



EAA Chapter 691 Newsletter April 2023

On the Web @ eaachapter691.org

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Upcoming Events

Meetings Schedule (unless otherwise noted)

9:30am - social time

10:00am - business meeting

10:30am - speaker/workshop/training

May 20th, 2023:

"Back Country Flying" – Ron Keller KSAF Jet Center, 10:00AM-12:00 AM.

May 21st, 2023:

Chapter Fly-out to Navajo Lake and brunch followed by a Marina visit - Navajo Lake Airport (1V0) - 9:00 AM-2:00 PM.

June 17th, 2023:

Chapter Flyout to Reserve and brunch – Reserve Airport (T16) , 9:00-11:00 AM.

Check out our Chapter Website at <u>https://www.eaachapter691.org</u> for more information about upcoming activities.

Letter from the editor

by April Fox



Hi Folks,



STEM Santa Fe is conducting an all-girls Aviation and Aerospace workshop June 5-9 at the Santa Fe Jet Center. It's a free program to get young women interested in aviation. I am looking for a few volunteers willing to park their airplanes outside of the Santa Fe Jet Center on <u>Tuesday June 6 between</u> <u>1pm and 3pm</u>. I have a few people who have committed and am looking for about 3 more airplanes. I am hoping to let the girls manipulate the controls of the airplanes as well. Please email me at <u>forkfox@gmail.com</u> if you're interested and available. Thanks for the consideration!

April

Composites Builder Skills Class

by Will Fox

EAA Chapter 691 held a Composite Builder Skills Class on Saturday April 15, 2023 where Chapter members learned how to take foam, fiberglass, and epoxy and and turn them into structural parts for an airplane. The plan was to let members get sticky or at least watch other people get sticky as they got hands-on experience learning to work with composite materials. It was also a Teach The Teachers class so members could be mentors to kids in future Young Eagle Workshops. In the class folks learned how to cut out wing and rib sections using a hot wire foam cutter and then how to fiberglass them. Skip and I made up kits for each participant so they could create their own fiberglass part and take it home with them when they were done. It was a great day and we all had a lot of fun and learned a thing or two in the process.











President's Report

by Will Fox



Flying Jet Warbirds

"In flying I have learned that carelessness and overconfidence are usually far more dangerous than deliberately accepted risks." — Wilbur Wright

"There is a British jet called the Hunter that will go supersonic. It was built in the 1950s. It has a switch that you are supposed to throw as you go through Mach 0.9 that joins the stabilator to the tail to give you a bigger tail for more control. What happens when you throw that switch? Is everything going to line up right? Nobody wants to throw that switch. That switch was made in 1956. Are you crazy? I'm never throwing that switch." – Larry Salganek.

Larry Salganek, owner of the the Jet Warbird Training Center in Santa Fe, gave a great talk about flying vintage jet Warbirds. It was fascinating to hear about their flying characteristics and quirks. Larry had a lot of sage advice about the risks involved in flying these kind of aircraft and the respect you need to have for them. Check out our EAA Chapter 691 YouTube channel and you can watch Larry's presentation. I guarantee, you can learn a thing or two about what its like to fly these high performance aircraft.

We have a couple of great events coming up in May, so make sure to put them on your calendar. Ron Keller, leader of the New Mexico Pilots Association Back County activities, will be talking to us on Saturday May 20th about back country flying in New Mexico. Ron is a great guy and it should be a really interesting presentation. The next day, on May 21st, we will have a flyout to Navajo Lake airport for a "bring your own brunch and lawn chair" gathering on the ramp. After that, there will be shuttle service down to the marina for those that would like to stay a little longer and get an up close look at the lake and some lunch. It should make for a fun weekend.





Larry Salganek talking about Warbird Jets.



The British Hawker Hunter. A supersonic jet warbird.

James and Allison Shinas who are both professional pilots and live up in Alaska, recently got their Pegazair STOL aircraft flying again. They decided to take a little trip up to Ruth Glacier and check out the landing conditions. The picture on the front page is looking out of the Pegazair as they approach the Glacier.







Tech Corner

by Will Fox



Mixture

I want to tell you about two accidents that could have been prevented by the pilots knowing how to adjust the mixture properly on their engine. In the first accident the pilot, leaned the mixture too much and in the second, the pilot did not lean the mixture enough. But that's not all of the story.

Running Too Lean – The pilot was flying a Piper Arrow on a cross country trip and was accompanied by his wife and a friend. He was a pilot of moderate experience with an instrument rating and was in a flying club. He was known in the club for being able to maximize his fuel mileage. His son, who had flown with him on many occasions, recalled that he enjoyed experimenting with various power settings at different altitudes in order to minimize fuel consumption. On the day of the accident, he was flying to an important conference and the weather forecast was for broken clouds at a few thousand feet and a moderate wind out of the west. The pilot had planned to refuel at an airport midway along the route and the flight had been proceeding normally when he requested a decent to land for fuel.





This <u>wrecked Stinson 108-3</u> is a result of the pilot trying to takeoff with a density altitude equal to his service ceiling.

ATC cleared him for the decent and then a little while later he was cleared for the approach. Shortly after that, about six miles from the airport, the pilot reported that he was losing power and was going to need to make an emergency landing. A few minutes later he called ATC again and said that he was still losing power and had picked a field to land in. It was his last transmission. The aircraft crashed into some trees at the end of the field. The pilot was severely injured because he was only wearing a seat belt and his head hit the instrument panel in the crash. He later died at the hospital. The two passengers only suffered minor injuries.

Investigators were able to determine that the aircraft had touched down nose wheel first at a high rate of speed, midway down the field. Then it climbed back into the air but was unable to clear the trees at the end of the field. The engine was inspected and signs of overheating were apparent. One cylinder had overheated to the extent that both spark plugs had failed. The other three cylinders also showed signs of overheating. It was concluded that the mixture had been too lean and that caused the engine to overheat resulting in the cylinder and spark plug damage and the loss of power.

The moral of the story is don't run your mixture too lean, particularly at high power settings. But you know what? Running the mixture too lean didn't kill the pilot. What did was a botched approach to an emergency landing that caused him to touch down too fast and too far down the field. An attempt to take off again to clear the trees with an engine that was losing power made the problem worse. It is pretty much guaranteed that if you don't practice power off spot landings periodically, that you won't execute one in an emergency very well. There is also an old adage that if the go around is in doubt, it is better to be rolling off the end of the runway and hit something going slow than to be flying and hit something going fast.

Running Too Rich - The pilot and three passengers flew into a high mountain airstrip in a vintage four place tailwheel aircraft to do a little sight seeing. When they were ready to leave it was mid-afternoon and if the pilot had done a density altitude calculation he would have learned that it was over 9000 feet. If he had then checked his performance charts he would have seen that the takeoff roll would take all 5000 feet of the dirt runway and the climb rate would be nil. But he didn't for some reason. As he did his runup, he neglected to lean the mixture for best power and took off with it in the full rich position. This was the straw that broke the camel's back.

As he began the takeoff roll it was clear that the airplane was accelerating very slowly. A couple of thousand feet down the strip the pilot pulled it into the air, but it didn't stay there very long. After a few seconds, it settled back down with a thump about half way down the runway, a clear indication that flying was the last thing on its mind. The pilot however felt differently and continued the takeoff. Two thirds of the way down the runway the pilot pulled the aircraft into the air once again. This time it stayed there but was unwilling to climb out of ground effect and about a mile further down the way, it hit some trees and crashed to the ground. The pilot, who did not have a shoulder harness, was severely injured when his face hit the instrument panel and yoke. Amazingly, the three passengers got off with minor injuries. The <u>whole episode</u> was filmed by one of the passengers and clearly shows what happened.





A passenger filming what is about to become a crash.

So what did happen? Basically the pilot tried to takeoff at a high density altitude with a heavy load and the mixture set for sea level. He didn't have enough power to climb out of ground effect. He should have leaned the mixture based on the density altitude. A quick calculation shows that had the mixture been leaned for best power, his climb rate could have been as much as 120 fpm higher and that would have given him a fighting chance to clear the trees. The moral of the story is lean your mixture for best power on takeoff at high density altitudes. But running the mixture too rich didn't cause this accident. Neither did trying to takeoff and clear an obstacle at close to the aircraft's service ceiling. It didn't help, but the accident could have been easily prevented in spite of that. What did cause the accident? Not aborting the takeoff when it was clear that the plane didn't want to fly and there was still plenty of room to stop. If you don't think about when or how to abort a takeoff once in a while and even practice it occasionally, you are probably not going do it when you really should. Power off approaches to a landing and aborted takeoffs should be practiced periodically if you want them in your toolbox for an emergency. Like they say in the military, "Train like you fight and fight like you train".

EAA Chapter 691 Membership Application/Renewal Form

Please mail this form along with \$25 to our Chapter Treasurer, Checks can be made out to EAA Chapter 691:

David Young 819 Gonzales Rd Santa Fe, NM 87501

Name:					
Spouse/partner's Nar	ne:				
EAA #:	Expiration Date (MM/YY)	/			
Address:		City:	State:	ZIP:	
E-mail:					
Home phone:					
Work phone:					
Cell phone:					
Please list your curre	ntly flying A/C and any finished or in-p	progress projects:			

