



## *History & STEM Fun with the Campbell County Rockpile Museum*



**Eddie B. Pacot, R. B. Marquiss, and family in front of the airplane they built from a blueprint, circa 1933.**

Eddie Burton Pacot was born on April 7, 1906 in Billings, MT. He worked as a cashier at Stockmens Bank. He died on August 8, 2004 in Marysville, WA.

Roy Byrum "Ted" Marquiss was born on March 7, 1879 in Pulaski, TN. He was a sheep and bison rancher. He was co-founder and member of the Columbia Sheep Breeders Association of America, as well as a member of the WY Wool Growers Association Executive Board.

He was also active in both politics and the schools. He was a Campbell County Commissioner and represented Campbell County for 5 terms in the State Legislature. He was also a member of the Campbell County High School Board and the District School Board in Campbell County.

Marquiss passed away on January 18, 1956 in Campbell County, WY.

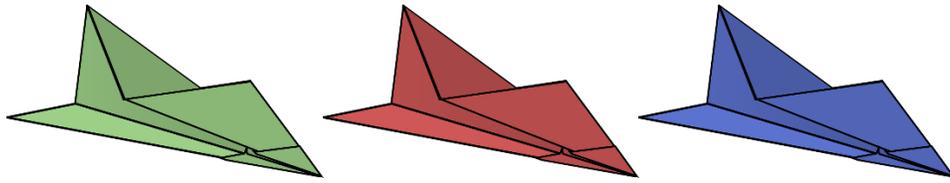
Around 1931 Mr. Marquiss and Mr. Pacot decided to go in together to purchase blueprints to build an airplane, and after a few years of work they had themselves an airplane with a four-cylinder motor and a wingspan of 32 feet. They decided to take it out for a test flight in a dry lakebed, Eddie took the plane up for its first flight and flew for about 20 minutes before it crash-landed. In an article entitled "Different Ways Grandpa Traveled," printed on July 4, 1957 in the News Record, Gary Marquiss with his Grandma Olive Marquiss' help wrote: "When he decided to bring it down and throttled the motor it died. In turning so as to land in an old grain field he lost flying speed and couldn't level it up before it landed. The tip of a wing hit first, which spun it around hitting the other wing. Both wings were damaged. And again Grandpa didn't get to fly. Grandma said it was a good thing he didn't for he had never had any training, but he said Orville Wright didn't have any either."

**Fun Online Mission: Learn about the Wright Brothers and build your own plane!**

- <http://teacher.scholastic.com/activities/flight/wright/index.htm>

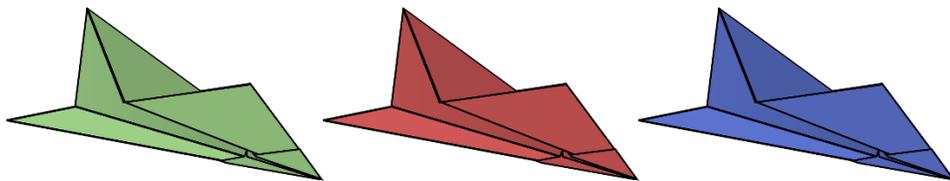
**Try some of these airplane themed STEM challenges:**

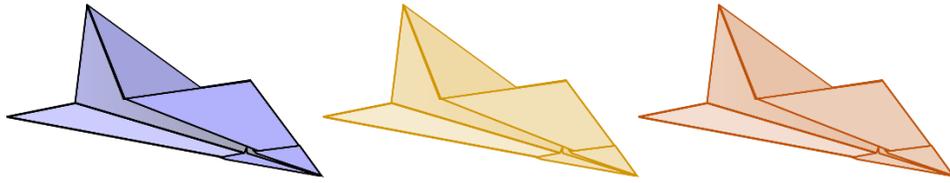
Campbell County Rockpile Museum, 900 W Second Street, Gillette, WY 82716  
Email: [rockpile@vcn.com](mailto:rockpile@vcn.com) - [www.rockpilemuseum.com](http://www.rockpilemuseum.com)



## SCHOLASTIC PAPER AIRPLANE STEM CHALLENGE

1. Everyone taking part in the challenge should build 2 paper airplanes using only the following materials:
  - 1 or 2 standard-size sheets of copy paper (**required**)
  - 1 standard paper clip (optional)
  - 3" of tape (optional)
  - a dab of glue (optional)
  - 3 staples (optional)
2. The challenge, should you choose to accept, is to build:
  - A. One paper airplane designed to **fly as far as possible**.
  - B. One paper airplane to **stay in the air as long as possible**.
3. For the "distance" category, each person will throw his or her paper airplane while the chosen "official" records distances in feet and inches.
  - A. All distances must be measured from the starting line to the point where the plane first touches the ground or floor -- not to the final resting place if it slides.
  - B. Each person has up to three chances to get his or her best distance.
4. For the "time in air" category, each person throws his or her airplane while the chosen "official" times the flights with an accurate stopwatch.
  - A. Report the times in seconds and hundredths of a second. (Example: 2.45 seconds.)
  - B. Each person has up to three chances to get his or her longest "time in air."
5. When all results are in, determine two winners: the person who makes the airplane that flies the farthest; and the person who makes the airplane that flies the longest time.





## **STEM Challenge: How Much Cargo Can a Paper Airplane Carry?**

### **Challenge:**

Make a paper airplane that can carry a cargo of coins and glide more than 10 feet. (Remember, it needs to glide, so throw it lightly). The challenge winner will be the person who can fly the most coins. The record for the kid's activities blog was a coin load equal to \$5.60.

Mark a line on the floor (use a string, a broom handle, etc). Then make a target in the upper 3<sup>rd</sup> part of the doorway. In order to prove that your cargo plane can fly you need to glide your plane through the target successfully.

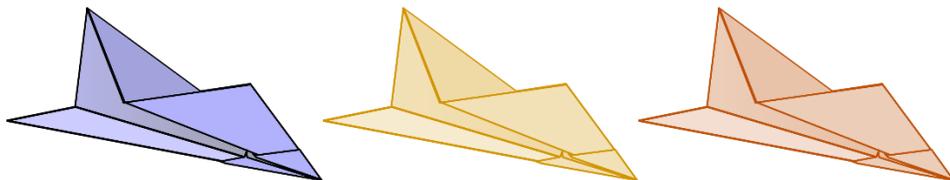
### **Supplies you need to set up your challenge:**

**Construction Paper**  
**Tape, Lots of tape!**  
**Handfuls of coins**  
**Doorway**

Don't know how to make a paper airplane? Visit the site below:

<https://kidsactivitiesblog.com/wp-content/uploads/2015/11/how-to-fold-a-paper-airplane.pdf>

Happy Flying!!



Below are more links to making paper airplanes:

Love origami? Try this link:

- <https://www.easypapercraft.com/origami/origami-plane-that-flies-far/>

Make a straw airplane:

- <https://allfortheboys.com/move-over-paper-airplanes/>

A square plane:

- <https://allfortheboys.com/square-plane/>

Building a Flying Machine Challenge:

- <https://viewsfromastepstool.com/flying-machine-stem-challenge/>

What makes a paper airplane fly? Learn about Aerodynamics:

- <http://teacher.scholastic.com/paperairplane/airplane.htm>