



Jump

October 1987

Jumping Off

Static-Line

Incident Summary

BASE Seminar

The Early Days

Bridge Day

Side by Side

Barbican Revisited

SPORT OR RUSSIAN ROULETTE?

(- IT'S YOUR DECISION!)

After the Cheddar Gorge fatality (where a skydiver died attempting a static-lined BASE jump) the drop zone operator from the jumpers club was quoted in the press as saying BASE was a form of Russian Roulette. Somewhat suprisingly I think he was right in the light of that particular fatality and another static-line incident last year.

Let me explain why. Firstly we have to accept that BASE jumping is not going to go away regardless of what the BPA or anyone else for that matter wishes or does. Secondly, the BPAs present position against BASE makes it hard for skydivers to get reliable information or help to enable them to BASE safely.

So hard that in the last 12 months we have had one close call and a fatality directly attributable to lack of information on how to BASE safely. Both incidents had the following in common: No experienced BASE jumper was present and the use of old fashioned and dangerous break-tie static-line techniques.

BASE jumping is now six years old in the UK. It is tragic that the same mistakes are being made as in the early days when we were learning by trial and error. If you want to play Russian Roulette then please don't do it with your parachute. If you really feel you must make a BASE jump make sure you are going to be doing it in the right way. Get experienced help, it isn't easy to find help but it is around. Use the right equipment, choose the right time and place and be careful. In this issue of *Jump* you will find a list of sources for help.

If you feel you need to static-line you should consider either 'Bagging' - deploying the canopy from a static-line attached or hand held bag or 'Buddying'.

Nigel Slee
Jump magazine
London 1987

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

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Cover: Canadian Joe Stanley steps
'out' while the media film the event.
(NRGB '86)

READER ASSUMES ALL RISKS!

The views expressed within this magazine are not necessarily agreed with or held by the editor or the British Base Association. The BBA does not encourage or advocate that anyone should make a BASE jump. Neither of the

above mentioned parties, knowingly condone or endorse any "foolhardiness" or disrespect of any British law. The BBA was formed in October 1983 as there was no established or recognised body to represent British BASE jumpers.

Jumping Off!

DENNIS THE MENACE!

A jumper simply identified as 'Den Dare', by the *Liverpool Echo*, jumped from a 275' tower in down town Liverpool (home town of the Beatles).

BANZI BASE

Early morning strollers in Tokyo called the Police after they thought they were witnessing a Japanese leftist attack as professional BASE jumper Mike McCarthy static-lined himself from the roof of a 144-meter-tall hotel in Tokyo (according to local paper.) McCarthy was arrested, questioned and then released on his promise of 'good behaviour' while in Japan.

OFF THE WALL

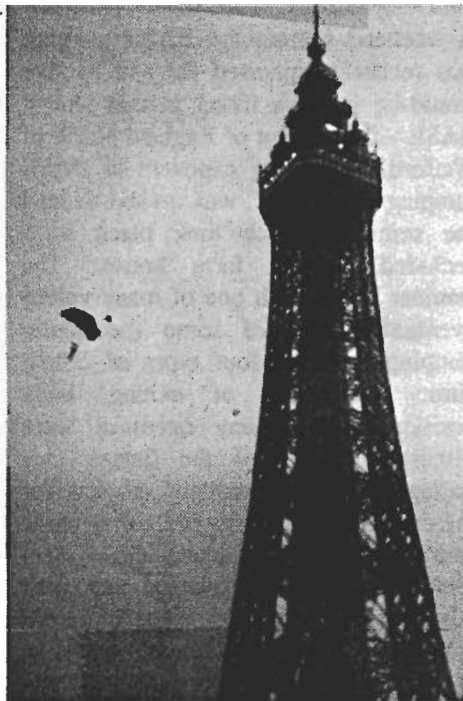
BASE was featured positively in a front page feature last summer in the European version of *The Wall Street Journal*. It was an objective and well researched article including quotes from many of the sports leading personalities. Doug Maddy president of the Fayette County Chamber of Commerce provided the apt final quote. "You'd think you'd have to be stark raving mad (to BASE), but it's just another sport, like sailing, to those folk".

"9th FLOOR & GOING DOWN"

No that's not the call from a lift bell boy but state of the art California BASE. Early in September a group of L.A. devotees were filmed by Jean Boenish using state of the art Square canopy bagging techniques with high speed film cameras for evaluation. The first jumper left from the 12th floor, the next the 11th, then the 10th leaving LALO pioneer Alan Heatherington to depart from the 9th. Jean was impressed, the film remarkable. "They all had primary inflation in 30 feet" she commented. Last year Alan free fell from a similar height over water with small round canopy. A few years ago BASE 60 made a jump from a similar height (90') off a bridge in Bristol.

CANARY BRIDGE JUMP

Two European jumpers static lined from the 100 meter Silber (Silver) bridge at Los Pamos in the Canary Islands.



STILL AT LARGE

A Blackpool newspaper carried a story of how the owners of the 512 foot Blackpool tower (Eiffel tower look-alike) had offered a cash reward for information leading to the two individuals they claimed had jumped from the 450' level tourist platform.

AUSSI BASE

Nick Feteris reports that 14 Australians have now qualified for Australian BASE. Thanks to the discovery of a 600' cliff near Sydney. Nick also reported he had a 275' crane demo jump into a football stadium lined up. One week before the demo - insurance and waivers all arranged, the company hiring the crane was taken over by another company and the crane operators went on strike.

EARLY RETIREMENT?

Nigel Slee made his 75th BASE jump and broke his leg hitting the wall after an off-heading opening on a 300' cliff jump. "It was my third jump of the day and I packed to quickly - I was being greedy and became too over-confident. A little more throw forward would have helped.

Nine months later he has found two alternative sources of challenge and excitement: Getting Jump magazine finished and cycling in London.



BRIDGE JUMP VIDEO

This professional 23 minute documentary contains the most unique, exciting, and scarier jumps of the 1983 New River Gorge Bridge Day. Utilising Carl Boenish's footage with folk music and interviews, this video gives the best comprehensive coverage of this unusual event. Send check or money order for \$55 to:

Chris Poulouin,
231 Mercury Road,
Newark,
DE 19711
Specify VHS or BETA

NEW TO BASE?

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Houston, Texas 77038-1833
(713) 931-7709
(713) 437-0323

Quarterly periodical
\$9/year domestic
\$15/year foreign

THE UNITED STATES BASE ASSOCIATION

12619, South Manor Drive
Hawthorne, Ca 90250 USA
(213) 678-0163

BASEics by BASE 3 — a guide for skydivers interested in BASE.
\$3 + \$1 overseas

BASEic Sport Parachuting: "We'll Jump Off That Bridge When We Come To It."

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BRITISH BASE SEMINAR

A weekend seminar on BASE jumping was recently organised for and by five would-be jumpers living in that almost BASE - free region of England North of Watford. A leading exponent of BASE jumping in the U.K. was invited to lead the seminar, which took place in a secluded country farm house. The seminar began with one of many videos eventually seen, of some spectacular jumping from all four types of BASE sites. Techniques of exiting, body positions and canopy openings were discussed. Some of the Bridge Day footage provided excellent subjects for the critique. The merits of freefall, static lined and buddy assisted deployment method were then reviewed and their advantages on different types of jumps explained. Several different types of BASE pilotchute were examined and discussed.

The course then moved outside, where the launch and basic stable position was demonstrated and practised. A convenient low wall provided an excellent launch platform. This practical session included the correct folding of a BASE pilotchute and routing of the extended bridle so that it could be deployed without snagging, entanglement or catching in the jumper's burble.

Back inside, the history of British BASE jumping was reviewed and various lessons learned along this route were highlighted, including some state-of-the-art BASE freefall shots from Beer Head (300') and Cheddar Gorge (350'). A purpose-built velcro-closed BASE rig was admired and tried on by everyone present. This rig was to be used in the first free fall jumps from Clifton Suspension Bridge (250') several days later.

The seminar covered the theory of slider-down packing and the development of the refined 'trash pack', now used by most British BASE jumpers to ensure on-heading openings. Extended closure loops were made up and each jumper's canopy was then packed ready for a BASE jump. The following day a

hot air balloon had been organised to practice still air exiting for real and to try out the BASE pack jobs with the safety of altitude. The balloon and all the jumpers were all ready but the weather was not. Conditions did not improve throughout the day.

After watching the remainder of the BASE videos and the scudding clouds in the sky alternately, another strategy was planned to try out the BASE pack jobs. A drop test would be attempted from a nearby 70' building. The owner of the building was approached and after it had been explained what was to be attempted, he readily unlocked the building and gave access to the roof. A rucksack full of rocks was hauled up the stairs to the top and strapped to one of the rigs. A rock drop test of just over 2 seconds confirmed the 70' estimate of the height. Deploying the canopy using the buddy assist method we were amazed to see it open less than halfway down and fly onheading for about 20' before landing. The landing looked hard, the suspended weight still swinging forward, and would have hurt had it been for real. However the test gave us great confidence in the speed and precision of a properly packed canopy, a 52" pilot chute and the buddy deployment method.

Since this seminar weekend all the novices have made their first BASE jump safe, skillfully and with confidence. A 1000' mast has been jumped and a new 100' bridge site has been discovered and successfully jumped. Several other new BASE sites have been explored and climbed, but have subsequently rejected because either the site or the conditions were unsuitable. From a seminar such as this comes the knowledge that enables a BASE jump to be made without foolhardiness or incident. We are now planning that this sort of event be held again to promote the sport of BASE jumping. Jump safely.

The author is a keen skydiver and wishes to remain anonymous.

BRIDGE DAY '86



These are the people your mother warned you about...

Photo: Peter Menzel

Last years 9th annual 'Bridge Day Celebration', at the New River Gorge Bridge in West Virginia saw for the first time a reduction, in the number of jumpers attending. Unfortunately, as with 1985, the wind didn't follow suit. Organiser Jean Boenish had operated a registration scheme with the aim of limiting attendance to 200 hundred jumpers in an attempt to cut down the large (450+) numbers of the previous two years in an attempt to make the event more manageable.

Jean reported that she had received over 300 postal registrations by the time she left her home in L.A. for Bridge Day. Many jumpers who attended complained that they hadn't heard about the registration until after the close of the registration date - but travelled to West Virginia regardless.

In all 405 jumpers were registered this year, less than last year, many apparently staying at home dissuaded by the news of postal pre-registration. Although everyone was allowed to jump

Jean warned that next year the postal pre-registration will be used, taking place earlier in the year. The total number probably being increased to 300 slots.

SLIDERS UP

Another change this year was the number of first time bridge jumpers who chose to pack both slider up and in the bag in direct response to the warnings of line over malfunctions occurring due to jumping slider down. This initially disquieted many experienced BASE jumpers present (this writer included) who mainly jump with free packed canopies packed slider down off this site. As the day progressed we became less concerned for these jumpers safety after becoming used to watching the lower than usual (slider down) openings by the As long as the jumper had a large pilotchute this combination didn't appear to be a problem. Landing with a snivelling (slider up) canopy in the deep water beneath the bridge would have probably have been made without injury.

There were a few sensational snivels that were appreciated by the large crowd of jumpers watching down at the landing area.

MALFUNCTIONS

Now that large pilot chutes, long bridals (and velcro containers) have all but removed problems with pilot chutes in tow, the malfunctions most apparent in jumpers minds were the radical brake line 'line over's and free stowed lines entangling on the container flaps. There were several remedies offered to hopefully prevent these malfunctions. It was refreshing to meet 2 novice BASE jumpers from Canada who had put some time and thought into the requirements of the jump and came armed with specially made and bags with velcro closed free stowed line pockets.

I was interested to see two developments from California those of tail-pockets and free brake line modifications. Both these modifications continued over

continued

are accredited to Mark Hewitt, a prolific BASE jumper from L.A. The tail pocket is sewn on the tail of the centre cell, being a flap of material carrying the stowed lines of the canopy. Unlike a diaper or strap the pocket in no way restricts the opening of the canopy. The aim of the pocket is to provide a staged and orderly canopy and line deployment. A jumper using the technique reported that deployment on a 3 second delay felt no slower than with free stowed lines with the added bonus that there felt to be less canopy surge on inflation. As far as I could gather the pocket is mainly used by jumpers using a factory type BASE packing technique.

The brake line modification, as described by Mark Hewitt in Phil Smiths BASELINES issue 1, is re-routing the brake lines outside of the slider gromets and riser keepers. The mod works in the following way; if the jumper experiences a brake line line over they simply fire and release the brake on the side which has gone over the canopy, clearing the malfunction. Steering and landing flare are then accomplished using back risers. This isn't just theory, it has been successfully used by a jumper in a live

situation off a 380' bridge in Arizona. An eyewitness account relates how the jumpers canopy started a spiral on opening - the malfunction was cleared as he came round to complete the first 360' turn. The jumper, now with both brake lines streaming free behind, made an otherwise normal descent and a back riser stand up landing.

I tried the brake line mod for the first time at Bridge day on my Cruiselite. My first impressions after opening where that I immediately liked the free responsive feeling of communication with the tail surface but I found I really had to concentrate on pulling in the right direction to get deep brakes and a good landing flare. Finally, just before making my first unplanned NRGB water jump, I got a better - more floater flare by pushing straight down and in front. Could this difference in lift be due to the new angle at which the tail is being pulled down or was it just my imagination?

If you choose to use this mod (described fully in BASELINES issue 1) you are warned to watch for any damage or fraying to the finger trapping if you use a brake setting system using the toggle to lock brakes. Being routed out



*Beach landing with Mark Hewitt
Brake-modification. Photo Julia*

side of the riser keeper ring can cause more strain to be taken on this point and hence possible breakage on a hard opening. Hewitt also recommends that Zoo type toggles using a locking pin to secure the setting with this brake modification. One reason being that with a brake line malfunction the extra tension on the guilty line could jam the brake on leaving the jumper unable to release it (a hook knife could help here). A final point on this mod, some jumpers have found that some Zoo toggles are harder to release quickly than other brake systems, a point to remember if jumping with a tight dz/short canopy ride - requiring fast control.

There was also a notable increase ... the number of experienced BASE jumpers using velcro closed bridge rigs with front mounted tertiary reserves.

30MPH WIND GUSTS

With the wind gusting up to a reported 30 mph, most experienced bridge jumpers decided to watch the first jumpers before deciding to jump. A noticable absense were the familier head down exits which in past years were common practise by first time bridge jumpers. On-heading canopy openings though where still a rarer site - usually being the obvious diferential between a BASE jumper and skydiver. For the first hour most 7 cell squares merely held their ground with little penetration until down to 100 feet

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or so. As a result the speed of jumping was often dictated by the speed that the fast powerful rescue boats could disgorge their wet bedraggled cargo onto the beach and the availability of a jumper who was prepared to take their turn.

Small pilot chutes were still being used - often by jumpers who had heard about or experienced the winds of last year and wanted better penetration who probably also had slider up and bag packed canopy. Low openings resulted. As one member of staff commented, "It's a shame that they don't realise that a small pilot chute can mean a slower and lower opening which defeats the purpose of using one".

A new observation for me was a totally different style of free fall position as displayed by Nick 'Skip' Feteris. I can only describe it as 'The Shrimp'. Nick dropped off the bridge into a totally relaxed and dare I say 'limp' position making no effort to extend his arms or legs from the position they naturally lay. The only parts of his body that moved during his delay were his hands which occasionally quivered - which gave me the impression of watching a crustacean.

Nick explained that this was a technique gained from extensive bridge jumping in California and as a direct contrast to the aggressive 'save your self' launch needed for sites other than bridges. Doing 'The Shrimp' (thats my description not his) he explained one tried to fly the BASE slipstream, (the BASE equivalent of a skydiving floaters appreciation of slipstream after exit?). Impressed by this 'new' exit position I tried to try it out on my first jump of the day. I stood for what seemed ages on the edge trying to get 'un-psyched' for such a soft, relaxed exit. When I finally plopped off I felt totally uncomfortable and helpless kicking a few times on the way down before reaching back to pull my dildo. There's much more feeling of pure falling than springing off!

The back up and organisation that support this event get better every year and it certainly shows. This year we only had one major injury, a fractured ankle from landing off the drop zone down by the rail road tracks. Lets hope that this years Bridge Day, the tenth, goes as smoothly.

Nigel Slee

SIDE BY SIDE

by Bernard Poirier

I know the bridge. The long line of people,
Shuddering, nervous, anxious under the sun,
All is familiar. The crowd pressing, pushing and laughing - I have smelled it before.
I remember their amused, curious expressions. They touch me, speak to me, and hear me;
We are so far apart - yet I am among them,
A molecule of this serpentine line displaced by 300 meters of space.
I walk upon the razor's edge: To the left, free fall;
To the right, incomprehension - space versus the herded mass.
And I am the central axis,
The temporary point d'appui between poetry, feeling, sensation
and the glutinous, racous crowd.

Against time, tension, and opposing thought, finally I am there.
The cars, the horns, cheerleaders and ideal onlookers.
But today, the magical powers are mine.
In the blink of an eye, they disappear.

Silence

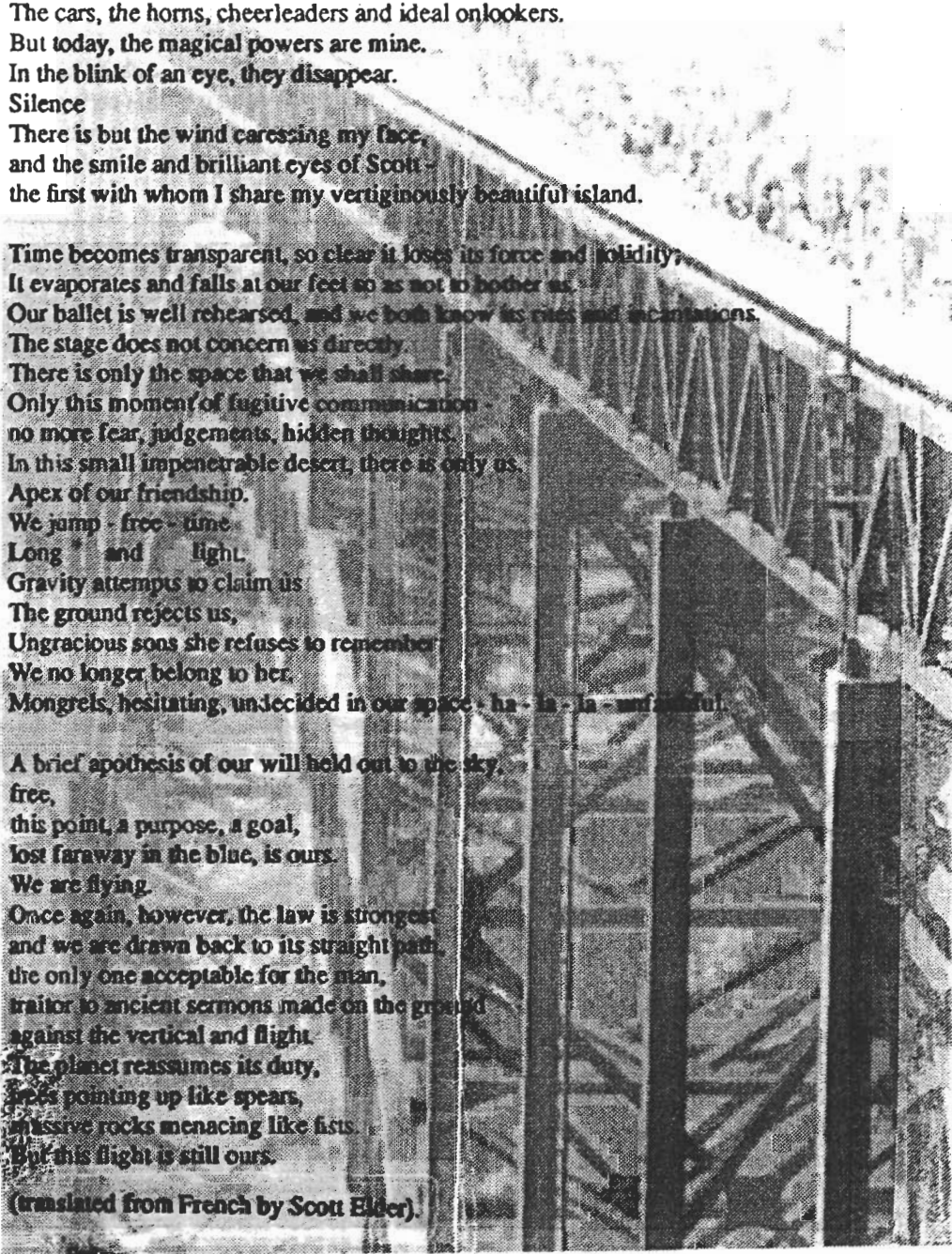
There is but the wind caressing my face,
and the smile and brilliant eyes of Scott -
the first with whom I share my vertiginously beautiful island.

Time becomes transparent, so clear it loses its force and solidity,
It evaporates and falls at our feet so as not to bother us.
Our ballet is well rehearsed, and we both know its rules and incantations.
The stage does not concern us directly.
There is only the space that we shall share.
Only this moment of fugitive communication -
no more fear, judgements, hidden thoughts.
In this small impenetrable desert, there is only us.
Apex of our friendship.
We jump - free - time
Long * and light.
Gravity attempts to claim us
The ground rejects us,
Ungracious sons she refuses to remember
We no longer belong to her.
Mongrels, hesitating, undecided in our space - ha - la - la - unfaithful.

A brief apotheosis of our will held out to the sky,
free,
this point, a purpose, a goal,
lost faraway in the blue, is ours.
We are flying.

Once again, however, the law is strongest
and we are drawn back to its straight path,
the only one acceptable for the man,
traitor to ancient sermons made on the ground
against the vertical and flight.
The planet reassumes its duty,
trees pointing up like spears,
massive rocks menacing like fists.
But this flight is still ours.

(translated from French by Scott Elder)



THE DOPE-ROPE

A NECESSARY EVIL?

I am no lover of static-line BASE jumps for much the same reason as why most skydivers wouldn't like to be static-lined from an aircraft. Unfortunately a jumper who wishes to complete BASE in the UK will probably have to resort to some form of static line deployment for the 'B,S and E' classifications due to the low heights available. Static-lining (Buddying or Bagging) has two advantages over freefall for the inexperienced BASE jumper: A fast controlled deployment - the jumper being free to concentrate on body position and having maximum canopy time. Every second of controlled canopy time is vital when jumping a square from a LALO site often with tight landing areas. A novice BASE jumper's career echoes their earlier student parachuting days. A few static line jumps are done to perfect a stable exit position and learn what still air feels like. Once they have gained the experience and confidence they will, if they desire, progress naturally onto freefall. In an ideal BASE rich world everyone could start off making 3,000' cliff jumps. In fact if this was the case I could imagine being quite happy just doing that! Originally static-lining was a compromise, it was the only way we could imagine achieving BASE in the UK. - Freefall British BASE has been achieved but it would be an ill-advised skydiver who attempted to start BASEing in the same fashion.

If you need to static line there are now two established techniques that I know of - 'buddying' and 'bagging'. Buddying is far from perfect as it can put the canopy under undue stress and could cause actual damage to the fabric.

Bagging sounds a much more satisfactory technique but one with which I have no experience. Californian Mark Hewitt described the technique at length in BASELINE magazine Issue 1, number 4 - address info elsewhere in Jump.

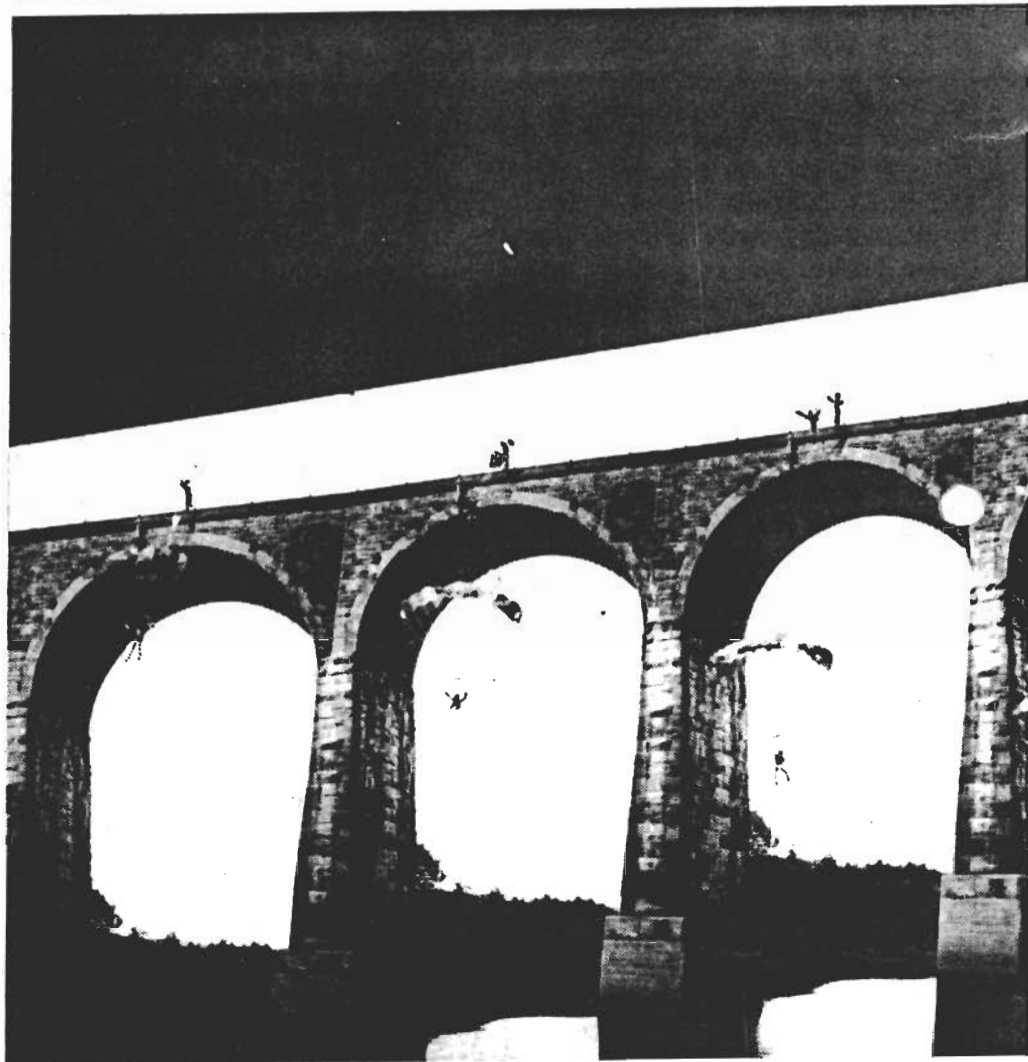
Nigel Slee

Buddying

Firstly, choose your site carefully. When doing a recce ask your self these questions. How high will you open? How far will you travel under canopy? Allow for both brakes-on and off glide ratios. Is the landing area close enough and long enough for both brakes-on descent and full glide? Are there alternative landing areas if you have an off-heading opening. You may not have height to correct your heading - correcting it may mean a near vertical descent and falling short of your landing area.

When 'buddying' one packs as if for a slider down free fall with BASE packed canopy, large BASE pilot-chute and 8 foot bridal with square profile curved pin and correct loop tension i.e. not tight, not loose - often 1-3" longer than existing loop.

Your buddy - preferably an experienced BASE jumper who knows the site - holds the end of the bridal with the pilot chute bunched in hand. On jumping the buddy keeps hold of the bunched pilot-chute and bridal until canopy opening, when they release their grip. It is important to hold on until the pin is popped and the canopy lifts off the jumpers back to line stretch. An experienced buddy will drop his grip as the jumper reaches line stretch - considering with the line stretch snatch force. If the buddy doesn't anticipate the moment of 'snatch' the pilot-chute will be ripped violently from their hands. This is why it's preferable to 'buddy' with someone who has done it at least once before. If they dropped the pilot chute too soon at least you would still have a normal pilot-chute assisted free fall opening - height allowing. How much height would you need? The bottom line here, with BASE packed



A warm summer's evening 'BASE intro' off a 100' viaduct in Northern

canopy, would be around 150 feet. One second free falls over water have been made from this height by experienced BASE jumpers using custom velcro containers and slider down canopies.

Here is another feature about buddying. Now your buddy has an active role. They can give a final pin and bridal check right up to the moment of jumping. When standing ready to jump the jumper asks a final time for the buddy to check these and give an all clear. (But remember there will always be the chance for human error.)

Be warned, to use this technique off a site requiring an on-heading opening, such as a cliff or building, using an unproven pack job could kill you. If you're unsure of your pack job try a drop test. 70 feet (floors) is enough to see if the canopy deploys on-heading.

Tertiary Reserves

By Free Flight Enterprises

- 20-foot, 20 gore unmodified round parachute.
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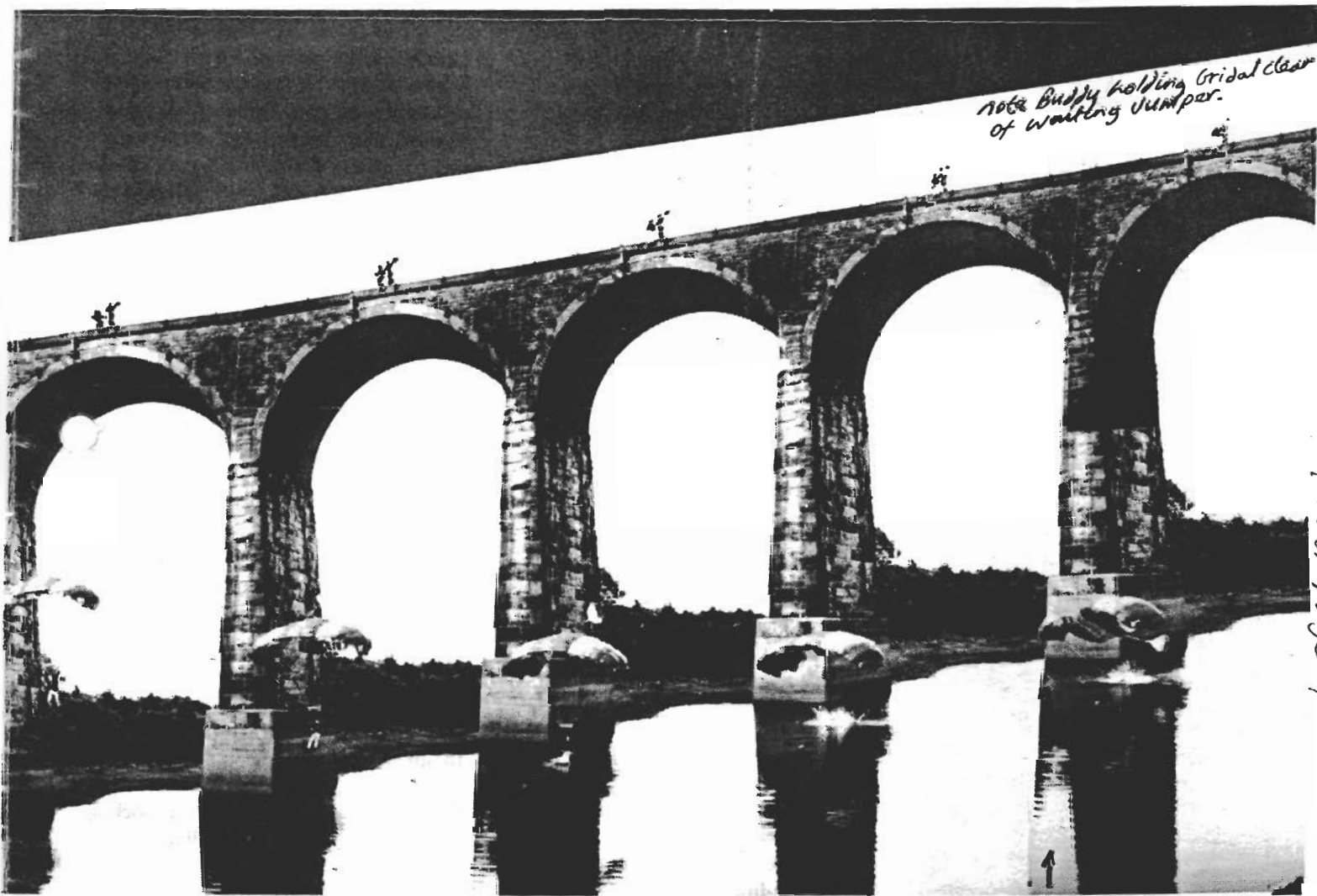
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OVERSEAS: WRITE FOR P&H INFO.



note Buddy holding Bridal clear of waiting jumper.

England. Sequence starts top right. note wet suit clad ground crew waiting in water

Jumper is author of BASE seminar report on page 4



Left: A Better Way — European BASer in action off a 207' Swedish bridge using a strato-flyer packed in a static-line attached free bag. Note the good head high body position leaving a clean, legs free, deployment.

Right: Russian Roulette circa 1982, Site: 250 foot residential tower block, South London. This technique, using two break-ties (diagram page 13), was found to be unacceptably dangerous as the final break-tie can snap before canopy deployment. Note static-line under left foot due to the '1982 style' flat body position.

STATIC-LINE INCIDENT SUMMARY

245' Bridge Jump - November 1981

First static-line square jumps using 3 x 100lb break-tie tied directly to canopy attachment point (no pilot-chute): ^{600lb} force.

Incident: Two out of three canopies damaged by stress of opening shock needing rigging repairs.

Conclusion: Square canopies are not designed or reinforced sufficiently to take a great snatch force from a central attachment point unlike round canopies.

245' Bridge Jump - 1982

50lb break tie was tied directly to ^{*}canopy attachment point - no pilot-chute. (Break-tie reduced to avoid canopy damage).

Incident: Flat and stable exit. Canopy attachment point break-tie snapped with canopy still in open container. Jumper deployed canopy with vigorous elbow banging with resulting low opening.

Conclusion: 50 and 100lb break-tie can snap on the initial static-line snatch leaving canopy in container. The pilot-chute and bridal had been removed so canopy sat in open container until the jumper dislodged it into the air stream by repeatedly hitting container with his elbows. The container had stitched sides and box shape which may have held the canopy in place sufficiently to cause the break-tie to snap. A head down exit could have the same effect.

20 floor building jump 1982

100lb break-tie to ^{*}canopy attachment point - no pilot-chute.

Incident: Canopy failed to inflate after severe canopy failure at line stretch. Jumper landed on bottom surface inflation only with no glide. Top and bottom surfaces ripped apart with extensive lateral rips on both surfaces.

Conclusion: Canopy had been static-lined several times previously including once with 3 x 100lb ties. Square canopies do not like being static lined from a central point.

330' Building Jump 1982

100lb break-tie direct to ^{*}canopy attachment point with no pilot-chute.

Incident: Jumper left pull-up cord in closing loop (also closed with break-tie). Cord jammed the grommet locking container closed. Static-line pulled attachment point free from container before snapping leaving jumper with a total. Jumper killed on impact.

Conclusion: Not really a static-line caused fatality. The result would have been the same if free fallen with pull-up-cord in loop. Don't get panicked or rushed into jumping without a full pre-jump check of all jumpers.

USA 200' Bridge Jump 1983

Incident: Premature break-tie release on exit with round canopy (?). Jumper hit water with total and survived with severe bruising.

Conclusion: Jumper was rescued by ground-boat crew. Don't rely on a break-tie to deploy your canopy!

420' Building jump 1984

Incident: Off-heading opening, canopy collapsed and finally snagged on building at 130' approx allowing jumper to climb onto balcony. (See Jump 86).

Conclusion: Not a break-tie malfunction but included to remind us all that no one is immune from an off-heading opening sometime.

245' Bridge Jump 1986

100lb break-tie attached directly to canopy attachment point.

Incident: First time jumper with good exit. Break-tie snapped after container opened (closed also by break-tie). Canopy stayed in container. Jumper impacted flat and stable going for the reserve handle. They survived with severe bruising and fractured skull.

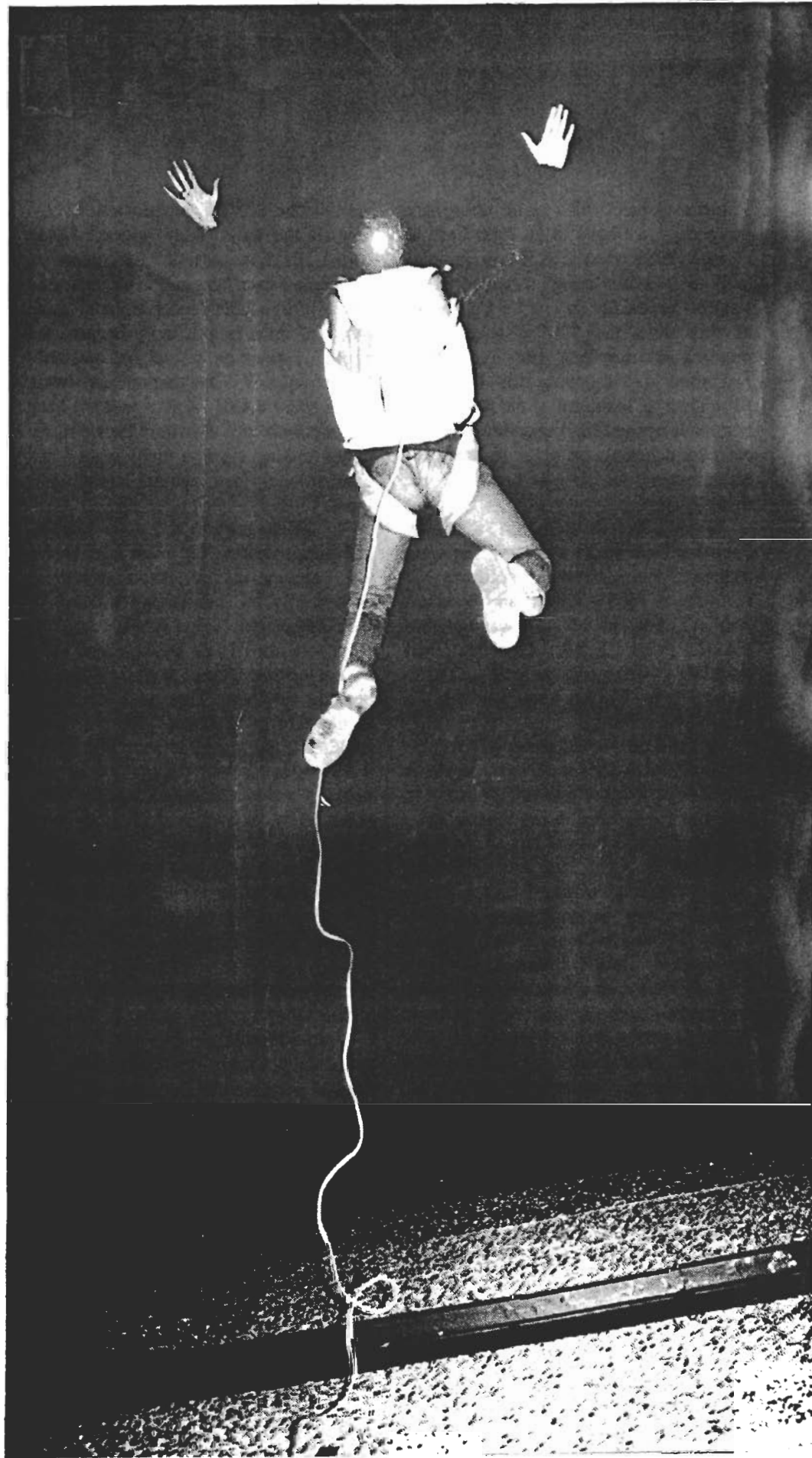
Conclusion: A text book copy of the 1982 premature release except the jumper didn't take the same action. The jumper was ill-advised in his choice of technique. Luck and a good ground crew saved him. *-(Water Landing-)*

350' Cliff Jump 1987.

Break-tie of unknown strength with container held closed by static line looped in rubber band closing loop.

The jumper had a total for reasons that are not entirely known. Either the break-tie failed or the static-line was poorly tied to a tree strong point or was simply not tied on. The jumper had a total and was killed on impact.

Conclusion: The jumper was reported not to have had much previous BASE experience. It is not known whether he had a gear check before jumping. If the jumper had had help from an experienced BASE jumper or reliable source of information he might still be alive today.



The Early Days

by Nigel Slee

In order to put British static lining into perspective we have to go right back to October 1981 when few, if any, jumpers had tried static-lining a slider down square - especially so low. In California, at this time, the 700' Crocker bank building was the 'hot' site. Phil Smith had tried test dropping his Cruiselite from the 210' high roof of the Astrodome but, as it opened high and flew off into the public seating, he opted to use a 26' round canopy for his now famous Dome display jumps.

Shortly before 8am on a dreary Saturday October 17th three of us were squeezed onto a small rest platform 900 feet up a 1003' mast in Southern England. For two of us it was our first BASE jump. Frank Donellan had travelled to California the year before to make a legal El Cap jump - he was an expert on BASE!

We had all packed using our regular skydiving pack jobs with exposed noses and sliders 3/4's the way up. We were to hold our pilot-chutes in our hands. Mike McCarthy was a natural leader and went first. Off he went into a perfect front loop, pilot-chute released upside down and amazingly an on-heading opening. Frank followed with a perfect exit and deployment while I followed off some minutes later into another 6 inch delay and head down plummet with an off-heading opening on a snivelly Unit!

Upon landing our ground crew then told us another figure was halfway up climbing the mast. This was our missing group member and original motivator - BASE 14. He'd over slept, turned up late and set off up the mast to do it on his own using a reserve as his sole canopy! Later he recounted thinking "Well, at least I'll be number two!" as he recovered from the shock of seeing the first canopy sail past. He still had two more surprises to come. After the third canopy he was starting to wonder if "...the whole *%\$#!* drop zone was up there..." While none of our group was to keen to repeat the jump we were fueled up for

more. The Clifton Suspension Bridge seemed the most likely option. Could British BASE be possible?

Three weeks later and in a matter of a few unforgettable seconds our same group of three momentarily became the world's experts on the subject of static-lining squares. Yet again we were followed by BASE 14 who couldn't keep the appointment - this time he went one better making the first night jump (and unintentional water landing) a few nights later.

In the meanwhile two other jumpers had jumped off a 700' mast near Dover after hearing of our successful mast exploit. By an intoxicating mixture of luck, judgement, 'mega BASE buzz' and help from our friends we happened upon a pack job that seemed to give reliable on heading openings. That pack job was a highly refined version of the old 'trash pack'. We borrowed it from the CRW world where it was praised for its fast opening and on heading characteristics. It has rarely let us down with much more than a 90% off-heading openings - but as with all pack jobs this can happen! A similar cleaned up version is now called the 'Pro-pack' I believe and used for packing square reserves. That one jump proved a gate way into what has now become established as the British BASE circuit.

Initially plans for the Clifton Suspension Bridge revolved around the idea of using a static lined round canopy. 250' feet was far too low for anyone to consider using a square canopy. It was much to everyone's surprise when Frank Donellan, (who on December 12th became BASE 12 after making the first British building jump), suggested using a static lined slider down square. Our collective prior experience only amounted to a couple of jumps from El Capitan in California (3,000 feet) and a 1,000 foot TV tower we had jumped three weeks before. At the time we didn't know for sure how long a static lined slider down square would take to

open.

Frank, in his usual enthusiastic manner, was utterly convinced that this was the only way to do it. He pointed out what we had learned from CRW, how when a collapsed canopy was dropped from a stack it would re-inflate just below the stack. Away from the bridge our confidence grew. In theory we knew a square canopy should open in less than 250'. When looking down off the bridge the day before our jump, this confidence evaporated into thin air! Smitty once put all this technique of looking back to go forwards into a nutshell with the analogy of thinking of all your previous parachuting experience as an unfinished pyramid. You use all your previous knowledge to determine how and where to lay the next block of 'stone'.

Our group wasn't the only one to be talking of the feat of jumping off the Clifton, where our group differed was we dared to imagine using a square and actually put ourselves over the line and put it to the test for real. (With the wisdom of hindsight we should have tested our theory with drop tests). For the record, on one Sunday a few weeks later another group of five jumpers, led by BASE 14, notched up the third load off Clifton while in London Mike and Frank made the first British Building jump of Trelick Towers, a 330 foot residential tower block. What made it even more notable was that there was snow on the ground and a few of the bridge jumpers went for an unplanned dip. A video exists of the Bridge jump - very entertaining it is too. Our ranks had now swelled to 10 British BASE jumpers in barely four weeks!

In retrospect the conquest of Clifton was an event which irrevocably changed the face of parachuting in this country (for better or worse depends on your viewpoint). I for one can't even imagine another step that could equal that for sheer change. A whole new l-o-w world of BASE was discovered. We looked at our surroundings with new eyes.

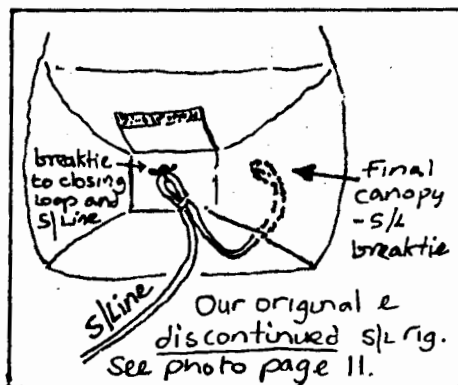
Back to the matter at hand: Our original technique, involved removing the pilot chute and bridal and attaching a static line directly to the canopy with 100lb break tie. Why remove the pilot chute and bridal you ask? With a mere 'one-jump' knowledge of BASE we didn't even give a moment's consideration to the possibility of a pilot chute having the altitude or airspeed to deploy a canopy in 250', or for that matter a reserve, so we elected to remove both from our rigs.

Foolishly, with hindsight, we didn't perform any canopy or pilot chute drop tests with our make-shift system (other than a break tie drop test from a friends ceiling). Our energy and enthusiasm was running high and we went straight ahead. The main container was closed with a secondary loop on the static line with 100 50 lb break tie. So concerned were we with this fear of the canopy staying in the container we used three 100lb strands for the canopy attachment to the final static line loop. I didn't realise until Carl Boenish pointed out later that using three separate looped ties required a force of 600lbs to break the strands! On two of our three canopies the canopy attachment points ripped clean out of the top of the canopy on static line stretch, leaving the canopy/static line knots intact! After this we scaled down to one 100lb break tie, and even occasionally (as in the case of both recorded premature break tie releases, a mere and inadequate 50lb break tie attachment to the end of the static line/top of the canopy).

After the success of our first jumps, which was our elation and resulting confidence that we failed to consider modifying the technique until a few months later when a jumper experienced a 'premature break tie release' off Clifton when the canopy break tie snapped immediately the container opened. One pitfall of BASE was showing its hand: either stick to your plan or don't proceed.

On that night a first timer stood down at the bridge edge and one of our party, having watched us all go, changed their mind and took the rig and jumped instead. We were all surprised when our friend called down he was going to jump. We all had an even bigger surprise when his canopy failed to appear and we had time to say "He's going in!" The jumpers quick thinking saved his life. Used to

jumping with a short bridal for CRW and having his bag stick in the container he instinctively beat the free packed and pilot chute less canopy off his back! His enthusiastic effort dislodged enough of the free packed canopy into the air stream for it to lift up to line stretch and crack open on bottom surface immediately prior to entering the water. A contributory factor was considered to be the restrictive box shape of the Rapid Transit container and a head down attitude combined with insufficient break tie.



After this incident some of us started leaving on our pilot chute and bridal and attaching the 100lb break tie to the pilot chute - but still using break tie on the container i.e. the pilot chute was still ineffective should the pin closed container jam closed. Canopy damage also became apparent - to great cost. After around a dozen static line square jumps my faithful UNIT was written off after ripping completely apart across and between both top and bottom surfaces. On that occasion I took a hard landing with no cell inflation - simply bottom surface in the manner of a round canopy.

In June 1982 British BASE pioneer Frank Donellan was killed after some last minute roof top rigging prior to gearing up while for an impromptu film session off a 330 foot residential tower block in West London. Yet again, the same BASE rule, stick to your original plan, beware of making last minute changes to your decided plan. Do not be panicked or rushed (pushed?) into not doing a full gear check on all jumpers. Checking his rig and the container closing loop on the roof top the 'guttied' 100lb container closing break cord snapped - (By 'guttied' I mean a 100lb break tie which has had many of the strands removed to reduce the breaking strain. Some jumpers even experimented with closing the

container with a few strands of cotton but stopped after one jumper zapped his rig while standing on the edge of a building preparing to jump).

As Frank hastily re-closed the container (because the rest of the load were now kitted up ready to go) the main pack loop snapped. Instead of calling it a day or accepting the offer from another jumper to go and find a replacement loop he made a new closing loop from a pull-up cord and quickly re-closed his rig. We were all too wrapped up in our own immediate destiny to notice that our friend, in his haste to catch up, had failed to remove a pull up chord from the new loop after re-tying the container closing break tie. The pull-up chord was always left in place until after the container closing break tie was tied in place, often with a pencil in place as a temporary pin. One jumper had nearly jumped the same building previously with the temporary pin in place. On that load a last minute check spotted the oversight.

On this occasion no one checked Frank's rig. We broke a basic rule of BASE - always do a final gear check on everyone. We all assumed it must be OK because he'd only just closed it. A camera whirled, I started my five second count, nervously geeked the camera, crouched and jumped - Frank's calm "Have a good one" reaching me before the sensory overload of total fear swamped all senses. Ten seconds later Frank was dead. Frank had followed once I was under canopy. Eye witnesses saw him struggling and pulling at his chest - his reserve? The pull up cord, made from un-guttied 750 brake line could not pass through the container flap grommets and locked the container closed. The static line managed to pull the canopy attachment point out of the container but then the final 100lb break tie snapped leaving the packed canopy in place in the locked container. In a matter of seconds a close friend and remarkable individual was lost. If...

It took another incident two days later for me to lose interest in static lining squares altogether. To escape the crazy circus that ensued following his death, Phil Smith and I made a dawn jump from a 350' cliff at Beachy Head. He was to make his first static line square jump.

continued over



The author lends a friend a hand!

Photo SP

continued

Already an experienced BASE free faller of some 60 jumps, he chose to use his regular factory style BASE packing method. I went first - still not knowing why Frank had bounced, only to have a 90° right with the steering line fouled in the stabiliser. It cleared to low to turn back for the small dz and took a fast no-wind Merlin landing amongst a pile of table sized rocks.

I picked myself up, amazed to have escaped with only cuts and bruises to look up to see Phil's canopy open facing the wrong way. Phil was bounced and scraped down the cliff face like a rag doll as his canopy repeatedly ate-stalled-backed off and dived into the cliff. Half way down he had stopped screaming and no longer tried to protect himself. As I walked up to his prone body I thought I was walking up to my second corpse in as many days. Phil was stunned and in shock though luckily with no broken bone but plenty of bruises. I then had the realisation that even if Franks pull up cord been spotted, Phil would probably have jumped after him and had that same 180° opening. And some people wonder why I became squeamish about static-lining. Here is a place to make a point:

- If you ever have any doubts about your pack job before an impending jump, re-do it.

Never jump if you have any doubts in your mind, it may be nothing but it is draining valuable mental energy away from the task at hand. Pack

away from the site at your leisure. Take as much time as you need for you to feel you've got it right. If you still have doubts why not find a somewhere to do a drop test with a suitable weight attached to your rig. As little as 70 will be enough if your static line or buddy it off. And don't ever let pressure or panic stop you from doing final full gear checks for everyone before jumping.

After the first Clifton jumps another group repeated the feat, but wisely distrusted our break tie method of closing the container and used a loop of static line in a rubber bungee closing loop instead. They even told us of their dislike of our method but we couldn't care less, we had pioneered static lining squares - our egos wouldn't let us listen to any one who may have had a better idea. Members of this 'school' of BASE are still using this method of closing the container though the recent fatality was rigged in this way but it isn't known if this was a contributory factor.

A year or so later a new wave of BASE jumpers were keen to complete the circuit and needed to static line to complete BASE. How often I thought of 'Chasing BASE' as a curse that kept coming back to haunt me reminding me of Franks needless death. These new jumpers kept coming for advice and I just didn't want to know. How could I now keep stonewalling and dissuading all approaches by inexperienced jumpers for advice when they had caught the same BASE fever I'd had a couple of years before! To keep saying '1000 foot free

fall is where it's at', is pretty crass when someone has the hunger for BASE and the only qualifying objects available are 250 - 350 feet.

It was only after I became painfully aware that jumpers were prepared to make low 150 foot static line jumps (thanks for the sweats Martin), with ~~no~~ ^{little} knowledge or advice that I realised I had at least be able to offer a safer alternative method. In early 1983 I returned refreshed and restored from a stay with Carl and Jean Boenish - after all I'd been through I felt done in, confused and an outcast. Now I was armed with the knowledge of a new static line technique pioneered by Carl. The direct deployed free bagged square and included it in my first BASE news letter (BASE October 1983). Unsure of how this technique would work with a square and not keen to pursue this area of BASE jumping no one seemed keen to try it over here.

Finally I settled on the 'buddy' technique as an acceptable technique for those who would make the jump regardless of my not unnatural disinclination to static lining. Still it's far from perfect. Pilot-chutes get torn, hands have been burnt when someone forgot to let go. A few buddies let go rather too early (Assisted Free Fall?). Bagging sounds a better option.

THE FINAL JUMP MAGAZINE?

In October 1983 I published my first BASE news letter in an attempt to spread information on BASE and to try to help prevent accidents. I am not trying to promote BASE jumping but hopefully provide a reliable source of helpful and thought provoking information. I feel this is an essential task as there will always be individuals who will have the desire and determination to jump off BASEs regardless of the consequences or possible penalties.

For the last five years I have managed to produce a news letter. Will there be one next year? Well the answer to that question is down to you. With your help: articles, letters, feedback, pictures and ideas, it should appear again next year - (maybe sooner if I can get some help) Do you have a story to tell, some information to share? Drop me a line at the London mailing address. I look forward to hearing from you. Nigel Slee

BARBICAN REVISITED

The grapevine in the BASE community is fast - it didn't take long for the news to get round of an unsuccessful attempt to jump the Barbican (Jump, last issue). So we went and took a look too. Three gorgeous buildings to choose from, and a selection of landing areas that looked OK. Security was evident, and it was plain that this was no council estate judging from the number of Jags and Rollers around.

The main doors were manned, with some entry-phone system on the front desk, so it looked like the walk in approach would not get us far. We tried all the fire escape doors, the same route as tried previously, but they were all locked. The last try was the podium door - the level above the main entrance, very public and exposed. I nearly fell over with surprise when one of them opened as I pulled it. We were in!

Foolishly, we jumped into a lift and went straight to level 40 - the top, and I couldn't help thinking of our predecessor waiting on his own for hours here, and no-one knowing he was there. We got out onto the level 39 balcony, and my legs turned to jelly. First was the awareness of street noise, then the cold (early February night), then the amazing visuals looking at the lit-up city, and then a look over the edge, straight down for 350 feet! It was on! There was almost no wind, no hassle, no spectators, nothing to stop us. Back down in the lift (kit left in the car for the recce) and an exuberant

... to a Leading Daredevil, who agreed to join us. We waited in the concert hall complex, drinking cokes and watching the Sloane Rangers and Hooray Henrys, sipping their G and T's before a spot of Schumann or Sibelius, desperately wanting to shout at the top of my voice what we were going to do.

LDD showed up just before our nerves totally fell apart, and we went through the plan again. Somehow, the wait had brought some sense back, and we agreed to LDD's suggestion to revisit the launch balcony, without kit, for WD tests and to get a more experienced opinion on the DZ. The door was still open, so we sauntered in, called a lift, and got the shock of our lives when it arrived, but with someone in it! The game was

blown but we tried anyway - this old, rich couple were only too happy to get out of the lift at their floor, scurry into their flat and call security. I suppose being shut in with three six foot, leather jacketed hoods would make most people fear for their wallets.

Tip - You can't get away with looking scruffy in a rich man's block of flats at night.



Sure enough, the lift stopped unprompted at about 35, and went down again, out of our control. Security escorted us out of the premises.

Living in London, I kept going back to try doors and watch, and after a couple of months the plan emerged. In the meantime, a hilarious incident occurred - we were skulking in the shadows, trying doors whenever the coast was clear, when we saw an equally suspicious figure with a sack lurking at the foot of one of the towers. We thought he was watching us, he thought we were watching him! Sure enough, it was the guy from the last issue back to try again! All attempts had failed again, we went to the nearest pub and told tall stories (geddit?) till they threw us out.

Then the penny dropped, so did the wind, and at 1am on the 20 March we were back at the Barbi' with a new way in. This time I climbed up the outside of the concrete and glass tower for a couple of floors before getting in and letting BFFB 1 (British Free Fall BASE 1) in with both of our rigs, at the bottom of the glass enclosed fire escape. Who said it's only the jump that's scary? No lifts this time, just the long silent plod up to level 39, (only feet away from residents asleep in their penthouse flats). Nerves were racing already - had we been seen

breaking in? Was the bottom door wired? Could the fire escape doors be opened from inside at the top?

Level 39. Time to catch breath and try to settle the gagging feeling rising from the pit of my stomach. No wires around the door, and it opened. Onto the balcony and again the first sensation was of street noise, even at this early hour. The view was incredible, and the landing area, lit up beneath us, seemed so far away. After another little scare when we heard a two-way radio from the very top of the building above and behind us, we slowly kitted up and climbed over the balcony wall (four foot high glass and steel) onto the 9 inch ledge on the outside. The overhanging top of the balcony wall resting against the lower part of our rigs meant we were forced to have to continually lean out over the 350 foot drop, down to the podium below. A lot of 'hard breathing and thinking' later, I said I was ready. "Go!" I powered out over London, lit up below, and got the familiar rush of wind and speed before hurling the pilot chute away, hearing it rustle up behind me. A moment's more frantic acceleration, watching the black silhouette of the 6 floor high flats in front leap up to meet me, and then KERWACKKK - instant on-heading canopy. 90 degree riser turn to face along the narrow podium landing strip and I got all the visuals of the face, with it's jutting balconies that caught the last guy, before ungraciously creaming into the ground.

BFFB 1 followed, and elation was too weak a description for what we felt! A few lights came on, but we walked off unchecked. After months of trying so hard, we'd achieved it, and the buzz was there - so much so that we went back a month later and did it again.

Tip - if you want something badly enough, you can make it happen. And the BPA wants at least 500 jumps before they'll clear you for 1,500 feet minimum over London?

Don't drink alcohol - jump Barbican!

British Free Fall BASE 3

The Gear Scaries



Sometimes my gear scares me
It's a long way up to be hanging from
strings and rags.
So I think really hard
And figure it out again
And everything goes fine
For a while
And then I do something
Scary again
Like watching someone open
Do I really believe that?
I better
Because it's my turn now
I just keep going through the process
Because I started when I was too
young to know any better
And now I can't stop.

Skratch Garrison

Jumper experiencing slow inflation of homemade BASE pilot-chute off the 300' BEER HEAD, DEVON, England.

Bridge Day Fatality

WV, USA 10th October: An American skydiver died after riding a pilot-chute hesitation into the swiftly flowing New River. The jumper's 36" pilot-chute, attached to a 5' bridle failed to inflate on the 876'/8.5 second descent. Earlier in the day there had been a similar p-c problem but reserve deployed. This was the third fatality off NRGB and second to occur during a B.Day but first high speed impact. - The previous two fatalities had drowned after opening too low to reach the shore - (Pilot-chute hesitation and slider snivel).

Organiser Jean Boenish, Exec Dir USBA, and her helpers had repeatedly warned all the 350+ registered jumpers of the dangers of small pilot-chutes and short bridles. Next year it is expected that USBA will take a stronger line on equipment requirements for registered jumpers to avoid a similar accident.

Phil Smith, BASE 1 and BASELINE magazine editor, broke his knee cap and smashed his helmet mounted 35mm camera on landing after a camera jump. Line twists below the slider (packed up) of his free packed canopy led to him taking a hard landing on riverside rocks below the bridge. For the last two years inexperienced BASEers have been encouraged to jump slider up to avoid the radical line-over malfunctions that can occur when packed slider down. Custom fast-action 'Spider' & gauze/mesh sliders however are becoming a popular mid-way compromise - but not used by Phil Smith (yet).

Light winds enabled two student jumpers from New York State to use their 28' round canopies deployed by 40' static-lines opening 150' below exit point. Four Canadians from Ontario made a linked 4-way jump and had a brief entanglement, after opening, between the two lower jumpers as the result of the higher man's slider snivelling. Shortly after the 4pm close of jumping two bandit jumpers (unregistered and exiting outside of roped-off area) were arrested on landing and charged £60 for "Making an unlawful exit of a freeway... - Full report to follow in next Jump.

TURBO-CHARGING - Californian BASEers have been experimenting with deeper brake settings to reduce opening surge when packed slider down - with aim of reducing risk of off-heading object strikes. On average they report settings 6" deeper depending on canopy charac. & suspended weight. Care should be taken testing this mod. as too deep a setting could cause stall and flying backwards on opening. Some older/heavier/larger canopies have shown this tendency occasionally when BASEed - (Heavy Clouds + Pioneer Merlin).

BASE EQUIPMENT ASSOCIATION - First meeting held in W.Virginia prior to B.Day and led by Larry Riddle (US Master Rigger) with aim of establishing standards of construction. Interested riggers should contact USBA for tape of meeting.

BRITISH BASE NUMBERS - BASELINE editor Phil Smith wants to print full list of B.B. numbers especially since recent surge of interest in Australia where 16 people have now qualified for Australian BASE. Name not required, just time/date of qualification and details of sites. Send details to Jump.

BASE PUBLICATIONS BY JEAN BOENISH

If you're interested in updating your BASE reference library I now have copies of BASEics by BASE 3 and a new paper also written by Jean Boenish entitled BASEic Sport Parachuting. Published by the American Institute of Aeronautics and Astronautics it covers both the history of BASE since 1978 including technical advances, types of equipment and development of the sport and the United States BASE Association. If you'd like copies the cost is as follows: BASEics £1:75 + 25p postage and BASEic Sport Parachuting "We'll Jump Off That Bridge When We Come To It" £2:00 + 25p p+p. If you want both: £4 inc postage. Cheques payable to 'Jump' to London address.

Jump, 50 Mount Pleasant Crescent,
London, N4