

# **May 2025 Newsletter**

**Editor Terry Mitchell** 

The June 14 Members meeting begins at 8:00 a.m.

2<sup>nd</sup> Saturday of each Month
Oct-April Winter Hours: 9:00am
May-Sept Summer Hours: 8:00am

# **Membership**

Club membership is 75, including 4 youth members.

#### **Greetings**

This Newsletter will provide some insight into the Club's members, fun activities, and contributions to our community. The Newsletter also provides some humor and wisdom from members with over 40 years of experience in the RC modelers hobby. Thanks to all who provided interesting content.

# **New Concepts-Airworthy Rescues**

Anyone interested in assembly or repair of airplanes from time to time? We could identify a team of individuals for consultation/instruction on how to build new ARFs and repair damaged airplanes. Many folks donate their old airplanes to the club. Doug Allan repairs these planes and we auction them during club general membership meetings. Auction proceeds go to the club's general fund. If anyone is interested and qualified in ARF building or repair, please bring it to our attention during anu general meeting as new business. This could be a fun yet challenging activity to make old planes airworthy.

#### **The Future**



Xander Plumb (left) and Ethan Wyant (right) were out showing their flying skills on 4/6/2025. These two young men will someday be our future. We are proud to have them in our club and we hope to pass on the importance of having a hobby in their work-life balance. Both young men have recently achieved their solo certifications and we hope they will invite others to join them here at CRCM.

#### **Bike Path View**



One of the onlookers at the bike path approved of our hobby. He was checking out our planes. Not sure if he wanted to join the club. We would need an amendment to our bylaws for a new member category: "Man's Best Friend".

# **International Miniature Aerobatic Club (IMAC)**



Bill Evans won first place in the International Miniature Aerobatic Club (IMAC) intermediate class using a 40% Carden Pro airplane. Bill's plane has a DA 200 four-cylinder 22 HP gas engine. Randy Wegner won second place in the intermediate class using 40% Extra 300 ARF by Extreme Flight. Randy's plane uses a DA 150 two-cylinder gas engine with about 12 horsepower. This is Bill's first win in a while, and he flew extremely well. The incredibly handsome and talented Randy won the unknown round on the last day of the contest. Our CRCM members represented us well and they both deserve accolades for their efforts.

Reporting by the Editor and Randy Wegner

Photography by Editor

# Solo Certificate & First Flight



Sarita Mitchell (middle) completed her test flight certification 5 April 2025 with Chief Flight Instructor Eric Charley (left). Husband Terry (right) offers encouragement and praise. Sarita is the only pilot certified woman in our club. She is the first woman pilot in several years. Doug Allen (not pictured) was Sarita's flight instructor. Doug provided countless unselfish hours in the honing of Sarita's RC experience. Thanks Doug. Congratulations Sarita.



Sarita Mitchell's first flight 12 April 2025 without a buddy-box or flight instructor. Note that confident stance and laser focus on her plane.

As the Editor's wife, I am so proud of Sarita's accomplishment. She leaves the flying field with a smile and looks forward to her next flights. I am thankful for the folks in the club that treat her kindly and make our experience all that it can be.

Sarita has an Aero Scout ARF with floats in the box at home. Her goal is to practice touch and go landings with the Aero Scout on wheels. Then she will fly it on floats at the next Canyon Lake Float Fly.

#### **New & Refurbished Planes**



Steve Coltrin made a plane from spare parts and three sheets of foam board. On the maiden voyage it flew pretty well. Steve is calling it The Orange Coot; but, he may change it's name to The Orange Mudhen. It always helps market your plane if you have a matching shirt. Maybe we should have a club vote or ask for others to help name it. Steve is using 3S batteries with a 10 x 6 wooden prop from an old Ugly Stick.

Reporting by the Editor and Steve Coltrin

Photography by Steve Coltrin



Ed Goldberg was given a slightly used Night Radian from a previous owner. The first flight for Ed was full of adventure. It started by going straight up followed by a close call after it stalled and headed straight for the ground. Ed got it down with a nice landing after a full flight. Ed tamed the Short Period and Phugoid pitch plane oscillations by bending the control sticks.

Reporting by the Editor and Steve Coltrin Photography by Steve Coltrin



Guy Fuller's E-Flight Sportix flew like a champ on maiden flight. Of course, the pilot had something to do with the plane's flight path. Guy bought his yellow and white E-Flite Sportix a few weeks ago, but I finally got him to hold still long enough to take his picture with it. This is a sweet flying plane. At a later day, the Sportix had a flame-out. Guy was able to keep it from nosing straight down; but as it landed the plane's wheels dropped into a small trench and the main gear was dislodged.

Guy also took his Marlin jet through it's maiden flight. This Marlin was a replacement for the Marlin that he lost about 8 months ago, after it decided to take on a mind of its own. He had to give it full right sticks to keep it from turning left. It eventually ended up in the desert somewhere never to be found. His new Marlin made a perfect flight—not one click of trim was needed and he had a perfect landing.

Reporting by Steve Coltrin

Photography by Steve Coltrin



Ralph Salgado with his Viper 90 just after the maiden flight. This is a replacement for the one that was destroyed in a hard crash. It has the same 8S battery/motor power system that the old Viper (rest it's soul) had. The new Viper looks great in the air and is faster than a speeding bullet.

Reporting by Steve Coltrin

Photography by Steve Coltrin



Howard Brown's new plane is an Old Models kit scale representation of a French WWI 1908 Brifaut Antoinette. Open truss empennage shows off cool truss structure; but might be a little draggy when trying to maximize range (passenger miles per gallon). Howard tuned up the OS 0.30 4 stroke engine with some new nitro fuel. Due to a servo mount failure during pre-flight, the flight was a NOGO for this day. Howard wore his work hat. For those of us who know him, he doesn't look this dapper without it.

Reporting by Editor
Photography by Editor



Gary Johnson's new 1.6M Avios Twin Otter after maiden flight. Great plane for land or sea. Gary and his other 1.2M Twinn Otter on floats have made it to the Canyon Lake float fly several times. The 1.6M Otter and little brother have quite the following at Canyon Lake.

The de Havilland Canada DHC-6 Twin Otter is a Canadian STOL (Short Takeoff and Landing) utility aircraft developed by de Havilland Canada in the mid-1960s and still in production today. Built by De Havilland Canada from 1965 to 1988, Viking Air purchased the type certificate and restarted production in 2008, before re-adopting the DHC name in 2022. In 2023 DHC restarted production of the 300 series, in addition to the Series 400 produced by Viking.

Reporting by Editor

Photography by Editor



Victor Fuentes's Hughes/McDonnell Douglas/Boing MD500 after successful flight 4/6/25. The editor took a ride in a full sized MD500 while working at McDonnell Douglas. The MD500 was used to fly chase during Apache AH-64 test flights of new flight control software. Victor flies these RC Heli's with such precision that the casual observer would think anyone can fly them. Victor's attention to detail on all his RC Heli's could draw a crowd.

Reporting by Editor

Photography by Editor



Nick Tocco's Freewing A10 before successful flight 4/6/25. 3D printed all ordinance, Luke Skywalker with cockpit, brakes to taxi at high thrust/low speed. The Fairchild Republic A10 Thunderbolt (nickname Warthog) was used by USAF for close air support in service since 1977. It's 30mm GAU-8 autocannon, low engine noise, and battle tested titanium armor make us proud to be an American. It served in the first Gulf War, Balkans, Afghanistan, Iraq War and against the Islamic State. Our very own Ret. Lt. Col Jack Shafer flew the full sized A10 in the Gulf War and over Barry Goldwater Test range here in Arizona.

Reporting by Editor

Photography by Editor



Guy Fuller with his Freewing F9F-8 Cougar Super Scale. Gary Johnson gave him this plane. Guy has done just a few flights and the Cougar flies great.

The Grumman F9F/F-9 Cougar is a carrier-based fighter for the USN and US Marine Corps introduced in 1952 and retired in 1974. The Cougar's arrival was too late for it to engage in the Korean War. On 1 April 1954, US Navy Cougars established a new transcontinental crossing record. The US Navy's flight demonstration team, the Blue Angles, adopted the Cougar. Naval Reserves flew Cougars into the mid-1960s, only the TF-9J trainer model saw actual combat, having been deployed as a Forward Air Control aircraft during the Vietnam War.

From the look on Guy's face, he knew this plane meant business in combat.

Reporting by Steve & Editor
Photography by Steve Coltrin



Steve Coltrin's new plane was made from a pool noodle and a sheet of foam board. Th three maiden flights required significant up elevator trim adjustments. Wooden spars are embedded in the fuselage (noodle), wing, horizontal and vertical stabilizers. Using a 3S 1300 mAh battery and a 30 Amp ESC provides 4 minute flights. Total cost was \$6 using spare parts. A slightly wider wingspan and horizontal stabilizer might improve the look. On the second flight, it did loops (inside and outside), Rolls, Cuban 8s, Immelmanns, stall turns, Inverted circles and figure 8s. Great imagination Steve. Does it still float?

Reporting by Steve & Editor
Photography by Steve Coltrin



Steve Coltrin's new Stick 14 from Dancing Wings Hobby. Steve flew the maiden flight 4/29/25. Steve has built a few Dancing Wings kits and liked them so he bought the Stick 14 ARF. The picture was taken after four flights. Like most Sticks, it is easy to take off and land, flies well, and is easy to see.

The "Ugly Stik" and concept of "Sticks" represents a significant era in the history of RC airplanes. The basic design is simple, durable, and easy to fly thus making it a good entry-point into the hobby.

Reporting by Steve & Editor
Photography by Steve Coltrin



Guy Fuller with his new 1.2 meter T-28 after its maiden flight. Guy's son gave him the plane. We should all have sons like that.

Reporting by Steve & Editor
Photography by Steve Coltrin

## **Food Bank Donations**



CRCM President Dan Tolleson (left) is handing over a check for \$350 with an additional 110 pounds of food to Veronica Herrera (right), Manager of the Marana Food Bank. These donations were collected during the Curtis Bishop Memorial Fun Fly event. Thanks to all who contributed canned goods and general membership approval for the donation.

Reporting by Editor
Photography by Dan Tolleson

## **AMA Leader Member**

Congratulations to Steve Debord in achieving Leader Member status with the Academy of Model Aeronautics (AMA). Steve's accomplishment allows our club to be considered for Gold Leader Status. Steve will be replacing John LaRock as our club's Leader Member. Steve was awarded the Leader Member status in: Flight support, Scientific, Industrial, and Administration. Congratulations Steve.

#### AIAA Design, Build, Fly Team

Our club hosted several international teams as they prepared for the American Institute of Aeronautics and Astronautics (AIAA) Design-Build-Fly (DBF) competition. The 29<sup>th</sup> Annual DBF competition was held 10-13 April 2025 at the TIMPA Field. The complete rules and mission statement for the DBF can be found here: <a href="AIAA Design/Build/Fly">AIAA Design/Build/Fly</a> Competition | AIAA

From speaking with one of the teams (Slovenia), the editor surmised the following DBF competition highlights:

Mission 1: Carrier Aircraft in racetrack pattern- 1.0 point

Mission 2: Captive Carry in racetrack pattern-score is a function of max fuel tank weight carried over shortest time.

Mission 3: Glider Launch & Autonomous Guidance Navigation & Control

- Carrier Aircraft (shown below) RC control to drop point about 200-400 ft AGL and abeam the runway center over the target area.
- Carrier releases an autonomous glider that weighs less than 0.55 lb
- Glider autonomously flies to target. Target latitude and longitude provided to participants prior to mission.
- 2.5 bonus points for target impact within +/-100ft downrange and +/-100ft cross-range. 1.0 bonus points if with +/-375ft downrange and +/-100ft cross-range.

The Slovenia team's carrier and glider system showed some real-world problem solving with Commercial Off-The-Shelf equipment. The team used a home-made Printed Wiring Board (PWB) and chipset. They used Ardu Pilot open source Guidance, Navigation & Control (GNC) software downloaded into the PWB with a GPS/IMU system supported by Ardu Pilot. The team tweaked the navigation Kalman Filter to match the IMU performance. Their carrier used a 6S LiPo and their glider used a 1S LiPo. Their carrier can travel 125 MPH with no payload. The carrier motor provides 15Kg of static thrust. Their glider's GPS receiver was stationary for a few minutes prior to carrier takeoff to acquire satellites with the GPS antenna mounted on the sides of the glider. This provided for sufficient transfer alignment (attitude information) of the IMU and glider during ascent to the drop point so that after drop, the glider would roughly go the right direction. On a few test flights, the glider would "search to find a stable flight path" before settling in on a path to the target. On most of the test flights, the glider was with a few 10's of meters of the target latitude and longitude mark on the ground.



The Slovenia DBF team at our field displaying their carbon fiber carrier aircraft



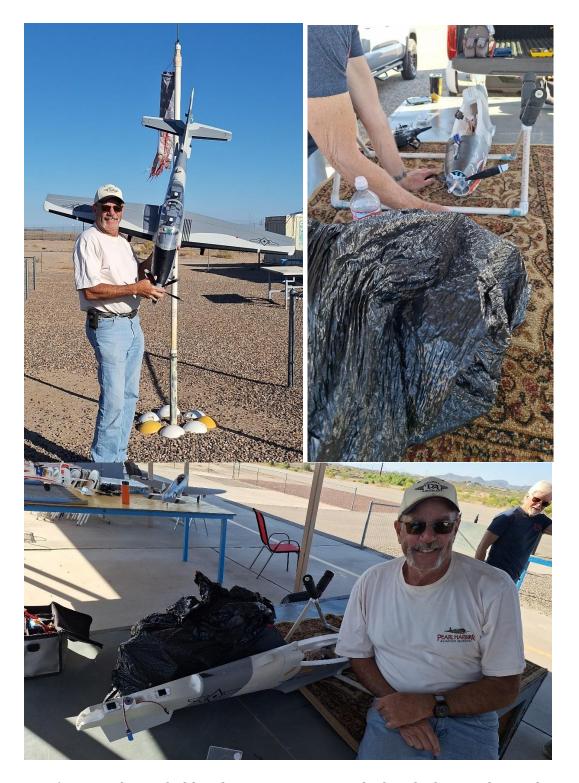
The Slovenia DBF team troubleshooting the glider release mechanism.

## The Walk of Shame

The following are a few noteworthy crashes from April to May 2025. Most if not all crashes resulted in the scattering of pieces and parts requiring the infamous garbage bag. Reporting and photography Bylines are anonymous to protect the innocent.



Ed Goldberg's modified AeroScout crashed at 08:42:03 March 24, 2025. Ed removed the pusher propeller and motor and replaced it with two ducted fans. Flew great—for a while. Only minor damage to the plane was incurred as the twin ducted fans detached and the plane "landed". Ed subsequently renamed the plane "Not So Safe" but repairable.



Here's Gary Johnson holding his new Tucano. Little does he know what is about to happen. This picture was taken before the colorful expressions started. After the plane took off, it was heading northwest toward Silverbell road and he lost the link to the plane's receiver. The last picture shows the fuselage and a garbage bag containing the rest of the plane. If you're not prepared to crash a plane or two, you probably shouldn't come fly too often. It happens to the best of us. Notice Gary's sportsmanship like smile. Go Gary.



Gary (left) with his Valiant. The Valiant was making a strange noise/vibration in flight so he brought it in for a landing. After landing, he held on to the plane on the ground and ran up the motor. The whole nose with the motor and motor mount shot off the plane. Jeff (right) with his Twin Otter. The Twin Otter also quit running and went in on it's nose.

# **Direction of Departure...**

#### By Special Correspondent Randy Wegner

I went to an IMAC contest in California years ago and before the event began, I looked both ways and took off cross runway. A half-hour later, the Contest Director (CD) called for the pilot's meeting. He was kind of an interesting fella and began his meeting with, "the next pilot who takes off cross-runway, will be asked to leave". Embarrassing for sure but after the meeting, I went

up to him and calmly explained that back in Tucson, sometimes we do it for safety reasons and, not just to be different.

I went on to explain the best solution isn't always cross-runway takeoffs; but if you want to make sure you won't hit anyone then taking off cross runway is by far the safest way! All the plane's energy is directed away from other pilots and spectators. Now that we have the bike path, we need to be observant of that as well.

Another advantage of cross-runway takeoffs is that you are 90 degrees closer to lining up for a landing if the need arises due to dead sticks etc... Its turning 270 degrees instead of 360 degrees to make it back to a line up with the runway.

Obviously, some planes, (styrojets come to mind), need more runway than others so taking off cross-runway doesn't work as well for them. The other advantage of cross or diagonal takeoffs are that you don't take copious amounts of time doing that arduously long and painful full scale taxi thing while others may be waiting to land or takeoff.

Taking off cross or diagonally may be a good solution for some who still need to work on better left thumb control. Most of our takeoffs are right to left so, aiming out by perhaps 45 degrees, will keep you more comfortable until you master that part of your flying.

You may also consider that our planes usually need less than half the runway to lift off. Consider taxiing to the halfway point before hitting the gas. This way, if you lose control, you are already past the pilots flying beside you. Pilot's lives matter. Also, for example, if we are taking off right to left, mosey on down to a center or left pilot station to fly from. It's a mystery to me but, we as pilots more often lose control after we pass by ourselves. So, if you tend to be less proficient, consider standing further down at another station. This way, there is far less chance of perforating a fellow pilot.

We all make mistakes and need a little grace at times. At the same time, we need to apply what we learn and do our best to mitigate risks wherever we can.

# Please attend Club Meetings for latest information

2<sup>nd</sup> Saturday of each Month Oct-April Winter Hours: 9:00am May-Sept Summer Hours: 8:00am