



**Palomar R/C Flyers, Inc.**

# **Transmitter**

**July 2023**



AMA Charter 141

## **President's Column July 2023**

**Summer is here and with it brings our annual 4<sup>th</sup> of July barbeque and picnic. Come on out on the fourth for a great barbeque lunch and some flying to go with it. The club will be providing the food and drinks and everyone is encouraged to bring a favorite dessert to share .**



**A big thank you to all the guys who came out last Saturday to do some weeding and cleanup. Many thanks to Johnny Hartsell, Larry Wall and especially Charles Lewis for running the brush hog to clear around the field. The Pappas family has contracted a company to do the annual mowing of the large areas we can't do. They will be out at the field during the week of July 10 and should not interfere with any of our flying activities. Also a big thank you to Steve Gebler for contracting a street sweeper to clear the runway of debris . We will be using them regularly as the runway starts to chip away again.**

**The land use approval for the Valley Center property is in the final stages of completion. We are just waiting for signatures from the property partners and it will be a done deal. Thankfully we will have plenty of time to make the necessary improvements at the new field before we have to move. We're still looking at early 2024 and maybe later ....at this point who knows.**

**Hope to see you all on the 4<sup>th</sup>.**

**Joe Villarreal**

**President PRCF**

# *July 4, 2023 Celebration!!!*

*We celebrate two birthdays this July 4th: Our Country's 247th birthday and our 68th club birthday. Open flying all day. BBQ lunch provided by the club @ 11:30. Feel free to bring your favorite desert to share if you wish. This will probably be our last July 4th celebration at Johnson field. When we move, we shall have enjoyed Johnson Field for 25 years!!!*

**40 years ago on a club roster dated Oct. 15, 1983, we had 225 members. Since that time, guess how many continue to be members. Are you ready for this? Only three remain! They are:**

**Joe Buko editor of the this Transmitter  
Russell Parks  
Ed Ramsay**

2

**Only two of us fly regularly, i.e. Russell Parks and myself– less than 1% of those 225 members are still active flyers! Wow! “Sic transit gloria mundi.” Thus passes the glory of the world!**

# June 2023 BOD Minutes

## Palomar Radio Control Flyers Inc.

### Board of Directors Meeting Minutes

Compiled by: Patrick Pranica, Secretary PRCF

**President:** Joe Villarreal **Vice President:** Charles Lewis, **Treasurer:** David Ellis, **Secretary:** Patrick Pranica. **Safety Officer:** Jim Christy

**Board members:** Charles Riley, Doug Abel, Don Davis, Scott Dedic, Steve Gebler, James Gallacher **Additional Roles:** **Chief Flight Instructor:** Don Davis, **Membership Chairman:** Jim Christy. **Webmaster:** Richard Torres

**Call to order: June 15, 2023, 6:30 PM Via Zoom.**

#### Treasurer's Summary for Month of May 2023

**Total Income: \$1,695.00**

Big items: (approx)

All Membership

**Total Expenses: \$1,186.63**

Big items: (approx)

\$800 Field Maintenance

\$200 Annual Website Fee

**Net income: +\$508.37**

**End of Month Balance: \$126,117.38**

**Membership:** Currently holding at 215 members and growing. By laws updates are pending. Should see a release in July.

**Monday Night Flight Training:** We are seeing a higher conversion rate. Operation is running smooth. We need more trainer airplanes.

**Safety:** Propeller cuts reported. Gliders continue to fly over the interstate.

**Field Maintenance: Touch up mowing needed to drive the snakes away. Street sweeper runway cleaning in work. High pressure air discussed.**

**Flying Site Assistance: AMA Application available Oct 1. Deadline...Feb 1, 2024**

**VC Field update: Awaiting signed land use agreement. Submitted \$80 certificate of insurance. Possession date set for July 1, 2023**

### **Upcoming events**

July 1 Aerotow @ 1100

July 2.... Trifecta @ 0900

July 1-4... Club campout/night fly/BBQ on the 4<sup>th</sup>

Aug-Sept. Heli Fun Fly? Being investigated. No certainty yet.

Annual Club Auction: Will be in November. Date TBD

Meeting adjourned: 7:10

**Next Trifecta on Sunday, July 2, @ 9 am.**





**R.I.P. Claude Sirgant was a past member who died of cancer on June 16, 2023. May he rest in peace. He is buried at Masons in Fallbrook.**







**This is the way the field looked @ 10am on many mornings in May and the first half of June. It was overcast, cool, and empty of members. Sometimes I came to the field and did not fly due to the soup-sky where it was difficult to see a plane in the air. Thus, there are fewer photos in our July Transmitter than usual.**







**Doug Riley**



**Robin Soloman**



**Don Davis- Chief Instructor**

## by Chris Reiser (Numbering on pages 9-11 are off due to computer ditorchability)

Between crashes I managed to learn a few things while repairing my first two giant-scale gas-powered airplanes. I started with a Katana 50 cc from The World Models, a DA-50R gas engine, Li-ion batteries, and a 9-channel Futaba PCM control system. The current plane is an Extreme Flight RC Extra 300 (see page 3 of the April 2023 Transmitter), using the same engine and radio, but different servos. The list below details the failures I've seen in about 15 years of sporadic giant-scale flight experience. Give yourself extra credit if you already learned these points the hard way:

1. Li-ion batteries can age noticeably in about a year. Mine lost up to 20% capacity while sweltering in my garage, which gets quite hot in the summer. I switched to using LiPoly batteries, a 1000 mAh 2-cell on the ignition and two 1200 mAh 3-cell batteries (in parallel, plugged into one MPE Miracle Switch regulator) on the electronics. At least six ten-minute flights are possible without recharging.
2. A MPI Miracle Switch (integrated switch, charging jack and 6V regulator) failed after about a two years of service on the ignition. Symptoms included abrupt engine cutoff during flight, and inability to rev the engine past idle thereafter. Perhaps some chokes on the throttle power line would be a good idea. After the second one failed, I switched to a Wike RC Products IBEF (Ignition Battery Eliminator). It plugs into an AUX channel of the receiver and draws ignition current from the receiver battery. The ignition battery was removed from the airplane. The IBEF failed, was repaired, and failed again. The Miracle Switch went back in, and began running the airplane with two batteries, just like three years ago. Total on-board battery capacity is now 4400 mAh.
3. OK, I switched back to an IBEF rated for operation at or above 6V. After 10 years of reliable service, I stopped worrying.
4. The 1/4-20 machine screws securing the engine to the airframe like to rattle out of their sockets. A screw can go from all the way in to all the way out in one flight. Blue Loctite doesn't hold them. I took a lesson from Gary the Wise Man and loaded the threads with clear RTV (window caulk) on all the 1/4-20 bolts (eight of them, one on each end of four standoffs). They stay snug now, and they come out easily with a wrench.
5. The 1/4-20 screws holding the engine standoffs to the firewall like to nibble the wood away from firewall. They figure this is a good way to start wiggling loose. I had to reinforce the firewall with T-nuts, from the back side (the same side from which the 1/4-20 screws are inserted) to make up for lost wood. I drilled the threads out of the T-nuts so the screws slide through. I should have put the T-nuts in there from the start. Give me a C- for not thinking ahead.
6. The original fuel tank was supplied by The World Models. This system includes a snap-fit elastic stopper that tightly fits over a short neck on the tank outlet. The stopper eventually softened and developed a horrendous leak. So I installed a Sullivan heavy duty aluminum stopper assembly (the stopper cap and backing ring are aluminum; the stopper itself is an elastomer). This mechanism applied enough force to split the neck of the gas tank. I'm using a DuBro tank now.
7. The DuBro fuel tank "gas conversion kit" comprises a brown elastomeric stopper with three feedthrough holes (carburetor, breather, and fill). After 5 years or so, the stopper develops an incurable bulge and is difficult to remove from the tank. It also begins to shed particles, some being 2-3 mm in size, into the tank. Replacing the stopper is required before this occurs. I also noticed that aluminum tubing used as stopper feedthroughs showed corrosion on the exterior surface, where aluminum contacted the brown elastomer. Very strange.
8. The tubing supplied with the gas tank from The World Models stiffened after a few months of use, stiff like a Q-tip. I replaced it with standard yellow Tygon tubing, which lasted longer but also stiffened. Thinking that Viton tubing may last longer, I bought some from a diesel shop. It was stiffer than the yellow tubing, so it was never deployed into the fuel tank. DuBro tygon tubing for gas, clear yellow, stays reasonably pliable for at least two years.



1. Advice from the web suggested using fast, high-torque servos on giant scale models. I started with Futaba S9351 high-torque digital metal gear servos. These are truly fast, but even with the engine off, they caused the control surfaces to flutter on the ground like a terrified puppy. I surmise that my model had a resonant frequency that the servos were too fast to dampen out. HiTech HS-7955TG servos were swapped in, providing good results and 15 years of use.
2. On the Extra 300, almost full deflection was needed to maintain a steady altitude in knife-edge flight. The system was very touchy near the ends of servo travel; a small amount of stick movement made a large amount of rudder deflection. I took most of the expo out of the rudder and smoother control ensued in knife-edge. Snaps and spins were unaffected, as these usually require full rudder deflection.
3. Moving the cg back made a huge difference in snap-rolls, spins and knife edge on the Extra 300. In fact, once the cg was moved to a spirited balance point, the airplane started tucking toward the wheels in knife-edge. This had to be trimmed out with a rudder-elevator mix in the transmitter. A small amount of rudder-aileron mix is also needed to keep the model from rolling out of knife edge on its own.
4. On one warm day, the Katana shed the Monokote that covered the entire bottom of the fuselage. I didn't notice it was flying "bottomless" until after it landed. A new piece of Monokote, with slightly wider overlap seams, managed to stay on the aircraft until its shocking demise a few months later.
5. Not to be outdone, the Extra began to shed its covering after about 5 years. Actually, the clear outer layer of the covering material peeled off first, leaving the color layer still attached. Months later, the color layer started peeling. The effect reminded me of a bad sunburn after the first beach picnic of the summer.
6. For extreme flight, batteries must be strapped down. Velcro on a battery gives up after a few dozen snap rolls and spins. I used Velcro on one battery and had to carry the Katana remains off the field in a blanket. Now I stuff the batteries into crevasses between fuselage structures, cushioned in foam. They don't move at all.
7. The Katana crash cracked the DA-50 crankcase cover. The motor made a trip to Desert Aircraft and came back two weeks later running better than it ever had. It likes Red Line Two Stroke Racing Oil, diluted 2.5 ounces per gallon of regular gas.
8. A plastic spinner provided with the Katana needed remodeling to fit over a 23-inch prop. It survived a few flights. An inexpensive aluminum spinner works just fine. The spinner tends to take damage if the model noses over (picture a dead-stick landing at the far end of the runway). So the spinner has to be inexpensive-and-replaceable or pricey-and-indestructible. Take your pick.
9. I foolishly ran the fuel tank exhaust tube over the top of the tank, between the tank and its hold-down straps. In any negative-g maneuver, the tank would pinch the exhaust tube closed and the engine would starve. While the tube was pinched, make-up air could not enter the tank through the tube, creating a vacuum in the tank as the engine guzzled gas. In fact, any restriction in the exhaust tube had the same effect. Loosely holding the exhaust tube in place eliminated engine starvation in negative-g maneuvers.
10. Just after a 180-degree knife-edge-to-knife-edge roll, the Extra 300 canopy departed the aircraft. As it fluttered to the ground, the airframe made an uneventful landing. It looked like a convertible with the top down. The flimsy plywood structure that attached the canopy to the fuselage had fractured; part of it was still screwed to the fuselage. Some serious basswood reinforcing struts were added to the base of the canopy, to provide greater rigidity where the side-loads exerted during knife-edge flight are transferred from the canopy to the fuselage.
11. After about a year, the inexpensive low-torque servo driving the choke failed. The symptom was unexplained engine cut-off when the throttle was jammed from idle to full power. True enough, the choke servo would choke and unchoke the carburetor during start-up, but during engine run-up it would chatter, moving the

1. choke plate from fully open to fully closed in the blink of an eye. The servo was attached to the choke horn via a very short, stiff connection; I surmise the engine vibrations rattled the servo to death. Replacing the servo with a manually operated mechanism accessible through the front opening in the cowl solved the issue.
2. With an inexpensive analog servo on the throttle, the plane had difficulty finding the throttle idle position reliably. Swapping in a digital servo did not help. Turns out the throttle idle-side endpoint on the transmitter was at 100% and trim was -43. The servo was trying to go past minus 100% to find the idle position! Adjusting the throttle pushrod length bumped the trim up to +26, and idle became rather repeatable.
3. The Desert Aircraft fueling plug uses friction between an o-ring and the ID of the plug body to keep the plug stowed during flight. After 2+ years, the o-ring and plug body were so slippery with oil that the plug would pop out of the plug body during flight. I'm lucky it remained plugged into the fuel tubing and returned to the pit with the rest of the airplane. A thorough cleaning of the plug body and o-ring was required, but this fix also began to fail after a few months. A spring-loaded retention finger now holds the fueling plug in place during flight. The fueling plug receptacle would be modestly improved if it retained the plug better, such as with a reverse-taper ID or a small internal retention groove. It's a mini-project for "someday soon."
4. Web comments warned against using metal clevises to mate the throttle pushrod with the throttle lever; it creates wild electrical noise. To avoid wild noise, a nylon clevis was chosen for the throttle lever, and it worked well for many months. An incidental inspection revealed that engine vibrations had severely mangled the clevis pin in two places. If nylon weren't so tough, it would have completely unlinked from the throttle lever several flights ago (think throttle going to zero, engine flame-out, emergency landing, and new underwear). The nylon clevis was replaced with a DuBro 2mm swivel ball link; the ball link holder is insulating plastic, which avoids the electrical noise problem.
5. As the outdoor temperature gradually decreased from summer through autumn, the DA50R engine began to starve on negative-G maneuvers. A monthly increase in the H mixture screw richness solved this problem. The net effect, from summer (at about 100F) to "winter" (at about 50F) was approximately one half turn counter-clockwise.
6. After 5-6 years of flying, two of the four M5 screws that attach the propeller to the motor snapped in flight. Just after the plane landed, the propeller began to free-wheel; the remaining two screws had totally unscrewed. Both screws parted flush with the front surface of the propeller mounting ring. One of the screws had partially unscrewed when it snapped. These four screws are constantly under high tension and vibration loads. This suggests that the screws should be replaced on an annual basis.
7. After 12 years of flying, one of the three wires in the magnet pickup cable suffered fatigue fracture. The motor would not start. Sent it back to Desert Aircraft. They replaced the pickup, cylinder, spark plug, and gaskets. Apparently, I had literally worn out these engine parts after 100-200 hours of flying.

The Extra climbed down from the garage wall after spending a couple years as a hanger queen, and refused to run properly. Engine symptoms included rough starting, failure to accelerate from idle, and flame-out after a few seconds of operation. Rebuilding the Walbro WT-642 carburetor revealed semi-clogged screen filters, but new filters did not solve the problem. Smooth running ensued after replacing the two gaskets that seal the carb to the crankcase. I am embarrassed to admit how long it took to find this fix.

Here are some things that went right:

- 1. Never had a glitch with the Futaba PCM radio (remember PCM, way back when?). Two separate electrical systems are in the airplane, one for ignition, one for everything else. They are separated by about 5" of air space. Web wisdom led me to this layout, and it really works. Eventually I converted to FASST (2.4 GHz) and it works flawlessly.**
- 2. The Extra 300 came with aluminum landing gear struts with a lot of toe-in. This irksome setup gives a wee bit of wheel braking after landing, which makes the model decelerate to a stop on the runway. Smooth! It does wear out the tires in about a year. Tires are cheap brakes.**

**The Extra also has aluminum angle-bracket reinforcement in the fuselage. The landing gear are attached to the angle-bracket, which distributes the load to the firewall and to several formers. Despite some botched landings, rough enough to seriously bend the landing gear struts, the gear have never ripped out of the airframe.**

**See you at the field!**

**This article submitted by Patrick Pranica**

**John Cutler wrote on Wednesday, June 28, 2023:**

**There is a large rattle snake living at the northeast corner of the flying field. I have seen it on Friday and today. It always rattles and climbs the bushes but seems to live underground.**



**Trifecta June 4, 2023**

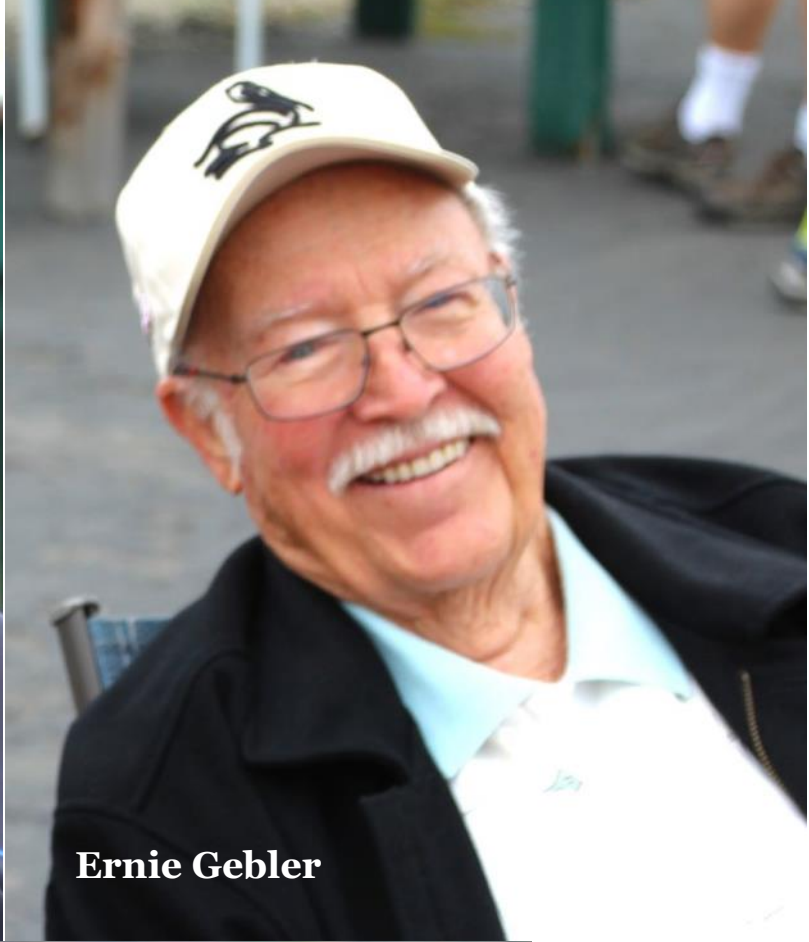


**Tim Hitchcock points out Randy Brunette's knee-high socks lest we miss them.**





**Mark Olsen**



**Ernie Gebler**



**William Taft**





**President Emeritus  
Steve Gebler**

**Tim Hitchcock**

**Our esteemed president,  
Joe Villarreal. Joe, you do a  
great presidential job!**







**Six planes flew in the Trifecta.**

**Chuck Riley with his patriotic helmet.**



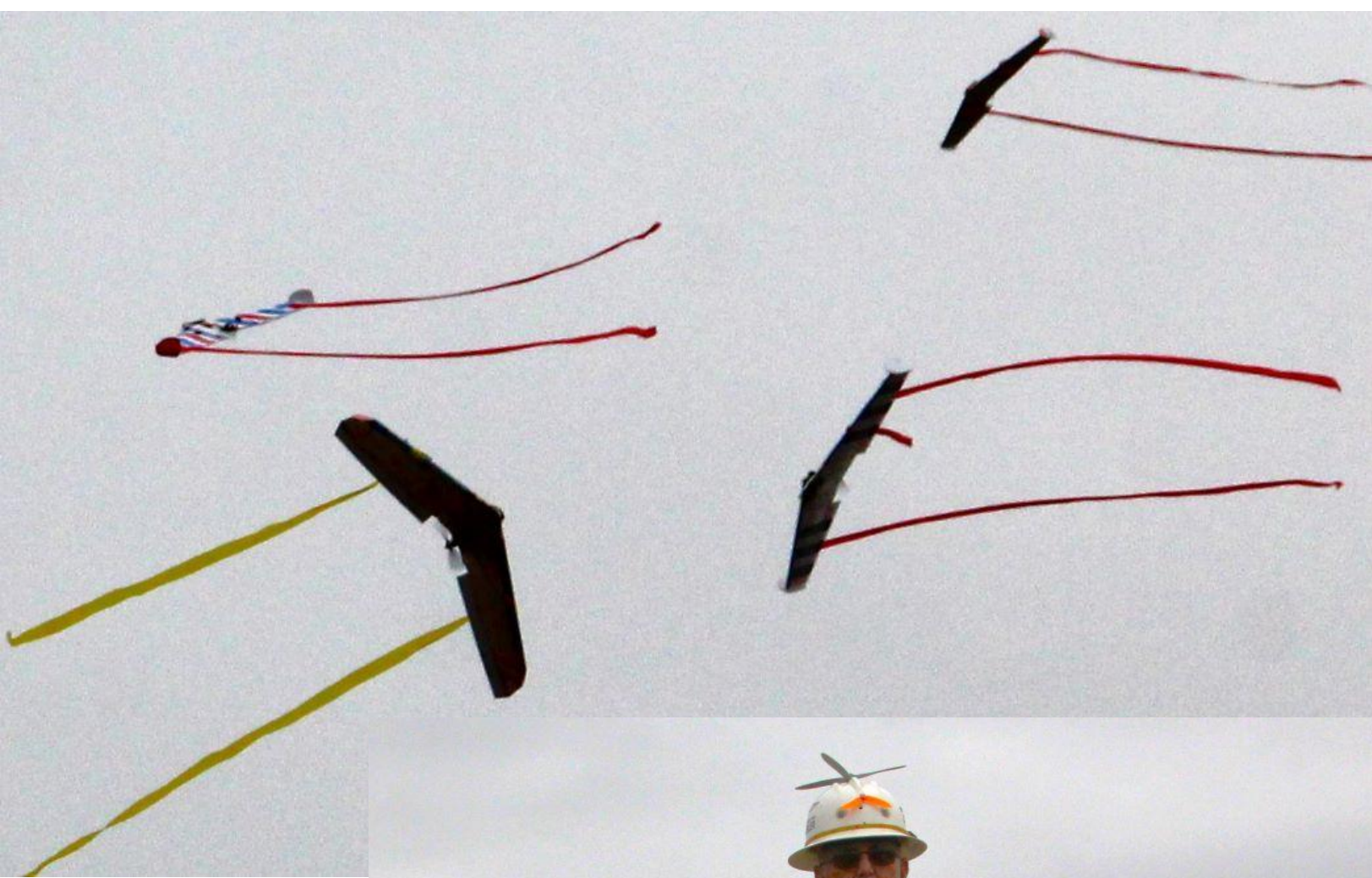




Steve Gebler on the launch pad







Steve Gebler





*Linda is Steve Gebler's girl friend.*





**Joe Villarreal**







**Steve Gebler, Joe Vilarreal, William Taft, Chuck Riley, Tim Hitchcock, Randy Brunette**

**Michael Paurazas**







Score keeper Chris Bence  
Steve Gebler's son-in-law



**Trifecta winners L/R Chuck Riley-3; Tim Hitchcock-1; Joe Villarreal-2**





*Mark Anderson*





**Patrick Pranica**

**Jim Christy**



**June 17, 2023 Club Meeting– Pledge of Allegiance**







**Joe Villarreal does a fine job leading our club. We are fortunate to have him at the helm! Thanks for all you do, much of which is seen only by a few.**





**Pancho Castillo won Model-of-the-Month for his awesome P-51 Mustang. It took a year to build; he improved the kit by adding a scale cheek area and retractable wheel doors among other scale details. It weighs 25 pounds, runs 12 volts, and had about 4 or 5 flights as of the meeting. We have a number of master builders in our club, and Pancho is one of them.**



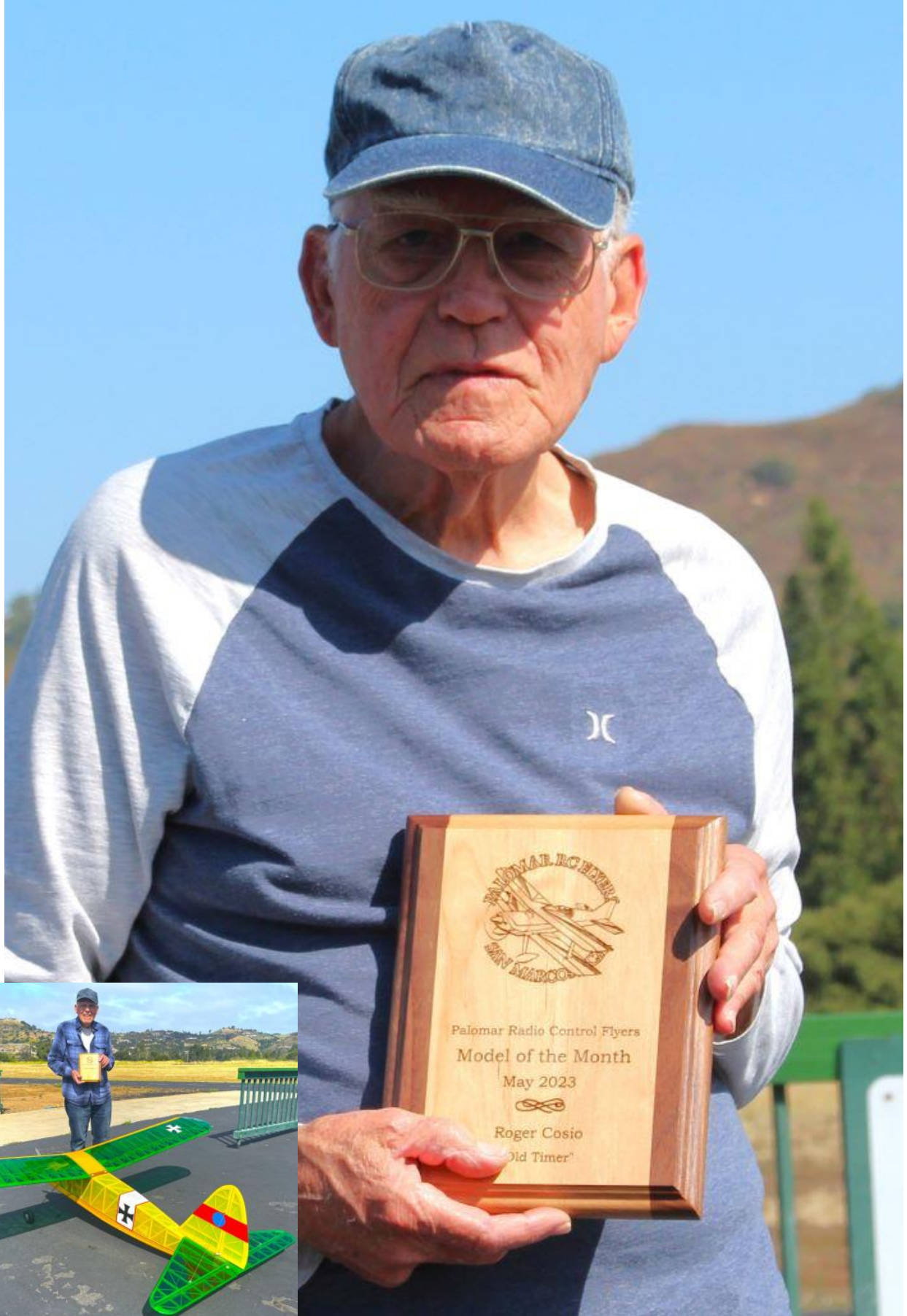


**Dennis Teason was a past member and has rejoined. It is good to see you once again at the field.**



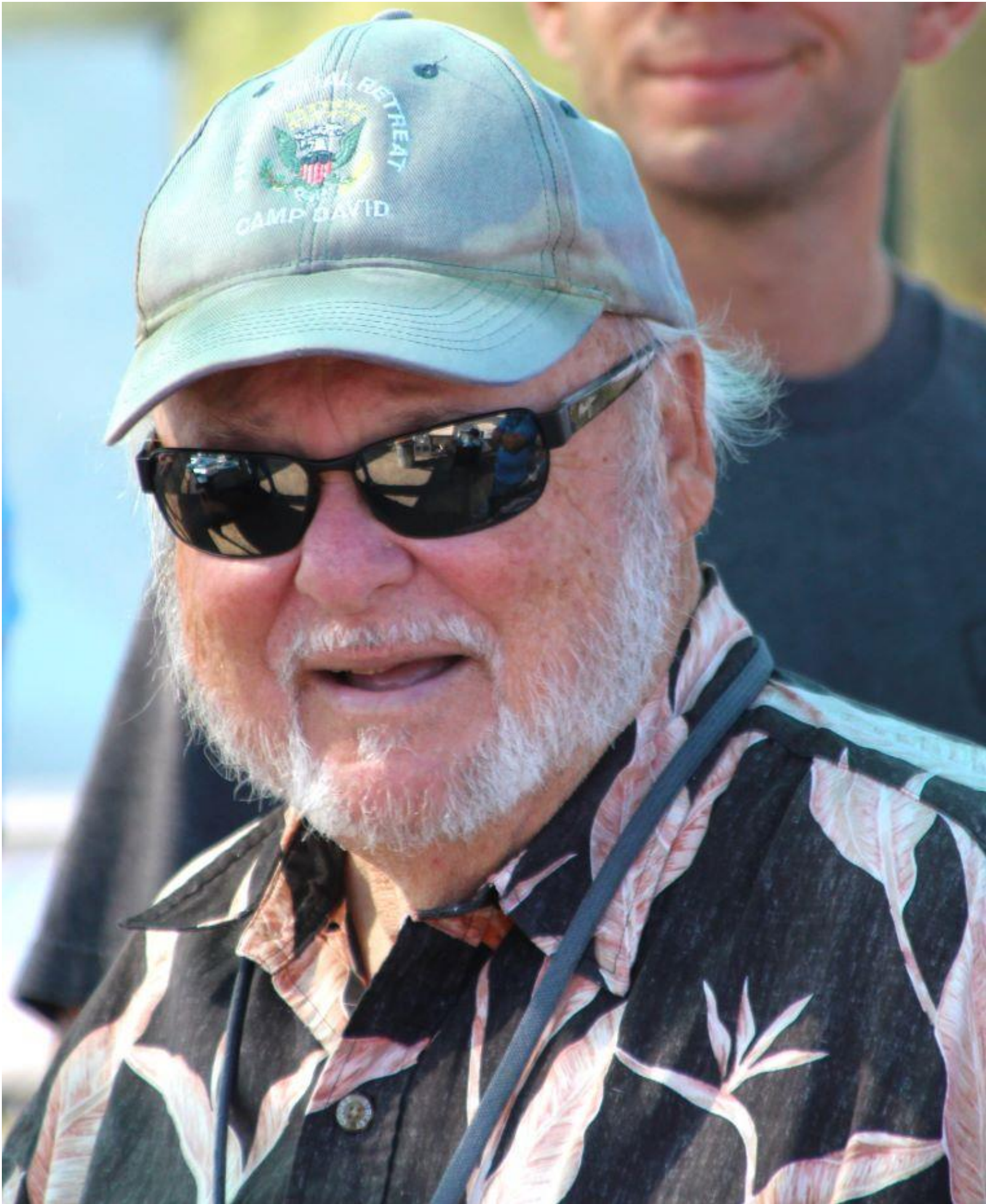
**The long walk of shame! They will remain anonymous even though the man in red is Don Davis and this was a first solo.**





**Roger Cosio received his Model-of-the-Month award for May 2023 for his old-timer pictured in the insert.**





**Mandatory photo of Jim Gallacher, but wait, who is that behind Jim? Next photo shows who it is. Guess who and you win a broken, plastic prop found at the field!**





*Our favorite Marine, Charlie Riley and his lovely Isabelle.*





**Curtis Kitteringham**

**Gary Marquardt**



**Welcome to our club! New member Gary Marquardt!**





**L.R Wayne Bonfietti, Gary and his brother Dru Marquardt. Welcome to you two new members!**





**When it comes to different flying machines, Steve Gebler has more than any other member! I have no idea what this model may be called!**



**Tony Tabar– student  
and wife Denise**





**One of Steve Gebler's flying machines. The top one may be his too?**









**Miles Padberg June 29, 2023**



**June 29, 2023 Mike Lonnecker successfully maiden'd his new \$1,000. sailplane with a tow from Jim Gallacher's plane.**





**The instant of liftoff!**

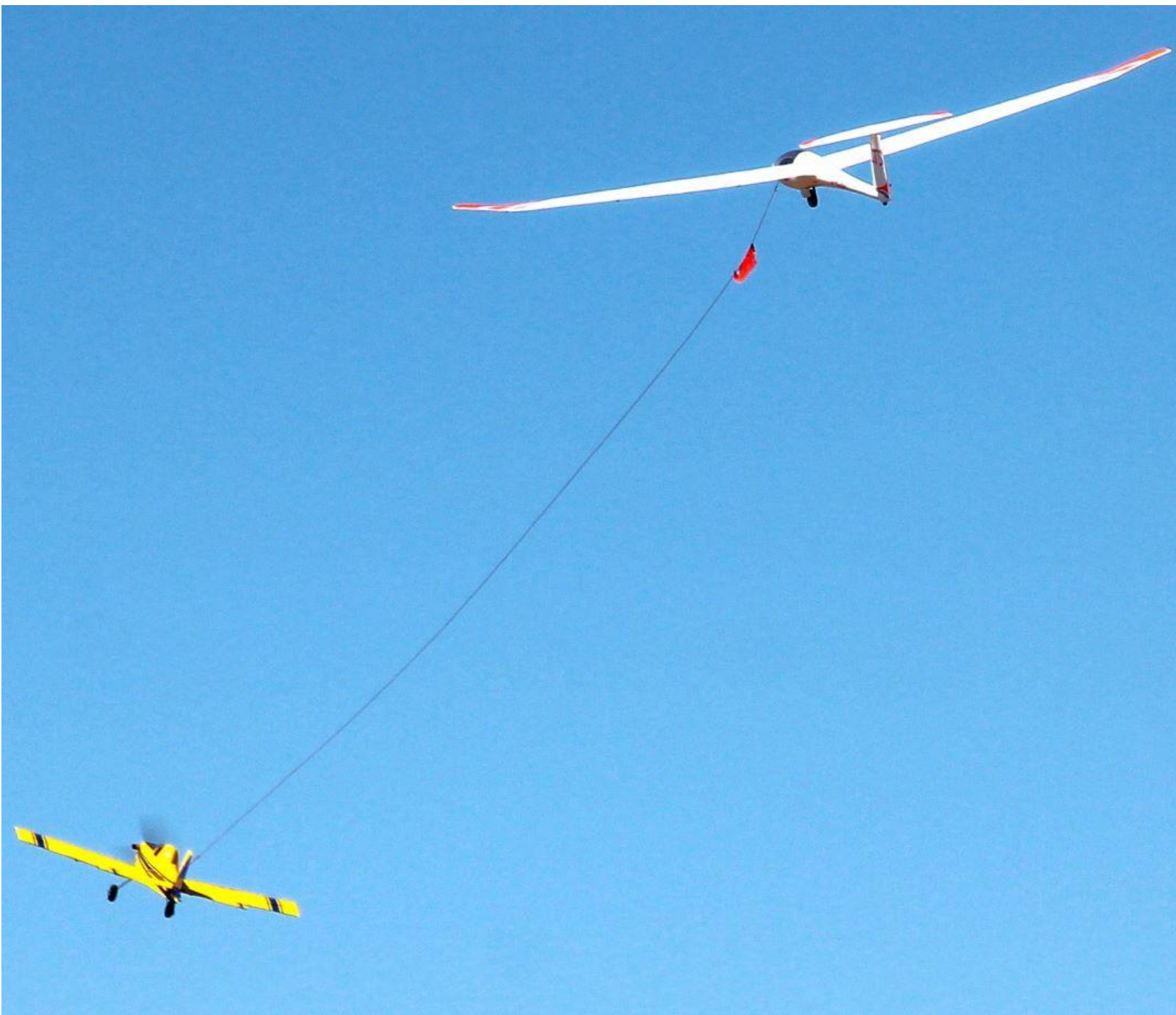


**Mike Lonnecker's sailplane aloft in all its glory! What a beauty!**





**Jim Gallacher landing his tow plane**







**Jim Gallacher recalled an old acronym for the V tail Beech– “The doctor killer.” It was introduced in 1945; production began in 1947. Doctors could afford this plane which proved to be the undoing for not a few. They thought it was deceptively easy to fly! It has special flight characteristics, and many love this Cadillac of a plane.**

**President emeritus Bill Hill flies the Beech Bonanza well.**







**President Emeritus George Dawe and his gorgeous Betty Skelton Pitts Special on June 29, 2023**









**If you fly 'em, then someday you will crash 'em. Would the modeler who has never experienced a crash please .....Every one of us can identify with this. It's part of our hobby. Just ask our vice president, Charles Lewis. 6/29/2023 Sorry about that!**





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**SECRETARY Patrick Pranica 442-224-0032**  
**SAFETY OFFICER James Christy 951-232-7997**

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**BD MEMBER Steve Gebler 760-519-8163**  
**BD MEMBER Don Davis 760-231-1617**  
**BD MEMBER Doug Abel 858-674-4626**  
**BD MEMBER Trent Stadick 657-464-0440**  
**BD MEMBER Chuck Riley 760-716-8391**  
**BD NENBER Jim Gallacher 760-747-7381**

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**Newsletter Editor Joe Buko 760-726-8831**

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**Doug Abel 619-599-6924**  
**Chuck Riley 760-716-8391**  
**Miles Padberg 425-791-5025**  
**Vic Lerum 619-921-5830**

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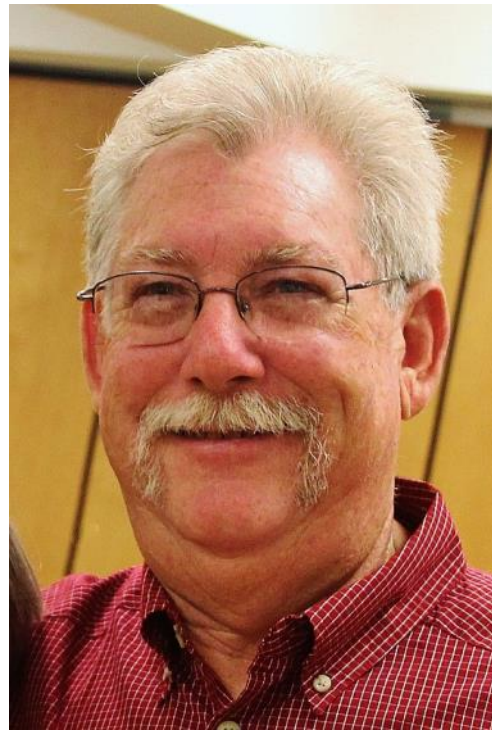
**Fax : 909-679-7465**



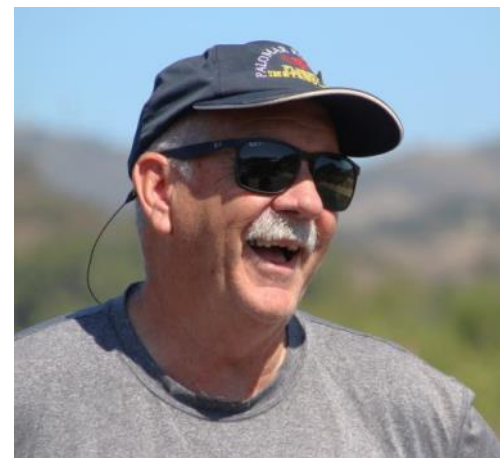
**2023 Club Officers**



**Treasurer Dave Ellis**



**President Joe Villarreal**

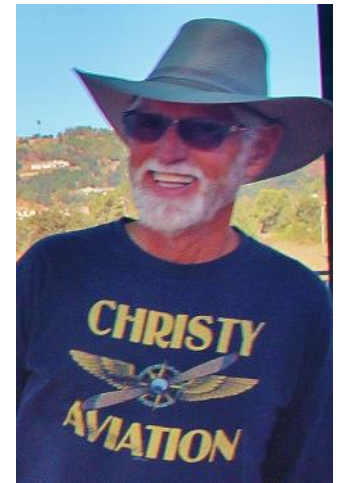


**Vice Pres Charles Lewis**



**Secretary Patrick Pranica**

**Board Members**



**Safety Officer James Christy**



**Scott Dedic**



**Chuck Riley**



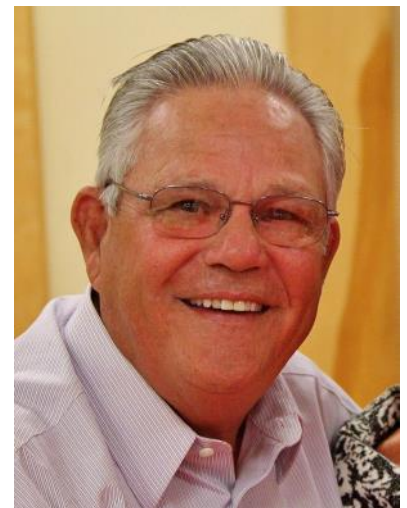
**Doug Abel**



**Steve Gebler**



**Jim Gallacher**



**Don Davis**