



Volume 24 – 01

www.FlyingClub1.org

January 2024



The Privileged View

Steve Beste, President

Powering the radio. I don't fly into controlled airspace much, so I had rehearsed the radio call in my mind. "Lynchburg Tower, Experimental trike 42AT, six miles southwest landing Lynchburg with information Hotel". But as soon as I keyed the mic, all I heard was roaring static. This again! At just the wrong time! I knew that sometimes, on some frequencies, my radio would do this on transmit. Further, if I yanked the power plug out of the radio, the problem would go away. So I did that, and the radio worked. But by then in my flusteredness, I had already entered the Class D. This earned me a gentle but pointed rebuke from the tower. What the hell was *wrong* with my radio?



Icom A6 radio on my trike

It was only years later that I solved the problem. In an online forum somebody wrote that you're not supposed to use an Icom radio while it's being charged. (This is NOT in the radio's manual, shame on Icom.) That explained my Lynchburg experience and why pulling the plug fixed the problem.

BTW, another cause of the rushing sound on transmit is a low battery. That's also not in the manual.

I had long ago wired the radio into the trike's electrical system using an Icom charger that plugs into a cigarette-lighter socket. Why not? The radio would always have power, and I'd never need to worry about charging the battery. If I had a panel, I'd get a panel-mount radio and be done with batteries. But I don't, so I need the handheld A6 and now some other way to charge the battery. That turned into a research project. But I *love* research projects! Here's what I found.

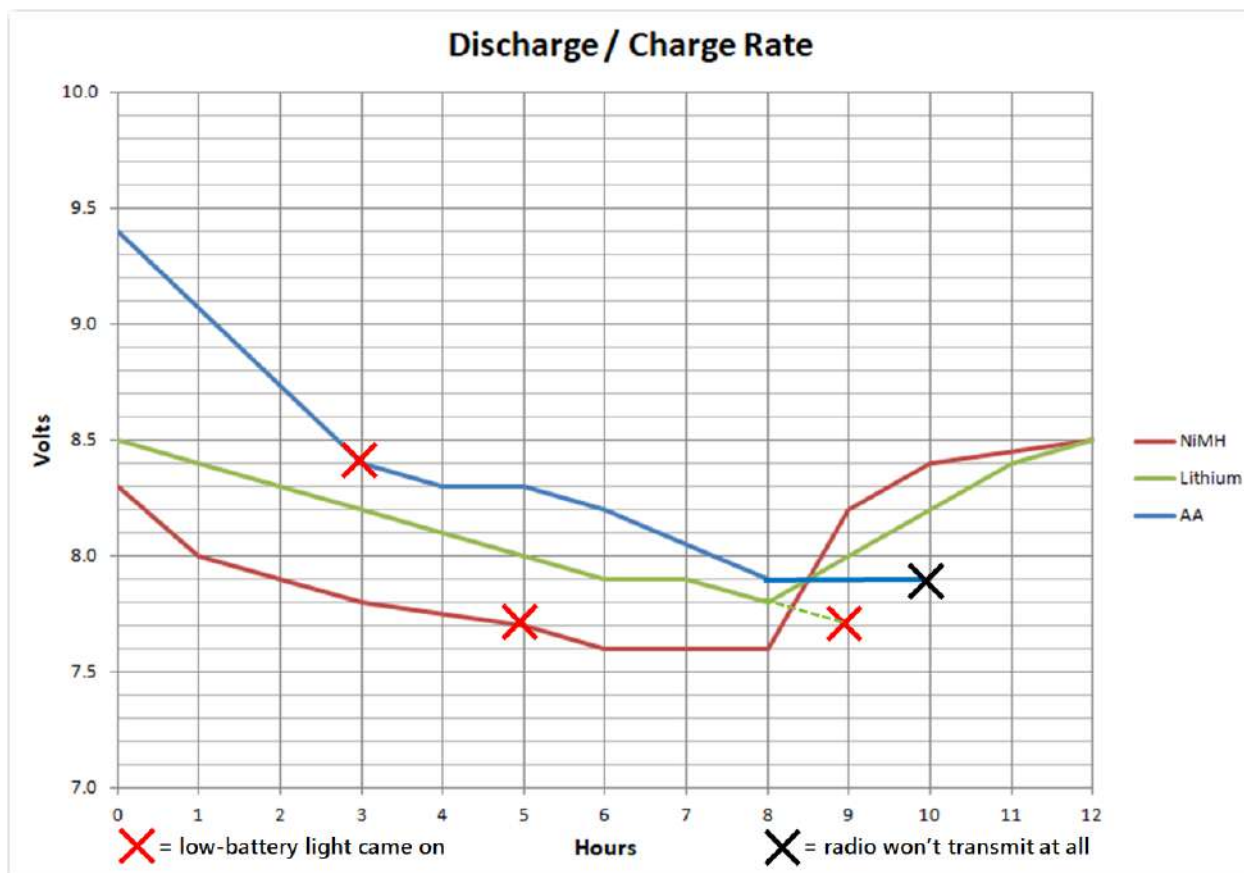
Which Kind of Battery? With the Icom A6 you have three choices: nickel-metal hydride (NiMH), lithium-ion, or AA cells.



NiMH (1480 mAh) Lithium-ion (2200mAh) AA cells (about 2500 mAh)

I began my research by buying two new batteries. I hadn't bought a battery in years, and my old NiMH battery wouldn't hold much of a charge. I bought both an NiMH battery and a Lithium-ion, both from a reputable source, Aircraft Spruce. I was disappointed to find that the capacity of the NiMH battery was only $\frac{2}{3}$ of the lithium. Advantage lithium.

Test Results. How long would the batteries last? How long would it take to re-charge them? After fully charging both batteries, I set the radio on receive and measured the voltage every hour. I quit the test after 8 hours because that's as long as I'll be flying on any given day. I then recharged the batteries. Here's the result.



Findings

Measure	NiMH	Lithium-ion	AA
Hours to low-battery warning	5 hours	9 hours ¹	3 hours
Hours until the radio won't transmit at all	8+ hours	9+ hours	10 hours
Hours to recharge from 2 hours of use	3 hours	1 ½ hours	n/a
Hours to recharge from 8 hours of use	4 hours	4 hours	n/a

- The lithium-ion battery is far superior to the NiMH. It has greater capacity (2200 mAh vs. 1480), lasts longer (9 hours vs. 5), and recharges faster.
- On the A6, the low-battery icon appears when you press the transmit key – if the battery is “low”. But the radio still works.
- All three batteries could still transmit at 8 hours, though I suspect not strongly. I had no way to measure signal strength.
- The AAs started strong but faded fast. Why is that so? I could measure the voltage only when the radio was off. My guess is that the AA voltage sags under load so that what the radio was getting was less than what's shown here.

How to charge it? With the radio wired into my trike, I didn't worry about charging the battery. Now I must, and it's a problem. Consider my use cases:

- I fly for 2 hours then put the plane away.
- The radio sits unused for maybe weeks at a time.
- But sometimes, I'll fly two or three 8-hour days in a row away from my home base. Obviously, I need to take both the radio and the charger into the motel overnight, so my charging solution needs to be portable.
- The Icom manual warns that you mustn't leave the battery on charge for more than 12 hours. That power brick is not a smart charger.

My solution is this 7-day timer. (\$16.98 at [Lowe's](#)). After every flight, I plug the radio into its charger and the charger into this timer. I've set it to energize the charger for one hour every night. Hopefully, that will not overcharge the battery too much.

The AA option. Sporty's Pilot Shop suggests that AAs are the best choice for the infrequent pilot. Forget about charging and overcharging and oops you forgot and left the radio at home on the charger. Just consume six AA batteries every time you go flying. When they're fresh, they work just fine. Here's the cost comparison if you fly 20 days/year like I do:



Lithium	Battery life (a guess)	3	years
	Battery cost	\$52.75	
	Battery cost per year	\$17.58	
AA	Average # of flying days per year:	20	days
	Batteries in the radio	6	
	Total # of batteries per year	120	
	COSTCO price for 120 batteries:	\$54.00	
	Battery cost per year	\$54.00	

Not so good. Plus, there's the environmental consideration of all those discarded batteries. The upshot is that I put my radio on the charger/timer every time I put the trike away.

The M-Squared Breese. I created the same setup for the Club's Breese.



Icom A6 on its charger...



...and on the plane



The timer

And me? I expect to be loud and clear the next time I fly into Lynchburg.

Fly safely,
Steve



This Month's Fly-In Destinations

To encourage all of us to get in the air more, the following is a list of fly-ins I found within (about) 100 NM of the Warrenton-Fauquier Airport which are occurring in the next month. Sources are: The [EAA Calendar of Events](#), www.socialflight.com, funplacestofly.com and the [Virginia Department of Aviation Calendar of Events](#).

Date	Event Description	Location	Distance
Sat, Jan 13 / 10AM-12PM	FAA Wings Seminar: Preventing Normalization of Deviation Bias and Its Role in CFIT Accidents. Register .	Williamsburg-Jamestown Airport (KJGG)	99 NM
Sat, Jan 20 / 10AM-12:30PM	EAA Chapter 1563 Breakfast and Monthly Meeting	Gordonsville Municipal Airport (KGVE)	35 NM
Sat, Feb 3	Chilly Chili Fly-In	Triple Tree Aerodrome (SC00)	313 NM
Sat, Feb 17 / 10AM-12:30PM	EAA Chapter 1563 Breakfast and Monthly Meeting	Gordonsville Municipal Airport (KGVE)	35 NM

Don't forget that there are several great local flying destinations with restaurants on or near the airport. Did I miss some? Let me know!

- Shannon Airport (KEZF) - On the field: Robin's Nest Cafe (closed Sundays), Walkable: Wawa, Perfect Pollo. Ultralights (with no N-number) not welcome on the field.
- Sky Bryce Airport (VG18) - Across the street at the ski slope: Copper Kettle (closed Mon/Tue)
- Cumberland Airport (KCBE) - On the field: Hummingbird Cafe (closed Mondays)
- Eastern West Virginia Regional Airport (KMVB) (towered) - On the field: Crosswinds Cafe (closed Sundays)
- Hagerstown Regional Airport (KHGR) (towered) - On the field: The Grille at Runways
- Front Royal-Warren County Airport (KFRR) - 20 minute walk: 619 Market
- Williamsburg-Jamestown Airport (KJGG) - On the field: Charly's

New Restaurant!

I just found out about a new(ish) restaurant located at the St. Mary's Airport (2W6). I have yet to check it out, so if any of you go, let me know how it is! They are open Wednesday through Saturday 10AM-2PM. See their website: birddogbistro.com.

Also, check out the map created by our very own Club President, Steve Beste on the [Flying Club 1 website!](#)

From Our Members

Kurt Mohr shares some highlights from 2023 in the form of beautiful and inspiring pictures!







Quiz

Jim Heidish was the first and only person to identify last month's image as Signal Knob. He writes: There are many Civil War look out points in VA, but this one is Signal Knob with a TV/communications antenna sticking up. It is located at the north end of Fort Valley, 6 miles west of Front Royal, VA.

Mark Barron found this suspension bridge near Woodstock. Steve Beste photographed it from the air. Send me the latitude and longitude. Be careful! There are three pedestrian suspension bridges in the area. Extra points for locating all three.



The bridge from the ground...



...and from the air

Know the answer or have a picture for the guessing game? Email me at ooi.lucy@gmail.com.

Refueling the Breese

By Steve Beste

Our M-Squared Breese has a Rotax 582 engine that needs premium auto fuel. 100 low-lead is OK, but only in moderation as it creates lead build-ups inside the engine. That means that we'll mostly be refueling from jerry cans filled at the gas station. If you're flying a cross-country, then of course, buy 100LL at airports along the way. But at home base at Culpeper, you'll be lugging jerry cans.

The plane has two 8-gallon tanks, one in each wing. It burns 5.6 gallons per hour. A 1½-hour flight will thus burn 8.4 gallons, so **plan on having two 5-gallon jerry cans**. Our policy is to leave the gas tanks full after each flight.

Don't Do This At Home, Kids

Here's Michael Bishton simulating the wrong way to fill the Breese.



Michael Bishton simulating the wrong way to refuel the Breese

What's wrong with this picture?

1. He's refueling *in the hangar*. Besides being against the terms of the hangar lease, this is just not smart. If there's going to be a fire, let it be outside the hangar.
2. He's lifting a 40-pound jerry can over his head while standing on a ladder and reaching. One slip and he'll be lying on the ground as gasoline gurgles around him. FOOMP!

A Better Way

Instead of lifting the jerry can, leave it on the ground and let this pump do the lifting. Designed for use with gasoline, it has a 12-volt motor that can be powered from the Breese's battery. The hose is ten feet long. It empties a 5-gallon jerry can in about 2 minutes.

The Tera Pump TREP03-TXL ➡

Here's how to use it on the Breese.

1 – Take the Breese Out of the Hangar

You'll probably be refueling at the end of your flight, so this will be easy.

2 – Ground the Breese

Connect our grounding cable between the Breese and the hangar.

On the Breese, connect it to any bare metal on the frame, such as the stainless steel tube next to the pilot seat.

On the hangar, clamp the cable to the metal-clad electrical cable above the fire extinguisher.



3 – Connect the Power Cord to the Pump

You want to avoid any possibility of sparks, so do this before you open the jerry can.



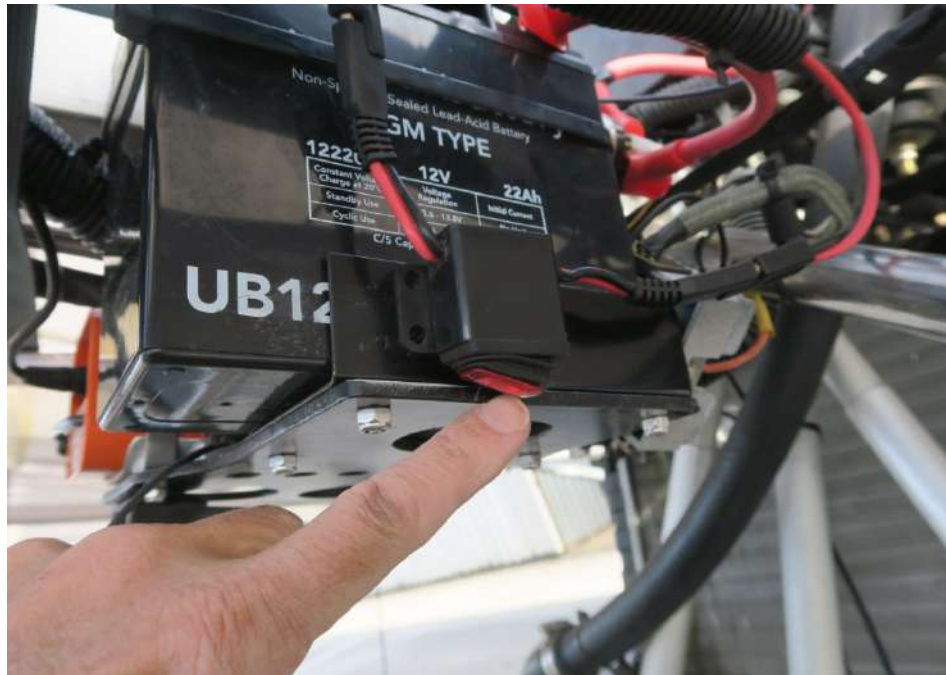
4 – Connect the Power Cord to the Breese



The Breese has four cigarette lighter sockets. (One of them has a USB adapter in it, as you see here.) Insert the pump's power cord into one of the four.

5 – Energize the Cigarette Lighter Sockets

This lighted switch alongside the battery sends power to the sockets. To minimize the risk of sparks, do this AFTER plugging in the power cable at both ends.



6 – Insert the Pump into the Jerry Can and Turn It On

The pump will start, but nothing will come out of the hose because of the valve in the nozzle.



7 – Pump the Gas



Note well: This nozzle is NOT like the one at the gas station. It does NOT automatically click off when the tank is full. You have to do that yourself.

Mark Wood uses the nozzle ➡



8 – Turn the Pump off and Drain the Hose

With the pump off, you can drain the gasoline in the hose back into the jerry can. Don't put the pump away with gas in the hose.



9 – De-energize the Sockets

Before you unplug the power cable at either end, turn off the power. Unplug the power cable from the Breese.



10 – Pack Up

1. Remove the pump from the jerry can. Shake out any last drops of gas.
2. Away from the jerry can and its fumes, unplug the power cable.
3. Put the pump and power cable away in its box. This keeps it clean and grit-free.



11 – Pour the Remainder

At this point, the jerry can will still contain a bit of gas. Manually pour it into the Breese.



You're done!

About Jerry Cans

Unfortunately for us, all jerry cans sold as of last July contain a flash arrestor as you see below. **The pump will not work with such cans.** The arrestor narrows the opening too much, and its bottom prevents the pump from reaching the bottom of the can.



The arrestors look like they will be hard to remove. Therefore, I recommend that you hang on to your older jerry cans. Or offer to buy your neighbor a pair of new ones in exchange for his old two.

Meeting Minutes

December 2023

Flying Club One Meeting

Saturday, December 9, 2023

Warrenton-Fauquier Airport (HWY)

Midland, VA

Call to Order

President Steve Beste called the meeting to order at 12:10 PM with 22 attendees.

Visitors and New Members

- **TR Proven** belongs to EAA 186 and is a CFI and IFR instructor with a Pipistrel at KCJR. He's interested in flying out in the wind.

Flying Attendees

- **Jeff and Lisa Crider** flew to the meeting from Luray in their RV-9A.
- **JJ Campbell** flew his Light Sport Tecnam Eaglet from Leesburg.

Old Members

- **Bob Chapman** purchased a Fusioncopter Nano Ultralight Gyroplane.
- **Lucy Ooi** informed the group that she was elected to the National Aeronca Association Board of Directors and is looking for someone to take over as Newsletter Editor for Flying Club 1. Lucy will remain a Flying Club 1 Director-at-large for the upcoming year and will then step down.

Regular Reports

Treasurer and Membership Director: Fabian Georges did not attend the meeting.

Secretary: JJ Campbell had nothing to report for November 2023.

Business

Election of Club Officers and Directors: The following board members were unanimously elected by the members present:

- *President:* **Steve Beste**
- *Secretary:* **Mark Wood**
- *Director at Large:* **Michael Bishton**

Program

Steve Beste projected a PowerPoint slide show in a continuous loop displaying all the 2023 Quiz Pictures from the club's monthly newsletters.

Adjourn

President, Steve Beste adjourned the meeting at 12:39 PM.

The Holiday Party

The event was again held at the wonderful meeting room at Warrenton-Fauquier Airport (HWY) from Noon until 3 PM. Along with the great comradery and fellowship, all the attendees enjoyed a superb potluck lunch.

Submitted by **JJ Campbell**, *Secretary*

Service Providers

Recap our standing list of service providers:

- **PPG instructor and dealer:** Brian Goff, 703-963-7389
spin2329@gmail.com
<https://www.paraflightnc.com/>
- **Aircraft instructor - CFI:** Pete Bastien, 703-568-5778
- **Aircraft instructor - light sport and seaplane:** Chuck Tippet, 540-905-5091
- **Gyroplane Instructor:** Frank Noe, 443-253-7681
frankcanfly@yahoo.com
<http://www.gyromoj.com/>
- **Machinist:** Luther Taylor, 540-222-3927
- **Welder:** Luther Taylor, 540-222-3927
- **A&P mechanic/IA:** JD Ingram, 513-388-6312
- **Light Sport Condition Inspections, Rotax Certified:** Tim Loehrke, 703-618-4005
- **A&P mechanic specializing in tube & fabric, based at CJR:** Air Klocker Aviation
(Abe Makely, Saverio Gambassi)
571-309-7023
airklockeraviation@gmail.com

For more information on instructors, see <http://www.flyingclub1.org/instructors/instructors.php>

Activities

Flying Club 1 Activities Schedule

Club meetings will be held on the second Saturday of every month at the Warrenton-Fauquier Airport (KHWY). Please see the schedule below for the location of other meetings and information on events. Changes in time or location will be posted in this newsletter and on the Club website.

Date	Activity	Location	Description
Saturday, January 13th, 11am	Winter meeting	The terminal building at the Warrenton-Fauquier Airport	Program: TBD
Saturday, February 10th, 11am	Winter meeting	The terminal building at the Warrenton-Fauquier Airport	Program: TBD
Saturday, March 9th, 11:00am	Winter meeting	The terminal building at the Warrenton-Fauquier Airport	Program: TBD
Saturday, April 13th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout
Saturday, May 11th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout
Saturday, June 15th	8:00am Poker Run 11:00am Fly-in and club meeting	The terminal building at the Warrenton-Fauquier Airport	Poker Run Club meeting, fly-in, and cookout
Saturday, July 13th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout
Saturday, August 10th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout
Saturday, September 14th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout
Saturday, October 12th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout

Date	Activity	Location	Description
Saturday, October 26th, 9am	Club 1 Color Run Fly-out	Meet at the Front Royal Airport for the run down to Luray	Club 1 Color Run Fly-out: Front Royal to Luray
Saturday, November 9th, 11am	Fly-in, club meeting, and cookout	The terminal building at the Warrenton-Fauquier Airport	Club meeting, fly-in, and cookout
Saturday, December 7th, 12-3pm	Holiday Party	The terminal building at the Warrenton-Fauquier Airport	Monthly meeting and Holiday Party

Membership Dues Policy

The period of membership is the calendar year: January through December.

Renewals can be sent in starting in October for the upcoming year. Members who have not paid their dues by the end of February will be dropped effective March 1 and will not receive the newsletter or the membership roster.

Dues are \$20 per year. But if more than one family member is active in the club, then a family membership covering both of them can be had for \$25. Please:

- Make your check out to **Flying Club 1**
- Mail it to **Fabian Georges**

P.O. Box 5322

Springfield, VA 22150

- Include a copy of the membership application that's attached at the end of this newsletter (and is available on the club [website](#)). That's our way of keeping your contact information up to date.



Join as a Social Member	Join as a Flying Member
<ul style="list-style-type: none">• Fellowship• Local knowledge• Technical advice• Share your stories• \$20 / \$25 /year <p>Click or scan this QR code to join online. Or mail in the form below.</p>	<ul style="list-style-type: none">• Everything at left plus• Fly our airplanes <p>This is much more involved.</p> <p>Click or scan this QR code to see online how to join.</p>

New/Renewal: ☐ New ☐ **Renewal**

Type of membership: ☐ **Individual - \$20** ☐ **Family membership - \$25** (when more than one member of the family is active in the club)

First Name: _____ **Last Name:** _____

Name To Go On Your Name Tag: _____

E-mail Address: _____

Cell phone: _____ **Home phone:** _____

Street or PO Box: _____

City: _____ **State:** _____ **Zip:** _____

Emergency Contact: Name: _____ **Phone:** _____

Aircraft make and model: _____ **N-Number (if any):** _____

Pilot rating(s): _____

Instructions

for joining as a social member by mail

1. Fill out the above form
2. Make out a check for \$20 (individual) or \$25 (family)
3. Make it payable to **Flying Club 1**
4. Send the form and check to:
Fabian Georges, Treasurer
7051 Brookfield Plaza, #5322
Springfield, VA 22150

Flying Club 1 General Information

The Flying Club 1 is a nonprofit, recreational club dedicated to the sport of ultralight and light sport aircraft flying.

2024 CLUB OFFICERS AND DIRECTORS

President: Steve Beste 703-321-9110

Vice President: Allen Whatley 571-235-6978

Secretary: Mark Wood

Treasurer: Fabian Georges 714-661-8800

Director At Large: Pete Bastien 703-568-5778

Director At Large: Tim Loehrke 703-318-7896

Director At Large: Lucy Ooi 585-410-5573

2024 CLUB VOLUNTEER STAFF

Membership: Fabian Georges 714-661-8800

Club Artist: Jim Heidish 703-524-5265

Newsletter Editor: Lucy Ooi (“Wee”)

Ooi.Lucy@gmail.com

Web Master: Steve Beste,

president@flyingclub1.org

A club is only as good as the members who volunteer to support its activities. The following listed activities with the club require member support in varying amounts. Please indi-

cate on your membership application the function(s) (can be more than one) you will support as a Club member. All active Club members are expected to participate. However, members who live some distance away and cannot attend meetings regularly may prefer to support functions associated with Club weekend activities.

ANNUAL DUES (Jan 1-Dec 31) \$20.00. Family membership (typically husband and wife): \$25.00. A spouse who wishes to participate will please complete a membership application form.

CLUB WEB SITE: <http://flyingclub1.org>

MEETINGS are monthly, year-round. See the web site for dates and places.

THE NEWSLETTER: The newsletter is published by email on the first of every month.

SUBMITTING ITEMS FOR THE NEWSLETTER Members and non-members are encouraged to submit items for this newsletter. Send submissions to Lucy Ooi at Ooi.Lucy@gmail.com at least one week prior to the end of the month.

If you are interested in joining the U.S. Ultralight National Organization go to their website for membership information at: www.usua.org

Likewise, if you are interested in joining the U.S. Powered Paragliding Association, the National PPG Organization, go to their website for membership information at: www.usppa.org