	W	ARM AIR 23 May	/ 20					
Aviation Sports Club Gliding Newsletter								
THIS WEEK	(END:	Club Cellphone 022 357	7 6731	<u>www.ascgliding.org</u>				
Saturday	Instructing	g: Andrew Fletcher	Bank	Acct 38-9014-0625483-000				
	Towing:	Andrew Williams						
	Duty Pilot	Thomas O'Rourke						
Sunday	Instructing	Instructing: Lionel Page						
	Towing:	Rex Carswell						
	Duty Pilot	Rahul Bagchi						

WE ARE BACK FLYING

MEMBERS NEWS

SATURDAY Duty Instructor Rex Carswell gets first go with the crayons

Whoo hoo! A stunning clear cool day greeted our first day back following the Covid-19 lockdown period. Yes it was exciting to learn earlier in the week - and announced in Warm Air - that we were permitted to recommence gliding operations. As a club, we have an additional set of published procedures in place with respect to Covid-19 distancing and hygiene. These are largely common sense, but it is incumbent upon all of us to be familar with the document, and comply.



Our first flight of the day was by towie Derry Belcher carrying out a brief check flight in Cessna DSM without a glider on tow. With a light sou'east breeze crossing the airfield, we set up operations on grass 08. First glider launch got away at 1126 hours with a dual check for Craig Best. The air was cool and benign - not a hint of lift felt anywhere. We released from tow at 1500ft from which Craig settled into a well executed circuit and landing. I was happy, so let Craig take a tow to 2000ft on his own. This was his third solo, and completion of his 'A' Certificate. Our CFI, Ray Burns, was on the field and brought out a shiny new badge which was presented to Craig - appropriately sterilised and without any customary handshake! "Congratulations Craig".



We have a new young member in the club, Emilio. This was just his second glider flight, but his intuitive input and responses to flight controls demonstrated a mature keeness to succeed. Our flight in the still air was only 16 minutes, but he was on the controls throughout most of it. An excellent start in our sport.

Andrew Fletcher had rigged the Mosquito GKT and waited patiently for signs of buoyancy in the sky. A few bits of scattered cumulous were showing some distance from us, so decided he'd take a launch. He towed to 2500ft but was back on the ground after 22 minutes. Likewise, Tony Prentice had a fairly short glide from 2000ft in his PW5 GBD, but very pleasant none the less. Meanwhile Kazic and I launched in the twin - releasing at 2000ft. Kazics brief was to fly the sortie as if I wasn't there. With a good degree of chance, he located a 'bubble' and worked the meagre lift with good skill. He was rewarded with a flight time of 22 minutes. Andrew launched again sighting a growing street well to the east, but again, stayed local. He did achieve the longest flight (24 minutes) for the day - but then, it was from a 2500ft release.

Final launch was with the combo of Neville Swan and Roy Whiby in the twin. Again, a short'ish flight, but both happy to be back in the air. Peter Thorpe and I were happy too. Derry kindly offered Peter a couple of tows to keep current in the tug, and likewise, I got to do the final tow. Many thanks Derry.

In all, 8 glider launches on this very pleasant day out at the field. Andrew conceded the most meritorious flight was that of Kazics in GNF. I agreed - well done Kazic!

Towie Derry Belcher adds his view in the mirror On Friday, Peter Thorpe drew the key and went to the hangar to do a quick check of the fleet, did a couple of checks on the battery in DSM, made sure the battery chargers for the club gliders were on, and checked we were all set to go for Saturday morning.

Late Friday night I downloaded the NOTAMs and printed off the aviation weather forecast for Saturday just to confirm there was no significant wx or cloud, and other than quite a few cranes about the field there was nothing untoward.

On Saturday morning, having found that my base pass was in fact still valid to the end of May, I drew the key and picked up the base radio to save Ray Burns a chore, then met up with the eager band of merry aviators

already queued at our crash-gate. Jonathan Pote was busy on duty as gateman taking everyone's details as we opened up.

Three things fell into line on Saturday.

- It was the first weekend at Level 2 which meant we were allowed to resume most of our favourite
 pastimes and sports after 7 weeks, of which gliding operations could be included, and thanks to Peter
 Thorpe writing up a Covid-19 action plan for our section at short notice regarding safe distancing,
 disinfecting, and many other important details, (which was duly approved by the Airforce in the nick of
 time), we were allowed out to play.
- 2. It was going to be FINE.., for the gazillionth day of the Auckland draught.
- 3. Yours truly was going to be the first to play in fly the Cessna again ③.



The only slight fly-in-the-ointment was that hoses were banned for washing aircraft down, which wasn't a major for us anyway as we snaffled a container of water from Steve and Ian's stock in the hangar and put it to good use rather than washing them all with a hose by the MAD hut at the other end of the field. All the aircraft had a good covering of dust and bird-shi-droppings on them after many weeks of inactivity so required quite a bit of cleaning. Once again my thanks to Peter Thorpe who helped me wash and prepare the towplane for service.

The Red tractor was primed and started without any problem, although the yellow tractor gave the fellas a few headaches to get going until Neville used a bit of magic and it sprang to life.

By the time DSM was pre-flighted, the caravan, GNF and Tony with his PW-5 GBD had disappeared to the 08 end of the field. Andrew and Ray rigged GKT for Andrew to fly, then with my fingers crossed DSM was brought to life, all be it a little reluctantly as the battery was down a bit after seven weeks. Anyway, all was well and after a quick check circuit to make sure the plane was behaving itself, five tows were accomplished in the beautifully stable conditions before we had to refuel DSM at the power section's superb cocooned mobile fuel dispenser. This all took some time with Peter our only approved and signed off person to use the facility, and with pages of checks and procedures digested, the diesel motor was coaxed into life, DSM's tanks topped up, and all touched parts wiped with disinfectant, then the cocoon (sealed shipping container) closed and locked followed by another round of disinfecting. As Peter had been such a good batman, I thought it a good idea to let him do the next couple of tows, then Rex swapped his glider-instructor job to do the final tow of Roy and Neville in GNF.

All up, there were eight tows done for the day and although no-one seemed to find much lift, all seemed very pleased to fly again.

Thanks to Neville for keeping the books and to everyone who helped make it a pleasant day.

SUNDAY Instructor Ivor Woodfield ventured outdoors

First Sunday of gliding for several weeks, and the day dawned sunny, with light easterly winds. The only other action on the airfield was to be a Boeing test up near out launch-point around the middle of the day! I arrived at the gate at 0930 to find Troy Jefferies and his homebuild motorbike waiting for me. We soon had the field and hangar opened up, and others had started to arrive, including Roy Whitby, Neville Swan, Kazik Jasica, Matt Moran and Tony Prentice. Things were soon extracted from the hangar, and gliders inspected prior to us heading to our launchpoint at the western end of the field. Fletcher McKenzie had DSM up and running and we were ready to go.

First launch was with Troy, keen to get aloft for the first time this year. Despite this, and the almost total lack of thermals, he flew well and made the most of the conditions we had, ending up with a good safe landing.



Next up was Kazik, looking to work on landing accuracy and also wanting to find the elusive lift. In the event he did catch a couple of thermals and followed up with a good landing.

Both Matt Moran and Tony Prentice tested their skills in single seaters, GMP and GBD respectively, with Tony finding the best of the lift for a 40 minute flight, double that of any other flight on the day. By now it was warming up, and we had been joined by Toni Thompson, Graham Lake, Izzy Burr and Lionel Page. The Boeing had started engine testing and they

had been able to position themselves so that we were not impacted, apart from some noise. Next up were Graham and Roy in GNF, who found that the lift that Tony had been able to use was nowhere to be found. Izzy launched in GMP and once she was back on the ground Lionel took MP up for the final flight of the day. In total there had been 7 launches for a total of 2.5 hours of gliding. Not bad for such a marginal autumn day.

As we headed back to the hangar the yellow tractor managed to flood its distributor with water from a leak and needed to stop for a short rest. Fortunately, Neville soon had it up and running again, and we turned to the task of cleaning everything up and packing it all back into the hangar. Following a brief spell of socially distanced debriefing, we all headed for home, leaving the field shortly after 1500 after a good post-lockdown days flying.

SIGNING IN AT WHENUAPAI

There is now an additional reason to sign-in when you arrive at the Field, one that is very much in our interests. So please do not assume 'The Gate Guard' has seen you, especially in the little melee as the gate opens, but speak to the guard yourself. I will try to be that guard as often as possible, but otherwise I am sure the duty instructor would welcome a volunteer with open arms - or would if social distancing allowed, so you are safe from that embarrassment!

THE ASSAULT GLIDERS part 2 Jonathan Pote 19th May 2020

This week the article on military gliders covers the larger Allied gliders, big but unlike the German behemoths, not too big.

The British responded immediately to the dramatic German glider-borne success of May 10th 1940, and in June specifications were issued first for the smaller Hotspur (eight troops) and within weeks for the larger Airspeed Horsa (up to thirty troops). A major consideration was to find suitable towing aircraft. For the smaller Hotspur, that was easy: There were hundreds of obsolete Hawker biplanes of the Hart family ready for immediate use without depriving any other branch of the armed forces of useful aircraft. However, it was immediately apparent that more troops - twenty five or so - needed to be carried in each glider to provide a suitable group ready for immediate action on landing - a complete platoon of up to one hundred was not feasible, but twenty-five was a potent group in itself. America was not yet in the War, and whilst it would sell suitable aircraft to the British, there were multiple other calls on that money. Thus the larger Horsa would need to be towed by obsolescent twin-engine bombers such as the Whitley. This serious threat to RAF Bomber Command's already weak force was luckily averted by Lend-lease in early 1941 providing large numbers of *C*-47 Dakotas (Skytrain in USAAF), an ideal tug.

Work on designing the Horsa was moved to Salisbury Hall, the building in which the Mosquito was designed and beside which the first few Mossies were made. The Horsa was even more an 'all wooden aircraft', the pilot's controls produced by skilled woodworkers. Flown within a year of the specification being written, the Horsa fulfilled its demands. Blind alleys of parachutists jumping from gliders over the target, augmenting those jumping from the towing Dakota whilst the empty (still piloted, of course) glider was towed home for re-use,

and the idea that a modified Horsa could carry two 4,000 lb bombs (which its towing Whitley could not) over undefended targets were discontinued.

Production was largely carried out by furniture construction firms, whose skilled woodworkers would otherwise have needed retraining as metal workers. Rather than complete gliders, airframe components were produced, some thirty of which became one Horsa at an RAF maintenance unit. "Between four and five thousand" Horsas is as close as one can get to the number built, despite each in theory having a serial number, as varied groups of 'erks' assembled the components.

The Horsa first went into combat in November 1942, when two were towed by Stirlings to Norway, carrying commandos intending to reinforce local partisans and destroy the heavy water plant producing tritium in support of the



German nuclear weapon program. It was a disaster, the survivors from the 'landing' being executed on the orders of Hitler. Fortunately for the Allies, the Norwegian Resistance achieved the task on their own, an epic story.

The next appearance of the Horsa, in the invasion of Sicily in July 1943, was little better. The massive Anglo-American airborne assault took huge casualties from the stormy weather, seventy gliders landing in the sea. In an incident only recently brought into the open, the US Navy shot down a dozen C-47 Skytrain tugs in one of the worst "Blue on blue" or 'Fratricide' disasters ever. The glider troops lucky enough to make land could not carry out their full tasking, but even so greatly assisted the seaborne landing.



As is so often the case in war, bloody disasters taught valuable lessons and subsequently Horsas (along with the CG-4A and Hamilcar gliders) were fundamental to the Normandy invasion, the invasion of Southern France, the Rhine crossing and relief of Bastogne. That Arnhem was a disaster was not Horsas on the runway, Halifax tugs ready and a few Hamilcars in the distance. RAF Tarrant Rushton, 1944.

due to the airborne troops shortcomings, rather that the land armies failed to advance swiftly enough to relieve the lightly armed paratroopers and glider born troops.

Post-war there were hundreds of surplus Horsas, but 'One careful owner' had not been the case. All were stored in the open and even those that finally had their operational day were in poor if not downright dangerous condition when flown into battle. Firewood was much in demand post-war, with the arctic winter of 1947 soon to strike, and hundreds just vanished from storage airfields or combat landing zones. Some fuselages survived as sheds, enabling a couple of museum partial exhibits, and in 2001, the Assault Glider Trust obtained a set of original drawings from BAE on the condition that no attempt was made to fly their 'late-production' Horsa'. After many years they produced a perfect flyable glider (as well as a Waco CG-4A, Dakota, and Tiger Moth), but ran into the 1945 problem - where do you store a sixty-seven foot wingspan glider under climate-controlled cover? Their collection has been dispersed, with a suitable indoor site for the Horsa found at Overloon, in Holland, not far from Arnhem.

Have a look at https://www.youtube.com/watch?v=bv8KsLq4YBA which shows Horsas and Hamilcars at Arnhem.

The Americans were about a year behind the British and produced the Waco CG-4A, known by the RAF as the Hadrian (after the Roman Emperor, continuing the 'Historical leader 'H' tradition). With just thirteen troops carried, this really fell into the 'too small' category. However, the Americans abandoned the concept behind the DFS 230 and the Hotspur, even the Horsa to an extent, namely take the current design of a sport glider, make it larger, and squeeze half a dozen men onto a wooden bench in the bloated fuselage. Both the DFS 230 and the Hotspur had tapered high aspect ratio wings and (roughly) circular cross section fuselages, efficient

for flight but hard to construct and not suitable for bulky load carrying. The Waco CG-4A had a square section fuselage, easy to make and able to take a jeep or a 75mm howitzer instead of troops. The designers knew the C-47 Skytrain would be the tug, so although a CG-4A with thirteen troops would be an easy tow, the C-47 could actually tow two and thus be as productive as if towing a single Horsa. The wings of the CG-4A were like those of a model aircraft - constant chord, quite low aspect ratio, useless for soaring but easy to make. The lift/drag ratio of 12:1 was acceptable.

Where the USA went badly wrong was in manufacturing the CG-4A. With a steel tube fuselage and a limited number of wooden components, it was thought firms without airframe experience, not supervised by



inspectors, could be trusted to turn out serviceable gliders ready for use. That such firms were not up to the task was dramatically illustrated when the first CG-4A produced by one rural town took the mayor and dignitaries for a demonstration flight in front of a large crowd. As it cast off tow, a wing detached and in clear view of all, it spun into the ground. There were no survivors, and at one stage the entire program was in jeopardy due to poor standards of construction until the dramatic demonstration at the 'Cabbage Patch' showed the potential of the type - if properly constructed. Some sixteen firms built the CG-4A, with Ford Motor Company producing four thousand at \$15K each but the National Aircraft Corporation managing only one for an astronomical \$1.8 million! With Each P-51 Mustang costing about \$50K, clearly even when produced by an established motor manufacturer (Ford also produced the bulk of the B-24 Liberators), the CG-4A was not especially good value for government money.

The use of the Waco CG-4A mirrored that of the Horsa from Sicily onwards, with both types serving in both USAAF and RAF markings. Where the CG-4A stood out was in Burma, where (along with a few Horsas) it undertook the dramatic Broadway and Piccadilly landings where large numbers of troops established bases and airfields behind Japanese lines, taking advantage of natural clearings. Films exist (try on YouTube) of the landings. They are truly frightening. The isolated nature of fighting in Burma brought to the fore a technique long suggested but little tried: Recovering gliders from a landing zone by airborne snatch. A C-47 dangling a hook would engage a looped tow rope strung between high bamboo poles, giving the glider the equivalent of a winch launch speed-wise with the trajectory of an aerotow, stationary to 100 knots just above the ground, followed by a climb away. A seventy metre nylon rope was used, compared with the one-hundred plus metre length used for standard tows. Many a wounded soldier, far behind Japanese lines, would be forever grateful for reaching a field hospital maybe an hour after leaving a totally inaccessible jungle clearing via a snatch.

As mentioned before, the assault glider died a remarkably quick death after World War Two. The helicopter could do it all just as well - and be used twice if not more! Some demonstrations were made at airshows, and in the early 1950s the last productive flights were made onto arctic ice flows for research scientists, in this



case the glider having the range of its tow aircraft (far more than a helicopter) plus the ability to be recovered later by a snatch. With its metal fuselage frame, the CG-4A has survived a little better than its wooden compatriots, nearly a dozen identified examples conserved, with others built up from non-identifiable fuselage frames.

A twin-tow getting airborne



A Training 'Snatch'. Operationally, much taller poles were generally used.



The two workhorses compared.

ROSTER	May/June	2020
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Month	Date	Duty Pilot	Instructor	Towpilot	Notes
May	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	К ВНАЅНУАМ	S WALLACE	F MCKENZIE	
	27	G LEYLAND	R BURNS	P THORPE	
	28	I O'KEEFE	I WOODFIELD	R HEYNIKE	