

WARM AIR 18 Apr 20

Aviation Sports Club Gliding Newsletter

THIS WEEKEND:

Club Cellphone 022 357 6731

www.ascgliding.org

Saturday

Instructing:

Bank Acct 38-9014-0625483-000

Towing:

Duty Pilot

Sunday

Instructing:

Towing:

Duty Pilot

ANZAC WEEKEND - BUT YOU ARE STILL NOT GOING ANYWHERE MEMBERS NEWS

WHAT ARE OUR MEMBERS DURING LOCKDOWN

Kishan Bhashyam is stuck in India unable to leave his District and get a flight home. He missed our virtual committee meeting last night reporting "I couldn't make the meeting as I was asked by work to jump into another web session. Funny, even though I am miles away, I have been requested to be 'oncall'" the wonders of IT.

ITS IN THE CONTAINER FOLKS - ON THE WAY



PARACHUTE TRAINING MAY 2013 *Jonathan Pote recalls a session from the past*

On Wednesday eight fortunate members joined Sev at PTSU for an excellent two-hour session of training. He covered a very comprehensive syllabus in detail too great to record here but I will try to outline the salient points.

Firstly 'pre-flight' your parachute as if your life depended on it. It may, and that is the only reason you are wearing it. Firstly the repacking date. This not only tells you when it is due to be packed, but also when it

was last packed. The longer ago that is, the more chance of a defect. Do it systematically, with the parachute itself as your crib. Open the Velcro to check the pins are not only inserted but would pull free easily when it matters. Tuck away any loose material or it may snag. Make sure there is no chemical contamination (oil and urine are both possible) and that it has been stored in a dry place. Check the swage on the rip-cord handle. If the handle comes free, you are dead.

Fully satisfied it is serviceable (with a more experienced person helping you if needed) then put it on. The time the harness needs to be correctly fitted is when the parachute opens (which it does with considerable force). This is not a lot between too tight for comfort and too loose for safety, but there is a compromise degree of tightness. Remember that when it opens, the pack decompresses and the straps will loosen a little. Route the belly strap correctly. The Velcro is there merely to tidy up the loose end, not secure it. Make sure it is correctly routed through the buckle and will tighten under strain. Tuck away loose strap ends as these can potentially snag in the cockpit as you try to exit in a hurry. Worse still, if you include one in your vice-like grip on the handle, you will not be able to pull it far enough! Just once, get someone to try and pull the parachute off over your head to check the harness is tight enough. The green parachute is a worse offender here, and you may be surprised how easily it comes off. *He did a demo on this, he had the side straps quite loose but the chute otherwise done up correctly. He bowed forward, kinda how you might if you were tumbling as you left the aircraft. The chute went over his head and landed on the floor in front of him, essentially completely separated from him. There was an open mouthed stunned silence.* There is no problem with clipping the PLB into the chest strap and it is no use left in the glider.

Baling out. You have just one chance to get it right. At 1000', the lowest realistic height to try, you will hit the ground ten seconds later if the canopy has not opened. Once the parachute is open, you will have about thirty seconds from 1000'.

How you get out is your problem, and not even RNZAF pilots are taught a definite method. It is VERY good practice to treat every time you get out of a glider on the ground as a practice bail out. It will be harder, as the canopy is still on and there is no adrenaline explosion, but you can become familiar with bringing your legs back, pushing up on the cockpit sills, and exiting smoothly, realising how the wing gets in the way. You will also learn not to sub-consciously undo the parachute harness as well as the restraining harness. This has been done by professional pilots who then fell to their death and in the RAF it is mandatory to exit light trainers still wearing your parachute to drum this in.

What to do once you are out was the purpose of our training session. Once out you WILL tumble, so roll into a ball as you find the handle and pull it immediately. Any delay rapidly uses up your height and increases the speed (and thus force) at which the canopy opens. Remember **LOOK GRIP PULL** (actually it is a push away from you). The grip includes both hands with at least one thumb through the handle. It must not include a loose leg strap end blown up by the slipstream. You should have "everything together" as the saying goes - be rolled up in a ball as you go out. Emergency parachutes open faster than sports versions for obvious reasons and a straight or arched back can be - and has - been broken by incorrect posture. Flailing limbs can tangle in lines, so 'small is beautiful'. Any loose fitting clothes or strap ends will blow in the slipstream and be a problem. The PLB might hit you on the chin, but at least you have it with you. The pilot chute is spring loaded for faster deployment but even so may go between your legs as you tumble. Do not let go of the handle - you may have to pull it again.

Having said all that, it is not nearly as simple as it may seem. Experience shows that the successful bale-out rate is far below 100%, and the culprit is the canopy. Sadly, it does not come away cleanly or predictably, side-hinged canopies being worse than front-hinged examples. Since the 1980s, DG and LS sailplanes have been fitted with Roeger Hooks which help considerably. If you want to maximise your chances, read the article below. Follow the link at the bottom to a very good summary "Parachute prepared?" as well.

<http://www.dg-flugzeugbau.de/roegerhaken-e.html>

The Descent. The most important factor is your height. This may seem pretty obvious, but the reason to emphasise this is that for the last thousand feet or so you must concentrate on a proper landing stance to the exclusion of all else. Again, experienced jumpers have been hurt by being distracted and landing

unexpectedly. Steering can be complex and varies with canopy type. If you own a parachute, then see it repacked and discuss steering and other details with the chap doing it. If you use a club parachute, then probably all you can do is experiment if you have time. DO NOT attempt to steer an improperly deployed canopy and do not forget to get ready for the landing in very good time. If the canopy forms two lobes because some lines are over the top of it, pulling on the lines to the smaller lobe might help, but again landing takes precedence. Landing with you back arched as you look up at the canopy would be a disaster.

The Landing. You MUST BE READY for this in good time. Forget about steering from about a thousand feet up. If collision with a building or whatever looms, DO NOT TRY TO FEND OFF. Pull in your arms, bend your neck and make a ball of your upper body. Yes it will hurt, but less than if you try to fend off.

Ideally you should drift into wind but face or twist your feet crosswind, legs slightly bent and feet not flexed down. Your back should be slightly bent with the chin down a little. Elbows should be locked in so you are as compact as possible. Make the impact roll you over onto your side (we were able to practice this on soft mats, but the ground is too unforgiving for practice except for a jump off a low platform to get the leg bend correct, but not rolling over).

If being dragged, and 10 - 15 knots will do that, grasp a big handful of rigging lines and haul them in to collapse the canopy.

Landing in water is a problem but not a disaster. Release the harness as soon as you are in the water (height judgement over water is tricky. Some harnesses have quick release clips on the risers so know your parachute). Do not struggle as you will get entangled. You can breathe through a canopy if you raise a bit above your head, so systematically get yourself free from underneath it (any wind will almost certainly prevent the canopy settling over you). A parachute is in no way a buoyancy aid, but equally does not drag you down. If flying near or over extensive water you should have a life jacket on.

To lock this into your memory, do you know a bit about

- Inspection
- Fitting
- Time verses altitude
- Bailing out and canopy deployment
- Canopy control
- Landing
- Canopy Problems
- Landing emergencies (trees, wires, buildings)
- Wind and water

FINALLY, take heart. Knowing a little and obeying the basic rules actually results in a lower injury rate than thinking you know a bit and trying to do too much.

Jonathan

Only for the stout of heart: The Blohm & Voss BV 40

Aircraft, indeed all engineering specialities, have shown some remarkable dead ends in their development over the years. The shape of a newly designed sport biplane of the 21st Century is completely in harmony with the aircraft of a century ago. The materials and engineering techniques have altered beyond recognition, but the shape has not, for the laws of aerodynamics are immutable. Forget the tailless flying wings, canards and all, it is the mundane SE 5A shape that will last forever.

The same is true for gliders, of course. The very latest 'hot ship' is just a slightly harsher rendering of classic 1930s designs. Yes, it has a lift/drag ratio over twice as good, and a sustainer if not self launcher, but the basics are unchanged. Had one of today's latest gliders somehow appeared at the Wasserkuppe in the

1930s, it would have merely been lauded as a step forward, a big step, but nothing revolutionary: Fuselage, cockpit, wing, empennage etc as before.

The German Blohm & Voss BV 40 'fighter glider' was one of those dead ends. With a Vne of nearly 500 kts and the prone pilot viewing the grass inches away at 75 kts as he landed, controlling it somehow with a sidestick or something, it was a little out of the ordinary. Two 30mm MK 108 30 mm cannon each with thirty-five rounds of ammunition also distinguished it from its sports compatriots.

As the flow of the Second World War reversed and Germany itself was under attack, 'Defence of the Reich' became all important. At night RAF Bomber Command sent ever increasing numbers of heavy bombers in a stream, as compact as possible but not in formation. Collisions were not infrequent, and the German night-fighter force lethally efficient until eventually overwhelmed. By day it was different. Armadas of USAAF heavy bombers, in huge choreographed three-dimensional formations intended to maximise the coverage of their many defensive 50 cals (far more effective than Bomber Commands Browning .303") were easy enough to locate, but very hard to approach through a defensive screen of the finest fighter aircraft in the world before encountering the massed 50 cal of the bombers themselves.

Size and silhouette were very important to the defending gunners - a gunner can see the head on disc of the Fw 190s radial BMW engine significantly further away than the slimmer lines of the Me 109s in-line DB. Whatever the type of fighter they were flying, Luftwaffe pilots rapidly found a second attack almost impossible: The only way was to scythe down through the fighter screen at Vne, try to slow for a single firing pass at the bombers, then carry on down and away, hopefully to live for another day. It was thought a 'fighter-glider' might be able to do as well as the latest Fw 190 variant, using a cheap airframe produced by semi-skilled labour from non-strategic material (wood) and flown by a less experienced pilot. Towed to height by an Me 109, the BV 40 could accelerate to VNE, fly level through the formation, destroying several bombers, and then dive steeply away. Its minimal frontal area would give the defending gunners no time to see and track the glider, and even if they could, 20 mm of steel plate or 120 mm of armoured glass protected the glider pilot.

As with most "simple answers to complex problems", the reality was very different. First flying in May 1944, not long before the Normandy Invasion initiated the final defeat of Germany, seven were built, five flew, reaching nearly 500 KPH and several crashed. It never entered service, but the problem of judging a dive at

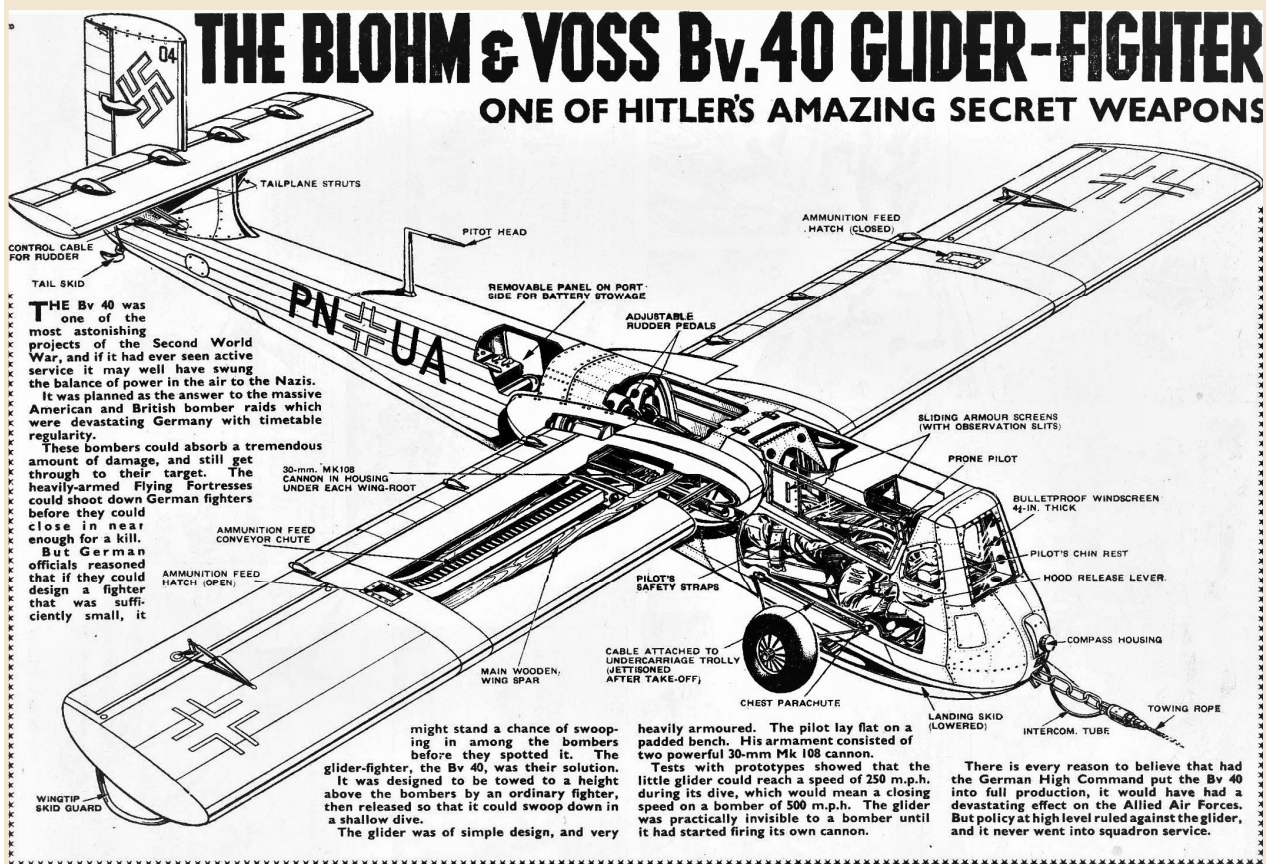
VNE to level with a bomber formation and then conduct a firing pass, all the while slowing, with an ammunition supply for three seconds, before diving away, would take a supremely skilled pilot, not a partly trained one. That several of the five flown crashed just reinforces that.

The Me 109 tug could not carry weapons let alone ammunition and gain height fast enough

to intercept the Fortresses, so its pilot and fuel used had achieved nothing if the glider did not score.



BLOHM AND VOSS Bv-40 GLIDER



General characteristics

- Crew: 1
- Length: 5.7 m (18 ft 8 in)
- Wingspan: 7.9 m (25 ft 11 in)
- Height: 1.63 m (5 ft 4 in)
- Wing area: 8.7 m² (94 sq ft)
- Empty weight: 838 kg (1,847 lb)
- Gross weight: 952 kg (2,099 lb)

Performance

- **Never exceed speed:** 900 km/h (560 mph, 490 kn)
- **Landing speed:** 125 km/h (78 mph; 67 kn)

Armament

- **Guns:** 2 × fixed, forward-firing 30 mm (1.181 in) [Rheinmetall-Borsig MK 108 cannon](#) with 35 rpg

MATATMATA SOARING CENTRE AGM

You may not know it but if you are receiving this email you are a member of a club affiliated to the Matamata Soaring Centre.

Due to COVID-19 the AGM will be held online this year. All details and a link to join the online meeting on Sunday 24th, May, 2020 at 7.00pm can be found by clicking the below link;

<https://kor.qwilr.com/MSC-AGM-03Z2UGgPTtKn>

Or you can just go straight to the meeting by using the link below;

<https://zoom.us/j/92402993818>

Please put it in your calendars now before you forget!

INTERNATIONAL SPACE STATION

This link gives a tour of the ISS hosted by the then commander a few hours before she returned to earth

[http://www.youtube.com/embed/ doN4t5NKW-k"](http://www.youtube.com/embed/doN4t5NKW-k)

TRACKING THE ANTONOV AN 225; The worlds largest cargo aircraft Flightradar 24 blog

John O'Hara sent me this noting there were some great photos at the end

<https://www.flightradar24.com/blog/tracking-the-antonov-an-225-the-worlds-largest-cargo-aircraft/>

*This was the view looking
North the other day about
1030 looked promising sob.*



ROSTER April/May/June 2020

Month	Date	Duty Pilot	Instructor	Towpilot	Notes
ANZAC	25	C DICKSON	R CARSWELL	F MCKENZIE	
WEEKEND	26	K JASICA	P THORPE	D BELCHER	
	27	J DICKSON	I WOODFIELD	A WILLIAMS	
May	2	B MOORE	S WALLACE	R CARSWELL	
	3	S HAY	A FLETCHER	R HEYNIKE	
	9	K BHASHYAM	L PAGE	P THORPE	
	10	G LEYLAND	R BURNS	F MCKENZIE	
	16	I O'KEEFE	R CARSWELL	D BELCHER	
	17	M MORAN	I WOODFIELD	F MCKENZIE	
	23	T O'ROURKE	A FLETCHER	A WILLIAMS	
	24	R BAGCHI	L PAGE	R CARSWELL	
Queens Birthday Weekend	30	T PRENTICE	P THORPE	R HEYNIKE	
	31	R WHITBY	S WALLACE	D BELCHER	
	1	I BURR	R BURNS	F MCKENZIE	
Jun	6	C DICKSON	I WOODFIELD	P THORPE	
	7	K JASICA	A FLETCHER	D BELCHER	
	13	J DICKSON	R CARSWELL	A WILLIAMS	
	14	B MOORE	L PAGE	R HEYNIKE	
	20	S HAY	P THORPE	R CARSWELL	
	21	K BHASHYAM	S WALLACE	F MCKENZIE	
	27	G LEYLAND	R BURNS	P THORPE	
	28	I O'KEEFE	I WOODFIELD	R HEYNIKE	