



# The Gold Country Flyer

## January 2022

**President :** Fred Carter, email: fred.carter@live.com

ph. 510-299-7409

**Vice President:** Brock Brown, email: brockfxr@comcast.net

**Treasurer and Membership:** Alan Ross P.O. Box 1972 Sutter Creek 95685

ph. 209-267-1853

**Safety Officer:** Dick Belden, email: richardbelden@volcano.net

**Newsletter:** Royal "Dee" Merrill, email: royald@volcano.net

Date: Jan. 8, 2022 Monthly Club Meeting

1. Called meeting to order: 10:00 AM                      Members attending: **28**
2. Approval or correction of the previously published meeting minutes.                      **APPROVED**
3. Guess/New Members:
  - a. Dave Downer                      **APPROVED**
4. Vice President's (Brock Brown) report:                      **Nothing to report**
5. Treasurer's (Alan Ross) report:  
Member's                      Funds **\$11,960.00**
6. Reports from each of the Appointed Positions.
  - a. Safety Office's (Dick Beldon) report:  
**Watch turning into and out of flying site, with CA drivers it is very dangerous.**
  - b. Newsletter (Dee Merrill): **Nothing to report**

c. WebSite (Tom Minger) Information: **Nothing to report**

d. Club Raffle (Chuck Powell):

**Revenue from Christmas party raffle was \$1140.**

7. Committee Reports.

a. Swap Meet: **Coming up inn August**

b. Christmas Party: **Last one was great so will do again next year.**

c. Promoting Flying: **Nothing to report**

d. Field Maintenance:

**It has been approved to purchase sounding devices for gopher repelling.**

8. Announcements and reading of any pertinent correspondence.

**Nothing to report**

9. Discussion of old or continuing business items.

a. Safety fence search is ongoing.

**Nothing new to report until contractors get caught up on business.**

b. Planning a visit to county to discuss increasing the width of the runway.

**This is a priority item for 2022. Need to time with Covid conditions.**

c. Trust Number required for renewals.

**The FAA number and trust number should be reported when renewing membership and per FAA web site you should have a copy of the FAA number and Trust number with you while flying.**

d. AeroScout/T34 racing will be scheduled for 2022.

**Will have to get schedule.**

e. Control line combat for April.....

**Will get date from Lee to update web site and members. This club event will require club members to assist with running the event in April. It is two day event and those that can help there will be a signup at Feb meeting.**

10. Discussion of new business items.

a. Christmas raffle:

**We need to discuss some proposed changes to the Christmas Raffle. Goals we need to keep in mind for the raffle to ensure continued success- quick to ensure we are not completing the raffle at 10 or 11PM.**

**i. Current method of raffle**

**ii. Bag for each prize that you can place the ticket in.**

**iii. Allowing everyone to pick prize as in the past but with limits.**

**iv. Other suggestions.....**

**We will continue to discuss this in the next few month, it is a club event and club input is very important.**

11. Presentation of member's modeling projects (show and tell).

**John Stoney showed off his Wright Bros Flyer. This model flies very nicely and everyone needs to see this one.**

12. Dummy of the month.

a. **Manuel Pinheiro for crashing into himself during a landing.**

b. **Brock Brown for crashing his glider during a hand launch.**

c. **Dan Troxell for handing the transmitter to Brock while flying one of his large gliders.**

**Congratulation to Manuel Pinheiro....**

## Adjournment

Editor's Note: I had no recent photos of field flying or projects so I am attempting to add an article about servos that might be of interest to many. It was in my files and I don't recall where I obtained it, so hopefully I am not violating copyright rules...

## Servos 101 Matching Size and Performance to your airplane

Many modelers assemble their model airplanes without ever giving a thought to their control system. They just use whatever they have, but really, this isn't the best plan of action. To achieve the optimal performance for your aircraft, you need to use the servos best suited for your aircraft.

Servos come in a wide variety of sizes and power ratings, and you need to match them to the size and performance of your airplane. In general, the larger and more powerful your airplane is, the larger and more powerful your servo needs to be. Large airplanes require more strength to move the control surface, so they usually require large servos. Also, in the case of high-performance 3D airplanes and pylon racers, which fly at very high speeds, you need servos with the power to properly control the model. It is not always the size that matters. Some mini servos can produce more torque than a standard-size servo; this is especially true when comparing analog servos to digital servos. When it comes to power, the servo's torque output and the type of gear train that it has is far more important than its size.

The function you are asking the servo to do is another consideration. Throttle servos and servos that activate switches and valves for retractable landing-gear systems need not be powerful. To save space, you can use mini servos to do the light-duty work. When it comes to aerobatics, travel performance is also important. A powerful servo that can move a big rudder on an aerobatic plane needs to have precise travel and centering functions for the optimal performance of the airplane.

**“For complicated projects, like jets, you want the most reliability in torque servos for the flight-control surface.”**

**John Diniz**

*Spektrum brand manager*

Spektrum brand manager John Diniz notes, “First, it comes down to the size of the aircraft, then the output needs. With a 3D aircraft, you will need speed along with torque. I fly sailplanes, which have very thin wings, so I am looking at the best-performance servo that can fit in a small space. For complicated projects, like jets, you want the most reliability in torque servos for the flight-control surface. But on the accessory, you want the smallest, lightest servo that will work. It is just a hierarchy of what am I putting it in, what do I want it to do, what does it need to do, and how precise does it need to be to get the job done.”

### THE DIGITAL ADVANTAGE



**Digital servos are quickly becoming the standard offering from most manufacturers.**

There is no physical difference between the two types of servos: analog and digital. The servo cases, motors, and gear trains are exactly the same, and both have the same feedback potentiometer. The digital servo's microprocessor circuit, which interrupts the incoming signal, is what makes the difference. A conventional analog servo compares the receiver's command to the actual position of its output shaft each time a new pulse command is received. The pulse rate for an analog servo is anywhere from 40 to 50 times per second, depending on the brand of radio and the number of channels being transmitted. The digital servo's microprocessor monitors the position of the output shaft more frequently, typically 300 times per second (or roughly six times faster than the standard analog servo). And it is this rapid updating that gives digital servos their quicker response times compared to analog servos.

Rapid updating also creates stronger servo-holding power. When a force is applied to a digital servo's output arm, it sends corrections six times faster, developing maximum torque to resist the servo arm's load. Analog servos do not develop maximum torque until their output shaft has been displaced several degrees from their desired position. In this case, the advantage of the digital servo is greater centering precision and power.

Hobby People product manager Craig Kaplan has this to say about digital servos: "In most cases, digital servos will outperform analog servos in multiple ways. Digital servos center better, provide better torque throughout the movement of the servo, and also have better holding power over analog servos. Some radio manufacturers insist digital servos be used as analog servos, but they are not compatible with the newer, faster-processing radio systems." John Diniz agrees, "Digital servos are now the standard."

## **DISADVANTAGES?**

There is only one disadvantage to using digital servos: power consumption. Digital servos transmit power to the servomotor more frequently, and therefore, the power consumption is greater. It is important to use larger-capacity receiver battery packs when using digital servos. It is recommended to use one that is at least twice the size of your normal battery capacity. If you use a 1000mAh pack, switch to a 2500mAh pack when using digital servos.



**"Digital servos center better, provide better torque throughout the movement of the servo, and also have better holding power over analog servos."**

***Craig Kaplan***  
*Hobby People product manager*