

18TH OCTOBER 1981

THE IRISH HANG GLIDING ASSOCIATION

c/o Bantry,
Killiney,
Co. Dublin.

25th November, 1981

INDEX

Mr. Kelleher,
Aeronautical Service,
Department of Transport,
Setanta Centre,
Dublin 2.

re: Fatal Accident, Rush Beach, 18/10/81

Dear Mr. Kelleher,

We enclose the Report of our Safety Officer, regarding the above accident.

It is difficult to believe that the unfortunate victim, Daragh Harding, was unaware of the dangers of towed hang gliding experiments.

We enclose articles from "Wings!" and an extract from the I.H.G.A. Rule Book, on the subject.

If there are any points in this report on which you would like additional information, please let me know.

5. Condition of glider.

Yours sincerely,

N.P. Koumarianos

N.P. KOUMARIANOS

CAUSE OF ACCIDENT
HARDING ACCIDENT - RUSH CO. DUBLIN
18TH OCTOBER 1981

1. On Sunday the 18th October 1981 Darragh Harding was involved in a hang gliding accident at Rush beach, Co. Dublin.

2. Injuries Sustained Fatal.
I N D E X

3. It appears that Mr. Harding, from witness accounts and damage sustained to the glider, got into a lockout situation from which he

1. Cause of Accident.
2. Report and statement by Garda Donal Campion, Rush Garda Station.
3. Report by Mr. Kieran Butterly, Rush, Co. Dublin.
4. Report by John Rossiter, Irish Hang Gliding Association, Safety Officer.
5. Condition of glider.

STATEMENT OF EVIDENCE OF GARDA DONAL CAMPION
221778 MADE AT RUSH GARDA STATION

CAUSE OF ACCIDENT

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2. Injuries Sustained - Fatal.
3. It appears that Mr. Harding, from witness accounts and damage sustained to the glider, got into a lockout situation from which he did not recover.

STATEMENT OF EVIDENCE OF GARDA DONAL CAMPION
22177E MADE AT RUSH GARDA STATION
19TH OCTOBER 1981

I am a member of An Garda Siochana, stationed at Rush Garda station, Rush, Co. Dublin. At 6.30 p.m. on the evening of Sunday the 18th October 1981, while on patrol, I went to the south beach, Rush, Co. Dublin. While I was there I noticed a man, Darragh Harding, harnessing himself to a black and white hang glider. I also noticed a white Alfasud, motor car, approximately 100 yards down the beach in the direction of Portrane, from Harding. The rear of this motor car was attached to the nose of the glider by means of a blue rope. There was a man sitting in the driver's seat of the motor car. I saw Harding pick up the hang glider. At the same time the motor car moved off in the direction of Portrane, along the beach. When Harding had taken about six steps forward the glider took off and rose to an altitude of about 10 feet. It stayed at this altitude for a distance of about ten yards. Then the glider rose steadily to an altitude of about 100 feet when suddenly the nose of the glider dropped and plummeted towards the ground. When the nose of the glider turned towards the ground I saw Harding's hands leave the control bar of the glider. When he hit the ground I ran towards him. The motor car immediately stopped and the driver got out and ran back towards Harding, reaching him before I did. Harding was lying on his back on the sand when I reached him. His left leg appeared to be broken. He was having difficulty breathing so I opened his helmet strap and undid the zip of his jacket. Kieran Butterly came out from his house on South Shore Road and I asked him to ring for a doctor and an ambulance. Doctor Murray arrived at about 6.45 p.m. I went to the main street to await the arrival of the ambulance. The ambulance arrived at about 7.10 p.m. I helped the ambulance men to carry the stretcher back to the ambulance. Harding was still breathing when he was put into the ambulance. I later learned that he had died. When towing Harding I would say that the motor car

did not exceed 10 M.P.H. The rope which joined the glider and the motor car is 100 yards long. I have read over this statement and I am satisfied that it is correct.

Signed _____ Garda 22177E

(Don Campion)

Mr. E. Butterly of South Shore Road, ... said that he had ... on Friday and Saturday of the same week but it was not flying. On Sunday he was sitting at home looking out onto the beach when he noticed the glider was on the beach and it appeared that the pilot was attempting to be towed by a white Alfa Romeo car. The car moved off down the beach and the glider rose up into the air to a height of approximately 100 feet. All of a sudden the glider was plummeting to the ground at which stage Mr. Butterly ran out to see if he could be of any assistance.

REPORT BY MR. KIERAN BUTTERLY
RUSH CO. DUBLIN

Mr. K. Butterly of South Shore Road, Rush, Co. Dublin said that he had seen the glider on the beach on Friday and Saturday of the same weekend but it was not flying. On Sunday he was sitting at home looking out onto the beach when he noticed the glider was on the beach and it appeared that the pilot was attempting to be towed by a white Alfasud car. The car moved off down the beach and the glider rose up into the air to a height of approximately 100 feet. All of a sudden the glider was plummeting to the ground at which stage Mr. Butterly ran out to see if he could be of any assistance.

John Rossiter - Safety Officer
Irish Hang Gliding Association.

REPORT BY JOHN ROSSITER
IRISH HANG GLIDING ASSOCIATION
- SAFETY OFFICER

This is the first time towing has been attempted in Ireland. Towing is a highly specialised method of launching a hang glider and must only be attempted by experienced hang glider pilots having received adequate training through an approved towing school, not available in Ireland at present.

Had Mr. Harding been a member of the I.H.G.A. and sought information on towing methods he would have received a very strong warning of the dangers involved.

John Rossiter - Safety Officer
Irish Hang Gliding Association.

John Rossiter - Safety Officer
Irish Hang Gliding Association

CONDITION OF GLIDER

1. Both uprights broken.
2. Keel broken just before hang point and behind hang point.
3. Keel fin broken at hang point.
4. Crosstubes okay (Rope tied to left side of hang point.
5. Right L/edge broken 2 feet from nose plate and at deflexor point.
6. Left L/edge bent at nose plate.
7. Sail badly torn at nose plate, hang point and at trailing edge left side.
8. King post, bottom bar and hang point okay.

John Rossiter - Safety Officer
Irish Hang Gliding Association

Novice hang-glider dies in towed flight

6th

A 23-year-old novice hang-glider plummeted to his death yesterday when his attempt to be towed by a car went disastrously wrong.

A spokesman for the Irish Hang-gilding Association said today that to his knowledge nobody in Ireland had ever attempted to hang-glide in this way.

Mr. Darragh Hardings, a native of Waterford, had just been launched into the air at Rush beach when he plunged 100 feet to his death after his tow-rope got entangled in the car.

He died from multiple injuries shortly after his admission to the Mater Hospital around 7.00 p.m.

Mr. Hardings, who was in the electronics business, was staying at a house in Shore Road,

Rush, on holidays at the time of the accident. It is understood that he lived in a flat in Dublin.

An eye-witness said that he had earlier watched Mr. Hardings and the car driver try unsuccessfully to take-off from the beach.

"The highest the glider managed was about 10 feet. However, the wind freshened during the afternoon and on his last attempt the glider rose to ten feet then suddenly to

about 100 feet," the eye-witness said.

"The nose of the glider was forced downwards and at that point the glider just fell like a stone."

SUCCESSFUL

A guards on patrol witnessed the accident.

"An Alfa Romeo car was towing the hang-glider by a rope which was attached to the nose of the hang-glider from

the rear of the car", he said.

"Mr. Hardings made a successful launching but when he got up to about 100 feet the nose of the glider was pulled down by the rope attached to the car, and he crashed on to the beach near Strand Road."

"He had no means of disengaging himself from the car and hadn't a hope of being saved."

The garda said that this was the first time he had seen

hang-gilding on the one-mile beach at Rush.

The accident was also seen by local men from his home near the beach. He immediately phoned for an ambulance.

There were no other people on the beach at the time of the crash landing.

Today a spokesman for the Irish Hang-gilding Association said that he was appalled to learn that Mr. Hardings was being towed by a car. "It is totally against all our

safety rules", he said. "The glider and the car driver must have the highest skills, because there are many special techniques involved. Nobody to my knowledge has ever attempted such gliding".

It was also learned that Mr. Hardings only took up hang-gilding last April and was still classed as a Novice.

TRAINING

A top English hang-glider fell 200 feet to his death while flying off the north east face of the Sugarloaf mountain in Co. Wicklow on Christmas Eve 1978.

Mr. Alvin Russel, from Shropshire, had vast experience of hang-gilding and was flying and training officers for the British Hang-gilding Association.

In April 1978 another hang-glider was injured when he plunged into a cliff face

EXTRACT FROM THE I.H.G.A. MEMBERS' HANDBOOK
EXTRACT FROM "EVENING PRESS"

EXTRACT FROM THE I.H.G.A.
MEMBERS HANDBOOK



Irish
Hang Gliding
Association

MEMBERS HANDBOOK

Towing

TOWING accidents are still

3. Do not fly near power-lines or trees.
4. It is not advisable to fly on rocky sites.
5. If flying within the jurisdiction (5 miles) of an airport authority, make sure to advise Air Traffic Control.
6. Do not fly over or near busy roads.
7. Obey Country Code.

Weather:

1. Novices should not attempt to fly in gusty conditions or in winds less than 5 m.p.h. or over 15 m.p.h.
2. In wind speeds of over 12 m.p.h. it is essential to have a man holding the nose of the glider prior to launching.
3. It is not recommended to fly when visibility is poor.

Flying Procedures:

1. *No towing under any circumstances.*
2. *Do not fly alone—at least one ground crew mandatory.*
3. *Use of a King Post essential.*
4. *After an exceptionally heavy landing, an air-frame check must be carried out.*
5. *Fly within the safe working load of the craft—ref. B.H.G.M.F.'s safety standards.*
6. *Prior to each flight, it is essential for the pilot*



EXTRACT

FROM 'WINGS' MAGAZINE



Towing

TOWING accidents are still happening, writes Airworthiness officer CLIVE SMITH. They always involve small isolated groups who have taken no trouble to avail themselves of current BHGA recommendations, nor contact approved authorities. A little knowledge is dangerous — DON'T DO IT. The information contained in the BHGA towing handbook and the standards required are the result of valuable past experience — not innuendo. If you have built a system and are about to test fly it — don't. Contact either: Andy Brough, Bob Harrison or Clive Smith, directly or via Taunton office.

THERE has been a resurgence of interest and activity in the last 12 months by several groups around the world aimed at resurrecting the dream of safe tow launching.

The BHGA has taken a very cautious

approach in the past, acting in the role of independent assessors for insurance purposes. In this field, Roy Hill and Keith Cockroft vetted and test flew some systems, Ann Welch and Reggie Spooner advising from BGA experience. Two schools were approved to teach the theory and practice of tow launching, using tow-frame systems and pay-out winching, but due to P2 rating for trainee requirements and lack of enthusiasm among hill-fliers, probably less than fifty pilots were trained, though most to a reasonable standard and finding the experience well worthwhile.



Len Gabriels introduced a simple static winch and taught many pilots with a basically low-tension "tow-frame-less" bridling system.

This wave of activity probably culminated with the Little Snoring event, highly successful for a first attempt, but not without incident — Gary Phillips told in last month's Wings! how he is still recovering from an accident there.

BHGA took note, but with so few groups actually towing and development still obviously continuing, standardising a set of towing methods was not easy — thus the continuing ad-hoc approval.



Earlier this year I was tasked with producing a set of "standards and requirements" for current towing practice, such that individual towing groups within the BHGA could be approved and thus automatically covered by the BHGA's third party liability cover for all flying members.

Andrew Brough, then actively developing a complete towing system, agreed to correspond with known towing exponents in the UK and throughout the world to collate as much information as possible.

This has been drafted into a complete towing handbook. — Standards and Recommendations for Towing Hang Gliders — and is available through the BHGA at Taunton.

This publication is considered essential for those planning to tow launch. It contains information on classic methods of towing and bridling, as well as very recent developments which are promising to bring tow-launching into the domain of P1s.



It is hoped that with this document available, reasonable sized groups (4+ rather than twos and threes) and particularly whole clubs will take the initiative and organise system, site and staff responsibility.

As reported in Wings!, one club, Thames Valley, despite having good hill sites has achieved this under the leadership of Andy Brough.

Having been training pilots and developing hardware all this Summer, next Spring should easily put-paid to Brian Wood's six mile XC record, but more importantly should see pilots getting easy and consistent airtime over flat ground — AWAY FROM HILLS. Without a two-hour walk-up, a ten-minute still-air glide down can be most relaxing — after an evening tow-launch. Worth considering.



big, big 'wind-up'

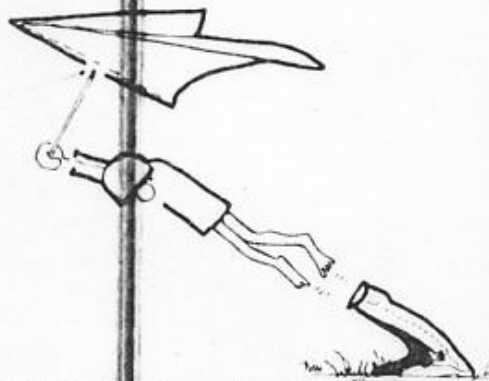
Andrew was meticulous in the construction of the winch which he continually strives to improve, even though all agreed that it was virtually perfect from the start. With live Smith on the brake, Andrew was the first pilot to fly the winch and his first launch took him well over a thousand feet. A great start. We're looking towards our 200th launch with no mishaps which poses a long way towards proving that tow launching is at least as safe as foot launching.

□ □ □

Andrew made two glider control frames with top and bottom releases for the two-wire system we currently use. It's a pity that control frames aren't a standard size on all gliders because we are using fourth generation machines and would really like to tow a XB model without the hassle of altering rigging or making a different frame. From all accounts the floating crossboom will aid control of the tow, making it even easier than it already is. The limited tension which we use is a free-wheeling drum-to which tension is applied through a hydraulic hand-operated disc-brake. The dyppropylene rope is paid out such a tension as to allow the glider to strip line from the drum while at the same time maintaining height. It all boils down to a balance between the speed of the tow vehicle, the wind speed, the applied tension, the weight of the pilot, and the weight of the line from the winch.

□ □ □

The take-off looks pretty dramatic. The pilot stands with the glider hooked up to the tow line poised at the ready. The tow vehicle then races



The take-off looks pretty dramatic ...

Getting near 2,000' by tow launch

away paying out line to leave the first-time spectator imagining that the wing will surely be yanked in two with the pilot suffering neck whiplash. The fast-disappearing brake man then applies the brake and glider and pilot are fifty feet high and climbing fast before you fully realise what's happened.

After watching it myself I went away and mentally lived through the whole experience a hundred times.

My first real launch brought with it a vastly heightened pre-flight awareness, bladder contraction, and dry mouth. The actual launch was so much a duplication of my expectations that it proved easy and exhilarating.

Believe me, it's an incredible experience to watch the tow vehicle turn from life-size to a speck in three minutes and to have a kilometre of rope hanging from the glider.

□ □ □

The first few launches make your arms ache until you learn to relax and ride the bumps. Flying straight with arms at full stretch is a new experience and strangely relaxing. You watch the tow vehicle underneath the bottom bar

with occasional glances at the altimeter. Anything under 1,300 feet we've come to regard as a bit mediocre. To date we've reached 1,800 on 3,300 feet of line, and so now with an added length we'll soon be cracking 2,000 feet - and we all want to be first to do it.

It's sheer magic to drop the line at 1,800 feet and suddenly become seemingly weightless, motionless and quiet, with the car below reduced to miniature and the whole airfield spread out and looking small. Much of our towing has been in the evenings after work (and school - sorry Andrew) when the air is glassy smooth and you can fly with virtually no control input. With no other gliders to worry about and no worries about ridge lift, I've drifted high over familiar countryside visually exploring miles of lanes, tracks, woods and villages which would take a month to walk.



Picture - Mark Jenak

Andrew Hill - "dubious character"?

Flying in such conditions is so effortless that normal flying improves easily as you can do whatever you wish exactly when you want to. You can fly pre-determined manoeuvres and 360s can be wound into the ground as you don't worry about drifting over the back. Your spot landings become pretty smart too. Then it's hitch up and away you go again.

□ □ □

We've not yet caught a good thermal day but we've flown at times when light winds have kept hill fliers grounded.

The local population seems not to have noticed us and so there has been little problem with spectators. Tom Baxter the farmer's son, is the only regular non-flier to give us a hand, and we suspect it won't be too long before he takes himself off to a school for his P1 or ultralight certificate.

If you're a competent P2 and have the chance to tow launch

you'll not be disappointed. It can never be stressed too heavily though, that towing is a system which leaves little room for error. Thus the tow method and equipment MUST be approved and the operators MUST have received adequate tuition. If you try fixed-line towing or cut corners then you'll simply become a statistic. Andrew Brough is in the process of writing a towing manual which will incorporate advice from worldwide sources, coupled with the experience gained during development and proving of his winch and control frames.

And so finally and most importantly, if any of you should be remotely interested in tow launching yourselves seek the advice which is available and avoid making costly and possibly painful mistakes.

