



EAA Chapter 691 Newsletter

June 2023



Building Construction Kits For Kids

(April Fox, Skip Egdorf, Michael Patchett, George Stephenson, and Steve Bruketta)



On the Web @ eachapter691.org

EAA 691 is:

President: Will Fox

Vice President: John George

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Web Editor: Marilyn Phillips

Newsletter Editor: April Fox

Young Eagle Coordinator: April Fox

Table Of Contents:

- Upcoming Events **pp. 3**
- Letter from the Editor **pp. 4**
- President's Report **pp. 6**
- Member Happenings **pp. 7**
- Tech Corner **pp. 10**
- Click Bait **pp.12**
- EAA Chapter Renewal **pp. 13**



Upcoming Events

→ Meetings Schedule (unless otherwise noted) ←

9:30am - social time

10:00am - business meeting

10:30am - speaker/workshop/
training

Upcoming Events

July - Chapter Flyout to Navajo Lake/Marina Visit – July 15, 2023, Navajo Lake Airport (1V0), 9:00AM-2:00PM. Coordinator- John George.

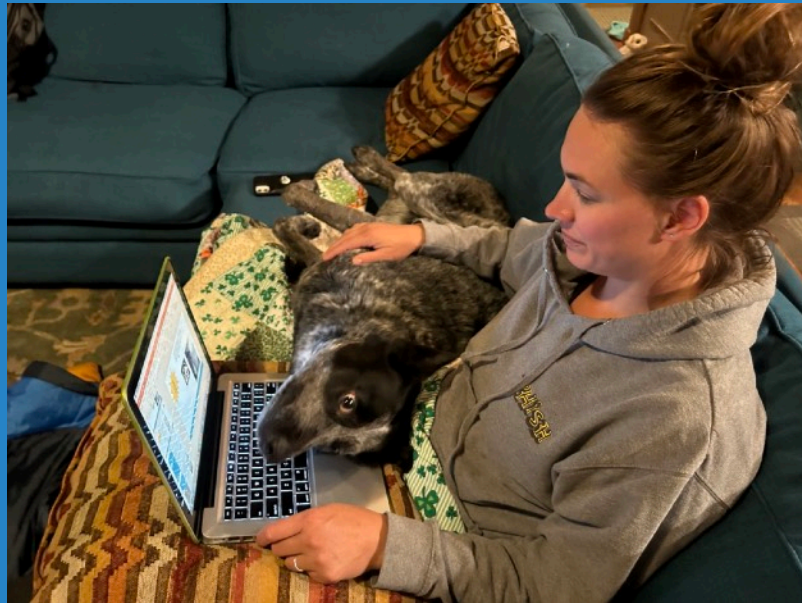
August - Electronic Control Ignition and Fuel Injection System, August 19, 2023, Los Alamos Airport. 10:00-12:00 AM. Coordinator- David Roe.

September - Espanola Young Eagles/Cookout, September 16, 2023, (E14), 8:00-12:00. Coordinator- April Fox/Sonyamaria Martinez

Check out our Chapter Website at <https://www.eachapter691.org> for more information about upcoming activities.

Letter from the editor(s)

by April Fox



This month Chapter 691 had the opportunity to work with Lina German and [STEM Santa Fe](#) to participate in their all-girls aviation camp at the Santa Fe Jet Center. Our Chapter members prepped wing rib and aluminum build kits, did three presentations (Aerodynamics of aviation, Electric Aircraft, You can build an airplane). Members let the girls sit in some homebuilt aircraft (which was a BIG hit) and taught them how to build wing-ribs and aluminum cell-phone holders. It was a huge

success and Lina has invited us back to the STEM 2023 conference in November to have kids do some more wing-rib and aluminum builds. A big thanks to all members who participated and who have been an integral part of developing our Chapter's youth outreach.



David Roe talks RV controls and navigation at the STEM SF camp on June 6



Girls from STEM SF camp line up to sit in member aircraft at the June 6 camp.



For more information about STEM Santa Fe please visit their website at <https://www.stemsantafe.org/>

President's Report

by Will Fox



May And June Weather Has Been Interesting

The flying weather has been pretty interesting this summer so far. The latter part of May and the first week in June it felt like an early monsoon season was in the making with all the moisture and thunderstorms. Lately though it feels more like May with the turbulence and wind we have been getting. One impact of the mercurial weather was that we had to cancel our flyout to the Navajo Lake Airport. Hopefully we can get it back into our schedule for later this summer or fall. Somehow in the midst of the unpredictable weather though I have still managed to get a fair amount of flying in with some good friends. That has been fun.

This coming Saturday, June 17th, we were scheduled to hold a flyout to Reserve Airport in Southern New Mexico. However the forecasted winds and some forest fires down in that part of the state suggested that this may not be the best time for that. Instead we are going to have a members flyin here in Los Alamos followed by a cookout. The early morning looks to be reasonable for flying, but those pesky winds are forecasted to come up later in the morning, so I'm not sure how much flying will take place. The Dragonfly hangar will be open for business and if you are interested in helping put some project kits together for our STEM program we will be happy to put you to work:-) We will start cooking burgers and brats around 11:00 am.

Last week we participated in the STEM Santa Fe Aviation Week activities. April Fox put together a team including, Skip Egdorf, Andrew Devecchio, David Roe, George Stephenson, John Graham, and your truly to make presentations, do hands on building projects, and let kids sit in airplanes. The middle and high school aged kids seemed to really enjoy it and it sounds like they would like to have us back in the future.

One other item of note is that Jared Haney passed his private pilot check ride, so be sure to congratulate him next time you see him. Also you might want to take note of the N-number on his Cessna 172 so you can keep an eye out for him on your traffic display and give him plenty of room:-)



George Stephenson with a line of kids waiting to sit in the recently painted RV-7.



An eight cylinder, twin turbocharged, 400+hp Lycoming TSIO-720 on a Piper Comanche in a hangar down at Double Eagle Airport.

Member happenings

EAA Chapter 691 Fly- around, work session, and cookout.

Jared Haney maned the grill while EAA 691 members help build Rib Kits and Delta Wing Cell Phone Holders for future Young Eagle Workshops.





Walt Atchison, Steve Bruketta, Mike Dugan, John George, April and Maeve McGuinness, David Roe, and George Stephenson really cranked out some kits during the work session.



Will Fox talked to middle schoolers and their two counselors who were helping out at the Los Alamos airport, about how airplanes fly. They all got to sit in a Questair Venture and later on see and learn about the Electric Dragonfly.

Tech Corner

by Will Fox



Unidentified Anomalous Phenomena

I was watching YouTube the other day and ran across some interesting analysis. One YouTuber I periodically watch who has a naval aviation background and is very credible did a video on Unidentified Anomalous Phenomena (UAP), or UFOs for those of us who grew up in the fifties. In particular he described the the 2004 US Nimitz UFO Incident. In this incident a flight of two F-18s broke off a combat exercise to perform an [intercept on an Unidentified Flying Object](#). What they found was an object that looked like a 40 foot long “TicTac” (the breath mint) flying through the air fifty feet above the ocean in a manner that was inconceivable for any known aircraft. It darted back and forth and from side to side like a ping pong ball (their description) and accelerated and reached speeds that were hypersonic almost instantaneously. On top of that the TicTac had no visible propulsion system. The flight leader decided to descend get a closer look at the TicTac, and as he did, it came up to meet him approaching head on. Then it turned and departed so rapidly that it was over the horizon in less than a second. The flight of F-18s was unable to pursue the UFO and returned to the ship. Two more F-18s took off with a Forward Looking InfraRed (FLIR) sensor, and were able to capture some video of the UAP in flight. The incident was investigated and reported up thru the DOD hierarchy but no determination could be made as to the origin of the object.

After much deliberation the YouTuber comes to the conclusion that this UFO most likely results from a advanced aircraft development program of US origin rather than a foreign power like China or Russia, or an extraterrestrial source. He bases this largely on the behavior of the DOD and its creation and then cancellation of the office to investigate UAPs after only a few years. In other words he believes it is likely a government coverup to protect a secret program.

I don't find this likely for a couple of reasons. First, we in the US live in a very open society, and it is very difficult for our government to keep a secret for very long. Heck, Stalin knew about the atomic bomb before Truman did. TicTac or cigar shaped UFOs have been reported for many years starting back in the 1950s. The evidence for their existence continues to grow particularly with the advent of cell phones and improvements in military sensor technology.



[Picture of TicTac UAP captured in 2004 by a Navy F-18 using a FLIR sensor off the coast of California.](#)

More recently the military has reported UAPs based on data from radar and FLIR sensors as well as visual observations by trained aviators. There is also evidence that the government is trying to destigmatize the reporting of UAPs to encourage people to report them. This doesn't sound like a coverup to me.

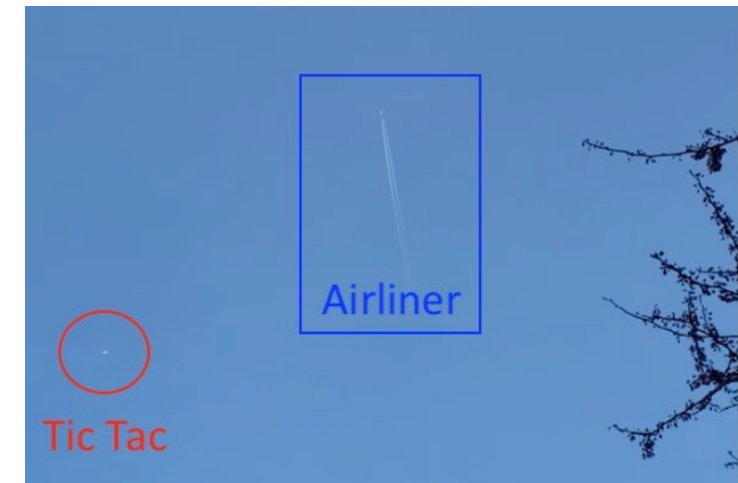
Second, the reported performance of the TicTac is far from the capability of any aircraft we could build with today's technology. Comparing the TicTac to an F-18 would be like comparing an F-22 to Leonardo da Vinci's Ornithopter. A recent paper by [Kevin Knuth](#) titled "Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles" makes this clear. During the Nimitz encounter the TicTacs (there were several of them) were first detected as they descended from 80,000 ft MSL to sea level. At one point they descended from 28,000' MSL to sea level in 0.78 seconds. Assuming a constant acceleration and deceleration, Knuth's calculations indicated that the craft would have experienced over 5000 gs and reached a maximum speed of 46000 mph or Mach 60 during the descent. Knuth assumed that the craft weighed 2200 pounds (about 1/15th that of the F-18) to determine a lower bound for the amount of power required for this maneuver. His calculations show that 1100GW of power would be required for the maneuver or the equivalent of 300 Palo Verde Nuclear Generating Stations combined. Knuth goes on to estimate other performance characteristics of the TicTac based on other observations, and they too indicate unworldly performance characteristics from technologies that don't currently exist.

Another explanation for these incredible performance observations might be that the observers themselves were somehow spoofed. One then must conceive of a technology that could manipulate the eyesight of naval aviators as well as multiple other sources of data including radar and FLIR sensors. It is difficult to imagine how that might be done, let alone the technology required to do it.

So here are my thoughts. To think that any government could keep a secret for seven decades about a craft with these kind of capabilities and the technologies that it would take to build it is not reasonable. Nor is it reasonable to assume that any government has the technology to essentially spoof all of our human and military sensing capabilities. If either were the case such a nation could easily dominate all others on the planet and probably wouldn't need to worry about nuclear war, climate change, or balancing the budget. So that leaves us with some form of external curiosity about human affairs. Are these extraterrestrials, humans from our future, visitors from a parallel universe, or something else, I haven't a clue. But what is clear to me is that as much as we think we know about the universe, we know almost nothing☺



Pictures of a TicTac taken from a cell phone video by a woman in her backyard in [Wichita, KS](#). Caution, there is some objectionable language in the video.



Click Bait

Things Flight Instructors Taught Me Which Were Wrong! by Scott Manley. (Courtesy of Vivek Saxena)

<https://www.youtube.com/watch?v=tmavUlb8eAQ&t=1s>

Inside Otto Celera 500L: The REVOLUTION In Aviation. by Private Aviation. The Celera was developed by William Otto who worked at Los Alamos National Laboratory for a period of time. (Courtesy of Vivek Saxena)

<https://www.youtube.com/watch?v=AeX5E6TjKN8>



The Design of the Celera 500L. by Peter Garrison. According to Peter the Celera performance estimates are not realistic as well as being unproven. Otto claims the Celera can cruise at 400 kts at 65,000' MSL with a range of 3900 nm. Peter thinks 260 kts at 30,000' MSL is more realistic.

<https://www.flyingmag.com/technicalities-celera-500l-design/>



Future of flying: Introducing the new Otto Celera 500L aircraft. by Morgana Roux. Morgan states that the Celera is has a “flying suppository shape”. To date the Celera has demonstrated 220 kts at 15,000' MSL.

<https://www.aviationnepal.com/future-of-flying-introducing-the-new-otto-celera-500l-aircraft/>

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 Name: _____

EAA #: _____ Expiration Date (MM/YY) _____ / _____

Address: _____ City: _____ State: _____ ZIP: _____

E-mail: _____

Home phone: _____

Work phone: _____

Cell phone: _____

Please list your currently flying A/C and any finished or in-progress projects: