

February 2019 Edition

# Wine Country Flier



Next meeting: 28 February 2019, 6:30 P.M.  
 Pizza Gourmet, 1415 Fulton Rd #231, Santa Rosa, CA 95403

**Get there early for your free pizza!**

[www.wcflyers.com](http://www.wcflyers.com)

Promoting Model Aviation in Sonoma County

## 2019 Club Officers:

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## 2019 Board Members:

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Newsletter: Guy Nicholas  
 Website: Patrick O'Halloran

## **Presidents Report**

By: Guy Nicholas

Salutations members, this month I would like to ask a favor. I know, awfully bold of me, isn't it? I would like to ask for contributions to the newsletter. I started off these first two with a few articles on items of interest to me. But as I said last month, the club is about all of us, and each of us has something to contribute that would probably be of interest to others. We all share a common love of model aircraft, but each of us loves something different about it. I encourage all of you to share your particular love. Share your experiences at the field, share a "how to" of some building technique or flying tip, or funny story, or safety tip. Just share. I know a lot of people don't feel comfortable writing, or they think they have terrible grammar or whatever. Don't let that stop you, it obviously hasn't stopped me!

If you don't feel like writing something, I am always looking for pictures, so if you are at the field and see something cool, take a picture of it, send it to me, and include a couple notes about who and what is in the picture and I will add it in here.

Finally, I consider myself, "acting" newsletter editor, and I am doing it because I believe it is an important vehicle to get information to our club members, and my primary pledge was to get one going. However, I am not very artistic. I mean seriously, I struggle with stick figures. So, if you have some creative chops, and want think you could make this thing pretty, please let me know and I will gladly hand over the reins!

## **March Night Fly**

By: Guy Nicholas

We thought it would be fun to have an "official" night fly to get people out there. Thus we scheduled one for 9 March, the last day of PST. We didn't set an exact time, but if I were to hazard a guess, I would say, "when it's dark". For you sticklers of time I just went on the pipes and the tubes and found out that sunset on the 9<sup>th</sup> is at 6:12. So, show up sometime after 6:12 in the evening.

If you have a plane with lights on it get on out there. If you have a plane without lights, go buy some and get on out there. And finally, even if you don't want to participate, get out there and spectate, I am sure it will be a blast to watch!

## **Thank You**

By: Guy Nicholas



I would like to thank Mark Hagele for his donation of kits and tools and such. We will be bringing a couple items to each of the next few general meetings to auction off or add to the raffle. Thanks Mark.

## Fuel Cutoff

By: Guy Nicholas

I recently witnessed an incident where someone lost control of their aircraft and it came in under power. The cause of the incident isn't fully known but the guess was electrical failure. At the February board meeting a few days later I mentioned having seen some sort of device in relation to RC cars that would shut the fuel off in the event of a power or radio loss. There were those (you know who you are) that chuckled at my comment. Well folks, fear not, my near perfect record of not being wrong is still intact! 😊 Here is a link to a device similar to what I remember seeing in the past: <https://www.killerrc.com/products/bumble-bee-nitro-kill-switch> and a small picture of the



device. It works for both signal loss as well as loss of power. I recommend all you nitro/gas flyers consider something like this for your powered aircraft.

## Telemetry 101

By: Guy Nicholas

In the traditional sense, there are two parts to controlling a model, the transmitter and the receiver, and of course everyone knows the transmitter transmits a signal and the receiver receives it. I mean, "Duh", pretty simple right?

With a telemetry radio, things are not quite that simple, as both the unit you hold in your hands and the unit in your aircraft are actually transceivers, meaning they do both transmitting and receiving. Weird right?

Besides being weird you are probably wondering what the point of all this and thinking, "That's really nice Guy, but what's in it for me?" Let me explain. All my FrSky receivers provide battery and signal strength by default, meaning that out of the box, as soon as I bind a receiver my transmitter is getting battery voltage and receiver signal strength.



Think about that for a minute, without any extra equipment, I know how good the signal is at my receiver and how well charged my battery is. When I do a range check, I don't look at the model as I walk away to see when it stops working, I just

look at the transmitter to see the signal strength and when it gets into the low 40's I am at my range limit. The image above shows the radio in range check mode with a receive signal strength of 67. I can have someone hold and rotate my model so I can see if there are any dead spots, or areas of weakness. In normal flight mode the radio will use voice prompting to warn me of both "signal strength low" and "signal strength critical" which should give me a chance to turn my model around and get it back in range.

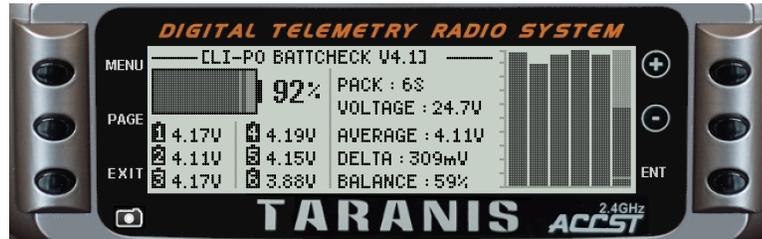
Battery voltage is also displayed by default, which is great if you fly without a BEC. On the glider I just put together I have a 5 cell NiMH pack and I setup my transmitter to play the “battery level low” message when the pack hits 4.5V (.9V per cell times 5 cells). If on



the other hand, you use a BEC the receiver is generally going to see your regulated voltage well past the minimum level for providing power, so what I use there is one of these little guys pictured at the left, that measures individual cell voltages. I connect the balancing jack on the battery to the

pins on it's left and a wire goes from the pins on the right to my receiver. I have setup my

transmitter to give me a very nice little display of what is going on. In the screenshot to the right, you will notice my screen is displaying all 6 cell voltages, total voltage, average voltage, and a balance value. I



have alarms setup for both low cell voltage as well as high delta.

The benefits of this should be obvious. How many people have you seen at our field take off only to have their airplane lose power, forcing an unplanned landing. I have also seen planes just stop responding at which point we were left to guess what happened. Did the pack go low, did a wire come loose, did the radio lose signal and go into hold? Who knows?

For those of us that fly electric, a common practice on a new aircraft is to charge up our LiPo, set a timer for what we feel is a safe amount of time, and fly until the timer goes off. We then charge the battery to see how much we burned and then adjust our timer up or down accordingly. But what happens if that pack suddenly goes bad? Recently this happened to me, where as I spooled up my helicopter and got off the ground, I was getting low battery warnings. I landed, and the voltage went back to normal. I pulled the pack and put it on the charger and it almost immediately said it was full. So, I tried once more, and the same thing happened. That battery is now in the salt-water bucket. My point here is that without telemetry I would have flown in ignorance of my bad pack...and in this case, ignorance is not bliss as the I am sure I would have lost power when I was low and inverted.

The replacement battery I bought has a super short balancing wire and I am unable to connect it to my sensor. It is interesting how naked I feel when I fly it. Like the old saying goes, “Once you’ve gone telemetry, you’ll never go back”. I will be picking up an extension shortly.

There are other sensors available, like current meters, gps, altimeter, airspeed, etc. and all those could be fun to add to your aircraft. In fact, I have an airspeed indicator that I plan on mounting in something to use for speed-based control rates. Why have a switch to go from high to low when you can make them variable based on your speed? How cool would that be? Geeking out with some of these sensors would be fun, but for my money, the real value is in the safety and security I get from knowing the status of my signal and battery levels.

## ***Board Meeting Minutes***

21 Feb 2019  
By: Chris Bailey

- Present: Guy, Eric, Mike C., Jake, Adam, Steve K., Chris, Paul by phone

- Ya Ka Ama-No response from Tribal Board regarding extended lease request by WCF
- Discussion about various runway surfaces: Astro Turf, Geotex, Asphalt
- Steve Koll proposed the idea of a lifetime WCF membership, as a means to raise funds for runway replacement project, discussion followed
- Paul proposed reinstating one time fee for runway maintenance, paid when member joins club for the first time
- Paul stated that club gross annual revenue typically exceeds annual expenses, this amount might be used for runway project
- Guy ask about 501c status for club, Paul stated that application was never filed, Jake C. will look into details and report back to board
- Guy reminded everyone that Monday, Feb 25 is the deadline for registration with FAA for Model Aviation (UAS), he will include notice in newsletter
- New FAA remote identification rules require the placement of identification number on the exterior of model aircraft, so they are visible without opening any covers
- Jake C. attended PCAM meeting: this year is the 30<sup>th</sup> anniversary of PCAM, if tickets to airshow are purchased prior to April 16, there will be a significant discount, ALL planes must have FAA identification on exterior, WCF can sell bottles of water and conduct raffle at the airshow
- Discussion: flight simulator in WCF airshow booth, so airshow visitors can try out RC flight
- Steve K. suggestion: create promo loop video to play at Wings Over Wine Country airshow, include video from club events such as Opening Day, Night fly, Warbird fly-in
- Adam: flyer for WCF Swap Meet is ready, Adam will distribute
- Upcoming event: Night Fly, Saturday, March 9
- Discussion: WCF logo T-shirts and Caps, Steve K. may have contact, he will look into screen printed T-shirts
- Guy has RC items that were donated to the club, he will bring them to club meetings to be auctioned
- Discussion: Raffle at WCF meetings, should we have more RC items, fewer gift cards? Should we have a higher \$ limit on the items for raffle each month?
- Guy stated that it would be good to have pictures of items to be auctioned and or raffled at meetings, so photos could be included in newsletter
- Mike C. will present a safety talk with regard to battery safety, charging, pre-flight testing, battery charge cycling, etc.

## ***General Meeting Minutes***

17 Jan 2019  
By: Chris Bailey

- Call to order: 7:02 pm
- # of members present:21
- President Guy Nicholas: Welcome to 2019!
- Treasurer Paul Gibson:
  - Club continues to do very well financially
  - Financial forecast for club this year, prepared by Paul, looks very good
  - 61 club renewals as of this date
- Safety Officer: Bilal has stepped down due to personal reasons, Mike Cracchiolo has accepted nomination new safety officer.
- Safety Officer Mike Cracchiolo:
  - Main focus: work day to patch/repair runway at flying field
  - Reminder: AMA # must be on all planes
  - If you see anything at the field, or have other safety related concerns, discuss with Mike

- It is every member's job to promote safety
- Let's all have a happy, fun, safe year!
- Safety reminder from Guy: If your radio has failsafe, learn how it works, and always use it
- Adam Clement: Proposal to Ya Ka Ama to extend field lease term to 5 years, we are waiting for a response, our current lease expires this October 2019
- Mike Cracchiolo: Will reach out to FAA contact at Sonoma County Airport to confirm that we are in compliance with new FAA rules
- Guy Nicholas, Goals for 2019:
  - Better communication: Club newsletter will be published again
  - Update Club website
  - Emails will be sent to all club membership, occasionally, to convey important information
  - All-important club documents will be stored and available on the web, with duplication of data and key members with access to data
  - Plan to release newsletter during the week after the board meeting, and before the general meeting, with announcements regarding planned activities at the next general meeting, such as Show and Tell subject, meeting activities, auction items, elections, etc.
  - Please submit info/photos of club activities to Guy for the newsletter
  - Plan to attend and support club events, even if you aren't flying, come out and join in the fun!
  - Upcoming Event: Night Fly, Saturday, March 9, 2019
- General meeting discussion of places to float fly, idea of Yorty Creek Recreation area suggested, Club is always looking for new float fly locations
- Show and Tell:
- Guy presented a 24-volt power supply to power his battery charger, that he constructed from 2 used, rack mount computer power supplies, available online for about \$35 each
- Raffle:
  - Gift cards and prizes from the club Christmas party were raffled
- Meeting was adjourned at 7:45 pm

## WCF 2019 EVENTS SCHEDULE

- **Night Fly:** Sat, March 9
- **Work Party:** Sat, April 27
- **WCF Swap Meet:** Sun, April 28 (Adam)
- **Opening Day:** Sat, May 4
- **Warbird Fly Day** (all military style aircraft): Sat, July 6
- **Larry Frank Scale Event:** Sat, Sept 7
- **PCAM:** Sat, Sept 28, and Sun, Sept 29 (Adam, Mike C., and Guy)
- **Christmas Party:** Sun, Dec 8, or Sun, Dec 15
- **Proposed New Year's Day Fly,** Wed, Jan 1, 2020