SIV Course Information Sheet

A possible way of learning to deal with unstable situations would be to attend an SIV course ran by experienced SIV instructors. SIV stands for 'Simulation d'Incident en Vol' and roughly translated means simulating unstable situations in flight. Here you can learn about the way your particular canopy handles and how to make the correct control inputs in unstable situations, **progressively** building up to more complicated manoeuvres. This must all be done over water with the use of buoyancy aids, radios, video equipment and support boats etc. NB. Landing in water is never 100 per cent safe, even in controlled situations.

It is arguable whether attending an SIV course is fundamental to a pilots' development. Establishing good 'active flying' skills is more important as this will prevent the majority of collapses in the first place. Having said that, a good SIV course that is both progressive and well ran, with plenty of feedback, can teach you a lot about your wing and how it feels at the onset of a spin or stall etc. The course should be geared to your individual needs and experience, and the manoeuvres should be progressive. A badly run course will teach you nothing and may have a detrimental effect on your development as a pilot.

YOU MUST BE CLUB PILOT RATED BEFORE ATTENDING AN SIV COURSE.

Be clear as to why you want to attend an SIV course and what you hope to achieve by the end of it. The aim of SIV is to teach you about the handling characteristics of your wing at the edges of its flight envelope. What it feels like just prior to an unstable situation and how to make the correct inputs if it does become unstable. SIV should also teach you to recognise when a situation is hopeless and the only option is to deploy your reserve. SIV **IS NOT** designed to teach you how to fly beyond the normal flight envelope of the glider. Paragliders are not designed for aerobatics. Discuss with the course provider what you hope to achieve and ensure that they can provide what you require. Depending on your level of experience it may take a number of SIV courses to cover all the unstable manoeuvres.

Before booking on an SIV course make sure your equipment is in good order and well maintained. SIV manoeuvres can place severe strains on all elements of your equipment. Make sure your reserve parachute is of a suitable size and is correctly fitted to your harness (if you are unsure about this then have it checked by a BHPA registered packer). Practice dummy deployments to familiarise yourself with the technique (and to ensure the parachute will deploy!). Become as familiar as possible with your canopy and equipment. An SIV course is not the place to familiarise yourself with a new wing. You will get more from the course if you are already familiar with the normal flight characteristics of your wing.

The following are not considered reasonable as elements of an SIV course: established spins, parachute deployments, cascaded or combination manoeuvres (e.g. spiral dives with ears in).

NEVER DO ANYTHING YOU ARE NOT ENTIRELY HAPPY WITH.

Read through the following 'RECOMMENDED SIV SYLLABUS'. **NB The BHPA <u>does not</u> license SIV courses or SIV course providers.**

Confirm that your chosen SIV course can fulfil the recommendations.

RECOMMENDED SYLLABUS FOR SIV (SIMULATED INCIDENTS IN FLIGHT) TRAINING COURSES. FSC Pilot Training & Coaching panel.

1/Personnel:

1/ A: At least two BHPA qualified Instructors should be present, one at launch, the other supervising the manoeuvres should hold a BHPA Senior Instructor rating.

1/ B: There should be at least two persons present in the rescue boat (normally though not necessarily the instructor + the driver).

1/ C: Pilots taking part in these courses should hold at least Club Pilot rating.

2/ Venue:

2/ A: As per the Pilot rating recommendations, most SIV manoeuvres should be conducted over water.

2/ B: There must be sufficient altitude and with adequate room for a pilot to complete a major manoeuvre well clear of the shore and still fly back with sufficient height to make a safe landing.

2/ C : Launches by winch should only be undertaken with suitably qualified pilots and by a qualified crew.

3/ Equipment:

3/ A: A rescue boat with adequate performance and crew to reach a downed pilot quickly.

3/ B: A reliable radio system must be in use. The receiver must be mounted in such a way as to ensure the pilot can clearly hear instructions even with considerable wind noise. Abort manoeuvres if radio fails.

3/ C: Pilots must wear life jackets or buoyancy aids. These must not interfere with normal operation of the controls & harness.

3/ D : Pilots must be equipped with emergency parachutes, checked by the instructor. (See procedure 4 /B)

3/ E : Back-mounted Air bags or Foam/air protectors that could act as flotation devices must be disarmed or removed before overwater manoeuvres.

3/ F : Canopies should be given a thorough pre-flight checking including intercell walls, line hook-up points etc. Instructors must note any damage to the canopy before the flight.

3/ G : All canopies must be flown within their placard weight ranges.

3/.H: Karabiner separation distance should be as stated on Afnor test certificate. Very loose or very braced harnesses can significantly alter the gliders' behaviour.

3/ I: We strongly recommend a video recording of the manoeuvres.

4/ Pre-flight training procedures.

4/ A: **All pilots must be made aware of the risks involved and it should be explained that the tasks are voluntary. If the instructor is giving a command and the pilot is uncomfortable, the pilot should not attempt it. Pilots should be made aware of the dangers of overreacting during manoeuvres. What to do in an emergency or loss of communication should be thoroughly understood (*e.g. deploy a reserve or fly back to the landing area).***

4/ B : **Pilots should be trained and practised in the procedure for deploying their reserves and how to perform a water landing.**

4/ C : **Pilots should have the manoeuvres and the recovery procedures thoroughly explained. We highly recommend the video "Security in Flight" as a source of information on this subject. Potential complications such as cravats should be discussed in depth.**

4/ D: **The canopy's manual must be read and understood.**

4/ E: **All pilots must understand that the purpose of the course is to recognise potential problems, prevent them from occurring and learn how to recover as quickly and safely as possible.**

5/ Manoeuvres :

Before any manoeuvres are attempted the pilot must have had at least one normal flight, to familiarise himself/herself with the site and landing area.

The manoeuvres can be completed in the order the instructor thinks appropriate, and more than one may be attempted on each flight. The more disorientating manoeuvres (spins or developed stalls) are not generally grouped together on the same flight. It is recommended that before the usual SIV exercises are attempted as below, the pilot practices, big ears, steep 360's, weight-shift turns, wing-overs and pitch control exercises.

5/ A : Asymmetric tuck <50% Right then left. Showing good recovery.
(Repeat with different harness settings)

B : Asymmetric tuck >50% Right then left. Showing good recovery

C : 100% tuck Showing good recovery

D : Search for stall point & recovery (brakes)

E : "B" line stall Showing good recovery.

F : Spiral dive showing good recovery

G : Incipient spin showing good recovery

NOTE:

Though not a necessity for normal flight situations, the full stall does have a place in recovering from certain situations such as a cravatted canopy, a very potent area of lift, or an otherwise unrecoverable spin or deep stall on some canopies for this reason it may be included on an SIV training course when both instructor and pilot considers it appropriate. It should not be regarded as a mandatory manoeuvre, and suitable warnings about the potential seriousness of a poor recovery should be made.

The following are not considered reasonable as elements of an SIV course: established spins, parachute deployments, cascaded or combination manoeuvres (e.g. spiral dives with ears in).

6/. Post flight.

6/ A : Debrief of each manoeuvre, using video recording.

6/ B : Post flight check of canopy including thorough check of intercell walls and line hook-up points. Any glider or other equipment that has come into contact with salt water must be thoroughly rinsed in fresh water. ***(All maillons & karabiners must be removed and unscrewed for thorough washing as corrosion generally occurs in the threaded area.)***

NOTES ON PROCEDURE:

A flight will generally begin by flying out over the water to the point where any loss of control or drift will not take the canopy back over land. During this time the instructor will check communications are functioning and clearly describe the actions for the first manoeuvre. The instructor will check he has been clearly received. When the pilot has reached the correct location the instructor will tell the pilot to proceed and will talk the pilot through the appropriate manoeuvre and then recover.

If there is sufficient height the procedure can be repeated, or a different manoeuvre attempted.

Manoeuvres should never be cascaded into one another. Wait for normal flight to be fully established before undertaking the next procedure.

All SIV courses should be tailored to suit the student's actual experience, canopy and expertise.