASE Jumps:** 5      **Skydives:** 450  
**Main:** Light-weight Cloud  
**Reserve:** Preserve III  
**Container:** Racer  
**Pilot Chute:** 36" with 6-foot bridle  
**Packing:** Slider-down in bag  
**Object:** Bridge      **Altitude:** 876'  
**Delay:** 3 seconds  
**Type of Jump:** Day-time, solo exit.

#### Description

The jumper performed a stable exit and three second free fall, then pitched out his under-sized pilot chute. Compounded by the problems of a short bridle (which keeps the pilot chute trapped in the burble) and tight closing loop, the 36" pilot chute began to tow behind the jumper.

Scott tried helplessly to clear the problem, and after more than seven seconds in free fall pulled his reserve. The Preserve III round reserve deployed less than 50 feet above the water. Tuttle splashed down unhurt, and was rescued by a waiting pick-up boat.

#### Conclusions

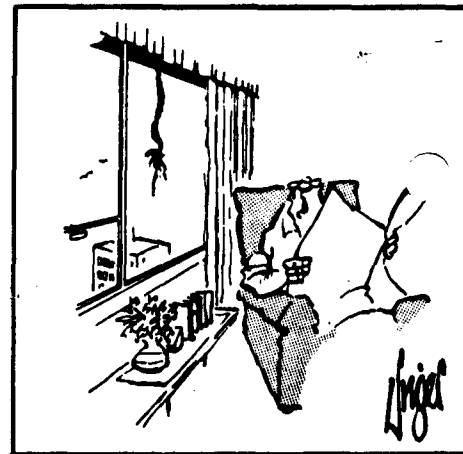
This incident carries an eerie likeness to Steve Gyrsting's fatality at the same site; mere feet distinguished the difference between high-speed impact and a survivable landing. This has caused many people to speculate that had Gyrsting been jumping a round reserve (generally recommended for most BASE jumps), he might still be alive. It is certainly true in both Tuttle's and Gyrsting's cases that a lack of time and altitude awareness was displayed: an attempt at the reserve should have been made much sooner than it was.

However, the *origin* of the problems in both cases was in the under-size pilot chute; the short bridle, tight container, and lack of time awareness were simply compounding factors. Small pilot chutes have already been contributory to at least three recorded fatalities on BASE jumps: two high-speed impacts and one drowning. Furthermore, the rescue boats used at Bridge Day every year have no doubt saved many jumpers who would have otherwise drowned. Most of these jumpers used a small pilot chute only because they wanted less drag on the back of their parachutes, to insure that they reached a dry landing area. It's ironic that these people then tow their small pilot chutes for several seconds,

experience low openings, and are subsequently unable to make the sand bar.

A proper BASE pilot chute is generally considered to be at *least* 42" (but preferably 48" or 52"). A 42" pilot chute will seldom make a noticeable difference in the flight of most canopies, while a 48" or 52" drogue will produce only slight reduction in forward speed.

In BASE jumping, as in skydiving, it usually takes more than one thing to go wrong before an accident or fatality results. If you use an under-size pilot chute, you have already taken the first step!



"What was that window cleaner shouting about?"

## ***Accident Reports***

**Name:** Phil Smith      **Age:** 36  
**BASE Jumps:** 247      **Skydives:** 2000+  
**Main:** Cruislite XL  
**Reserve:** Chest-mounted tertiary.  
**Container:** Velcro-closed BASE rig.  
**Pilot Chute:** 42"      **Delay:** 4 seconds  
**Object:** Bridge      **Altitude:** 876'  
**Type of Jump:** Day-time, dual exit (no contact) with helmet-mounted cameras.  
**Extent of Injuries:** Broken right knee-cap, broken left foot.

#### Description

The jumper exited face-to-face with his partner, parallel to the Bridge. The other jumper dumped first, and after at *least* a four-second delay, Phil threw his pilot chute and experienced a snivelling canopy upon deployment. The opening

was further restricted by severe line twists, and Phil spent several seconds trying to clear his parachute.

When the canopy did finally inflate, Phil was below 50 feet A.G.L. Not having enough time to set up for a safe landing, he crashed heavily into a large rock at the river's edge. He was dazed, fell back into the icy current, and was swiftly rescued by the standby boat crews.

#### Conclusions

The jumper admits to having used a relatively new canopy, on which he did not have a lot of skydives or BASE jumps, in a slider-up jump from low altitude. Although a well-executed two-way requires one jumper to take a

long delay to insure vertical separation on opening, Phil admits that he should have either used a canopy with which he was more familiar, or had both jumpers take a shorter delay so that he could have safely packed with the slider down.

Once confronted with the problem, however, the jumper in this incident is guilty of not following his own advice: he failed to use the technology available to him. The chest-mounted tertiary reserve which Smith wore, had it been used, would have afforded him at *least* as soft of a landing as the one he had, and probably would have plunked him down unharmed into the river. As it was, Phil was lucky to receive a fully inflated canopy before impact, and by his own admission: "my decision to try and kick out the line twists instead of deploy the tersh could easily have cost me my life."

This accident also clearly demonstrates the need for appropriate ground crew support, including a boat if

the jump is over water. Had the pick-up boats not been standing by, Phil would have probably drowned in the river, as he was dazed and unaware of what was going on after impact. Two jumpers have already drowned in the New River after making unplanned water landings in emergency situations.

**Name:** John Hoover      **Age:**  
**BASE Jumps:** 22      **Skydives:** 190  
**Main:** Strato Cloud  
**Reserve:** National 23'  
**Container:** Wonderhog  
**Pilot Chute:** 52"  
**Packing:** Slider-down in bag  
**Object:** Building      **Altitude:** 500'  
**Delay:** 1 second  
**Type of Jump:** Day-time, solo exit.  
**Extent of Injuries:** Lacerated chin requiring 15 stitches, severely cut and bruised right leg.

#### **Description**

The jumper made a stable exit and took a one second delay, then pitched out his hand-held 52" pilot chute. He experienced a 180-degree off heading opening, which left him about 20 feet off the wall and facing directly towards it. Hoover immediately buried his right rear riser, and the canopy responsively dove to the right, but in the process swung the jumper directly into the building.

John shattered a large plate glass window as his body was hurled through it, and he then ended up laying flat on his back in one of the floors, with the lines running through the window and

the canopy draped outside of the building. His Strato Cloud collapsed and then re-inflated, extracting Hoover back through the window, and bringing with him broken glass and large pieces of the window's aluminum frame. The jumper tumbled from the building as his canopy backslid away with several sets of line twists.

Still conscious, John deployed his reserve at around 200 feet A.G.L., but there was insufficient airspeed for the reserve pilot chute to extract the canopy. Hoover landed under the stalled main canopy with line twists on the roof of an adjacent two-story building. He was very lucky to receive nothing more than cuts and bruises.

#### **Conclusions**

The jumper made the following conclusions regarding his accident:

1. *Too short of a delay.* A good launch away from an object can provide a horizontal velocity of as much as 15 feet per second. After a one second delay, this places the jumper 15 feet from the object; after two seconds, 30 feet; and after three seconds, the jumper will be almost 45 feet from the object he jumped. Although lower objects require shorter delays, remember that BASE jumps begin with zero downward speed: after a two-second delay, a jumper has only fallen 48 feet. Because the building in this case was 500 feet high, a delay of two or even three seconds could have been performed; although this would be a trade-off on opening altitude, it would have provided the jumper up to three times the horizontal

separation from the object upon deployment.

2. *Improper heading correction technique.* It has been long known by BASE jumpers that attempting a radical turn of a parachute by means of a rear riser will cause the canopy to swing forward in the process. In case of an off-heading opening, especially when there is very little distance to the object, this may well result in a collision. The proper technique for correcting 180-degree openings is to *haul in on both rear risers*, thus stalling the parachute. This will cause a back-slide, which will rapidly provide horizontal clearance from the object. The jumper can then let go of one of the risers, which will turn the parachute in the opposite direction, away from the object and at a safe distance from it. The brakes can then be released and the canopy flown like normal to a landing spot.

It is also worthy to mention that proper BASE packing techniques involve folding the nose "in" on itself for slider-down jumps (thus avoiding sudden opening surges), and using deep brake settings to reduce the canopy's initial forward speed. Both of these will provide more time to correct off-heading openings.

Finally, to his credit, Hoover did not cut away his main immediately upon going through the window. Had he done this, the jumper may have well pulled the release handle as he was being drug back outside, and been thrown into free fall with insufficient time to deploy a reserve. Anyone who has experienced an object strike and is subsequently stuck in (or on) the object should *not* cutaway until they have secured their position.

## **Fatality Reports**

**Name:** Steven Gyrsting      **Age:** 25  
**BASE Jumps:** 3      **Skydives:** 250  
**Main:** Raven III with Bikini Slider  
**Reserve:** Raven III with standard slider.  
**Container:** Mirage  
**Pilot Chute:** 36-inch with 8-foot bridle.  
**Packing:** Slider-up in bag.  
**Object:** Bridge      **Altitude:** 876'  
**Delay:** 3 seconds  
**Type of Jump:** Day-time, solo exit.  
**Cause of Death:** Impact

#### **Description**

The jumper performed a stable exit and took a relaxed three-second delay. He then pitched out his hand-held 36" pilot chute, which was immediately sucked into the burble over his back. For the next five seconds, Steve tried helplessly to clear his towed pilot chute by twisting around (attempting to break the burble) and elbowing his container.

Nothing worked, and after eight

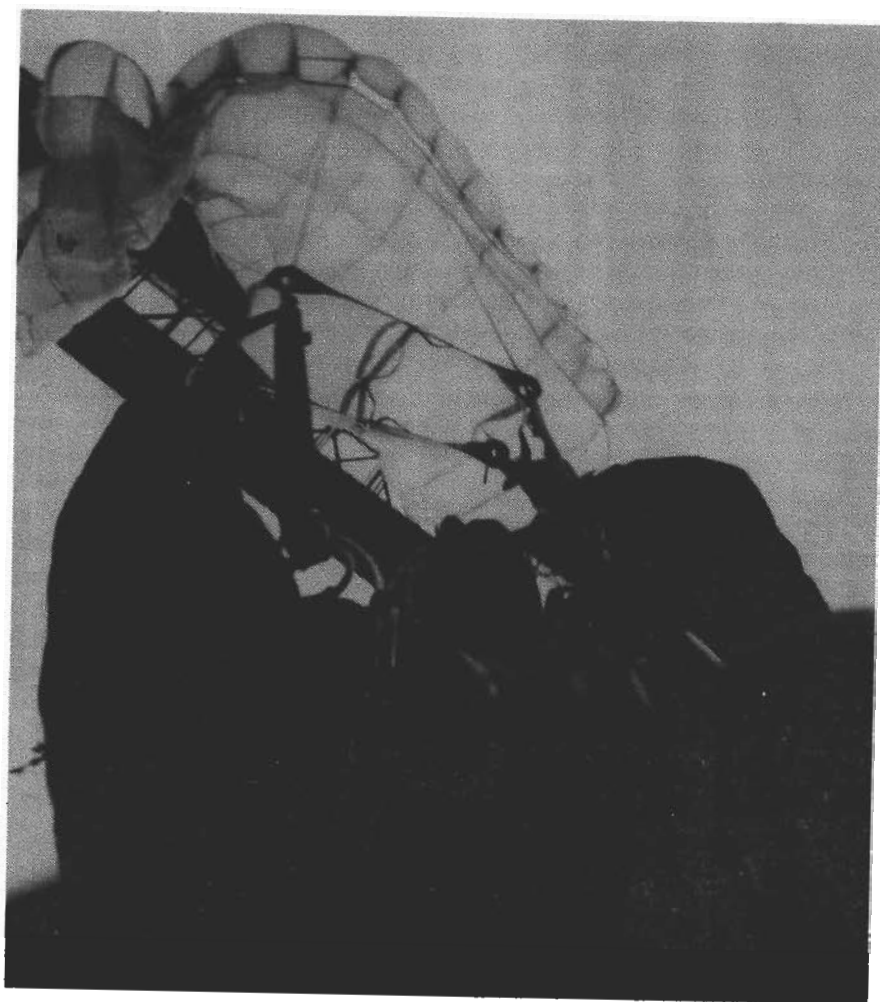
seconds of falling, Steve reached in and pulled his reserve. The spring-loaded pilot chute came out, pulled the Raven III square reserve to line stretch, and managed to extract the free-bag. Somewhere in the process, the main container also came open, and pictures taken from the ground reveal that the bagged main may have become entangled in the reserve lines, although exactly to what extent is not known.

The momentary deceleration swung Steve's feet out in front of him, and he impacted in a sitting down/back to earth position at nearly 100 M.P.H. He was killed instantly and pronounced dead at the scene.

## Conclusions

An initial analysis indicated that the pilot chute may have somehow become fouled upon deployment, precluding it from creating sufficient drag to open the container and extract the bagged main canopy. However, extensive study of videotapes of the accident, including an enlargement of the film in a photographic laboratory, has proved inconclusive at best.

There is simply no substantial evidence to suggest that the short plastic knob atop the pilot chute contributed in any way to this fatality.



Bryan Scott's chest-mounted camera caught this shot of the line-over malfunction he experienced on a recent BASE jump. Although only one cell is pinched off, the resulting spin was severe enough that Bryan sustained compound fractures of his right heel, a shattered left ankle and a shattered femur. Had the jumper used either a free-line modification or a tertiary reserve, he probably would have survived the landing without injury. State-of-the-art BASE jumping has advanced to the point where the technology is available to deal with almost any problem or malfunction a jumper may experience; ignoring proper equipment and techniques can result in serious injury or even death. (For more information on line-overs and free-line brake mods, see the article *Line Release Toggle Keepers* in this issue).

## BASE Equipment *For security & peace of mind...*

	Price	P&H
<b><u>Pilot Chutes</u></b>		
Para-Innovators 42"	40.00	2.00
Para-Innovators 52"	52.00	2.00
Arizona Parachute Enterprises 48"	50.00	2.00
<b><u>Tertiary Reserves</u></b>		
20-foot, 20 gore tersh	295.00	8.00

Send check or money order to:

Phil Smith  
1014 Shady Trail Lane  
Houston, Texas 77038-1833

Gyrsting's fatality also lead to an en... series of "what-ifs." To set the record straight:

1. Pictures taken from the bottom indeed reveal that as little as 50 feet may have made the difference between life and death. Had Steve pulled his reserve just a fraction of a second earlier, he would have probably survived the landing.

2. Had the Raven reserve been equipped with a spider-slider similar to the type Steve was using for his main, the canopy may have sufficiently deployed to produce a survivable landing. A faster-opening reserve, such as a Swift (or a fast-opening round, such as a Preserve III), may have also made this accident non-fatal.

3. While some people have blamed a tight container for the towed pilot chute, this factor was only marginally contributory. Steve had made two jumps earlier the same day and experienced no problems with his tight container. On his last jump, his small pilot chute simply got caught squarely in the burble. Furthermore, even if the closing loop had been longer (providing for a looser container), the pilot chute would still have had to lift the combined weight of the main canopy, bag, and all the suspension lines.

In the final analysis, it seems that Steve combined the problems of inappropriate equipment with a lack of altitude awareness once confronted with a pilot chute in tow. All of these problems, however, would have been alleviated had Steve used one fundamental piece of equipment: a proper BASE pilot chute -- enough said!

# BIXBY CREEK BRIDGE

by John Hoover

**M**y apologies for not having written anything for BASELINE yet. If you'll forgive me, I'll tell you a story of a little bridge near Carmel-by-the-Sea in Northern California, where three friends and I made the first BASE load ever from the 55 year old Bixby Creek Bridge. This 260-foot concrete arch span overlooks an untouched beach of exceptional beauty.

The first jump was made by Alan Hetherington with a hand-held direct-bagged parachute, which opened within 30 feet and went on heading! Alan barely cleared the landing area, which consisted of a 20-foot diameter patch of sand surrounded by brush and rock. The patch was bordered on one side by a steep hillside, and sat next to a small, shallow (one foot deep) stream.

I was the next to exit, free falling with a 52-inch pilot chute and a slider-down Swift packed in a velcro-closed BASE rig. I had made free falls from as low as 150 feet with the same rig, but always over water; over land it would be a new low. I held the pilot chute by its base and mounted the knee-high, six inch wide rail. A gentle

breeze inflated the pilot chute nicely and I balanced myself against its pull. As I exited I let go of the drogue immediately and looked down at the creek. The ground

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*"We'll drop surf boards and beer onto the beach via a 24-foot round, and then jump and surf and party all day in the warm California sun!"*

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rush was incredible! The sides of the gorge were right there -- steep and covered with brush and rocks. I reached for my risers and BAM! I was open straight away less than three seconds from exit. I unstowed my brakes and aimed for the landing area, which I could soon see I was not going to make. I steered for the water and made a hard stand-up.

George Roso followed with another free fall, using a BASE rig and a slider-down Pegasus. His canopy opened on-heading, allowing him to make the landing area.

Later Alan and I free fell again, and the day was a lot of fun and a total success.

Upon arriving the next day it was Karin Liebrand's turn. She made her eighth BASE jump, and used a Pegasus main packed in a hand-held direct bag. Upon opening she had trouble unstowing a brake, and fell short of the landing area. She struck some small brush and received a goodly bruise on her shin. Nevertheless, we continued to jump through the day, experiencing everything from straight openings with soft landings in the sand, to 180 degree off-heading openings resulting in hairy landings in the trees.

The minor injuries we sustained were well worth the kick of it all. We made eight jumps during those two days, and had such an incredibly good time that we intend to return for a "Boogie on the Bridge!" We'll drop surf boards and beer onto the beach via a 24-foot round and then jump and surf and party all day in the warm California Sun!

## AT PRESSTIME

### Twin Line-Overs

California jumpers Alan Hetherington and George Roso defied seemingly astronomical odds recently during a jump from California's Auburn Bridge. The pair, making side-by-side exits from the 750-foot span, had simultaneous line-over malfunctions on their ram-air parachutes.

Fortunately, both jumpers had routed their steering lines outside of the keeper rings, and were able to clear their malfunctions quickly and land without injury. The brake line release method employed by the pair has been successfully used in as many as ten separate incidents since its introduction several years ago, but has also been

responsible for several mishaps -- at least two of which resulted in serious injury.

A special toggle keeper for use in conjunction with the free-line modification is currently being independently developed by several jumpers throughout the country. The keepers should solve all of the problems associated with free-line mods, while retaining its effectiveness in clearing line-over malfunctions.

### Grand Canyon Jumps

Late last November, five BASE jumpers had the support of two helicopters and an extensive camera crew when they made the first-known jumps from a 1400-foot



cliff near the Grand Canyon. J.D. Walker, Rich Stein, Mark Tharp, Lane Kent, and Kenn Noble made two jumps apiece, taking between four- and eight-second delays, and landing safely on an unobstructed sand bar.

According to Walker, who spent over a year scouting the site and researching and planning the jump, the helicopters were used to ferry the jumpers, camera crew, and equipment to the top of the sandstone butte. From there, the group rappelled 30 feet to a small ledge which afforded a 1200-foot sheer drop, followed by a 200-foot rocky talus.

"We never asked permission for the jump," says J.D., "nor did we need it. The site was at a remote location, and no one bothered or even saw us." The film of the cliff jumps will appear soon on Arizona television as part of a BASE jumping documentary.

### **KTUL Tower Topples**

The world-famous Tulsa Oklahoma television tower KTUL (Channel 8) **fell down during a blizzard** December 26. Apparently, ice accumulation high on the antenna, coupled with hurricane-force winds brought down the 1909 foot mast. According to the Wagoner County Sheriff's dispatcher, "There's nothing left now but twisted steel."

KTUL has been a long-time favorite of skydivers, especially the occasional or one-time BASE jumper visiting the Nationals in nearby Muskogee. A man jumped it as early as 1970, although he used the "pull-off" method (whereby the jumper inflates his round parachute and it pulls him off the tower when the wind catches it). KTUL was first BASE jumped in 1980 by Phil Mayfield, and later by people from all over the world. *Sports Illustrated* published an article entitled "Who Needs an Airplane?" in its August 26, 1985 issue, focusing on jumps from KTUL by several Texas and Iowa jumpers.

BASELINE will have information in the next issue on KTUL's reconstruction.

### **BASELINE in the Gutter**

Just before BASELINE went to press this issue -- it almost didn't! Phil Smith, upon returning to his truck in downtown Houston one night, had the shock of his life when he discovered that someone had broken into his vehicle. Among the many things stolen was a BASELINE briefcase, containing irreplaceable items such as photographs, contributed manuscripts, computer diskettes -- and the **entire Christmas Issue, ready to be taken to the presses!**

Smith immediately called the police, but a search of the area turned up nothing. In desperation, Phil "returned to the scene of the crime" two days later to comb the area in daylight. A nearby abandoned building looked like a good prospect, but it's broken windows and darkened rooms gave it such a sinister appearance that Phil asked a Harris County Sheriff's Deputy to accompany him. The burly street-wise cop, anxious for an adventure, readily agreed.

As the pair approached the front door to the building, the cop grabbed a flashlight in his left hand and a gun in his right. He then kicked down the plywood door and charged in yelling: "Everybody up against the wall!" The filthy room was strewn with trash, and the stench of urine hung heavily in the air. Several winos, squinting at the bright light from the Sheriff's flashlight, rose groggily from dirty mattresses.

While the cop held the vagrants at gunpoint, Smith searched amidst piles of debris, clothes, and stolen booty -- in some places two feet deep! Finally, buried in the far corner of the room but apparently intact, there was the BASELINE briefcase! A quick inspection revealed that nothing was missing: winos have no appreciation for the fine art of BASE jumping.

Phil thanked the cop and left straight for the printer, thinking along the way how ironic it had been that a cop had once again pulled a gun in his presence, yet for once it was aimed away from him.

### **Next Issue**

We hope readers will appreciate our new look (and forgive the subsequent delay it caused in getting out this issue!) The next BASELINE should arrive around the first of April, and will contain J.D. Walker's article on spoiling BASE sites, Phil Smith's article on jumping antenna towers, Ron Broyles' article on his jump from the Golden Gate Bridge, and much, much more. *To insure delivery of your next issue, please fill out and return the questionnaire enclosed with this BASELINE.* Thanks!