light Ianning

Normal Procedures

Emergency Procedures

First Response

Airlaw and Theory

Paragliding



SOPs

WARNING

- 1. These Standard Operating Procedures (SOPs) are designed as an aide-memoire <u>only</u>.
- 2. Each pilot <u>must</u> use their <u>own</u> captaincy, airmanship, training and judgement to keep safe.
- These SOPs in <u>no way</u> absolve any pilot from this responsibility nor infer any liability on the author.

Flight Planning

Normal Procedures

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Note:

The index and sidebar include hyperlinks to the respective pages.

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Dual / Tandem Paragliding

AMENDMENT LIST

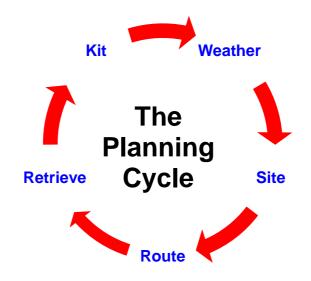
· · ·			[
Version	Date	Cards	Details
1.0	26 Jan 2021	All	Initial issue
1.1	22 Feb 2021	All	Terminology, typos, format,
			sources, acknowledgements
1.2	27 Feb 2021	10	Airspace diagram
		26	Link correction – Cobra launch
1.3	6 Mar 2021	1, 5	Renamed SOPs
		9, 10	NOTAM advisory
1.4	7 Mar 2021	23	Right of Way - Overtaking
			, , ,
<u> </u>	l	<u> </u>	

NOTES TO USERS

- 1. These SOPs are supplied free of charge.
- 2. The author accepts no liability whatsoever for the use of these SOPs.
- 3. These SOPs are not a substitute for instruction by a suitably qualified instructor.
- 4. These SOPs should be used in conjunction with the following documents:
 - a. BHPA Technical Manual.
 - b. UK CAA airspace and air law manuals.
 - c. Local club rules and concessions.
 - d. Your specific paragliding glider, harness and reserve manuals.
- 5. Emergency Procedure actions printed in bold face are time critical and should be completed from memory.
- 6. The expected degree of severity of each emergency is colour-coded as per the following examples:
 - a. STALL
 Immediate action necessary.
 Immediate reserve deployment decision needed.
 - b. PARTIAL COLLAPSE
 Action is necessary but more time for assessment and correction is available.
- 7. New or amended information will be indicated by sidebars ...
- 8. Deleted information will be indicated by ▶ ◄.
- Sincere thanks to Chris Williams and Sean Simmons for their contributions to this document.
- Please send suggestions to wolfparagliding@gmail.com. Please make reference of the Paragliding SOPs version, page and paragraph(s) for clarity.

FLIGHT PLANNING

"If you fail to plan, you are planning to fail."



NB:

A change in one element of the planning cycle will have a ripple effect on the other elements. Start the cycle again until your planning addresses these changes.

Flight Planning Normal Procedures Procedures **Emergency** First Response Airlaw and Theory Dual / Tandem Paragliding

RISK ASSESSMENT

Answer honestly to	determine vou	ır actual prepa	redness for flic	aht:
Liability:				y
lam	qualified	licensed	insured	for this flight.
Currency:				-
I fly	< 50	50 – 100	> 100	hours per year.
Recency:				_
I last flew	> 30	< 14	< 7	days ago.
Ground Handling:				_
I ground handle	never	sometimes	regularly	
SIV:				_
I last did SIV	never	> 2 years	< 2 years	ago.
Wing Servicing:				_
My servicing was	> 2 years	< 2 years	< 1 year	ago.
Reserve:				_
My repack was	> 1 year	> 6 months	< 6 months	ago.
Harness:				_
I check my harness	never	sometimes	regularly	
Wing:				_
I check my wing	never	sometimes	regularly	
Planning habits:				_
Weather	follow others	had a look	planned	
Site	follow others	had a look	planned	
Route	follow others	had a look	planned	
Airspace	follow others	had a look	planned	
Retrieve	follow others	had a look	planned	

Search & Rescue:

LiveTrack24 InReach/Spot I have nothing

First Aid:

trained but not trained and untrained I am current current

WEATHER

1. Surface Pressure Chart

https://www.metoffice.gov.uk/weather/maps-and-charts/surface-pressure

Airmass Arctic / Polar / Tropical / Maritime / Continental /

Returning Polar

Isobars Wind speed, direction and changes

QNH (surface pressure)

Fronts Precipitation, visibility

Troughs

2. Regional Atmospheric Soaring Prediction (RASP)

http://xcpara.co.uk/index.php/weather/rasp-synoptic

Star Rating - Foot Launchers

Thermal Updraft Velocity

Thermalling Height

Base Level Average Wind

Base Level Convergence

Cumulus Potential

Overdevelopment (OD) Potential Skew-T (click on balloons ♥ on map)

3. Windy https://www.windy.com

FlyBubble https://flybubble.com/weather/

Wind Speed, direction and changes

Sounding (right click on map) Compare to previous data

4. Mountain Weather Information Service (MWIS)

https://www.mwis.org.uk/

5. Local Knowledge

House thermals

Convergence

Rotor

Valley Winds

Warnings

SITE

1. Club

https://www.bhpa.co.uk/clubs/

Join

Rules

Tips

Warnings

2. NOTAMS (Notices to Airmen) *

https://notaminfo.com/

https://airspace.xcontest.org/

https://flybubble.com/weather/

3. Notify aircraft via CANP (Civil Aircraft Notification Procedure) CANP for free fliers (logans.me.uk)

4. Google Maps & Google Earth

https://www.google.com/maps

Parking

Hiking Route

Water Sources

Size

Shape

Slope

Surface

Landing options

Hazards

5. Mobile Network coverage

https://www.gsma.com/coverage/

^{*} NOTAMS through these servers may be inaccurate. Consider registering with http://www.nats-uk.ead-it.com. This also applies to the NOTAM links on Page 10.

ROUTE

1. Fly XC

https://flyxc.app/

Airspace

Airways (previous tracks)

Plan track

Download to instrument

2. NOTAMS (Notices to Airmen) *

https://notaminfo.com/

https://airspace.xcontest.org/

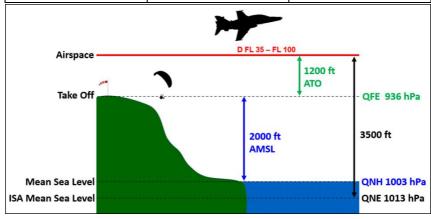
https://flybubble.com/weather/

3. LoA (Letters of Agreement)

https://members.gliding.co.uk/

4. Altimeter corrections for airspace using Flight Levels (FL)

QNH Pressure	Correction	to Airspace
973 hPa	- 400 m	- 1 200 ft
983	- 300	- 900
993	- 200	- 600
1003	- 100	- 300
1013	0	0
1023	+ 100	+ 300
1033	+ 200	+ 600



RETRIEVE

Note:

Do not rely on mobile signal once on the ground. Remember to send a Spot/InReach "safe" message after landing.

1. XC Retrieve

Register with Live Track 24 https://www.livetrack24.com/

Install Telegram on your mobile phone https://telegram.org/

Bookmark XC Retrieve on your mobile phone http://xcrt.aero/

Follow the instructions on Tim Pentreath's website https://flyaszent.com/xc-retrieve/

2. Public Transport

Train timetables Bus services Ferry

3. Ride share

Uber BlaBlaCar (Alps)

4. Hike! 😊

Filgnt Planning

Normal Procedures

KIT

- 1. Charge all electronics fully.
- 2. Update all apps, maps and airspace.
- 3. Test all kit locally before an international trip or vol biv.
- 4. Copy wing, harness, reserve & instrument manuals to your mobile.

Flying Kit:	Electronics:	Flying Clothes:
□Backpack	□Anemometer	□Balaclava
□Duct Tape	□Camera	□Boots
□Extra Lines	□Chargers	□Buff
□Harness	☐Extra batteries	□Down Jacket
□Helmet	□GoPro	□Gloves
☐Hook Knife	□GPS	☐ Hand warmers
☐Hydration Pack	□Headlamp	□Hat
☐IPPI Card	□Laptop	□Sunglasses
□License	☐Mobile Phone	☐Thermal Socks
□Logbook	□Plug adaptor	□Thermals
□Maps	□Power Bank	□Wind Jacket
□Paraglider	□Radio	□Windproof Trousers
☐Reserve Chute	☐Spot / InReach	
☐Site Rules	☐Solar Charger	
□Wing Tape	□Variometer	
Survival:	First Aid:	Extras:
□Energy Gel	□Antihistamine	☐Backpack Cover
□Flares	□Antiseptic	☐ Camping Mattress
□Food	□Bandages	☐ Camping Pillow
□Heliograph	☐First Response Form	☐Gas Stove
☐Multi-Tool	□Imodium	☐ Hiking Poles
□Lighter	☐Insect Repellant	☐ International Roaming
□SAR Plan	□Painkillers	□Paper & Pen
☐Sleeping Bag	□Plasters	□Passport
☐Space Blanket	□QuickClot	☐Travel Insurance
□Tent / Bivvy	□Rehydration	☐Traveller's Cheques
□Whistle	□Sunscreen	□Visa
□Water Filter	☐Toilet Paper	□Wallet
		☐Waterproof Bags

Consider this example:

SEARCH AND RESCUE (SAR) PLAN

I will be paragliding at _____ with the plan to fly from ____ to ____, as per the attached map. I'll be flying with a tracker that uses satellites, instead of the mobile network, to ensure that tracking is always available. Whilst flying, the tracker will plot my location every ____ minutes.

I will send messages to your phone that include a link to show my location in Google Maps. It has 3 message functions that I have pre-programmed:

- 1. <u>Take-off</u>. "About to take-off! Will check-in once safely on the ground." This will be sent as soon as the weather is good for getting airborne.
- 2. <u>Safe</u>. "Hi! All is ok. Safely on the ground and doing well." This will be after landing and/or at the "safe time" for each day at __:_ (Local).
- 3. Help. "I need assistance. I'm not in immediate danger. Please check my location & try get someone to me asap." I will only send this message if something goes wrong. If this message is followed by a "Safe" message (par 2 above) please assume all is well again. Typical scenarios will be minor injuries, a damaged glider, stuck in trees, low on water, etc.

My local contact is _____ Mobile number _____ Mountain rescue is _____ Telephone no _____

There is a 4th message function for an SOS that will go directly to the GEOS Emergency Centre. This will only be used for life-threatening emergencies. They will co-ordinate the rescue and will call you with updates. In such circumstances, the following details may be needed:

Next Of Kin: _____ Work contact: _____ Blood Type: ____ Allergies: _____ Will location:

If no "Safe" message has been received by "safe time", please log-in to _____ with the following details to plot my position:

User Name: Password:

Click on "My locations" and the latest location should be displayed. Please continue as if a "Help" message had been sent.

NORMAL PROCEDURES

"Muscle memory repetition so that, when the brain forgets, the muscles remember."

ARRIVAL CHECKS

Pilot Fit to fly: rest, water, food, focus 1.

2. Weather Compare to plan 3. Site Compare to plan Compare to plan 4. Route Fly? Wait? Cancel? 5. Decision

PRE TAKE-OFF CHECKS

Will Geordie Have His Cat Aboard Today? BHPA Mnemonic:

We Will Get High Having Caught Awesome Thermals Alternative:

1. Wind Strength, direction, gusts Weather Rain, storms, turbulence

Laid out suitably Glider

Wing tips clear

Lines clear – left to right, front to back

3. Helmet Fitted, fastened 4. Harness Fitted, fastened

Carabiners closed, secure

Chest strap Waist strap Leg straps

Reserve handle orientation, secure

5. Controls Clear, correctly routed On the ground, in the air 6. All clear Briefed, rehearsed 7. Turn direction

AFTER TAKE-OFF CHECKS

1. Wing Inflated, lines clear

2. Decision Glide? Soar? Thermal? Land?

IN-FLIGHT CHECKS

Wind Direction, strength, changes, rotor

Weather Monitor changes
 Hazards See and avoid
 Landing Assess options

TURNS

1. Lookout

- 2. Lean
- 3. Turn

THERMALS

1. Signs Gliders / Birds / Clouds

2. Sources Hot, dark surfaces

3. Triggers Water / Cold spots / Masts / Trees / Ridges

GLIDE

Glide Ratio Assess
 Speedbar Adjust

3. Thermals Search for the next climb

PRE-LANDING CHECKS

1. Wind Direction, strength, changes, rotor

Hazards See and avoid
 Technique Normal / Big Ears
 Kill switch Wing deflation plan

AFTER LANDING CHECKS

Wing Control, collapse, secure

Instruments Stop tracker
 Landing area Move clear

4. Safe Message Send

EMERGENCY PROCEDURES

"Fear and panic are two separate emotions. Fear is healthy. Panic is deadly."

WARNING

Proper SIV training with a reputable, qualified team of instructors is the <u>only</u> way to safely train for these scenarios.

INCIPIENT STALL

Symptoms: No wind in your face

If altitude is critical:

1. Reserve Throw!

If altitude permits:

2. Hands Up

3. Brakes Catch the dive

STALL

Symptoms: No wind in your face

Wing falls back, you swing forward

Entire wing deformed

If altitude is critical:

1. Reserve Throw!

If altitude permits:

2. Arms Lock fully down3. Leas Tuck under

4. Wait until the wing is over your head5. Hands Ease up to backfly

Once stable with wing overhead:

6. Hands Up

7. Brakes Catch the dive

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Normal Procedures

INCIPIENT SPIN

Symptoms: Trying to turn too tightly

No wind in your face

Wing starting to yaw strongly

If altitude is critical:

4. Reserve Throw!

If altitude permits:

5. Hands Up

6. Brakes Catch the dive

SPIN

Symptoms: Rapid, undemanded yaw, roll and dive

If altitude is critical:

1. Reserve Throw!

If altitude permits:

2. Legs Tuck under

3. Wait until wing is over your head

4. Hands Ease up

5. Brakes Catch the dive

LINE TWIST

If altitude is critical:

1. Reserve Throw!

If altitude permits:

2. Legs Kick to oppose twist

3. Risers Pull apart

light Ianning

Normal Procedures

PARTIAL COLLAPSE

Symptoms: Wing rolls left/right

Wing tip is deflated and flapping

If altitude is critical:

1. Reserve Throw!

If loss of brake pressure was instantly noted:

2. Brakes One swift, sharp pump on the collapsed side

If altitude permits and wing has already deformed:

3. Weight-shift Away from "heavy side" (collapsed side)

4. Brakes Light pressure to hold heading

FRONTAL COLLAPSE

Symptoms: No wind in your face

Wing falls back, you swing forward

Wing leading edge deformed

If altitude is critical:

1. Reserve Throw!

If loss of brake pressure was instantly noted:

2. Brakes One swift, sharp pump

If altitude permits and wing has already deformed:

3. Legs Tuck under

4. Wait until wing is over your head

5. Hands Ease up

6. Brakes Catch the dive

CRAVAT

Symptoms: Wing tip/s entangled in lines

Strong roll and yaw towards the entangled side

If altitude is critical:

1. Reserve Throw!

If altitude permits:

2. Weight-shift Away from "heavy side" (entangled side)

3. Brakes Light pressure to hold heading

4. Stabilo line Attempt to clear wing tip/s

If cravat will not clear and roll is manageable:

5. Turns Gentle and always <u>away</u> from the "heavy side"

If cravat will not clear and level flight requires more than 1/2 brake:

6. Reserve Throw!

CLOUD SUCK

Symptoms: Close to cloud with significant vertical development

Climb rate increases rapidly without trying to climb

If able to move laterally away from cloud suck:

1. Big Ears Pull

2. Speedbar Smoothly push full bar

3. Move away from the cloud suck ASAP

If unable to move laterally away from cloud suck:

4. Spiral Dive or "Big" Big Ears

5. Land ASAP

WATER LANDING

Note: Height judgement above water is notoriously difficult.

Do not be tempted to jump from your harness

(unless the water state* danger exceeds jump danger)

1. Avoid Waves, rapids, currents*

Aim Calm water, close to boats (for rescue)
 Helmet Consider removing (to avoid entanglement)
 Boots Consider removing (for easier swimming)

5. Plan Sequence of unstrapping

6. Landing:

In light winds: **Downwind** (traps air in leading edge)

In stronger winds: Into wind (avoids being dragged face down)

As feet touch the water:

7. Unstrap

8. Swim clear

If stuck under canopy:

9. Avoid kicking Float on your back

10. Breathing Push the canopy away from your face 11. Seam line Follow in one direction until clear

RESERVE LANDING

If altitude is critical:

1. Parachute Landing Fall (PLF) position

If altitude permits:

2. Grab a single, central wing line and pull it in

3. Wing Store on your lap

4. Radio "Reserve! Reserve! Reserve!"

5. PLF

FIRST RESPONSE FORM

- 1. Phone or text* 999 or 112
- 2. Ask for Police & Mountain Rescue
- 3. State "Fall from height, serious injury, remote location"
- 4. CHALET:

CasualtiesNumber, names, ages, injuriesHazardsTo your group and to the rescuersAccessTerrain, weather, access routes

Location Latitude & Longitude or What3Words app

Equipment What do you have with you?

Type Description of the incident

5. DR BLEEDING ABC:

Danger For you and others (avoid more casualties)

Response Level of consciousness

• Alert – awake and talking?

• Voice – responds to your voice?

Pain – responds to pain? (pinch earlobe)

• Unresponsive

Bleeding Direct hard pressure on any <u>catastrophically</u>

bleeding wound with anything absorbent

Airway Open by tilting head back and lifting chin

Breathing Check for 10 seconds (look along chest with your

cheek by their mouth)

If not breathing remove helmet

Circulation If not breathing start CPR

30 chest compressions to 2 breaths (chest compressions only is also fine)

- 6. If breathing, thoroughly check for injuries, at skin level, from head to toe. Complete **Casualty Card** (overleaf).
- 7. Reassure casualty. Keep them warm and dry.
- 8. Hand completed Casualty Card to paramedics.
- 9. Submit Incident Report (bhpa.co.uk) within 48 hours

^{*} Must be registered first. Text "Register" to 999 or 112.

Casualty Card

N ame	Age	Time of Injury	Mechanism of Injury Injuries (head-to-toe)	Signs & symptoms	Treatment
Time					
Level of Consciousness (AVPU)					
Breaths per minute					
Pulse per minute					
Pain Score (0 – 10)					
Medication given (what, when, how much)					
General Appearance					
Allergies					
Medical history & Normal medication					

AIRLAW AND THEORY

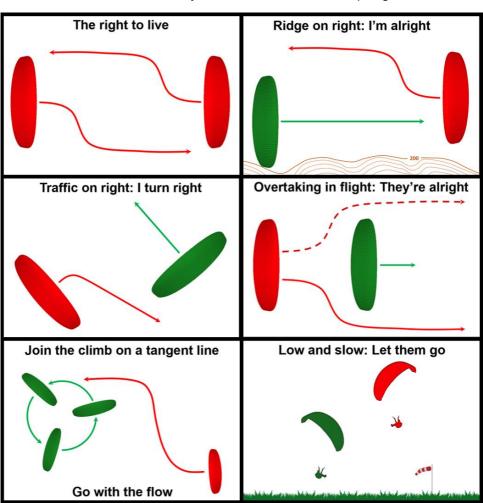
"Preparation – the difference between knowing your sh*t and knowing you're sh*t!"

RIGHT OF WAY

The green glider has right of way.

The red glider/s must yield.

Collision avoidance is in everyone's best interest - keep a good look out!



RADIO FREQUENCIES

UK Paragliding 118.675MHz (≤ 5000 ft AMSL)

UK Sport Aviation 129.900 129.950 130.100

120.125 130.400

International Distress 121.500

GENERAL

Low Flying ≥ 500ft to person, vessel, vehicle or structure

(unless ridge soaring, take-off or landing)

Congested Areas Avoid by 1000ft, 600m radius

Night Flying 30min after sunset to 30min before sunrise

Dropping items No articles shall be dropped in flight

Alcohol No

Drugs No!!!

Displays Only with CAA approval

Formation Flying All pilots must have agreed to it

Accidents/Incidents Submit Incident Report (bhpa.co.uk) in 48 hours

Do <u>not</u> admit fault or liability (insurance)

Beware of media entrapment

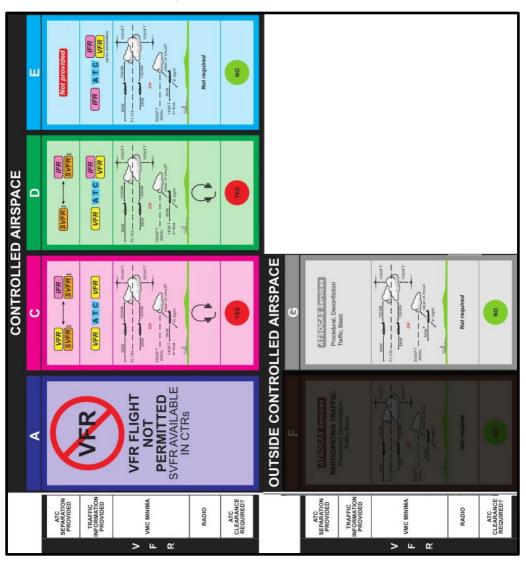
No names (next-of-kin should be notified first)

Ratings Do not expire

Licenses Do expire at the end of BHPA membership

AIRSPACE

A simplified summary of VFR airspace in the UK:



SVFR: Special VFR

Clear of cloud, ground in sight

Visibility 1500m

RESOURCES

Manuals:

BHPA Technical Manual https://www.bhpa.co.uk/documents/bhpa/

Books:

Understanding the sky by Dennis Pagen Thermal Flying by Burkhard Martens Mastering Paragliding by Kelly Farina 50 ways to fly better by Bruce Goldsmith Advanced Paragliding by Gavin McGlurg

Podcasts:

https://www.cloudbasemayhem.com/paragliding/podcast/ https://www.theparaglider.com/podcasts

Videos:

Ground handling





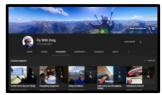




Flying, XC, SIV







DUAL/TANDEM PARAGLIDING

"Every take-off is optional but every landing is mandatory."

BHPA GUIDANCE

Prerequisites: BHPA Technical Manual Section 4 Chap 2 Para 7

https://www.bhpa.co.uk/documents/bhpa/

Resources: BHPA Dual Flying Fact Sheet

https://www.bhpa.co.uk/documents/bhpa/

Ozone Tandem Video

https://www.youtube.com/watch?v=ZLUTcr1zgEM

Recommended: Full face helmet

First Aid Kit

Qualifications:

DP Dual Pilot

Passed Dual Pilot exam

In current practice

2. AEI Air Experience Instructor

Operating within BHPA school environment

30 Dual flights as Pilot-In-Command

Qualified Instructor in discipline & environment

or

Pass additional exam

Day BHPA membership for passenger (insurance)

Additional checks:

Mass In limits of wing?

In limits of reserve? Ballast required?

2. Minors Written parent/guardian consent if under 18 y/o

Assistance Brief those who will be assisting you

DUAL/TANDEM PARAGLIDING CONSENT FORM

Please tick to confirm:
☐ I want to go on a Dual Paragliding Flight with(hereinafter referred to as "the pilot").
\square I have seen the pilot's British Hang Gliding and Paragliding Association (BHPA) membership card.
☐ I have confirmed that the pilot's BHPA membership card is in date and understand that the pilot is insured, experienced and qualified to fly as the Dual Pilot of a Paraglider (PG).
☐ I understand and accept that paragliding is a fun and exhilarating adventure sport that does pose an element of risk as it is physically demanding and could involve a fall, collision or hard landing.
☐ I understand and accept that by using his/her skill and judgement, the pilot will reduce this risk to a minimum, but there is still an element of risk over which s/he has no control.
☐ I understand and accept that the pilot is covered by 3 rd party liability insurance through the BHPA and that personal accident is <u>not</u> covered by this insurance.
☐ Before flying I will declare to the pilot any mental or physical defect, infirmity, previous injury, disease or condition which could increase the risk of an accident or the severity of an injury (e.g. epilepsy, pregnancy, brittle bones, heart condition etc.).
☐ By signing this form, I confirm that I understand and accept the risk that I could suffer personal injury or damage to personal possessions as a result of taking part.
Full name
Date of birth/ Mobile No
Address
Email address
Signed///
If completing this form on behalf of another person (e.g. a child or ward under 18 years of age) please
also complete the following section:
also complete the following section:
also complete the following section: Please tick to confirm: Passenger understands that there is an element of risk in dual paragliding and, by signing above,
also complete the following section: Please tick to confirm: Passenger understands that there is an element of risk in dual paragliding and, by signing above, you are prepared to accept that risk on their behalf.

DUAL/TANDEM BRIEFING GUIDE

"Me - You - This - That - There - Dare"

1. Pilot Me

Qualified Licenced Insured

2. Pax You

Reason they want to fly Fitness (illness, disorders, pregnancy, medication) Age (< 18 y/o requires consent, > 55 y/o consider health) Mass

Clothing (no loose articles, no boot hooks, sufficient warmth)

3. Kit This

Helmet Certified, strap, release

Harness Preview of straps, release, protection

Safe hand holds

Do <u>not</u> touch anything red or metal!

Wing Layout

4. Weather That

Wind Strength, direction, gusts Cloud Assess conditions

5. Flight Plan There

Duration Approximately 30 minutes
Altitude Soaring vs Thermalling
Sensations Similar to a swing

Talking Turn head and speak up

Turns Look, lean, turn

Landing If unhappy, planned area

Airsick Sick bag

6. Risk Dare

Element of risk Consent form Relax!

DUAL/TANDEM BRIEFING GUIDE (continued)

When ready to fly:

1. Fitting

Helmet

Harness Do <u>not</u> touch anything red or metal!

2. Take-Off

Aim Point Resist twisting Stay on feet Knees bent

Walk Forward/backward Run Commit! Keep running!

Stop Stand still

Trust Teamwork. Listen. Do <u>not</u> sit early!

3. Flight

Arms Back

Seat Into harness

4. Landing

Arms Forward

Seat Slide forward to stand

Feet Stay standing, walk off speed

5. Simulate

Take Off Tug harness as required

Flight Arms, seat Landing Arms, seat, feet

6. Pax Check

Passenger Check top-to-bottom

7. Clip-In

Me to wing QuickOuts, Trims

Passenger to me Carabiners, Tug-test all connections

8. Ready?

Aim Point Resist twisting Stay on feet Knees bent