

Instructor and Coach Newsletter

Dear instructors and Coaches,

Welcome to the latest edition of the BHPA Instructor and Coach newsletter.

Bumper spring issue

- 1/ The 2016 Trainers conference; report.
- 2/ School accident statistics
- 3/ Coach licence renewals
- 4/ Resources for coaching sessions/ welcome days.
- 5/ Post CP training & Coaching : The Foundation level.
- 6/ Residential instructors course Booking information.
- 7/ Article: "The Normalisation of Deviance" *By Angus Pinkerton*

Articles and suggestions for I & C news can be e-mailed to:

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**Report on the BHPA trainers conference Feb 23rd & 24th 2016
at Lilleshall, Shropshire.**

The purpose of a trainers' conference is to give a forum for two-way communication between the association, - particularly the flying and safety committee, and the instructors and schools. It is to inform the instructors about the FSC activities and initiatives and other useful information; good examples being the annual accident statistics, or how the most recent PRS changes have been working. The schools and instructors can question, discuss these, and suggest changes or projects that the FSC can take on board.

We had a reasonable turnout with every one of the 40 booked rooms at Lilleshall being taken, and a further 7 delegates who attended and sorted out their own accommodation. This is in addition to the 3 technical staff. A couple of booked delegates did not make it, either through illness or just possibly because it turned out to be an excellent flying forecast!

25 of our 53 registered schools were represented, and a few coaches and potential BHPA instructors also attended.

The idea was to have short presentations on various aspects of the FSC's work and then an open period for discussion, suggestions and questions from the floor after each session. This format worked pretty well, although one or two discussions went a bit "off-piste" and had to be postponed to be resumed at the bar later.

The discussions were good natured and constructive and all the delegates reported that it was well worth coming. One parascending specific instructor noted that there was not much that was very relevant to them on the agenda.

The conference kicked off at 10.45 with Angus Pinkerton, chairman of the FSC welcoming everyone and explaining the format.

Dave Thompson, the senior technical officer, then gave a breakdown of the accident statistics from the last few years, with particular reference to accident rates in schools and what injuries had been reported. Dave also gave us information on the new European on-line accident reporting system and how this was generating useful data from a wide "pool" of countries.

This session prompted a few questions and yielded some interesting insights into the state of the sport. A report is included in this I & C news.

Mark Shaw reported on the school inspection process. The tech staff made 35 school inspection visits in 2015, and Mark gave some useful information on where schools most often required support, and outlined how the BHPA systems helps schools to operate and protect our insurance cover.

Some of the schools represented in the meeting had not had a recent inspection and this session was particularly useful to them.

Ian Curren then ran a short session on the changes to the Dual flying licencing system. Which effectively is that all dual pilots now need to pass an external examination.

There was a good deal of discussion concerning this, and the response to this initiative was overwhelmingly positive, although there was concern about the logistics of getting examiners, candidates, passengers and weather all at the same place on the same day!

There were useful offers from the floor to help the examiners panel be expanded, and a suggestion that we have a "group" tandem weekend where several candidates and examiners all work together. If successful we could repeat this in different regions two or three times a year.

Pete Morris of Sunsoar noted that there were quite few dual pilots currently flying without a dual licence, and asked if we could somehow include these pilots and get them qualified and therefore insured.

The BHPA's position is that we encourage them to apply for the examination if they have the required minimum number of flights etc. But this has always been the case, and clearly many have not bothered in the past when it was arguably easier to get a licence, so it may not be widely taken up unless clubs apply pressure to such pilots...

In the afternoon the next session was about the proposed 11 day residential instructors' course scheduled for September. This was discussed in the last issue of I & C news and several possible candidates indicated their interest in attending.

The delegates felt that this was a positive initiative, and a useful step forward to help bring on new instructors. *Details in section 6.*

Dave Thompson then chaired a session about dealing with accidents and incidents and about instructor's potential liability and the duty of care. This was a positive session, as it is clear that the BHPA's insurance and experienced legal team are a pretty strong combination in defending our members, and the claims history is generally good over the last few years. The big "BUT" in this though, is that if a school's paperwork is patchy, if they train with uncertified kit or break some other rule, or if they don't follow the STRB procedures then they are suddenly very vulnerable. Dual pilots are particularly easy to hold accountable and relating to the previous session, it was noted that some pilots are perhaps unconsciously risking all their assets (including their homes) if they fly outside the regulations and have an accident.

Mark Shaw reported on the speed flying trial that has been running with several UK schools for just over a year. Some schools had done little and some nothing at all, Gordy Oliver of Air adventures, Steve Purdie of Airworks and Zabdi from Flying Fever all had useful comments to make. Overall it was felt that as we have still not gathered sufficient data from this trial, it should be continued for another year. One or two additional schools have expressed an interest in becoming involved in the trial.

A couple of key points have emerged on Speed flying.

1/ As they are uncertified wings, if anyone trains on a speed flying wing and it is not a part of the trial (*ie the school is registered for it and the student being signed up for a specific speed flying course*). Then that school is not working to BHPA regulations and will not be insured.

Someone has already had an accident and a claim is in the works for precisely this situation, so DO NOT be tempted to put a student on (or allow a club member to be coached on) a speed wing because it gets a bit breezy. Note the trialled activity is solely top to bottom flight, soaring flight is not covered.

2/ If you come across speed flyers who are not BHPA members, it is well worth letting them know that there are speed flying schools now where they can learn safely, get a licence, and benefit from BHPA insurance, as required by most landowners. A lot of these guys are young and keen a (*much like some of us a few years ago*)! We do want them to join us, not to feel excluded.

Ian presented a short session letting instructors know about a revision in the licence renewal process. Any new renewal applications will now ask a few more questions concerning currency in each discipline and environment. This is to keep a paper trail to ensure that all our instructors and dual pilots are current in what they are teaching. -In the past you could renew a licence as an instructor in one thing if you were current in something else.

The question was asked: *"What if you only have (say) 5 days experience in the last year. ..Will you lose your licence?"*

The answer is that each case will be looked at, and experience and related currency will be considered. So if you have 20 years experience but lapse for one year and still fly yourself, it is likely the Tech staff will simply endorse your licence. If you have not flown your hang-glider for 3 years and want your coach licence back the answer will be no, or not until you have regained currency.

FSC power panel head Paul Mahoney gave a presentation on the state of powered flying in the BHPA. Most of our current trainers are using hills or winches for early flights and this is working very well. However it is now a well-trodden path for power pilots to learn through the "flat from scratch" system, where the students' first ever flight is their first powered solo flight and circuit.

This has been used by trainers in various countries and associations for several years now and despite early misgivings by those who have come from the hill or tow environments, it has proved to be effective and have a good safety record as far as we can determine. The BHPA training system is now written to accommodate this technique, and we hope that in doing so we can make powered paragliding training more accessible and persuade some organisations who can demonstrate suitable skills, to join the BHPA and train within our association. Dual paramotoring was also discussed and the possibility of a trial of this technique was considered. (It is not currently recognised by the BHPA). This discussion was only of interest to a small proportion of the delegates and so it was postponed to a future meeting.

The first day overran significantly due to the lively discussions, so an open discussion session listed on the agenda did not happen. But in fact this was probably a good thing as some of the more specialised groups that met informally after dinner in the bar and lounge areas, made good progress within a smaller forum.

The two main groups were discussing the future of hang-gliding, and a continuation of the discussion on how the BHPA can improve and integrate more paramotoring training models and operations into its registered school system.

The Lilleshall venue was excellent and the meals, rooms and the 1,000 calorie chocolate cookies were all well appreciated by the candidates.

Day 2 kicked off with a presentation by the BHPA chairman Marc Asquith on the Insurance position and how we arrived where we are. This was, according to the feedback forms *"surprisingly interesting!"* To summarise, after a huge amount of hard backroom work by Marc and Martin Heywood, we are in a really good place right now, with a good claims history, and world-class cover. The rather convoluted story of the reason for the lack of a physical policy document was a bit disappointing, but we hope this will be remedied soon. We are now well covered, but a very significant point arising from this, is that we are now a prime target for claims.

The inspection process, examinations system, paperwork changes and insistence on good admin and record keeping are all to some extent driven by this, and the efforts of all instructors and dual pilots are vital to help us maintain this hard won position.

All of you will recall the revisions to the CP Hill training syllabus introduced at the end of 2014. This altered the criteria for PLF's, it allowed ground handling outside the school in certain circumstances, it increased the number of soaring flights from 3 to 5, and it split the Top landing exercise into two, a theoretical and a practical element. The practical exercise could be concluded in a club rather than a school environment if the circumstances dictated it. At the time it was promised that the FSC would review the situation and report on how these changes were working out.

Dave Thompson presented this review session as promised, and there were a few interesting facts that emerged.

Every BHPA school both in the UK and abroad are still training the practical element of the top landings as their default position. (The only exception being the Forces Alpine centre). *(Some coaches and clubs had feared that some may simply stop bothering altogether).*

The schools reported that the increase in soaring requirements from 3 to 5 flights was not too onerous.. it really only reflected the best practice that was already in place in many schools.

The ground handling was also a case of the regulations following the reality, as many students were already practicing this, and the formalising of the activity was helpful both in making it a specific exercise to sign off, and in providing insurance cover.

Referring back to the accident statistics Dave noted that in the few hours immediately post CP, the number of reported accidents and injuries to pilots involving top landing had in fact reduced significantly in the last year. The numbers are so low that this may not be statistically significant, but it certainly reinforces the view that the changes have not increased the risks significantly if at all.

The conference asked a few questions, mostly related to overseas schools and their flying environments and controls.

The conclusion was that the changes are effective and useful, and that they are being implemented in a sensible and responsible manner, though the tech staff will continue to monitor the schools output as usual.

Simon Payne, the FSC's tow panel head, gave a brief report on the towing landscape, with several new field permissions being sought by some clubs, Simon also kindly made the report from Tom Hardie's airspace panel, as Tom was unable to make this conference. This panel has been extremely busy this year with the CAA review of the Air Navigation order, the impact of European legislation along with the usual crop of airspace changes, which the BHPA have input into.

One interesting thing is that the BHPA (among others) have lobbied for the height of tow activity without a specific site certificate to be raised from 60m to 90m or even 120m. The CAA are looking at this and seem quite positive, so this may come into force in the near future. 120m is 394ft and would be enough to allow a circuit of a moderate field, so if approved, could be very useful to BHPA schools.

David Thomson (*Scottish David with no "p"*) is the head of the FSC's pilot development panel and he gave a detailed presentation on the vision for how the pilot rating system could be shaped beyond the CP level. The BHPA faces several challenges, and among them is the fact that the first 10 hrs post CP is when the pilot faces the biggest risk of an accident.

Another issue is that a very significant proportion of new BHPA annual or training members do not re-join for a second year.

The Pilot development panel has looked hard at this and reasons for it, and has devised a structure to give new pilots a better pathway towards being qualified, and experienced pilots, and coaches and instructors a better structure to help them in their efforts to assist and nurture new pilots as they enter the sport.

This is the Foundation stage, and is concerned with progress up to 10hrs or so, when the red ribbons are in place.

David also outlined the grand plan for the next stages, Development (up to Pilot Level) and Performance, (up to Advanced pilot level).

Writing and implementing all this is an enormous job, and David thanked all those who had made useful input, unfortunately this had rather stalled in the last year as it relied entirely on volunteer efforts.

The good news is that the FSC approved some staff time to be devoted to this in the last few months, and Ian and Mark have now completed the Foundation level exercise system for hill launched PG, and written the instructor and coaching notes to accompany them.

(The Foundation level of the pilot development structure is outlined in section 5).

The next session was presented by Mark who outlined how this would look and be implemented. The conference could only gasp in amazement at what an impressive piece of work this was, and this session continued with Jocky Sanderson -who is heavily involved in the project, and who's FSC remit is in training and development, outlining the future vision.

This gave the big picture of how pilots might progress, perhaps by having development and performance centres as well as schools, and how the whole system might operate when it is completed. Jocky's session involved not just presenting ideas, but was very inter-active, with the conference asked what they thought was useful in terms of exercises, structure and delivery. There was some excellent feedback and many conference delegates volunteered to help with aspects of the structure (*some without even realising they had!*)

The atmosphere was very upbeat with a lot of constructive comment and a mood that we as an association are making real progress towards improving the sport for our members. Mark then expanded on the new "performance instructor" proposals.

In case you don't know, this is a new category of licence that applies to "instructors" who work commercially but do not train ab-initio students.

At present their status is a bit grey, some are offering some "paid for guiding", or they are instructors who just focus on CP plus clients and so their activities are not covered by the current definition of instruction, making renewal declarations a bit woolly. Whilst the concept was generally accepted, there was some discussion on what we should call these practitioners. "Performance" or "development instructors", unfortunately makes it sound like they are better than "normal" instructors. "Guides" is a possibility, or "professional coaches". Though it was felt the latter would cause a lot of confusion. "Development" or "performance" trainers was suggested by someone later in the bar, and seemed to have general approval.

Whatever we call them, the idea is that development trainers are licenced and examined just like any other instructor, but that their remit is limited to the area they have expertise and currency in. This could be Post CP, XC, Alpine guiding, SIV etc .

As Mark pointed out, this is a real commercial opportunity for schools and instructors., and possibly for some coaches too. Several of you are already selling trips or courses to Post CP clients now.

This would give a much better framework for schools to offer (say) training up to the new foundation level. Or for instructors who may be thinking of retiring from running up and down hills to extend their careers, but who could just focus on development exercises like XC without losing their licences.

Jocky and Mark's session ended to a round of applause!

Ian then presented the two main resources that the BHPA has been working on to help support instructors and coaches. The first is the Instructor handbook. This is in four parts. The first part is generic advice on the role of an instructor (or coach), covering everything from school admin to dealing with common problems.

The second portion is discipline specific and is a step-by-step guide to delivering the exercises in the Student training record books and right through to the foundation stage. The point of each exercise is noted, the mechanism for training it, the common problems or hazards, and the techniques or mitigating factors to deal with them.

So far a Hill PG and a Powered PG version are available, with other versions planned. These documents are now available from an instructor & coach section of the BHPA website (*details below*).

Ian gave out a few copies of the handbook at the conference for review and comment before they are finalised.

When it is completed, the third element of the handbook will be a bullet point list of delivery tips on each exercise that can be delivered via an app and display on tablet or smart phone screen. *(Or can be printed out and laminated if you are old school!)*

The final element is an instructor delivery checklist so that the TI and/ or senior instructor can check off each of the exercises in the handbook as a good standard of delivery is achieved. This will act as an additional detailed resource to support the instructor log book.

The Instructor handbook (PG hill & PPG versions) is now available to view or download from the BHPA website. You'll find it at:

http://www.bhpa.co.uk/sport/bhpa/coach_and_instructor/

Username:
BHPAC&I

Password:
C&I2016

The second BHPA resource is in the form of an extended power-point presentation that features over 350 slides, many animated, and some with video clips, that are designed to be available as resource for BHPA instructors (or coaches) delivering theory sessions. These are split into EP, CP and Pilot level groups, and arranged by subject. (Principles of flight, Met, Airmanship, & Air law).

So far the presentations cover PG Hill and HG Hill, with other versions planned in future. Ian showed a brief selection of these, which also have notes to the presenter *(when viewed in presenter mode)*.

This resource can be used with a projector, or shown on a computer screen or a tablet.

Schools can choose to print out all or some of the diagrams if they wish.

Like the handbook, this resource is not intended for general release to all pilots, it is too large to post as a download but you can request a copy by e-mail and the office will use a file transfer programme to send it to you.

It is hoped that simple version on a white background can be developed that can be utilised as an app on a smart 'phone or tablet screen. If anyone reading this is an app developer, we would love to hear from you!

This session concluded with an orderly queue of instructors holding flash drives, asking for an instant pre-production copy!

Angus wound up the conference with thanks to everyone who made the effort to attend, and most candidates helpfully filled in feedback sheets to help us make improvements to the next conference.

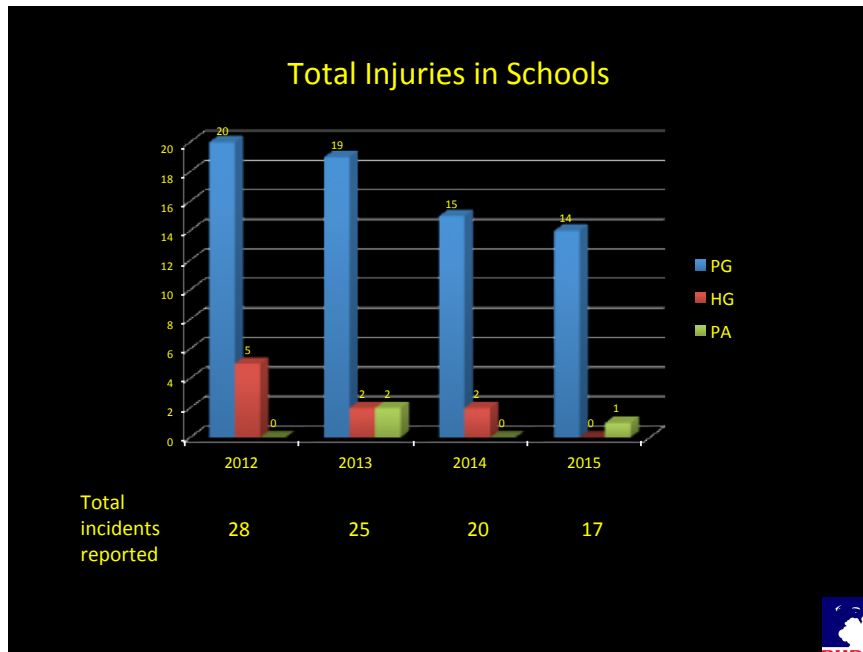
The forms asked how often we should repeat the trainers' conference, and the majority suggested every 2 or 3 years, and there was a general approval for the notion that instructors should be expected to attend at least alternate conferences as a part of their continuous development and training.

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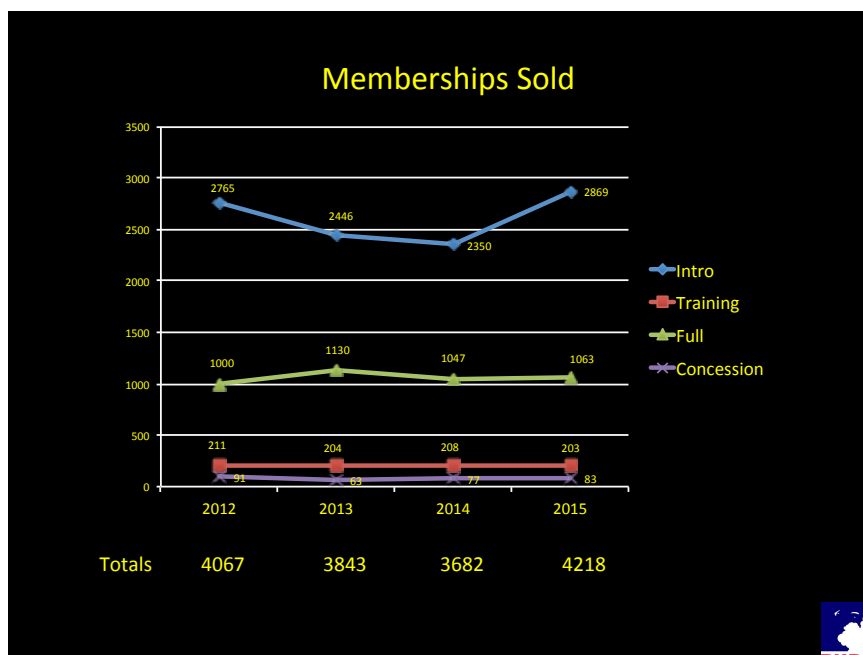
2. Accidents in BHPA schools

The graphs below are taken from the presentation given by Dave Thompson to the trainers' conference in February.

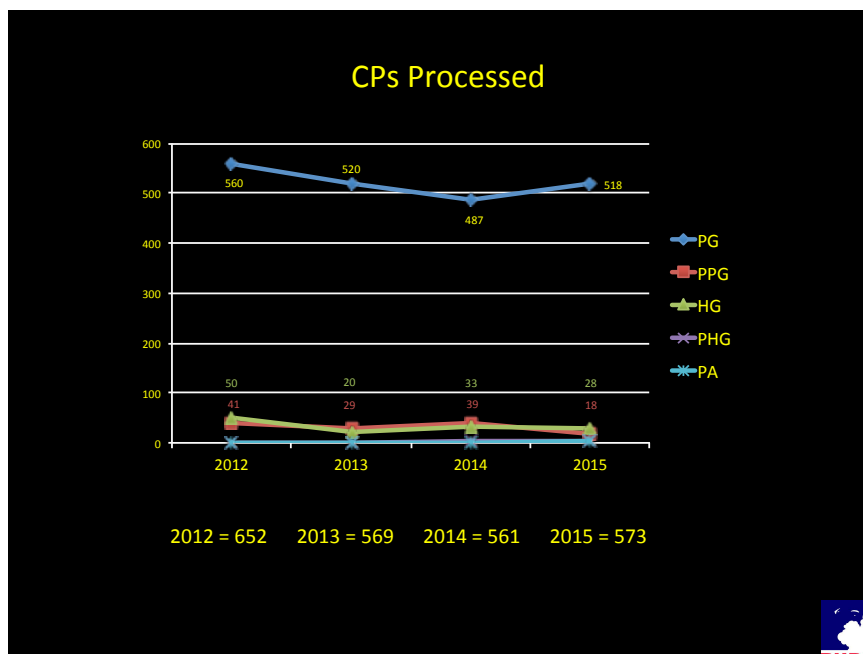
This graph shows the total reported injuries in BHPA schools. As you can see the trend is a welcome reduction in accidents over the last four years.



The second graph shows the number of memberships sold, as you can see the trend is fairly steady, and after a couple of quieter years the number is up slightly in 2015.



The third graph is the number of CP's processed, broken down by type.



What can we conclude from this?

If we make the assumption that each CP student is training for at least 6 days, *(Some of their days may have been in another year)* and we also assume that each flying day involves about 5 launches, *(often many more short runs in the case of day one students, but sometimes just one in the case of tandem passengers).*

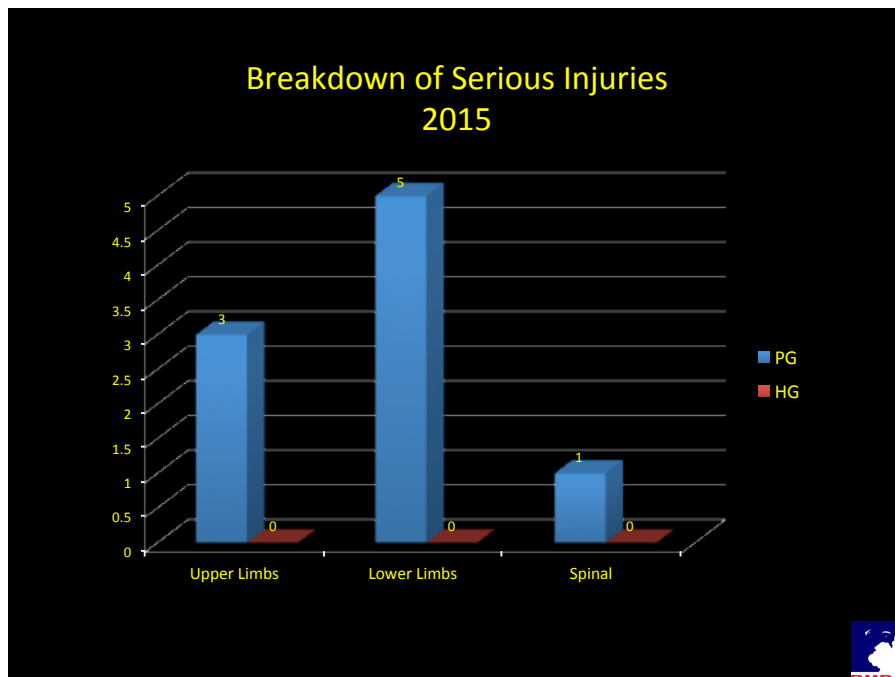
We can calculate that our 4000 + new members, *(1000 of whom are annual members, and so are almost certainly doing EP or CP courses, -in fact 500 of them have achieved CP).*

This would mean that in 2015 students at our schools have between them, probably made something like 50,000 launches.

With 15 recorded injuries.

But what were the injuries that these students sustained?

The following graph gives a breakdown of these injuries in 2015.



There were no hang-gliding injuries, reflecting the low number of students, there was in fact one minor injury in paragliding, which is not shown here, and the remainder were in paragliding. 3 were upper limbs, ie fingers, wrists, arms or collar- bones. 5 were lower limbs, ie toes, ankles or legs.

There was one spinal injury, which was sustained after a hard landing following a line break during a winch launch, in which the student apparently lifted their legs and landed on their seat. We are happy to report that whilst serious, the student was not permanently injured.

These were of course only school accidents.

Unfortunately 2015 was a very bad year for the membership generally, with 5 fatalities and one extremely serious injury being reported.

Detailed incident reports have been produced by the technical staff who have investigated all these accidents. These are still on-going, but we can report that two of them appear to have involved large collapses at low level, (*as did the sole 2014 fatality*).

Instructors and coaches are urged to advise pilots that a big collapse at 100m or less, which is resulting in a loss of control, should trigger the pilot to **immediately** deploy their emergency parachute.

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3. Coaching licence renewals.

Thankyou to all the many coaches who responded to our proposal concerning coach licence renewals. I don't want to re-hash all the arguments again here, but there were some well-argued cases put for both sides of the debate.

Many coaches felt that self-renewal was far more convenient and that the problems in getting a chief coaches' signature was off-putting. Some chief coaches felt that they were being asked to sign off coaches they hardly knew or had not seen in operation.

On the other side many coaches felt that the support of the chief coach was a vital link in quality control and removing it would undermine the position of the chief coach.

The FSC considered all the responses and concluded that the core of the problem was not the requirement for support itself, but the mechanism required to obtain it.

In future all coach licences must still be supported, but that support can now be in the form of an e-mail from the chief coach, or if for some reason they are unavailable, (holidays abroad for example), a supporting e-mail from another club official, usually the chairman, or if he is on holiday with the chief coach, the club safety officer's support would also be acceptable.

The chief club coach will always retain a veto on any coach licence renewal that is attached to his or her club.

Rather than having to track down and get your chief coach to physically sign your renewal form, this will allow you to drop them a quick e-mail asking them to confirm your renewal.

If you are a chief coach you still have the final say on renewal, and if you are not aware of the activity of the coach seeking renewal, you can ask for further details, perhaps supporting data from other coaches or club members, or a list or log of their activities, to check their currency for example.

This change is effective immediately and we trust that will ease the process of renewing your licence.

It should also help Ruth and the others in the office, who have often been faced with receiving a membership renewal form but with the supporting signatures missing, and have had to spend a lot of time chasing up the members or chief coaches.

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4/ Welcoming new pilots to your club: Coaching induction days.

I have always believed that theft is a useful if rather understated tool of the flying instructor. I have been stealing good bits of instructional technique for years. In fact a major benefit of being an examiner for two decades was that I was lucky enough to nick stuff from a wide variety of sources.

For example, who would have thought that PLF's could be highlight of students first day? But one enterprising candidate started giving marks out of 10 for entertainment value for each attempt, and encouraging the other students to mark each other, after 20 minutes they were all laughing and a couple noted it was the best bit of the day, (*not to mention being very effective at teaching PLF's*). Well worth robbing!

I have been the victim too, 20 years ago I was teaching reverse launching to a group in France when an interested local instructor wandered over and joined in, saying he had never tried it...later that week I saw him teaching the same thing to his students.

I have continued this theme in my role as a BHPA assistant technical officer, and this month's best haul of swag has come from the southern club, who have a very well organised induction system for new CP pilots joining their club, and their "red ribbon club" is a great idea for promoting safety and progress.

They have a welcome letter, which I have shamelessly plagiarized, and also a checklist for their new pilots being briefed for each of their club sites. I should say that in the later case the tech team and development panel had already drafted something very similar.

There is also a template for running a Coaching induction day, if is ideal if this is on a flyable site, but this a non-flying version.

We all invite you to use any or all of it as a template for your own club's coaching system if you wish. Drop me a line and I will mail you an editable version in Word.

The info is found at: http://www.bhpa.co.uk/sport/bhpa/coach_and_instructor/

Username: BHPAC&I

Password: C&I2016

5./ Post CP training & coaching : The Foundation level (<10hrs).

Over the last six months the BHPA tech staff have been conducting the annual round of Club Coach courses for BHPA clubs in the UK.

One of the new elements on the course is a presentation on the Foundation layer of the Pilot Development Structure, and attendees on the recent Coach courses will have received a handout which is the draft format Foundation level exercises for discussion and trial use by BHPA clubs.

The Foundation layer is the first stage of the Pilot Development Structure (PDS) which has been under development by the Pilot Development Panel. It is intended to be a web-based structure, describing the whole development process in the sport of paragliding and hang gliding.

PDS Layer

Performance
Development
Foundation

Pilot Rating Scheme equivalent

Advanced Pilot
Pilot
10 hours post CP (red streamer)

More info on the Foundation layer:

- 1) It is intended to help make the transfer from school to club environment easier for the new Club Pilot, by providing a structure for the initial introduction between new Club Pilots and the Club Coaching team in their chosen club.
- 2) Recently qualified Club Pilots will work their way through the skills and knowledge areas described in the Foundation layer, and complete the exercises to demonstrate that they have a level of competence in the relevant skills.
- 3) The Foundation layer is laid out in a more prescriptive manner than the Development and Performance levels will be. Most people entering the club scene at this “foundation” level have just come from a school - they are used to logbooks and tasks to work through. Feedback from low airtime pilots has been taken into account when putting the list of exercises together - many new pilots at this level want a clear route laid out to illustrate what they should be reading about and practising in order to make progress.
- 4) The completion of the Foundation level Record Book is intended to be recorded through self-logging by the pilot, although a proportion of the exercises are recommended to be signed off by a coach. This is to encourage the pilot to establish and maintain contact with coaches and promote a mentoring relationship, as the pilot develops his / her knowledge and skills. It is for new pilots to do at their own pace, with their fellow low airtime pilots if they wish. There is absolutely no expectation for a coach to be present to witness every 360 degree turn, reverse launch, etc. If a pilot using the Foundation layer structure wants the flights to count towards their Pilot rating then it would be expected to get the relevant tasks signed off by a coach/instructor - exactly what happens now when someone is working through the Pilot Training record book.

5) Completion of the Foundation level is intended to mark a stage in a pilot's development, where they have demonstrated that they have achieved consistent competence in the basic skills, and understanding of local and wider conditions, to justify removal of their "Red Ribbon" and commence the next stage of their development.

6) There is no expectation that a coach needs to be a 25 year veteran to coach the Pilot Development Structure - a coach only coaches things they have the necessary tools to coach. This applies to the highly experienced coaches as much as coaches who are relatively new and quite low airtime pilots themselves - both of whom can make very valuable coaching contributions.

7) The Foundation Layer PDS is a work-in-progress - it is not mandatory to use it! It can be used / not used / changed to meet the specific requirements of clubs. We need willing coaches to try it out in order to see how it works.

Eventually the exercises will be incorporated into a new version of the pilot task book, but at the moment you can access the exercises on the instructor and coach section of the website as noted elsewhere in this newsletter.

For more information, please contact the Pilot Development Panel, David Thomson, or the Assistant Technical Officers Ian and Mark. Email addresses are on the BHPA website.

6/ The BHPA residential instructors course Sept 2016.

The details of this course have now been finalised and we are accepting bookings (please use the form below). This has been mentioned in previous I & C newsletters, so this is a quick reminder.

The 11day course (+ travelling days) will cover the syllabus for the coaching course and the instructor course and fulfil the requirement to gain experience at another school. It will include practical training and classroom work and is aimed at TI's of all levels.

If the candidate already has sufficient practical experience in a school and has a suitable first aid certificate, the course may also serve as an examination and result in an instructor licence. If the candidate is less experienced or even just starting their training careers it will give a very significant boost to their skills and experience and will move them significantly forward on the road to being a qualified instructor. This first course is for PG Hill instruction only.

The venue is the Vale Paraíso holiday village, in the Leiria region of Portugal about 1hr North of Lisbon. This area has several excellent and reliable coastal sites and easy access to some good inland flying as well.

Accommodation is in a shared chalet, each candidate gets their own bedroom and a shared kitchen, living space and bathroom. It is self-catering, and very cheap as the local Lidl is just up the road. There is a restaurant, swimming pool, gym and bar on site.

The cost is £946 per person. This includes all the training, accommodation and transport in Portugal including airport transfers. It does not include food and drink, travel to Lisbon, or travel insurance.



One of the coastal sites in Portugal. Note decked T/o

Dates and flight details are on the booking form below. If you have any questions please contact the office for details.

Note that there are only 12 places and several are already booked.

Revision: 03/2016
Pages: 1 (White)

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and Paragliding
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Tel 0116 289 4316
Fax 0116 289 8741
www.bhpa.co.uk



BHPA Residential Instructor Course Reservation

A place has been provisionally reserved for you on the Residential Instructor Course planned for 14th - 25th September 2016 at Nazare, Portugal

The course fee is £946 and includes tuition, accommodation, transport in Portugal and airport transfers. It does not include food and drink or travel to Lisbon airport.

NB There is some evening work which is why it is a residential course.

Please ensure you have the appropriate TRAVEL INSURANCE.

Please complete the slip below and return it, together with your deposit of £400, to the BHPA office.
Balance of payment to be received at the BHPA by 1st September 2016.

Name: _____ M/ship No: _____

I enclose a cheque payable to BHPA Ltd for: £400 deposit or £946 payment in full, alternatively you can ring with a debit card (delete as appropriate).

Where would you like us to send the final Course Joining Instructions? Please supply e-mail address (Print)

Signed: _____ Date: _____

British Hang Gliding & Paragliding Association Ltd Payment methods

i) Bank Transfer

The Royal Bank of Scotland
Leicester Market Street Branch
5 Market Street
Leicester LE1 6DN

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7/ The Normalization of Deviance. *Angus Pinkerton*

This article concerns the Bedford Massachusetts Gulfstream IV Crash and the enquiry's finding of "Normalization of Deviance".

In aviation you haven't got time to make all your own mistakes before you kill yourself, or someone else. To help myself learn from other people's errors, I read quite a lot of aviation accident reports – and not just those concerning Hang Gliding and Paragliding. One recently published accident report by the NTSC in the USA has caught my attention. It concerns a Gulfstream IV executive jet that crashed at Bedford in Massachusetts.

What happened is fairly simple to explain. The Pilots attempted to take off with the Gust Lock (Control Locks) engaged, and as a result of the designed limitation on throttle movement, the aircraft couldn't accelerate normally to flying speed. The Pilots couldn't control pitch, and the aircraft ran off the end of the runway into a steep gully. The ensuing fire killed all seven people on board.

There have been dozens of accidents caused by control locks, and even very experienced test pilots have made this mistake. So why am I drawing attention to this accident, in a very high performance £20m executive business jet, piloted by two extremely experienced professional pilots? What relevance can it possibly have to BHPA members?

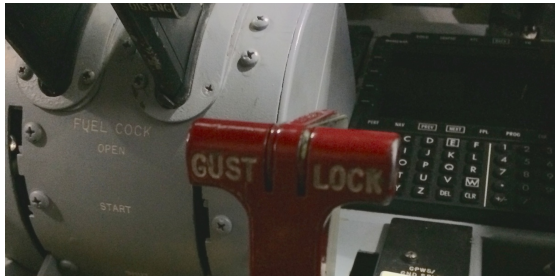
The report details a long series of actions and habitual behaviours which are so far beyond the pale that they defy any normal description of "pilot error". And the Root Cause is something that can, and does, regularly affect hang glider and paraglider Pilots, Coaches and Instructors.

Lets start by listing the unarguable errors made by the Pilots:-

1. There are five mandatory Gulfstream check-lists that are required to be completed before take-off. None were completed on this flight. This was not an anomaly – this crew skipped their check-lists all the time.

2. Obviously the gust lock was not removed prior to flying. It is a very big, very visible, bright red handle that sticks up 30cm above the centre console. (see pic)

However research and testing into selective attention has readily demonstrated that things like this are quite easy to miss. (How many of you have seen the video of a group of players bounce-passing basketballs – and missed the extra player in the gorilla suit?) This is one of the primary reasons that we have check-lists.



Gulfstream 1V Gust lock controls.

3. Flight control checks, to confirm the free movement of the controls and control surfaces, were not performed on this flight. Again this was not unusual – these pilots never did this and hundreds of cockpit voice recordings confirm this.

4. The crew received a “Rudder Load Limit” message. This is abnormal – and the crew discussed it, but then took no action.

5. Because of the engaged gust locks, the Pilot in Command was unable to push the throttle levers forward far enough to achieve normal take-off thrust. He knew this and stated that he couldn't get full power. But continued the take-off run anyway.

6. The Non-Flying Pilot is supposed to monitor the engines and call out when take-off power is set, and shows on the engine instruments. He failed to perform this task.

7. Aerodynamics naturally cause the elevator to move up and the stick to move back as this aircraft accelerates down the runway. All Gulfstream Pilots are trained to expect this but neither of them noticed (or commented) when it didn't happen on this take-off.

8. The Pilot in Command did realise that the gust lock was engaged, and said so several times. On the first occasion the aircraft was travelling at 128 knots (this was probably around the decision speed for this take-off) and had used 950 meters of runway; about 1,500 meters remained. At this point the remaining runway length would have been easily sufficient to safely abort the take-off.

9. One of the pilots then pulled the “flight power shut-off” handle to remove hydraulic pressure from the flight controls in an attempt to release the gust lock. This isn't documented in any Gulfstream manual because it doesn't work.

10. By the time the crew realized that this action was not going to release the gust lock, and began their attempt to abort the take-off, it was too late. The aircraft was then travelling at 162 knots (186 mph, and significantly faster than the normal take-off speed) and only about 820 meters of runway remained.

11. The Gulfstream IV has hydraulically-actuated ground spoilers — which assist in stopping the aircraft by reducing the lift from the wings and hence placing most of the aircraft's weight back on the wheels, significantly increasing rolling resistance and braking efficiency. These spoilers were no longer available because the crew had removed the hydraulic power from the flight controls when they pulled the flight power shut-off handle.

So... what I, and probably you, are most interested in, is gaining an understanding of how well-respected, very experienced (they had nearly 30,000 hours of flight experience between them) and accomplished pilots; who've been through the best training the aviation industry has to offer, reached the point where their performance was so bad that a CFI wouldn't accept it from a student on their very first flight?

After reading through the litany of errors and negligence present in the accident report, it's tempting to brush the whole thing off and say "this could never happen to me". I am convinced that doing so would be a grave mistake, because it absolutely can happen to any of us, just as it has to plenty of other well-trained, experienced, and intelligent pilots.

Clearly the Bedford pilots were capable of following proper procedures and they did so sometimes. Mainly on selected occasions: at recurrent training events, during flight audits, on check-rides, and various other monitored situations. Some of the official commentary concentrates on "complacency", but the true accident chain on this crash formed over a long, long period of time — decades, most likely — through a process known as the *normalization of deviance*.

Normalization of deviance is the process by which people become so accustomed to an errant behaviour that they no longer consider it as deviant. Only with hindsight do people seem to be able to recognise that their seemingly "normal" behaviour was in fact deviant.

The concept was developed by sociologist and Columbia University professor Diane Vaughan after the Challenger space shuttle explosion. Her conclusion was that NASA fell victim to the inevitable effects of a normalisation of deviance process in 1986. Because there had been no serious failures when shuttles took off in low temperatures, this had become normal. Until Challenger, and the catastrophic failure of the inflexible O rings in the solid rocket boosters. NASA were then hit again in 2003 when the Columbia shuttle disaster occurred. This time the normalisation had been the acceptance that pieces of foam insulation broke off from time to time during launches without ill effect, without considering what could happen if a larger piece detached at high speed. If NASA couldn't escape its clutches twice, you might wonder what hope we can have?

The first step in avoiding normalisation of deviance is awareness. Just as admitting you have got a problem is generally accepted to be the first step in recovery from addiction. After all, if you can't detect the presence of a problem, how can you possibly fix it?

Several factors tend to promote normalization of deviance. First and foremost is an attitude that (some) rules are stupid and/or inefficient. Pilots, who tend to be independent Type A personalities to start with, often develop short-cuts or workarounds when the check-list, regulation, training, or standard seems inefficient, or just a nuisance. Sometimes pilots learn deviations without even realising it. After all, formal instructional training only covers a limited part of what an aviator needs to know to fly in the real world. The rest comes by example; from more experienced senior pilots, coaches, competition pilots and the local Sky God. What's taught or demonstrated by these pilots is not always correct, nor safe for everyone else.

Another driving factor is expediency. "I'm in a hurry, and this has worked fine before," may not even be a conscious thought, but it drives check-list avoiding behaviour. Again this can be reinforced by peer pressure or the example shown by other pilots.

A further factor is failing to ask oneself the question, "What could possibly go wrong here?" This is one of my favourite questions, both professionally and as a pilot. Asked in advance, before the adrenaline kicks in, or you get swept away up with enthusiasm; it is one of the best defences against the apparently unexpected, and can help to highlight the development of deviant behaviour.

The last step in the normalisation process is silence. Pilots, Coaches and Instructors being reluctant to speak up helps deviant behaviours become embedded. Often this silence is understandable. Many clubs are relatively small and close groups, and no-one wants to fall out with their friends; seem like a kill-joy; or disagree with the local Sky God.

Getting on top of the problem is neither easy nor comfortable and it requires a willingness to confront such deviance whenever it is seen. It requires buy-in from all pilots on the procedures and training they receive. Most particularly from the most experienced who, intentionally or not, are seen and copied as role models.

Normalization of deviance is like corrosion; an insidious, ever-present, naturally-occurring enemy which will weaken, and eventually destroy us.

If we let it.