
Safety & Training Committee

Minutes of the meeting held on

Thursday 9 June 2022 at 7pm

Present:	Jeff Montgomery	-	Chair STC/STO
	Iain Anderson	-	Skydive St Andrews
	Dylan Bartle	-	JSPC(W)
	Kieran Brady	-	Skydive Strathallan
	Alex Busby-Hicks	-	Skydive Tilstock / Council
	Stacey Canning	-	APA
	Bryn Chaffe	-	Skyhigh Skydiving
	Andy Clark	-	Skydive Ireland
	Paul Floyd	-	Skydiving London
	Chris McCann	-	Skydive Hibaldstow
	Stuart Meacock	-	Hinton Skydiving
	Andy Montriou	-	Cornish PC
	Sara Orton	-	Skydive GB
	Andrew Pointer	-	Sibson Skydivers
	Mally Richardson	-	Skydive Jersey
	Pete Sizer	-	Chair Riggers' Subcommittee / Headcorn
	Jason Webster	-	JSPW(N)
	Richard Wheatley	-	Skydive Langar
	James White	-	Paragon Skydiving
	Martin White	-	Cyprus
Apologies for Absence:	Mike Carruthers	-	Skydive North West
	Gary Small	-	Skydive Chatteris
	Paul Yeoman	-	Black Knights
In attendance:	Liz Ashley	-	Editor, Skydive the Mag
	Mary Barratt	-	Council
	Mark Bayada	-	Council / Board of Inquiry Member
	Tony Butler	-	Chief Operating Officer
	Dr John Carter	-	British Skydiving Medical Adviser
	Liam Domin-Goddard	-	Communications Manager
	Trudy Kemp	-	Assistant to COO/STO/Secretary
	Craig Poxon	-	Chair – British Skydiving
Observers:	Ant Andrews, Rick Boardman, Richard Cotton, Neal Fitzpatrick, James France, Richard Liddle, Noel Purcell, Charlie Robson, Mark Robson, Mike Rust, Chris Sears, Ben Wood		

ITEM **MINUTE**

1. **WELCOME**

The Chair welcomed all members and guests to the 3rd STC Meeting of 2022.

He welcomed Andy Montriou to STC who had recently taken over as Chief Instructor of Cornish PC.

The Chair stated that as this was a Hybrid meeting, with some members present and some attending virtually, he gave the meeting details of the procedures for wishing to speak, voting etc.

The meeting would be recorded to assist with preparation of the minutes, after which the recording would be deleted.

2. DECLARATIONS OF ANY CONFLICTS OF INTEREST

The Chair asked that any voting member with a personal, financial or material interest in business on the agenda should declare that interest at the appropriate item.

3. MINUTES OF THE STC MEETING OF 7 APRIL 2022

It was proposed by Sara Orton, seconded by Pete Sizer that the Minutes of the meeting on 7 April 2022 be accepted. This carried with one abstention (Andy Montriou).

Carried

4. MATTERS ARISING FROM THE STC MEETING OF 7 APRIL 2022

Page 2. Item 4 – Matters Arising. The Chair reported that the Board of Inquiry resumé is a main agenda item. The ROCC requirements was also a main agenda item.

5. RIGGING MATTERS

Pete Sizer, Riggers' Subcommittee Chair reported on the meeting held this afternoon and stated that the Committee had approved a new reserve sealing method. This was in addition to the British Skydiving acceptable reserve sealing method as detailed on Form 215, which would be updated shortly with full details and drawings. The Committee had also discussed an information bulletin from UPT concerning Sigma main canopy weight limit change.

6 INCIDENT/INJURY REPORTS - RESUMÉ

The Chair reported that a resumé of incidents had been included with the Agenda:

- a. There have been 6 Student injury reports received since the last STC meeting. 2 males and 4 females. Two reports involved Category System students; the first was a static line student on their first jump, who only partially flared for landing, resulting in a broken ankle. The second was a Category 6 student who flared unevenly and fractured their tib & fib. The other 4 injuries were AFF students. 3 Levels 1 and 1 Level 3. All 3 had ankle injuries after poor flares. The last was a Level 3 student who sustained a bruised ankle having caught it on the wind deflector on exit.
- b. Eleven reports of injuries to 'A' Licensed skydivers or above have been received. All males. Two display team jumpers twisted their ankle while carrying out display practice jumps. One jumper received a bee sting and a swollen knee, having landed off the PLA and on a beehive. One skydiver with 28 jumps dislocated their shoulder in freefall and was unable to deploy their main canopy and successfully carried out their reserve drills. A jumper with 100 descents was the base in a 'hoop' jump and was hit in freefall by another jumper. The jumper only sustained bruising. Another skydiver with 979 jumps carrying out a wing suit jump, had twists on their main canopy, carried out the reserve drills and then had twists on the reserve. The equipment was fitted with a MARD system. The jumper landed backwards and fractured their sternum and bruised their lungs on landing. One skydiver with 3,980 jumps fractured a vertebra having flared late and landed on their backside. Another skydiver, with 540 jumps, had twists on their main canopy, spent a great deal of time clearing them, resulting in a downwind landing and a broken femur. Two jumpers one with 83 jumps, the other with 700 jumps had fast landings, tried to run them off, one

fell and sustained a tendon tear and the other broke their leg. The last was a jumper who experienced whiplash and groin pain from leg straps resulting from a very hard opening. It was discovered that one of the brake lines was not routed through the slider grommet.

- c. Four reports have been received of Student malfunctions/deployment problems. All males. One static line student on their first jump thought the main looked too small and carried out their reserve drills. An AFF Level 1 student held on to the toggle at deployment, the instructor knocked it off the student's hand, but the bridle wrapped around the instructor's wrist, he eventually got it free. A static line student with 5 jumps had a line over and carried out their reserve drills. An AFF Level 5 student deployed at 6,000ft could see no canopy so carried out their reserve drills. The student's bridle had caught on the instructor's helmet camera, the instructor undid the helmet chin strap releasing both the helmet and camera.
- d. There have been 28 malfunction/deployment problem reports received for Licensed skydivers. 22 males and 6 females. 12 of the reports were twists in the rigging lines, causing spinning or diving canopies, which the jumpers were unable to clear. The jump numbers ranged from 555 -2,300 jumps. 4 of the reports were line over type malfunctions. 4 of the reports were for jumpers who were unable to fully pull the pilot chute out of the pockets. 3 reports were for tension knots in the lines which made the canopies uncontrollable. One report was a brake fire, another was for a total malfunction, and another was a brake lock. 2 reports were for CF jumps. One was for canopy damage after a canopy wrap. The last was where lines entangled with the canopy after a canopy docking.
- e. There have been 7 Tandem injury reports received. 4 males and 3 females. One report was an instructor who sprained an ankle having caught his foot on a tuft of grass. One student caught their foot on exiting the aircraft, bruising it. Another student dropped their legs just prior to landing, resulting in a broken ankle. One student reached for the ground just prior to landing, resulting in a suspected fractured ankle. A student received a grazed ankle on landing because he dropped their legs and the instructor fell on top of the student. Another report was a student who received a grazed shoulder because the instructor dropped short of the catchers and the pair were dragged along after landing. One report was received of a Tandem student who became unresponsive from approximately 1,000ft under canopy, on landing the student's legs dragged on the ground, as he landed belly first, cutting his nose on his goggles.
- f. Seven reports have been received of Tandem malfunction/deployment problems. One report was an instructor who threw the drogue which did not inflate. The bridle became knotted around the pilot chute. He then deployed the main parachute early, as there was enough drag on the pilot chute to extract the canopy. One report was for a broken suspension line. Another was for a damaged canopy. Another was due to a tension knot in the rigging lines, and two were for brake -locks, the second of which resulted in the reserve deploying, with both canopies flying. There is a possibility that whilst the TI was trying to undo the brake lock, he may have caught the reserve handle, though this is only speculation. He cutaway the main and landed safely under the reserve. The last report involved a Tandem Instructor with 108 Tandem descents who exited the aircraft in a stable position and forgot to deploy the drogue. At 6,000ft the instructor pulled the primary release toggle and thought that the drogue was deflated. He then felt that he was rolling on to his back and immediately pulled the reserve handle. The Tandem pair landed safely on the PLA without further incident. Only after landing did the instructor realise that he had forgotten to set the drogue. He then stated that he had a mental lapse during the exit phase and didn't realise that he had not set the drogue and realised the grave error of his mistake. The Chief Instructor stopped him from carrying out any further Tandem descents and informed the STO shortly after, requesting that he be independently assessed by Tandem Instructor examiners on the Tandem Instructor course which was due to be held at the PTO the following week, to which the STO agreed. The instructor carried out numerous suspended harness drills and was cleared to carry out a Tandem descent with a Licenced skydiver on the front. On successful completion of the descent the examiners were satisfied that he could resume Tandem instructional descents. The STO also sent a letter reminding the instructor of his responsibilities which remains on his record.

- g. One report was received regarding a display practice jump where the first parachutist landed and was pulled over by the second parachutist landing too close to the first. No injury occurred. Another report was received regarding an AFF Level 6 skydive, where the instructor climbed out first, onto the camera step. The student keyed the exit, the instructor left, but the student remained onboard. The student informed the pilot and he descended with the aircraft.
- h. Ten 'off-landing' reports have been received, 2 Tandem pairs, 3 AFF students and 5 experienced skydivers.
- i. Six reports have been received of items coming off whilst spotting, on exit, or in freefall. A pair of sunglasses, 2 cameras and 3 helmets.
- j. A report has been received of an American military C130 overflying a DZ whilst skydivers were in the air. It has been reported to the CAA as an Airprox.

Additional Incident Reports

The Chair reported that since the STC agenda had been circulated, there have been a further 18 injury or incident reports received.

A static line student dislocated his shoulder during ground training. He was practicing exits from a raised aircraft mock-up into a foam pit and landed awkwardly. Five solo student injury reports have been received. 2 static line students flared too high resulting in ankle injuries. Another static line student exited on her back, the bag came out and under her arm, catching her wrist, possibly straining it. 2 AFF students flared high, both landed on concrete or tarmac surfaces, one grazed a shoulder, the other had grazed knees.

A 78-year-old Tandem Student, who had a medical certificate, became unresponsive just prior to exit. An ambulance was requested, as the student was unconscious. The aircraft landed. A jumper who is a doctor administered first aid until an air ambulance arrived, about 15 minutes later. When following up later, it appears that the student may have had a stroke. It was also discovered that the student was suffering from terminal cancer. None of which was indicated on the medical certificate. Another Tandem Student dislocated her ankle, reaching for the ground as the TI flared.

A report has been received of an AFF consolidation student with 17 jumps, who had tangled lines and carried out his reserve drills. Two Licenced jumpers, one with 610 jumps and another with 3,122 jumps experienced spinning canopies and carried out their reserve drills. Another with 119 jumps had a bag-lock malfunction. One report was for an A licence jumper with 22 jumps flew down wind and landed on a fence, cutting his lip.

Three reports have been received of twists to Tandem canopies, which the TIs were unable to clear. A report has also been received of a group of experienced skydivers on a 10-way FS took too long exiting the aircraft and landed off the PLA. The final report was an AFF Level 4 student who lost a shoe on exit.

7. PROPOSED AMENDMENT TO BRITISH SKYDIVING OPERATIONS MANUAL

The proposed amendments to the British Skydiving Operations Manual had been circulated with the Agenda:

a. Removal of ROCC requirement to attend a CSBI or AFFBI course

The Chair reported that at the last STC meeting it was decided that a proposal would be put forward removing the Parachuting Radio Operators Certificate of Competence (ROCC) as a requirement to attend a CSBI or AFFBI course.

Therefore, it is proposed that the **Operations Manual, SECTION 4 (INSTRUCTORS), Paragraph 1 (Category System Basic Instructor), sub-para 1.1.6**, be deleted. Previous sub-paras 1.1.7 & 1.1.8 come 1.1.6 & 1.1.7.

Also, **Operations Manual, SECTION 4 (INSTRUCTORS), Paragraph 3 (Accelerated Free Fall Basic Instructor), sub-para 3.1.6**, be deleted. Previous sub-para 3.1.7 & 3.1.8 come 3.1.6 & 3.1.7.

If the ROCC requirement is removed from the requirements to attend a CSBI or AFFBI course, this should also apply to the Non-British Skydiving AFF and Advanced Instructor ratings.

Therefore, it is proposed that **Operations Manual, SECTION 4 (INSTRUCTORS), Paragraph 13 (Non-British Skydiving Instructors), Sub-para 13.1.1-d** be deleted. Previous sub-para e, f, g, become d, e, f.

Also, **Operations Manual, SECTION 4 (INSTRUCTORS), Paragraph 13.2 (Advanced Instructor), Sub-para 13.2.1-e** delete. Previous sub-para f, g, h become e, f, g.

For clarification purposes the Chair stated that at the moment anyone attending a CSBI or AFFBI course is required to hold a Para ROCC licence. A Para ROCC licence is required to talk to parachutists using VHF Frequency 130.530 kHz or used to talk to the aircraft using VHF frequency 129.905 kHz.

He stated that few if any PTOs still talk to students using 130.530, as most tend to use Motorola type radios. And as it is something many instructors will not need unless they are likely to talk to the aircraft as a DZ controller.

However, anyone who will need to talk using either frequency will still need to obtain a Para ROCC licence.

Mike Rust referred to Pre-Advanced/Advanced Instructor Course candidates where he believed a ROCC licence was required as candidates are going to be examined on DZ Control and he was concerned that they could only be examined at a PTO who used the frequency 129.905.

The COO clarified that those talking to the jump aircraft on frequency 129.905, must hold a ROCC licence.

Following consideration, it was proposed by Alex Busby-Hicks, seconded by Stuart Meacock that the above proposed amendment to the British Skydiving Operations Manual be accepted.

For: 12 Against: 7 (incl 2 x proxy Abstentions: 2

Carried

The Chair stated that the relative Instructor Course syllabuses and Proficiency Cards would be amended accordingly.

The Chair stated that in view of the above proposal, it is also proposed to clarify in the Operation Manual when ROCC licences are required. **SECTION 1 (CONDUCT AND CONTROL OF SKYDIVING), Paragraph 4 (Ground Control Organisation), add New N.B following Sub-para 4.3.3 -m**, to read:

N.B. (1) DZ controllers or any person talking to a jump aircraft on frequency 129.905 and any person talking to skydivers on frequency 130.530 must be in possession of an appropriate ROCC (details may be found in Form 125).

Following consideration, it was proposed by Stacey Canning, seconded by Jason Webster that the above proposed amendment to the British Skydiving Operations Manual be accepted.

Carried Unanimously

The Chair stated that although there is a general understanding that any person performing student talkdown should be a suitably qualified instructor, it has been pointed out that this requirement is not clarified within the Operations Manual. The following amendment is therefore proposed:

SECTION 5 (TRAINING), Paragraph 1 (General) add the following sentence to the end of the paragraph:

'This includes persons performing student talkdown functions.'

There followed a lengthy discussion.

The COO stated that he believed that anyone instructing including student talkdown should be performed by an instructor. The reason for the proposal was to clarify the situation.

The general consensus of opinion from those present was that a suitably qualified person should be capable of performing student talkdown, who may not necessarily be an instructor providing they have been adequately trained and briefed.

The COO stated that a proposal would need to be put forward for consideration by the Committee at a future meeting, which included the training and qualifications for this person.

Following further consideration, this proposal failed to find a seconder.

- b. The Chair reported that two proposed Operations Manual amendments have been received from Andy Pointer following on from the amendments to FS1 proposed and voted in at the last STC meeting.

The previous wording of the FS1 section stipulated that after FS1 is obtained, that individual may not make FS descents with others without CI approval.

This phrasing is still echoed in the following grading stickers: FF1, CF1, SS1, WS1, WS2.

There are similar stipulations in the privileges associated with TR1, TR2, TR3 stickers. In these paragraphs, the stipulations are regarding maximum group sizes, rather than the option to jump with others at all. Similar to how FS1 reads since the last meeting.

The first proposal is to reword FF1, CF1, WS1 and WS2 so that they function in the same way as FS1 now does; once the sticker is obtained, they may jump with others, but only up to a maximum group size of 3 (2 for CF1).

Andy Pointer had stated that he has intentionally omitted SS1 from this proposal. It is an unusual discipline in that it is uncommon nowadays; coaches are hard to come by; and it can be high risk- especially in groups. Andy believes the phrasing of the SS1 sticker should remain in place, although tweaked to suit the second proposal.

Andy Pointer's second proposal is to open up the 'logbook endorsement' authority to Advanced Instructors rather than only Chief Instructors. This would apply to all grading system stickers.

It is therefore proposed that:

Operations Manual, SECTION 2 (DESIGNATION AND CLASSIFICATION OF SKYDIVERS, Paragraph 6 (The Grading System). Sub-paras 6.4.2., 6.6.3., 6.7.3., 6.8.3., 6.8.5., 6.9.3., 6.9.8., and 6.9.12., be changed to read:

- 6.4.2. A CF1 Grade skydiver is able to make 2-way CF formations with other CF1 or CF2 holders. A CF1 holder must not make canopy formations larger than 2-way unless with an Advanced Instructor nominated CF1 Grade skydiver or equivalent of proven CF instructional ability.

- 6.6.3. Once FF1 has been obtained, the skydiver may make small group FF descents not exceeding 3 people in total unless a FF coach is participating. To make larger group FF descents without a FF coach, the skydiver must receive Advanced Instructor approval (a logbook endorsement will suffice).
- 6.7.3. Once SS1 has been obtained, the skydiver must not make SS descents with others without Advanced Instructor approval, (a logbook endorsement will suffice) and initially only small groups (e.g. 2-3 ways).
- 6.8.3. Once WS1 has been obtained, the skydiver may make small group WS descents not exceeding 3 people in total unless a WS coach is participating.
- 6.8.5. Once WS2 has been obtained, the skydiver may jump with WS groups larger than 3 with Advanced Instructor approval (a logbook endorsement will suffice).
- 6.9.3. Once TR1 has been obtained, the skydiver must not make TR descents in groups of larger than 4 without Advanced Instructor approval, (a logbook endorsement will suffice).
- 6.9.8. Once TR2 has been obtained, the skydiver must not make TR descents in groups of larger than 6 without Advanced Instructor approval, (a logbook endorsement will suffice).
- 6.9.12. Once TR3 has been obtained, the skydiver must not make TR descents in groups of larger than 6 without Advanced Instructor approval, (a logbook endorsement will suffice).

Richard Wheatley commented that Andy Pointer had stated that as any Advanced Instructor is qualified and trusted to award any grading system sticker, he believed they too should be trusted to make such a logbook endorsement regarding a jumper's progression within a discipline. Holding the office of CI should have no bearing on an AI's capacity to make that decision correctly.

Richard Wheatley stated that Chief Instructors are part of the UK audit process, and that in the future, if the Committee are going to allow more actions to be taken by Advanced Instructors, they must be mindful that they are permitting more activity to take place outside of any current existing auditing process, as Advanced Instructors and their decisions are not audited in any way.

The Chair said that any PTO with an Advanced Instructor at their PTO, they would need to include details within their SOPs of the named individual AIs (with the authority of the CI) who are entitled to authorise grading system stickers.

Following consideration, it was proposed by Bryn Chaffe, seconded by Pete Sizer that the above proposed amendments to the British Skydiving Operations Manual be accepted.

For: 20 (incl 2 x proxy) Against: 0 Abstentions: 1 (Andy Pointer)

Carried

8. FATALITY - BOARD OF INQUIRY - RESUMÉ

This item was dealt with in-camera with no observers, apart from Council Members, Instructor Examiners and Rick Boardman (Rigger Examiner) who were permitted to stay.

The Chair reported that the Board of Inquiry Report into the fatal accident of a British Skydiving member in September 2021 had now been completed. He stated that the Board Resumé had been added to the STC folder for the meeting on Tuesday (7 June),

Along with an Urgent Safety Advice notice, and also a relevant Safety Advisory Notice, issued by the USPA/PIA, which may be relevant.

In September 2021, British Skydiving member (the deceased) boarded a parachuting aircraft along with 7 other skydivers including two Tandem pairs. This was the fourth Skydiving sortie and the Deceased's fourth jump of the day.

The aircraft climbed to approximately 12,100ft AGL, and took approximately 12 - 15 minutes to reach the required exit altitude. Once the aircraft was at the correct Exit Point, the first skydiver was dispatched to carry out a solo jump. Shortly after that the first Tandem pair left the aircraft with their videographer, followed 16 seconds later by the second Tandem pair, their videographer and the deceased, all exiting together as a group. The deceased was the last skydiver to exit the aircraft.

The deceased proceeded to carry out the planned descent, videoing the Tandem pair and the other videographer. The deceased flew in proximity and in front of the Tandem pair for the majority of the skydive. 41.8 seconds after exit, the Tandem instructor deployed the Tandem main parachute. The deceased and the other videographer continued in free fall and the second videographer initiated the deployment of his main parachute approximately 49 seconds after his exit. This is known after examination of the video footage from the second videographer on the skydive.

The second videographer's main parachute deployed in the correct manner. Shortly after, the main parachutes of three solo skydivers and two Tandem pairs (total 5 parachutes) were seen to have deployed normally, and all were observed to be flying correctly. The deceased's parachute was not seen and remained unaccounted for.

From the analysis of the deceased's video footage, after filming the deployment of the second Tandem pair it is known that the deceased continued in free fall and at approximately 48 seconds after exiting the aircraft, at which point the deceased fell through a thin layer of cloud. Approximately 1.5 seconds later, she was clear of the cloud and once she was in sight of the ground, she made what appears to be a deliberate left turn, stopping when she was facing the PLA.

The Board believe that she made two attempts to deploy her main canopy, between approximately 2400ft and 2100ft, neither of which were successful. The Board are unsure whether she was unable to locate or to pull her main canopy deployment toggle, which remained in the BOC pocket throughout. The video showed that the deceased then promptly carried out a full reserve drill, as both the cutaway cables and the reserve eyelet from the reserve ripcord were seen in her footage. The Board believe that the deceased may have carried out her emergency procedures prior to the AAD firing at 820ft AGL. This height is known after receiving the AAD data graph and report from the AAD manufacturer.

The deceased's video footage indicates her looking over her shoulder approximately three seconds after carrying out a full reserve drill. The reserve pilot chute was seen to be distorted or restricted, preventing the pilot chute from fully inflating to its normal functioning shape and full size. Approximately two seconds later the deceased appeared to look again over her shoulder and the pilot chute was seen to remain in the same distorted configuration. It was seen to remain in this configuration, with most of the bridle line visible but without any evidence of free-bag extraction, up to and including the final video frame before the camera contacts the ground. Although it is possible that the deceased's two changes of body position to look up at her reserve pilot chute may have reduced the effect of any burble and increased the slipstream force on the pilot chute, any such effect was insufficient to allow extraction of the free-bag by the distorted pilot chute within the few seconds available.

The Board have seen no evidence to suggest that the packing of the reserve pilot chute contributed in any way to the malfunction. The Board believes that the restriction/distortion of the reserve pilot chute may have occurred in one of two ways.

1. The pilot chute spring may have launched unevenly and in doing so become caught in the bridle or on some other part of the pilot chute's own structure.

2. The pilot chute may have failed to launch and clear the burble immediately and whilst still in the turbulence of the burble, tumbled and became entangled in the bridle.

In each instance there may not have been enough drag for the distorted pilot chute to deploy the reserve. Following a reserve deployment when the main canopy is still in the container, the pilot chute can become distorted as it lifts off from the container, reducing the effectiveness of the spring. The equipment is rigorously tested by the manufacturers and has never before been known to fail to clear the burble and to affect the reserve deployment. However, in this instance the size of burble may have been exacerbated by the use of the camera wings and the stable position the deceased was in. The stable position could be inferred from the video and the data graph from the AAD manufacturer which shows a much slower rate of descent during this time

The Board were unable to determine as to whether the pilot chute in its distorted configuration would have created sufficient drag to extract the reserve free bag from the reserve container even if the emergency drills would have been carried out at a higher altitude. The shape of the pilot chute was a unique malfunction that the Board have not previously seen, and the Board are not aware of any reported incidents of this nature. This means that the Board are unable to state "on the balance of probabilities" whether full reserve parachute opening would eventually have occurred with more height. It is not clear whether the change in the pilot chute from distorted back to normal configuration occurred due to lack of slipstream after ground contact, due to ground contact itself or due to handling during attempts to save life.

The Board believe that this was a tragic accident uncomplicated by negligence or by external interference with equipment. Parachute systems sometimes fail to operate correctly, even when manufactured, assembled, packed and operated correctly.

The Board reiterate the recommendations made in the Interim Report, issued on 22 September 2021.

- a. Skydivers should be reminded of their pull priorities and of carrying out their reserve drills as high as possible.
- b. If skydivers are using camera suits or jackets, they should do what they can to reduce the effect of burble when deploying their main or reserve parachutes.

It is also British Skydiving policy that on completion of a Board of Inquiry, a Safety & Training Committee (STC) Panel of Inquiry is formed they consider the peripheral aspects of the fatality and as to whether any contraventions of the Operations Manual had taken place and report back to the STC via the Chair of STC.

The Board also recommends that the Panel of Inquiry considers the following:

- c. A review of the British Skydiving Camera Flying Coaching Manual takes place to update any training requirements for skydivers and how this will be documented. Areas to be considered:
 - i. The use of camera suits or jackets and the effect of the burble when deploying a main or reserve canopy.
 - ii. A minimum suggested deployment altitude for Camera flyers.
 - iii. As to whether there is a need for a camera flying and/or a camera suit/jacket qualification?
 - iv. A need for observed practice pulls on the ground after any change in camera suit wing, wing attachment method or parachute system.
- d. A review of the Emergency drills procedures with regard to body positioning and actions.

- e. Whether the firing heights of AADs should be increased from the default altitude setting depending on the type of equipment and type of descent to be carried out.
- f. Clarifying the wording for opening height requirements contained in the British Skydiving Operations Manual.

The Defence Safety Authority (DSA), has issued an 'Urgent Safety Advice' document to military PTOs and Team, concerning sport parachuting spring activated reserve parachute systems.

British Skydiving has been given permission by the DSA to inform the membership of any potential additional risk that this may bring to our sport.

The DSA Safety Advice had been included in the STC folder for the meeting, and will also be attached to the outgoing Minutes for information (Addendum 1).

The meeting then resumed in open session.

9. **PERMISSIONS**

- a. An email from Pete Sizer was included with the Agenda requesting permission for Henry van Halewyn to attend a Tandem Instructor course for evaluation as he did not renew his TI rating in 2020.

Pete Sizer had stated that Henry has over 4,000 jumps and over 800 Tandems (662 at Headcorn) He got his TI rating in 2015, having previously completed Tandems in the States. Henry joined the Marines and with those commitments and the Pandemic he did not renew his Tandem rating in 2020. He is back jumping and would like to attend a TI course for assessment without doing another TBI course.

Following consideration, it was proposed by Paul Floyd, seconded by Chris McCann that the above request be accepted.

For: 20 (incl 2 x proxy) Against: 0 Abstention: 1(Pete Sizer)

Carried

- b. A letter from Bryn Chaffe had been included with the Agenda requesting that STC consider re-instating a lapsed AFF rating for of Richard Liddle.

Bryn Chaffe had stated that although Richard was a member for the 21/22 membership year, he did not renew his instructional ratings (an oversight on his part, he assumed that they were automatically renewed). This was not checked or tested, at any PTO, as he made no instructional jumps during that period. Prior to this oversight, Richard has 1,440 jumps in total of which he has 245 AFF Instructional descents, with 144 in the year prior.

If agreed by STC to reinstate his rating, then within a month, Richard will attend the PTO and be tested by Bryn Chaffe and an Examiner, focussing on the ground school elements and a minimum of 4 test jumps, which was not possible prior to this request, due to family circumstances and bereavement. If these tests are up to standard, then I Bryn Chaffe will contact the STC to have Richards' ratings fully reinstated. If unsatisfactory he will be asked to reattend a full examination course.

Following consideration, it was proposed by Alex Busby-Hicks, seconded by Andy Pointer that the above request be accepted.

For: 20 (incl 2 x proxy) Against: 0 Abstention: 1(Bryn Chaffe)

Carried

10. **INSTRUCTOR COURSES**

There had been two Instructor Courses held since the last STC meeting:

a. AFF, Tandem & Pre-Advanced Instructor Course – Sibson Skydivers

The Association wished to thank the Sibson Skydivers, for hosting the AFF, Tandem & Pre-Advanced Instructor courses from 18-21 April. The course report had been included with the Agenda and was for information only.

b. Instructor Course 2/2022 – Skydive Tilstock

The Association also wished to thank Skydive Tilstock for hosting Instructor Course 2/2022 from 9-18 May. The course report had been included with the Agenda and was for information only.

11. **A.O.B**

The Chair reported that three additional items had been added to the STC folder under A.O.B. on Tuesday (7 June).

- a. Wayne Shorthouse, Team Leader of the Red Devils Army Parachute Display Permission has requested permission to carry out a display into an arena which falls outside the usual British Skydiving requirements. The proposed display is due to be held at the National Memorial Arboretum in Staffordshire on 23rd July 2022. The display landing arena has a total area of 10,500 square metres (more than the 5000-square metre BS requirement). However, the width of the arena varies as it has an irregular shape. It is 25-30 metres on the whole but in parts it widens to 50 metres. Wayne had included a picture of the proposed landing area. Therefore, there is not 50 metres of width for the whole arena as laid down in the British Skydiving Operations Manual.

Wayne Shorthouse had requested permission to carry out the display with the following caveats:

- i. The exact landing area will be dictated by the weather conditions on the day, and the team will land directly into wind, i.e. the cross will be moved to favour an into wind landing.
- ii. No landing of any CF in the arena.
- iii. Each parachutist must have completed a minimum of 700 jumps to take part in the display.
- iv. Each parachutist must have completed a minimum of 30 parachute displays.
- v. The organiser must ensure that the whole area (outlined on the image) is available for the team to land on.
- vi. All parachutists will be wearing flotation devices (PLP) for the display.

All participants will be current full time team members and will have completed a full display season.

Following consideration, it was proposed by Chris McCann, seconded by Andy Montriou that the above request be accepted.

Carried Unanimously

- b. A letter has been received from Jay Webster stating that Russell Scott would like to attend his Pre-Advanced Instructor course at Hibaldstow commencing 13 June 2022. Jay had stated that Russell has been unable to achieve a night jump so far, due to work commitments being deployed overseas etc. Jay had also stated that Russell is an active member of the staff at Netheravon, where weather permitting, he will do a night Jump on 14 July, and that by the time he completes the second part of his Advanced course he will have achieved a Night jump.

Following consideration, it was proposed by Paul Floyd, seconded by Andy Montriou that the above request be accepted.

For: 19 (incl 2 x proxy) Against: 0 Abstentions: 2 (Jay Webster, Alex Busby-Hicks)

Carried

- c. An email had been received from Jim White requesting a change from an STC restriction imposed on Errol Airfield on 6 February 1997, which states:

'Category 10 (Grade 1 in FS, CF or IS) parachutists jumping ram-air mains and reserves are not required to wear life jackets.'

Jim White had stated that he would like the change to bring it in line with the current British Skydiving Operations Manual. He would like it amended to read:

'B licence and above are not required to wear a floatation Aid'

Following consideration, it was proposed by Andy Montriou, seconded by Iain Anderson that the above request be accepted.

For: 19 (incl 2 x proxy) Against: 0 Abstentions: 2 (Jim White, Stuart Meacock)

Carried

- d. The Chair reported that a late request has been received from Paul Floyd, which was included in the STC Sharepoint folder, which some members may not have seen. The request involves filming a Tandem jump for a commercial, and Paul is requesting STC guidance and/or approval.

The television commercial requires a storyboard which in basic terms requires the student to make an online payment via his phone in an austere environment, in this case prior to making a skydive or under canopy (both will be simulated, and the best chosen).

In order to make this happen, it is proposed that the Tandem Student wears a 'running' sports band, secured with velcro and bungeed to his left arm with a mock phone (with no working parts, just a phone shell with a photograph of the necessary screen). See below:



The TI that Paul Floyd proposes to use has recently returned from Nepal, is extremely current with Tandem including the use of Hand Cam in order to capture the under canopy shot, whilst maintaining his primary focus on the safety of the descent, not the commercial. He is also used to the Tandem PAX (in military terms) wearing items such as GPS or baseball pitcher information sleeves (similar to the running band but for pitching plays) and is fully versed in the priorities of his task. The event shall also be captured via outside video. There is no planned usage of the band or its contents during the freefall phase of the descent so this should go as per a normal Tandem Skydive.

Paul Floyd will be present and acting as Safety for the event and ensure that all briefings are sufficient and capture/address any additional concerns that STC may have in facilitating this.

Paul Floyd states that the planned start date for this project is 19 July but has flex to be sooner or push back slightly, hence the late submission to STC and is planned over a minimum of 2 (two) Tandem descents with the same persons as TI and Student. Whilst it is hoped that this will be at Skydiving London's own DZ,

alternative locations may need to be found, if so, Paul will ensure that wherever they wish to carry out the jumps the CI is fully read-in prior to any commitment.

Paul Floyd provided further information relating to his request. He reported that the Tandem Instructor would be Niel Flanagan, and that the Tandem Student had no previous parachuting experience. He also stated that the Chief Instructor of the PTO where the filming takes place would be overall responsible on the day.

Following consideration, it was proposed by Bryn Chaffe, seconded by Kieran Brady that the above request be accepted.

For: 18 Against: 0 Abstentions: 2 (Paul Floyd, M Carruthers (proxy))

Carried

- e. The Chair reported that the final item of A.O.B was only submitted this afternoon. It involved a request from Alex Busby-Hicks for an exemption for Richard Cotton from the requirement to attend a Pre-Advanced Instructor Assessment course without having completed a night jump. Alex's requests stated that Richard would like to attend the Pre-Advanced course at Sibson in July, as yet he has not completed a night descent due to work commitments and the scarcity of night jumps in the UK. Alex stated that Richard will have completed a night jump prior to attending his Advanced course.

Following consideration, it was proposed by Richard Wheatley, seconded by Mally Richardson that the above request be accepted.

For: 18 Against: 0 Abstentions: 1 (Alex Busby-Hicks)

Carried

Alex Busby-Hicks apologised for the lateness of his request. He asked CIs whether the Pre-Advanced requirements regarding night jumps should be looked at. The Chair stated that this would be a decision for STC, and Alex would need to submit a proposal for consideration.

The Chair noted that five requests had been received after the Agenda had been circulated. He asked that CIs submit any requests for the meeting in good time. He stated that the Agenda is usually sent out about 10 days prior to the meeting.

11. DATE OF NEXT MEETING

Thursday 4 August 2022 at 19:00

STC members will be informed whether the meeting will be at HQ or held virtually.

The meeting closed at 20:35 (duration 01:35)

Attached:

Amendments to the British Skydiving Operations Manual, 9 June 2022

Addendum 1 – DSA Urgent Safety Advice – Sports Parachuting Spring Activated Reserve Parachute Systems

Distribution: Chair British Skydiving, Council, CIs, All Riggers, Advanced Packers, CAA, Editor – Skydive the Mag, File

Accepted by STC on 4 August 2022
Published on 5 August 2022

AMENDMENTS TO BRITISH SKYDIVING OPERATIONS MANUAL

At the STC meeting of 9 June 2022 the following amendments were made to the British Skydiving Operations Manual:

SECTION 1 (CONDUCT AND CONTROL OF SKYDIVING), Paragraph 4 (Ground Control Organisation), add New N.B following Sub-para 4.3.3 -m. to read:

N.B. (1) DZ controllers or any person talking to a jump aircraft on frequency 129.905 and any person talking to skydivers on frequency 130.530 must be in possession of an appropriate ROCC (details may be found in Form 125).

SECTION 2 (DESIGNATION AND CLASSIFICATION OF SKYDIVERS), Paragraph 6 (The Grading System), Sub- paras 6.4.2., 6.6.3., 6.7.3., 6.8.3., 6.8.5., 6.9.3., 6.9.8., and 6.9.12., Change to read as below:

- 6.4.2. A CF1 Grade skydiver is able to make 2-way CF formations with other CF1 or CF2 holders. A CF1 holder must not make canopy formations larger than 2-way unless with an Advanced Instructor nominated CF1 Grade skydiver or equivalent of proven CF instructional ability.
- 6.6.3. Once FF1 has been obtained, the skydiver may make small group FF descents not exceeding 3 people in total unless a FF coach is participating. To make larger group FF descents without an FF coach, the skydiver must receive Advanced Instructor approval (a logbook endorsement will suffice).
- 6.7.3. Once SS1 has been obtained, the skydiver must not make SS descents with others without Advanced Instructor approval, (a logbook endorsement will suffice) and initially only small groups (e.g. 2-3 ways).
- 6.8.3. Once WS1 has been obtained, the skydiver may make small group WS descents not exceeding 3 people in total unless a WS coach is participating.
- 6.8.5. Once WS2 has been obtained, the skydiver may jump with WS groups larger than 3 with Advanced Instructor approval (a logbook endorsement will suffice).
- 6.9.3. Once TR1 has been obtained, the skydiver must not make TR descents in groups of larger than 4 without Advanced Instructor approval, (a logbook endorsement will suffice).
- 6.9.9. Once TR2 has been obtained, the skydiver must not make TR descents in groups of larger than 6 without Advanced Instructor approval, (a logbook endorsement will suffice).
- 6.9.12. Once TR3 has been obtained, the skydiver must not make TR descents in groups of larger than 6 without Advanced Instructor approval, (a logbook endorsement will suffice).

SECTION 4 (INSTRUCTORS), Paragraph 1 (Category System Basic Instructor), sub-para 1.1.6. Delete.
Previous sub-para 1.1.7 & 1.1.8 come 1.1.6 & 1.1.7.

SECTION 4 (INSTRUCTORS), Paragraph 3 (Accelerated Free Fall Basic Instructor), sub-para 3.1.6. Delete.
Previous sub-para 3.1.7 & 3.1.8 come 3.1.6 & 3.1.7.

SECTION 4 (INSTRUCTORS), Paragraph 13 (Non-British Skydiving Instructors), Sub-para 13.1.1-d Delete.
Previous sub-para e, f, g, become d, e, f.

SECTION 4 (INSTRUCTORS), Paragraph 13.2 (Advanced Instructor), Sub-para 13.2.1-e. Delete.
Previous sub-para f, g, h become e, f, g.

Annex A to
DAIB/12368/01/2017
02 June 2022

Urgent Safety Advice – Sports Parachuting Spring Activated Reserve Parachute Systems

1. High Speed Digital Video trials conducted as part of an ongoing investigation have identified a potential issue with the spring extractor deployed reserve parachute system of the Sun Path Javelin Odyssey parachute container.
2. Early analysis indicates that the pilot chute may be susceptible to reduced deployment efficiency following a total malfunction. Trials imagery shows that this is primarily due to interaction between the reserve bottom flap¹, top cap² and pilot chute. When combined with the turbulent airflow around the container, it is assessed that this could prevent the reserve pilot chute immediately entering clear air, thus increasing the likelihood of entanglement with the bridle assembly.
3. It is accepted that the specific scenario described above requires many factors to align in order to be realised. However, users should be aware of the increased risk associated with this malfunction. It should be noted that the trial has only considered Sun Path Odyssey and Student containers. **These observations might not be isolated to this OEM**; therefore, it is advised that users should apply equal rigour when assessing any associated risks to include other OEM parachute containers with spring extractor systems.
4. The issue is demonstrated in the following still pictures of two Sun Path Odyssey containers of the same specification and similar canopy sizes. Container A images are with the main canopy removed from the container; container B images are with the main canopy in the container, as would be the case with a total malfunction:

¹ [Sun Path Odyssey Manual](#)

² Also referred to as the pop top or end cap.

Figure 1 below shows the initial interaction between the reserve bottom flap and the reserve pilot chute top cap. Container A, with the main canopy removed, allows full rotation of the reserve bottom flap, with the lower part of the flap assembly entering the empty cavity. Clearance with the top cap and pilot chute is maintained whilst they are being ejected. Container B has the main canopy still in the container, preventing the reserve bottom flap from fully rotating, which then interacts with the reserve pilot chute top cap, causing it to rotate.

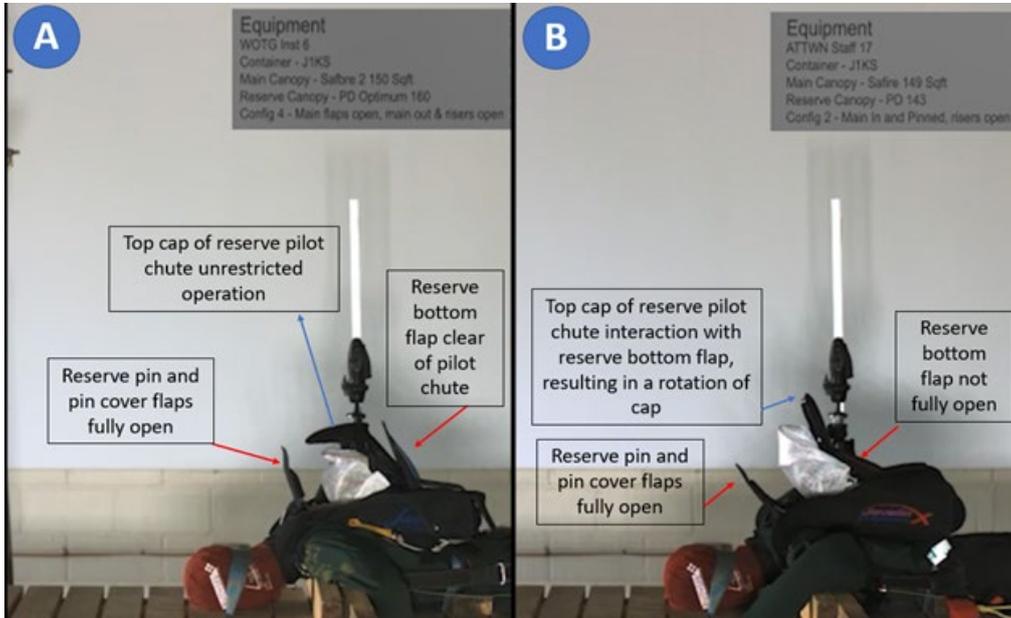


Figure 1 - WOTG SI Trial - Top cap and bottom flap interaction

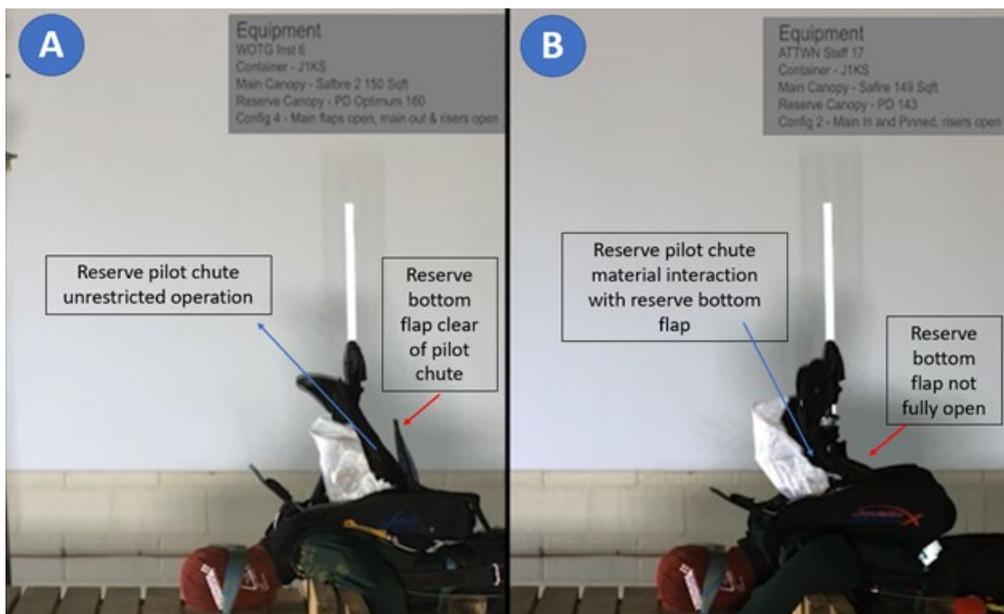


Figure 2 - WOTG SI Trial - Reserve pilot chute material and bottom flap interaction

Figure 3 shows a successful deployment of the reserve pilot chute in container A. Container B demonstrates the result of the interaction with the reserve bottom flap, with less observed height gain and rotation of the spring and pilot chute.

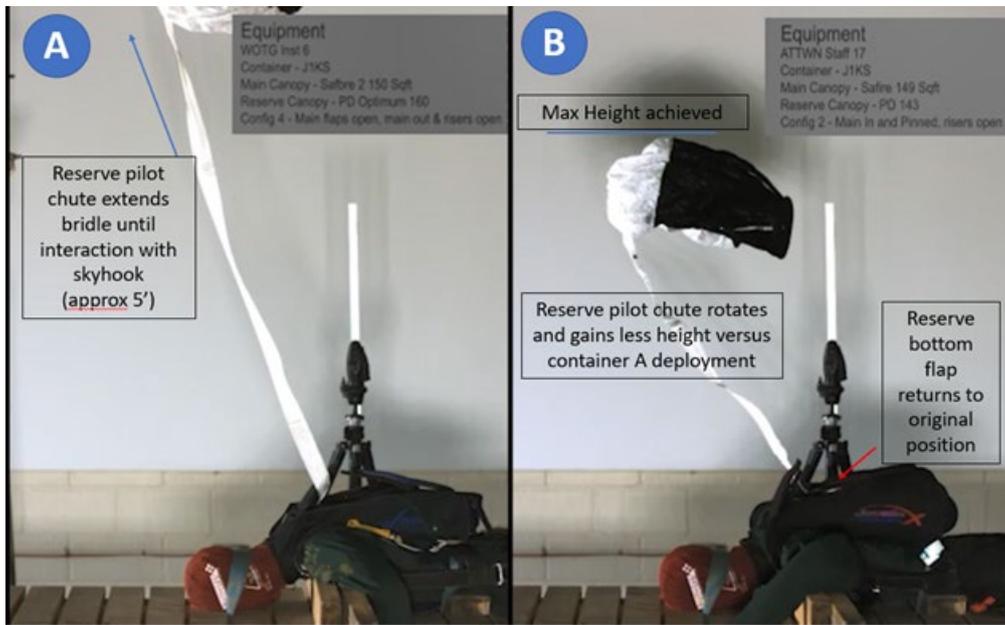


Figure 3 - WOTG SI Trial - Max height achieved

5. The chaotic airflow directly above a parachutist is commonly known as burble, as indicated at Figure 4 below. The exact size of this burble depends on many factors but it is attributed to the surface area presented to the relative airflow as the parachutist descends. Changes in body position or the use of ancillaries³ will change the shape and size of this burble; this should be considered and, if possible, mitigated against, particularly during emergency drills. The overarching factor is the total surface area presented to the airflow. As an example, a large-framed person or an individual wearing a loose fitting jump suit could produce the same size burble as a person who is much smaller wearing a camera jacket or using other ancillaries.

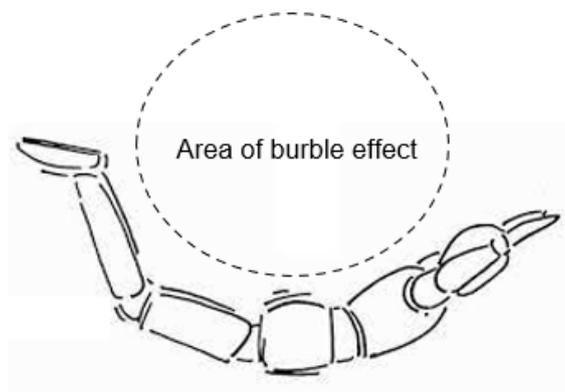


Figure 4 - Burble Effect

³ Ancillaries include any equipment which may be carried by parachutists, other than parachute equipment, e.g. altimeters, helmets, flags, sky-surfing boards, cameras and smoke canisters. ([Civil Aviation Authority, Civil Aviation Publication 660](#))