

Vintage Times

Newsletter of Vintage Gliders Australia

www.vintageglidersaustralia.org.au

Issue 111

July 2008

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Membership \$20 every October

Articles for Vintage Times are welcomed



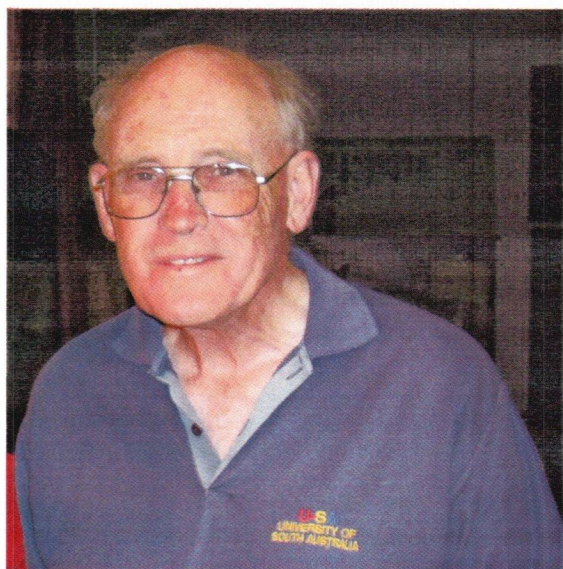
THE ZEPHYRUS

The Zephyrus is a tandem two-seater training sailplane designed by Doug Lyon and built by members of the Beaufort Gliding Club. It was rather long in gestation, designed about 1950 but not making its first flight until the end of 1965. With a strutted wing of 17 metres span, it has a fuselage of steel tube framework covered by fabric. An unusual feature is that the rear cockpit is entered through a hinged door on the starboard side. Despite its bulk and weight, Zephyrus soars well and, although used mostly as a club training aircraft, it has made a number of cross country flights in excess of 300 km. Apart from the ravages of time and the ministrations of not always gentle tyro glider pilots, Zephyrus is still pressed into service when the waiting list for the more glamorous white plastic is too long, or it is considered that some training sequence can be more effectively taught in the "Old Beast".

With thanks to "Gliding in Australia", by Allan Ash, and for a personal contribution by Doug Lyon.

WHAT A DAY!

BY ERIK SHERWIN



This heading is sometimes made as a statement of exasperation, but not on this occasion! October and November can often give magnificent gliding days, but not many that are consecutive, so the question was - would the weather today be a continuation of the preceding two days? Thursday and Friday were days of light winds, with 4/8 cumulus estimated at around 7,000ft. So, come Saturday and en route to the gliding field, the sky began to blossom – a clear reminder of the need for a much earlier start, but, more importantly, the day might meet expectations. The intention was modest; fly to Stonefield and either land, renew acquaintances with the Barossa Valley /Adelaide University Gliding Club members and perhaps try for get some aerial photographs, or make this an out and return, the decision dependent upon circumstances at Stonefield.

Arrival at Monarto later than planned, meant a toss-up – lunch now, or later? Wisdom dictated a late, or very late lunch, so at 1237hrs I was launched into a 4~5/8ths sky. Good height on the wire meant lift somewhere near-by: 4kts lift became 6kts and with a little more manoeuvring 8kts. The height restriction rises from 4,500ft to 8,500ft just a few kilometres away, so it was eastward to Murray Bridge and the darkest cloud. With lift of 9~10kts a height of 8,500ft was soon realized and this was still below cloud base. Looking south towards Lake Alexandrina, cumulus could be seen at a lower level. Clearly the sea breeze was already having an effect on local circulation.

There was already a suggestion of cloud streeting to the north-east, but whether this was due to an upper level south-westerly air stream, or the more

usual effects of the sea breeze, or indeed a combination of both, was not clear, but it was noted. Stonefield lies almost due north, so a zigzag path made life very easy, by following the line of clouds, working the occasional 10kt thermals then cruising slowly through extended areas of weaker lift. En route I heard two radio calls from Victoria: someone having covered about 100km without turning, (he sounded rather happy about that!); the other from someone at 7,500ft, climbing, heading for Lake Tyrrell. My guess was that these were from the Bendigo GC. Two other calls were picked up: someone heading for Jamestown, the other; "Turning at Clare." The latter sounded like Colin Stauss, if so, I hope your flight was as enjoyable as mine, Colin.



ERIK PREPARES TO FLY HIS Ka6E

Radio contact was tried with the clubs at Stonefield, but without success. It took just over an hour to be overhead Stonefield and orbiting at 5,500ft the prolonged dry weather made the appearance of the field and runways almost indistinguishable from the rest of the countryside. I suppose this should have been expected. There was a time when the four sectors about the runways were share farmed with wheat, but clearly that time was long gone. Two gliders were on the SW end of the NE/SW strip, but I saw only one launch followed by a very short circuit. Clearly action was low key, so with the possibility of circulation being cut early by the sea breeze and possible out-landing, it was an easy decision to find the next thermal and head home.

After a bit of messing around, 5kts gave way to an acceptable 11kts on the averager. Over 10,000ft and with the silos of Murray Bridge in view, the potential for a quick trip home looked good – until hitting the sea breeze about 20nm from home. A height of 8,000ft should have been comfortable, but progress slowed markedly. The last useful cumulus was used for some extra height, but not needed as height crossing the airstrip was that gained in the last thermal. However, the last few kilometres tracked over the Monarto Zoo, so the possibility of an out-landing in the cheetah-park with party games then light refreshments on me had whiskers on it – of course! Moral? - Stay High!

There was sufficient height after crossing the strip for further short out and return, but by now the lift was weak, broken and the drift substantial: the windsock was straight and horizontal. I'm not sure where the cross-over lies between breeze and gale, however, a radio call confirmed that whatever it was called, was well established and vigorous, therefore lunch and coffee became very appealing, and it was so.

In retrospect better use could have been made of the day. Had early preparations had been made for an out-landing distant from the sea, 500km, or more, could have been achieved. On the other hand, this was the first time I had really exercised the aircraft and the conditions for the task as it evolved were used to good effect. Average speed for the task from take-off, less loiter time over Stonefield, was over 83kph, which I found encouraging, although a flight review brought home ways for improvement, but isn't that always the case?

For those unfamiliar with the 'E' variant of Schleicher's Ka6, I can do no better than quote from Martin Simons: "The Ka 6E was particularly pleasing to fly, comfortable and viceless." In one sense the controls are not as well harmonized as the Ka6CR. Control in pitch is very responsive, ie. stick force per 'g' is low and more nearly resembles that of the Kingfisher. Though, as for the Kingfisher, one quickly comes to terms with this, even if aerobatics are not recommended.

For anyone interested, the radio used was a hand held Vertex VXA-150 connected to aircraft power and antenna.

May we have many more flying days of similar weather patterns and be prepared to exploit them to great effect.

FOOTNOTE: The author is an engineer post graduate, qualified in Test and Evaluation and currently flying a Ka 6E with the Adelaide Hills Soaring Group. He joined the Barossa Valley Gliding Club in the late '50's and in five National Competitions flew ES59 Arrow, ESKa6 and H301 Libelle. On relocation to Victoria he flew as an instructor with the RAAF Laverton Gliding Club before subsequently returning to SA.

EDITORIAL:- Thanks to those contributors who assisted during the cold "slow news months". As we are approaching what promises to be a bumper season, may we request that all members remain alert for any items or photographs they notice that may be of interest to other VGA members.

Have a great summer, and take care,
Dave and Jenne G

GOULBURN VALLEY SOARING OPEN DAY AND FLY-IN!

18TH AND 19TH OCTOBER, 2008

Goulburn Valley Soaring is set to become an innovative part of gliding in Australia. Previously known as Mangalore Gliding Club, Goulburn Valley Soaring commenced operations earlier this year at its new gliding site at Warring in central Victoria. Conducting a safe and sound operation on a secure gliding site, the club is now well and truly open for business. An open day is planned for the **18th and 19th of October** to kick off this year's soaring season and you are invited to join in the celebration of this significant event.

The Open Day and Fly In will be a community based event with an aviation focus. We are keen to promote gliding to the local communities of Nagambie and Shepparton. To that end we have invited a number of community and service groups who will be catering and providing other services on the day and conducting various fund raising activities. We are also keen to promote aviation in all its forms and to showcase gliding to our powered colleagues. There will be aviation activities happening on the hour every hour on both days. A concert has been arranged for Saturday evening featuring two live bands and a fly-in breakfast is planned for Sunday morning. Accommodation is plentiful in the local area and ground transport is being arranged for those who need it.

Several gliding clubs have already indicated their interest in being involved and we are expecting a diverse range of gliders to be available for Air Experience Flights and demonstrations on the day. There will be winch launching and aerotowing as well as self launching motorgliders. We are also planning an auto-tow demonstration.

Our aim is to conduct a safe and interesting aviation event that will promote gliding to the wider community and build relationships with other aviation-minded groups. Come along, enjoy the atmosphere and the flying and help us celebrate the launch of a new gliding endeavour. Share the joy of flight with Australia's newest soaring group.

The members

Goulburn Valley Soaring

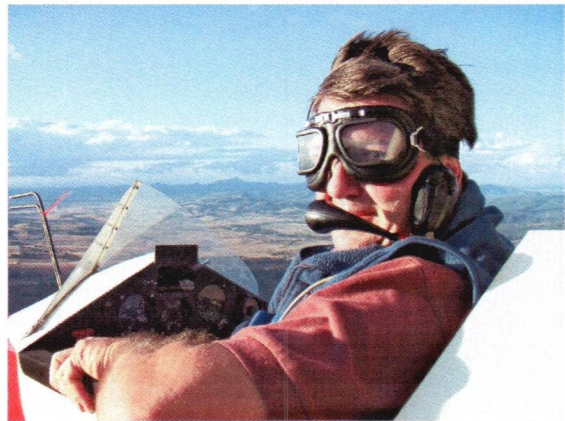
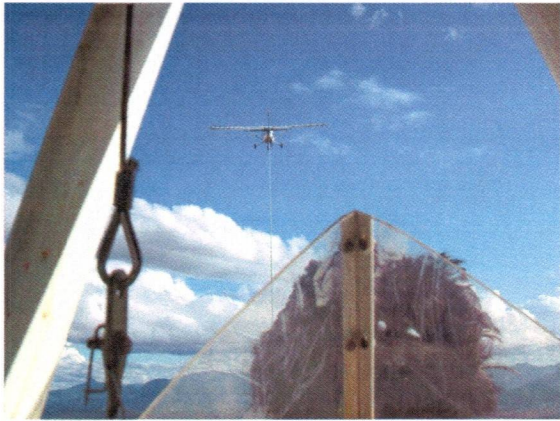
CONTACT
Garry Sharp

garry@sharpbuilding.com.au

FLYING THE T31b

FROM LAURIE SIMPKINS

Hi David. Unfortunately I was towing again so only got to watch. No lift but the guys enjoyed the open cockpit experience. Stewart Hamey was pilot in charge and camera man. He has joined us on the dark side, as he is now finishing off a Duster kit he has acquired. The photos are taken at Boonah, Qld.
Cheers, Laurie



LETTERS

Rob Young from Bendigo Gliding Club kindly sent in this wonderful vintage gliding picture website!

<http://trade-a-glider.netfirms.com/picturepro/nfpicturepro/index.php>

G'day Dave

From Ged Terry

Keith's report on the Sapphire incident rings true with my experience from the cockpit.

The first indication of anything untoward was on the downwind leg. I was flying, hands on the stick and throttle as usual, with cruise power set when the engine hesitated, very briefly and almost imperceptibly, twice in rapid succession. Perhaps this was caused by propeller bolts breaking. I began to close the throttle smoothly and gently but almost immediately a loud bang announced (what I later found was) the departure of the propeller. At the time I thought it was a severe backfire. I immediately closed the throttle completely and positioned to land. Amazingly, despite being relieved of its propeller, the engine did not race. At no time was there any noticeable vibration.

As Keith says, in the circuit we do not rely on the engine and always treat the Sapphire as if it is a glider. This paid off as I made an uneventful glide approach and landing - well into the airfield as I was particularly attentive to the potential (in fact real !) lack of available power. I switched the engine off after landing and only having got out did I realise I no longer had a propeller. Had I been flying a tractor driven aeroplane I'm sure I would have soon noticed the absence of the propeller and perhaps thereby got a bit more anxious.

This was the first time I had flown the Sapphire since my previous visit to Australia a year before. I normally wiggle the propeller lightly by hand on a pre-flight walk round but on this occasion I didn't have much incentive as Keith had just landed and I took over from him with the engine still running.

The Sapphire is a truly delightful aeroplane and, undaunted, I'm really looking forward to flying it again (that's if I'm allowed - I think Keith is secretly a bit jealous as he missed experiencing this adventure himself !).

Happy landings (!)

Ged



GEELONG GLIDING CLUB MEMBERS ROSS BIRCH, JOHN ASHFORD, JEFF FARROW, AND JOHN BUCHANAN CARRIED OUT A FORM 2 INSPECTION AND REFURBISHMENT OF THEIR POPULAR K13



PHOTO LEIGH BUNTING
SOUTHERN CROSS GLIDING CLUB OPERATE THIS ATTRACTIVE RED K13 AT CAMDEN



FORMERLY OWNED BY TONY SMALLWOOD, THIS GULL 1 WAS FLOWN ACROSS THE ENGLISH CHANNEL IN 1939 BY GEOFFREY STEPHENSON. GRAHAM GARLICK

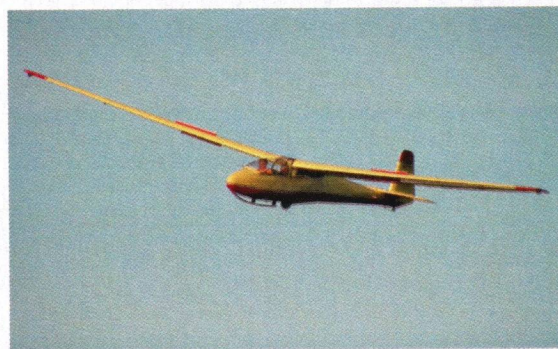


PHOTO LEIGH BUNTING
JOHN ASHFORD'S Ka2 ON APPROACH AT CAMDEN

FINAL GLIDE

Sad loss of VGA Member Albert Uster while flying his new LS8 in Switzerland

Loved by all, Albert hosted the steak night at IVSM Rallies, his legendary culinary skills and personality making the event a highlight of the meeting.



ALBERT WITH HIS MOSWEY AT IVSM 2005

Albert Uster

With Thanks to Jan Scott

I first met Albert in 1968 when I worked as an instructor at a glider school in Leesburg VA. Albert was one of my students there. After I had opened my own glider operation in Lovettsville two years later, Albert became one of our regular customers. After VSA was created in 1974, Albert became an active member. He was elected Treasurer a few years later, and brought the association back from near bankruptcy to prosperity. Among the many sailplanes that he has owned, his Moswey 3 is one of the prettiest and most desired of the worlds vintage sailplanes.

Over the years, a close and precious friendship grew between Albert and Mai and myself. We have enjoyed each other's company at regattas and social events both here in the US and overseas for nearly forty years.

His wonderful and productive life came to an end at about 2 PM on Friday July 25th, while participating at a sailplane encampment in Saanen, Switzerland.

There is strong evidence that he passed away peacefully while enjoying his favorite activity; flying his new sailplane in his beloved home country. We should all be that fortunate when our time comes.

COMING EVENTS FOR YOUR DIARY

2nd Annual Rally at Wondai

5, 6 and 7 September

We found that holding Quarterly Rallies was a little optimistic and June 2008 was forecast to be wet and cold, which turned out to be accurate, so we are planning our 2nd Annual Rally for 5, 6 and 7 September at Wondai.

Contact Ron Geake at (07) 5486 7247

rcgeake@tpg.com.au

MELBOURNE CUP WEEK

Bendigo Gliding Club at Raywood

1st to 9th November, 2008

This year the Melbourne Cup Vintage Regatta runs for the whole week to take advantage of the great weather - dust off those winter cobwebs!

Contact Dave Goldsmith

Bordertown 2009

It's on at Bordertown again!
Vintage Gliders Australia Annual Rally
from 3rd to 11th January, 2009
Contact Ian Patching.

Old Timer's Week

16th-20th March 2009

- All pilots and friends of all clubs welcome, age no barrier
- Dinner on Wednesday 18th March, bookings essential
- Mystery tour Thursday with John King on 19th March, bookings essential
- Call Jim Barton on 03 9309 4412 for flying enquiries
- Ring Rhonda for reservations on 03 5762 1058

Gliding Club of Victoria

"Vintage Kiwi", a Living Gliding Museum

STORY & PHOTOS by IAN DUNKLEY



Introduction

We all see in our vintage magazines articles about overseas rallies, who is flying, breaking or repairing what, features on old gliders etc but little about what an actual "Vintage Glider Club" is doing. This article is about one of the newest vintage clubs that is as far away from a "VGC international Rally" as you can get without finding yourself on the way back.

The following picturesque quote is from an email sent by a commercial glider repairer in New Zealand to a club who asked about the value of repairing a Ka4 that attempted mating with a cow.

"Vintage & Classic Gliders are only brought out on the calmest and finest of days, loved, fettleed and flown by a bunch of geriatric old timers, washed and lovingly put back to bed."



It will not therefore surprise you that he went on to advise on the lines of "Take the insurance money and run for the matches." However the club, who have a large number of Vintage Kiwi members, voted in favour of repair

It is now over five years since the idea of a vintage and classic gliding club for New Zealand was discussed with Gliding New Zealand and their support obtained. Support that is just as

valuable to day as it was then, for vintage gliding should be a valuable contributor to our sport. In fact we now represent a membership equivalent to nearly ten percent of NZ glider pilots, placing us within the top five ranking clubs in the world on that measure. However, taking an increasing share of a declining gliding market is only a recipe for complacency so we work with GNZ and play our part in recruiting new pilots to every segment of our sport. We also have a regular "vintage" feature in the national magazine "Soaring New Zealand" which we use to attract more existing pilots to join us.

It may help at this stage if we clarified what "Vintage" & "Classic" means in New Zealand. Vintage is anything made predominantly of wood, simply because if we worked to pre 1956 we would have to drop "Vintage" from our name. Classic are the first generation of composite gliders designed before 1975. This left metal, only a Czech perversion here, so we avoid tapping them and so call them wood.

"Vintage Kiwi" is an incorporated society, "The Vintage & Classic Glider Club of New Zealand Inc" which will enable us to go on the fund raising trail. The development of the society rules led to the confusing realisation that we were potentially a "Flying museum, without a building, flying gliders and without an airfield". This sounds just about as sexy and inviting as a tax return form, hence "Vintage Kiwi, a Living Gliding Museum"

"What on earth does all this twaddle mean?" The best way of answering that awkward question is to outline what we are currently doing, how we operate in various areas and our plans for the future.

Pilot Members. All our current glider pilot members are members of GNZ gliding clubs. Any non flying member who wants to learn to glide will have to join a GNZ club and our international members, yes we do have them, affiliating with GNZ if they want to fly. This means we do not need the flying organisation of a formal gliding club while we are still able to recruit members to our sport.

Airfields. We do not need one, for all our flying is done as members, guests, or gypsies, on a GNZ club site under the control of their CFI. In the case of expeditions to non airfield sites we need to enlist the enthusiasm of a GNZ club to join us to "host" the event. Bit like an escort agency operation I suppose.

Gliders. Vintage Kiwi, thanks to donations and other arrangements will soon have our own vintage and classic gliders under restoration including, it is hoped, a two seater. To these can be "added" gliders owned by syndicates of VK members, other syndicates, individuals and, most

welcome, those gliding clubs who see the increasing economic benefit, or necessity, of operating older gliders. Four vintage gliders have recently been imported to New Zealand, Weihe, Olympia, Skylark and most interestingly a Mg19. Whilst more can be expected in the future we must concentrate on those we have sitting in boxes and not flying before promoting more imports



Distributed Glider Museum. There is already a "Vintage Kiwi Collection" at "Classic Flyers Museum" at Tauranga in NZ's North Island, and a number of other museums that already display gliders have the ability of displaying more. This being encouraged, and we are assisting by passing on gliders that are unsuitable for restoration to flying condition. Thus we have two possible paths for old gliders donated to us, restoration for flying, or restoration for static display in selected museums. All these are part of our "Distributed Glider Museum"

Flying Glider Museums. Every GNZ gliding club that includes vintage/classic gliders in its club fleet, has members who own them, or hosts vintage events can be considered, by us if not them, a flying museum. To these could be added airfield based museums that may in the future display airworthy gliders that can be flown on special occasions, under the control of a GNZ club of course.



Ka6 Fleet at the Nelson Rally

Rallies. These annual week, or long weekend events are both fun and important. Our 2007/8 programme included two week long events and two holiday weekends and we are planning more for next year.. Aimed increasingly at including families they demonstrate one means of popularising gliding again. Two of our rallies were combined with other gliding events that enabled us to show the "fun", to a wider audience. This idea is to be developed in future and will possibly include competitions.

"Vintage Kiwi Distributed and Virtual Museum"

This is a concept, under preliminary development will embrace our total operation. The "Virtual" bit, obviously web based, will bring together on one site all the places where vintage and classic gliders can be seen, with details of both sites and gliders. So what will we have? A "Living Gliding Museum".

Publicity.

We are very active nationally in promoting our sport within New Zealand, have a regular article spot in our national gliding magazine, contribute articles to aviation and heritage magazines, plus the general press, both magazines and newspapers. The latter including the illustrated story of the Weihe trailer that was reported to the police This coverage not only helps us but also supports gliding in general. Internationally we have become well known, articles about us appear in many languages, and our rallies often include overseas pilots who "by chance", or so they tell their wives, arrive at our rallies. More are welcome and a longer term plan includes an "International", aviation fuel prices allowing.

Membership

We never miss the chance of attracting new members for Vintage Kiwi" is an ambitious project and a hard working team has come along way in five years but there is still a long way to go. If you would like to join us, we have quite a few international members already, and publish a magazine, voted the best to copy in the USA, it only costs NZ \$30pa, Aus\$25, US\$, £15 or €20. (To make it easy you can send cash) You would be welcome what ever your field of interest and you will have the satisfaction of knowing you are helping develop our movement at the bottom of the world. Write to us, email vintagekiwi@xtra.co.nz or visit our website for a membership form www.glding.co.nz/vintagekiwi, part of the GNZ site of course. You can even download monthly calendar wallpaper and a running 12 month calendar.

Ian Dunkley 17th July 2008.



HOMEBUILT SAILPLANE CORNER

A New Radio Aerial for GXS (Schneider Super Arrow)

By Peter Champness

My Sparrow had a rather unsightly whip aerial, adapted from a car aerial, fitted to the turtle deck hatch from the time I bought it. The aerial was offensive, not only aesthetically but also, in my view, added unnecessary drag because it stuck up into the air stream. The rather large cone shaped base was a particular disappointment in that regard. Surprisingly it actually worked quite well as an aerial.

My preferred option was to fit a new aerial in the fin. After consulting some internet articles on the subject of aerials two designs seemed appropriate; the half wave dipole and the quarter wave whip.

Half Wave Dipole The half wave dipole is considered the archetype of all aerials and has two particular advantages. Firstly it is considered an efficient type of aerial. Secondly it has a very appropriate radiation pattern because it radiates equally in all directions. Actually the radiation pattern is like a circular doughnut around the axis of the aerial with a zone of poor sensitivity in the axis of the dipole. If the polarization of the radio waves is vertical with respect to the surface of the earth, which it is for the aviation band, then a vertical dipole has good sensitivity all around with poor sensitivity directly above and below.

Quarter Wave Whip The quarter wave whip is considered to act like half of a dipole. The ground plane, which is an essential part of the quarter wave whip has the effect of reflecting the radiation pattern of a virtual lower element upward, increasing the sensitivity above the horizontal at the expense of the zone below the horizontal. This is particularly appropriate for a ground level radio, such as a car radio or base station but is less appropriate for aircraft at several thousand feet altitude.

The radiation pattern of a quarter wave whip aerial can be modified by bending the ground plane downwards at 45 degrees in the shape of a cone. This widens the lobes vertically but still leaves a larger zone of poor reception vertically downwards compared with the half wave dipole. The ground plane does not have to be a

complete solid surface but can be made of a series of metal strips, as was the case with my old aerial or even as few as four metal rods, arranged radially.

Folded Dipole A Variation on the dipole is a folded dipole. The tips of the upper and lower elements of the dipole are connected by a conductor parallel to the dipole. The commonest use of the folded dipole is the receiving element of a television aerial (the part that the cable is connected to). The other parallel elements in the television aerial have the effect of focusing the radio waves, increasing the sensitivity in one direction at the expense of other directions. That is favourable for a television aerial because the signal comes from only one direction but is not what we want for a glider aerial, so delete the other parts!

The advantage of the folded dipole is that it has a wide band width, at least an octave according to one reference. In music an octave represents a doubling of the frequency eg middle C (256 Hertz) to upper C (512 Hz). The aviation band covers 118 – 136 MHz which is considerably less than an octave so the folded dipole should give adequate coverage. The radio in GXS is rather old and covers only the frequencies 118 - 126 Mhz, so the bandwidth is even less.

Aerial Length How long should the aerial be? It has to be half a wave length long. For any wave the wave length is the speed divided by the frequency. The speed of radio waves (speed of light) is 299.5×10^6 m/sec. A half wave length is for 118 Mhz is $299.5/118 \times 1/2 = 1.27$ m and for 126.9 MHz the length is $299.5/126.9 \times 1/2 = 1.18$ m. For a folded dipole there is an additional small correction factor of about 0.95. So the lengths are 1.2m and 1.12m. Half way between is 1.16m. The fin of a Sparrow is taller than that so that is the place for the aerial to be.

Aluminium Foil The actual aerial was made from aluminium kitchen foil. Foil is very light and also very cheap. A 5 cm wide strip was cut from the edge of the foil and folded over twice, creating a strip about 1cm wide then glued to the inner edge of the fin (with rudder removed). Co-axial cable was used to connect the radio to the aerial. The coax is the heaviest part of the aerial, weighing about 300 gm. This was mostly compensated by removing the old aerial. Unused tubing was also removed from the rear fuselage so there was no increase in tail weight.

Balun To match the coaxial cable a dipole aerial requires the use of a Balun (short for balanced/unbalanced). This serves two purposes. Firstly it corrects the imbalance between the cable and the aerial. A dipole aerial is a balanced device. That means that the current in each half of the aerial is equal, but in opposite directions,

about the mid point which remains neutral. The coaxial cable however is unbalanced. All the current is supposed to run in the central wire while the outer mesh is neutral. If the coaxial cable is connected directly to the dipole the aerial, with the central wire to one half of the dipole and the mesh to the other, the aerial tends to induce a current in the outer mesh of the coaxial cable. That makes the cable part of the aerial. The coaxial cable will tend to radiate some of the energy when transmitting instead of the aerial, which is not what we want.

Secondly the balun matches the impedance of the coaxial cable (50-75 ohms) to the dipole (300 ohms). If the impedances are not matched there will be poor transmission of energy from the aerial to the cable and vice versa.

Baluns can be purchased from Tandy, Dick Smith or Jaycar stores. Two types are available, indoor and outdoor. The outdoor type is a bit larger and more robust and one type has screw on connections which can withstand tension so the balun can be connected to both the cable and the aerial without further support.

Parallel ribbon cable is balanced and has an impedance of 300 ohms so it can be connected directly to the aerial. It is also lighter than coaxial cable which might be more suitable if increased tail weight is a problem. However the radios have a BNC aerial plug which is designed for a coaxial cable so if ribbon cable is used a balun will be required at the radio end of the cable.

Did it work? When it was all connected I found that the aerial works very well for reception. With the glider inside my garage in suburban Melbourne, which has a tin roof, I was still able to receive traffic from incoming flights to Melbourne airport. I even received, quite clearly, a message from a light plane saying he had just departed from Bendigo airport. On transmission it seemed to work quite adequately during a recent trial at Benalla.

More recently, Malcolm Crampton tested the aerial using his SWER meter. The SWER meter indicated that about half the energy transmitted to the aerial was being reflected back i.e. a ratio of 2. This is apparently a good result, anything less than 3 – 3.5 being acceptable.

Can it be improved? Probably! It is likely that the folded dipole has a larger bandwidth than is actually required. If a dipole is made of very thin wire it will have good reception and transmission over a very narrow bandwidth. If the aerial is made of thicker wire or tubing the bandwidth is improved but the sensitivity at the best frequency is reduced. The folded dipole is like using very wide wire. It has good bandwidth but reduced power and sensitivity at the best frequencies. Because the required bandwidth is not all that great the aerial might perform better if I

had used a simple dipole made of tubing or an aluminium strip. I might be able to make some experiments later if I can obtain a meter to measure the transmission power at various frequencies.

MINEO GLIDER PLANS

I have I believe the only set of construction plans for the Mineo Glider built in France in the late 1920s. Michel Mineo was a remarkable young man who developed this very clever glider which had an empty weight of 98lbs. The drawings are very complete and original. Hand drawn is the old style with a complete stress data for the wings.

Some revision of the drawings has been done and the ribs plots have been put through the computer and compiled and a construction manual written up. The design of this glider is truly remarkable. Such a minimum amount of metal work and removable wings. Mineo, sad to say, ended his lift in his 20's over being rejected by a young lady he wanted to marry. A great loss to the gliding world.

Attached is some information about the Mineo glider. The plans are for sale for \$200 A which includes airmail postage.

with thanks Rob Germon
New Zealand Germon@xnet.co.nz

