

# WARM AIR 11 September 2021

## Aviation Sports Club Gliding Newsletter

### THIS WEEKEND:

**No Flying this Week**

[www.ascgliding.org](http://www.ascgliding.org)

Bank Acct 38-9014-0625483-000

Saturday

Instructing:

Towing:

Duty Pilot

Sunday

Instructing:

Towing:

Duty Pilot

### MEMBERS NEWS

*In Warm Air this Week;*

- *Club News*
- *ASC Condorites – Virtual Soaring*
- *Special Recognition*
- *Video Corner – some links to some cool aviation videos.*
- *Our Avian companions Part 11. Human aeronautical progress part 2*
- *Roster*

*Thank you for the contributions from members*

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## Club News (Okay this bit might seem the same as last week, maybe)

Okay folks get your Diaries out and note the following events and dates.

Club Captain Kishan wants, needs, request you note the following.

### 9<sup>th</sup> October

- **Annual General Meeting**
- **Start of Season Briefing**
- **Working Bee & BBQ**

The hangar needs a good clean up. We would like to have a working bee after lunch and put some stuff in trailers and take it to the tip. There are a couple of old gliders in there .... *(only joking)* ....

There is quite a lot of ~~erap~~ rubbish slowly rotting away and bits of a/c that can now be dumped. Put your overalls in the kitbag. If anyone has a household trailer / ute that they are prepared to bring along, can you please email me and let me know. If we don't have any, I will organise hiring a trailer.

Any excess hands may get to do some glider polishing as there are a few that need doing.

### Labour Weekend, Matamata Sat 23rd Oct 2021,

We are intending to head to Matamata for the long weekend. This is just around the corner. The XC course is also being run at Matamata that weekend so if you want accommodation on in the bunkrooms I would book early.

### Cross Country Course, Sat 23rd Oct 2021 - Wed 27th Oct 2021

For those planning on attending the XC course now is the time to register. Use either the Events tab on the GNZ homepage, or here:

<https://msc.gliding.net.nz/events/msc-cross-country-coaching-course-oct-2021>

## Central Plateau Soaring Comp, Taupo, 30th Oct ~ 6th Nov 2021

First comp of the NZ season is not to be missed in sunny Taupo.  
CD will be Rob Lyon so expect a fun comp with daily prizes.

We also have 4 twin rooms plus plenty of caravan & tenting sites.  
Email: Tom on [gliding@reap.org.nz](mailto:gliding@reap.org.nz) for room bookings, first in first served.  
We are also planning to have onsite dinners most nights.

Early Bird registration entry is \$180 before 31Sept \$210 thereafter.

Register Online at <https://gliding.net.nz/events/>



*Okay it was the same if you had read last weeks. If you didn't, its new and take note in your diaries.*

## The ASC Condorites are out there soaring the virtual skies

Andrew Fletcher (aka Dash) gives us a run down on their Cross Country Sorties

Saturday afternoon in lock down, what do you do? You Condor of course. Oliver Fletcher, Kazik Jasica, Craig Best and myself (Andrew Fletcher) all met on line for a cross country with a twist.

I planned the cross country using my landout file from XC Soar, we would launch from Dargaville and then track via three waypoints to the finish at Paparoa air strip. Each turn point was a landout from my file, some were paddocks and some were agricultural strips. The rules were that when you arrived at the turn point you had to land in the paddock or strip, then press the Q key and be positioned 1500 feet above the ground and have to thermal away to get to the next waypoint.



I did make the thermals a little tricky so there were plenty of low scrapes to get established at a reasonable altitude including yours truly. The first turn point was a nice set of paddocks 16 km North East of Dargaville, all arrived safely in a paddock and promptly pressed Q and got launched instantly to 1500 feet.

Our next turn point was 22 km North East, an agricultural strip with a 7.5% up slope to the North West. This was tricky, Craig made the first approach followed by the rest of us, there were some rough landings so we all had another go and did much better. We all made our approaches at higher speed to cope with the slope and landed successfully.

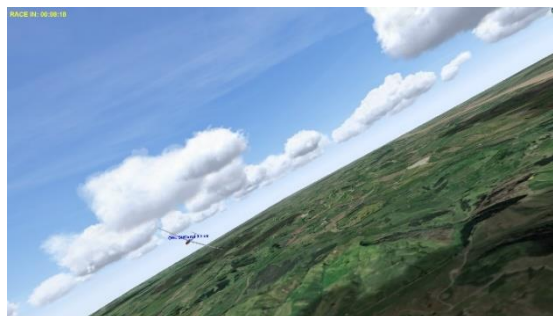
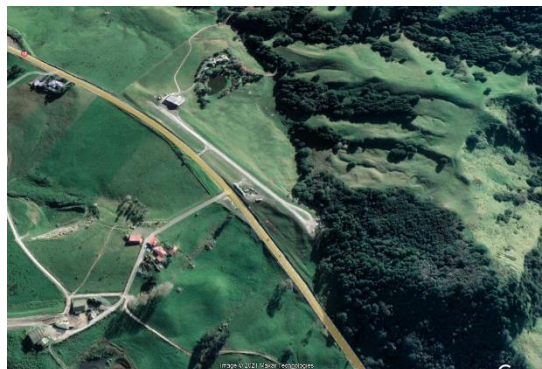




On to the next turn point, Mata Air strip 10 km south of Whangarei Airport proved to be no real challenge for any of us.

Next we were off to the finish, Paparoa Airstrip, 11 km West of Brynderwyn. This is an uphill landing to the South East which meant we would have to land with a tail wind of around 5 kts. All arrived safely having had a challenging flight, we had a lot of fun but there is a serious side to it as well. Landing technique required for an uphill paddock or Airstrip, learning the terrain North of Kaipara Flats, Airspace around places like Whangarei, wind awareness and speed to fly.

So why not join us? It's just a game, but at the same time there is plenty to learn.



## The Team also did a flight up the Coromandel Peninsula

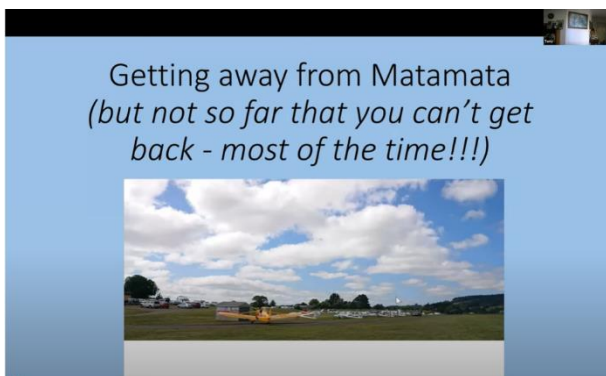
Craig Best gives us a photo story.





At the end of the Coromandel Peninsula at Port Jackson the decision to cross to Great Barrier Island. *And if memory serves me right, this has actually been done for real a decade or two ago.*

Perhaps this journey was inspired by the recent GNZ Webinar on [How to escape from Matamata! Featuring Brett, Dave and Tim - YouTube](#)



## Special Recognition – Toni Thompson

Our very own Toni Thompson has been away overseas. She was involved in a very important evacuation mission in Afghanistan. Toni, **we are all very proud of you** and your colleagues at the RNZAF for doing such a sterling job.

Our collective best wishes to you all and we look forward to seeing you soon. Get that Astir out for a spin.

To see more about the operation, go to RNZAF [Facebook](#).



We are pleased to report the crew have returned safely home.





# Video Corner

## Tims Soaring News

[Soaring News Sep 2021: Bond No Time to Glider - YouTube](#)



[Die](#)

Well last week was the end of the Paralympics and there were remarkable athletes who had overcome insurmountable obstacles to become the best athletes. They are inspiring. An aviator who has not been stopped by anything in her life is **Jessica Cox, Armless Pilot**. Have a look at this video, truly remarkable.

[Fly Along - Jessica Cox & Senator Tom Harkin - YouTube](#)



[Freedoms Wings International | Soaring For People With Disabilities](#)

**Soaring in the French Alps – experience the journey**

[Glider pilot gets low on final glide in the French Alps! - YouTube](#)



Every now and then I check to see if an ASW28 is starring on YouTube.

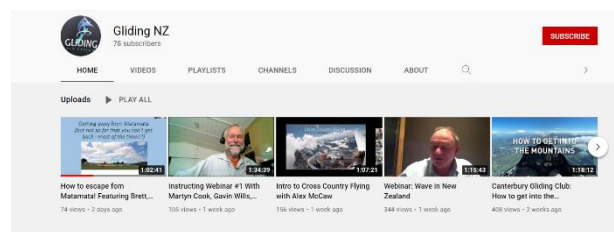
Well here it is.. [Terrible Landing in a High-Performance Glider - YouTube](#)

*So that's how you land the ASW28.*



Gliding NZ Webinars are popping up again. So, if you missed one, they can be found here

[Gliding NZ - YouTube](#)



## Our Avian companions Part 11. Human aeronautical progress part 2

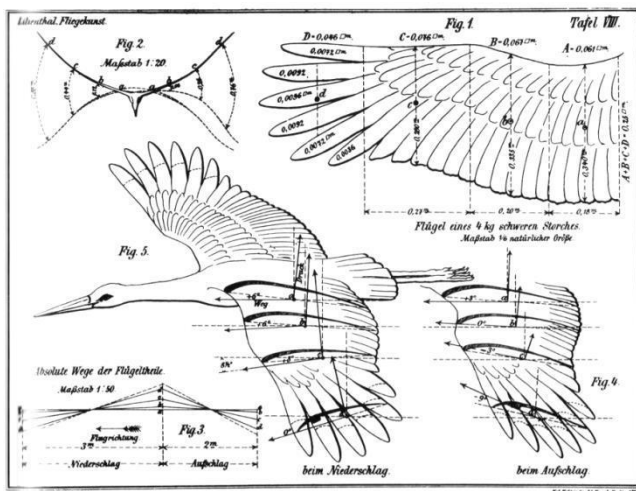
Last week we covered progress from Greek myths to George Cayley and Lawrence Hargrave, who both flew heavier than air load carrying 'devices', albeit not mechanically powered. Others were active elsewhere, and trusting their lives to their machines. Sadly the most accomplished then paid with their lives.

### Otto Lilienthal (1848 – 1896)

In Germany Otto Lilienthal had studied bird flight and was experimented with downhill glides using braced birdlike monoplane wings stabilised by the low centre of gravity that his dangling body gave the combination of person plus wing. He constructed an artificial hill so he could glide down into wind whatever its direction, at times ten or more metres above the slope. Tragically, on 9<sup>th</sup> August 1896, a gust upset the device and he fell, sustaining fatal injuries. "*Kleine Opfer müssen gebracht werden*" ("Small sacrifices must be made") he is supposed to have said.



Otto Lilienthal with his 'mechanical



Mechanics of White Stork flight in Lilienthal's *Der Vogelflug als Grundlage der Fliegekunst* (1889). Note the airfoil.

### Percy Pilcher (1867 – 1899)

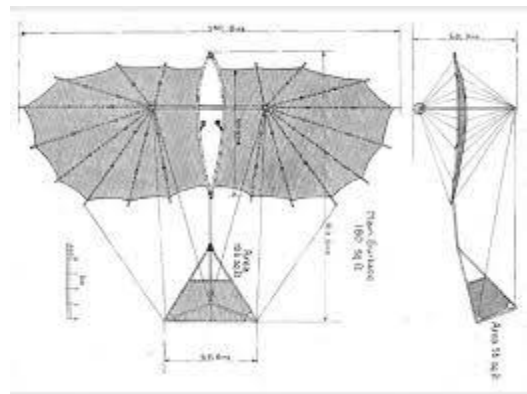
Whilst Lilienthal was experimenting in Germany, a marine engineer in Scotland was corresponding with him. Pilcher flew his 'Bat' hang-glider with slight success, and then his 'Hawk' glider managed a glide some two-hundred and fifty metres. Had a greater descent been possible, longer glides would have followed. To Pilcher, gliding was the first step – he also had plans for powered flight. He needed more wing area to lift a 4 horsepower engine, and hoped to solve that problem by using a triplane configuration to increase wing area without concomitant increase in structural weight. It is not known if his triplane flew although he had intended to display it to potential backers the day he died. As the engine's crankshaft fractured the day before the planned public demonstration, he flew his 'Hawk' glider instead, in unsuitable weather. Compromised by wind and rain, the 'Hawk' broke up and Pilcher plunged to his death.



Pilcher's Hawk

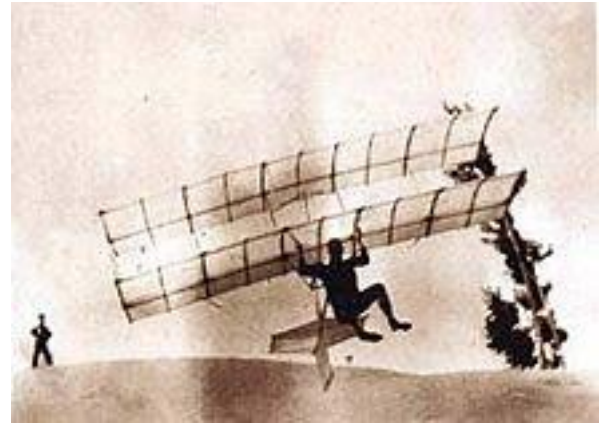
His Triplane is lost to history, but recent experiments suggest it may have been capable of reaching the Holy Grail of *powered controlled flight*. His rebuilt 'Hawk' still exists in the Scottish Museum of Flight.

Both Lilienthal and Pilcher, sharing information as they did, might have achieved powered and controlled flight had they lived and continued their efforts.



### Octave Chanute (1832 – 1864)

This illustrious French-American engineer only took a serious interest in flight after retirement, his engineering career having already left a great heritage of historic railroad bridges. A true polymath, he was able to bring together all that others had learnt and then re-distribute that knowledge to those interested. Aged over sixty, he felt too old to fly himself, and thus others piloted his glider designs, in which cambered wings in biplane, triplane or even more complex configurations were braced to achieve structural strength at lower weights, a practice that lasted as the norm for decades (and continues today in our FK 9). Many pioneers, including the Wright Brothers, acknowledged their indebtedness to Octave Chanute.



**An Octave Chanute glider, camber clear, bracing just visible**

### The Wright Brothers (Wilbur 1867 – 1912 and Orville 1871 – 1948)

Just a few years later, on 17<sup>th</sup> December 1903, Orville Wright did achieve *powered and controlled flight* at Kitty Hawk, North Carolina. Everyone knows that his first flight was a mere one hundred and twenty feet, lasting twelve seconds, but not so many know that he and Wilbur made four flights in all that day, the last of nearly nine hundred feet in just under a minute (but ending in a minor crash).

The Wright brothers had unsurprisingly also started with gliders, and indeed went back to gliding flight after successful powered flight as they saw it as more likely to improve their aerodynamic knowledge. Their design was rather a technological dead-end, and their later aircraft mostly still required both a launch rail *and* an acceleration device, simply a heavy weight dropped from a tower whilst attached by a rope via pulleys to the flimsy flying machine that was little more than a box kite. A fairly strong and steady wind was a pre-requisite and Hargrave dismissed their achievements as being little more than his own some years earlier.

The Wright Brothers undisputed place in history coincidentally partly lay in their using a readily available group of uniformed, credible witnesses as assistants (coastguard employees from the nearby light house), of taking some photographs, and submitting a report to the local newspaper. Thus the event had the first 'Official Observers', a visual flight record of sorts, and a claim filed. The *Daytona Times* did not think their article was newsworthy and did not publish it. However, it was lodged in their files so a permanent record remained.





**17<sup>th</sup> December 1903: Wilbur Wright becomes the world's first wing runner, Orville the first pilot, image taken by the first Official observer.**

Note the launch rail and the sagging wings, the opposite to that expected.

## Epilogue

Hargraves lodged no patents, encouraging others to use his ideas free of charge. Lilienthal and Pilcher were killed while Chanute acted as a conduit for all available knowledge and experience. Conversely, the Wright Brothers tried to patent everything, almost including the idea of flight itself. Wilbur sadly died of typhoid only a few years later (1912). Eventually Orville finally managed to get valuable patents approved but by then (1917) America had joined The Great War and all patents of help to the war effort were invalidated. Orville also fell out with the Smithsonian over whether another pioneer (Langley with his 'Aerodrome') had achieved powered and controlled flight before they did with the result that the original Wright Flyer was loaned to the Science Museum in London in 1928. It returned to the USA post-WWII, but by then Orville was also dead.

Wright aircraft were only built in tiny numbers, although Pancho Villa was a notable military user. It fell to others to within a couple of years produce designs that had a realistic development potential and thus led to modern aircraft. Not 1913 did Orville produce an aircraft design that embodied the now classic form, he now following the lead of others.

To others in Europe and the USA (and above all Louis Blériot) should go the real praise. Blériot was the first to use a 'stick' and pedals to move ailerons, elevators and rudder for control in three dimensions and of course flew the English Channel in 1909. His line of development gave us the powered aircraft we know today, a load-carrying fuselage with a seated pilot, wings at each side providing lift both efficiently and controllably (ailerons), an empennage with vertical and horizontal surfaces to provide stability and control in two planes (rudder and elevators), a wheeled undercarriage to make any flat area suitable for take-off and landing, and (if one is too lazy to use natural sources of lift and you really think it is necessary) an engine to overcome aerodynamic drag.

Well over one hundred Type XIs were built, equipping over twenty squadrons in the French, Italian and British air arms at the outbreak of the Great War. It was an unqualified success and two restored but original Blériot Type XIs still fly today, over a century after they were built.



**Original Blériot Type XI flying recently**



Following Blériot's lead, the course of aeronautical development was set. The last design to which he contributed, and bore his name, the Blériot 5190 of 1933 achieved a dozen trans-Atlantic crossings, and via mergers his company lives on today as Airbus.

### **William Boeing (1881 – 1956)**

Boeing was a late starter, Curtiss, Martin, Blériot, AV Roe, de Havilland, Sopwith/Hawker and many others already running profitable aircraft factories that became household names. Having been taught to fly by Glenn L Martin, Boeing purchased one of Martin's designs. This was damaged beyond easy repair before Boeing himself could fly it, but he felt he now knew enough to design his own flying machine. His previous business in timber production must have helped. The result was the remarkably advanced Boeing Model 1, or B&W 1, Lt Conrad Westervelt USN having helped with the design.



**Replica Boeing Model 1 'Bluebill'**

The B&W 1 flew in June 1916 and, along with a second example completed in November, was turned down by the United States Navy although other Boeing aircraft types were bought by the US Army. The two B&W Model 1 aircraft were later sold to the New Zealand Flying School of Leo and Vivian Walsh in Mission Bay, Auckland. There, apart from Flying School use, they established a New Zealand altitude record of 6500' and initiated the first Air Mail route (between Auckland and Dargaville) on December 16<sup>th</sup> 1919.

As a late starter, one might expect Boeing's efforts not to come to much. However, retaining the name despite many corporate comings and goings, Boeing is of course now one of "the big two" alongside Airbus (of Blériot's heritage). Every time we see a Boeing airliner above Whenuapai, perhaps we should remember that it is just re-enacting those first ever commercial flights by Boeing designs anywhere in the world, right through what has become our Whenuapai airspace just over a century later.

Aircraft designers could not use Avian aerodynamics for controllable aircraft as they simply could not emulate the almost infinite variable geometry of birds (to be covered later). However, there lingered, at least amongst the gliding fraternity, the idea that birds must somehow be right and the 'gull-winged' glider design lasted a little longer, into the 1930s.



**Goëppingen Gō 3 Minimoa of 1935**



**Red Billed Gull 2021**

## Post Script

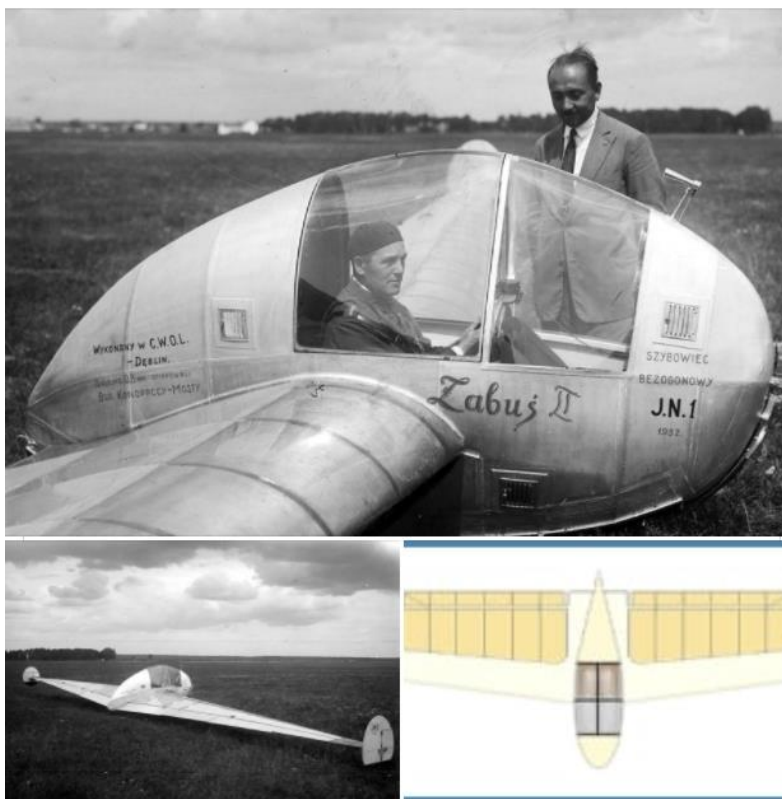
For a quick look at those “Magnificent Men in their Flying Machines” have a look at this trailer. Most of the machines used in the film bore a close resemblance to those of Edwardian times. Some were flown for the film by accomplished glider pilots who understood efficient handling of barely flyable contraptions.



<https://www.bing.com/videos/search?q=Film+those+magnificent+men+in+their+flying+machines&docid=608028371220709161&mid=FB3680095CD99D398BC6FB3680095CD99D398BC6&view=detail&FORM=VIRE>

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Here you go JP, some detective work for you. Did this thing fly? [Facebook](#)



# ROSTER

*There is a new roster, and I will post next week, as I do not think there is much of a hurry.*

Month	Date	Duty Pilot	Instructor	Tow Pilot
Jul	3	G LEYLAND	I WOODFIELD	P THORPE
	4	I O'KEEFE	A FLETCHER	R CARSWELL
	10	M MORAN	S WALLACE	F MCKENZIE
	11	T O'ROURKE	R BURNS	D BELCHER
	17	R BAGCHI	A FLETCHER	R HEYNIKE
	18	T PRENTICE	L PAGE	G CABRE
	24	C BEST	P THORPE	R CARSWELL
	25	E LEAL SCHWENKE	I WOODFIELD	D BELCHER
	31	R MCMILLAN	S WALLACE	P THORPE
Aug	1	A MICHAEL	R BURNS	P EICHLER
	7	R WHITBY	A FLETCHER	R HEYNIKE
	8	C DICKSON	P THORPE	G CABRE
	14	K JASICA	L PAGE	F MCKENZIE
	15	J DICKSON	I WOODFIELD	R CARSWELL
	21	S HAY	S WALLACE	D BELCHER
	22	K BHASHYAM	R BURNS	P EICHLER
	28	K PILLAI	A FLETCHER	R HEYNIKE
	29	G LEYLAND	P THORPE	G CABRE
Sep	4	I O'KEEFE	L PAGE	P THORPE
	5	M MORAN	I WOODFIELD	F MCKENZIE
	11	T O'ROURKE	S WALLACE	R CARSWELL
	12	R BAGCHI	R BURNS	D BELCHER
	18	T PRENTICE	A FLETCHER	P EICHLER
	19	C BEST	P THORPE	R HEYNIKE



	25	E LEAL SCHWENKE	L PAGE	G CABRE
	26	R MCMILLAN	S WALLACE	F MCKENZIE