



SPECIAL SUMMER CAMP ISSUE

JUNE 13TH — 17TH 2018

Chapter 690 Seventh Annual Summer Camp

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By: Gay Roberts

The Camp was initially conceived by Dr. Debi Huffman in 2012 as a six year plan. Year one campers would attend 690's Alpha Camp for 12 and 13 year old's; year two these campers would attend Air Academy's Young Eagle Camp in Oshkosh. Year three, 14 and 15 year old campers would be back at KLZU for our Bravo Camp and year four these campers would go to Air Academy's Basic Camp in Oshkosh. In year five 16, 17 and 18 year old's would attend our Charlie Camp and the sixth year these campers would return to Oshkosh for Air Academy's Advanced Camp. While it is not necessary to follow or complete the six year plan we do encourage it. The Alpha and Bravo Camp emphasize hands-on experiences using tools to work with wood, fabric, and metal materials in the manner they are commonly used in aircraft construction. There are also sessions in Model Aviation, Drones, ATC, Airfoils/Wind Tunnel Career Talks and helicopter basics for the Alpha and Bravo campers. Charlie Campers experience flight time and ground instruction, with cooperation from Bruce Buell, owner of Advanced Aviation. Thank you Bruce! We have added a second Charlie Camp for the first time this year! Thank you John Post, Fred Huppertz, Jeremy Welch, Alex Kirkland and AeroVentures Flying Club for stepping up to facilitate the extra interest in the Charlie Camp!

Young Eagle credits earned by 690's pilots flying Young Eagles on the 3rd Saturday of each month are used to help defray the transportation costs of our youth going to Air Academy. This year 2018, we have 4 youth attending Air Academy camps in Oshkosh. Way to go campers!

Pancake Breakfast Fly-In

Next event July 7th 2018
Breakfast begins @ 8:00AM

Chapter Business Meeting

Next Event July 13th 2018
7:30 PM-10:00 PM

Young Eagles

Next event July 21st 2018
8:30 PM—12:00 Noon



Thanks to everyone that helped make summer camp a success



Gay Roberts Wrapping up Summer Camp



Youth Mentors



Adult Mentors



Alpha, Bravo and Charlie Summer Campers

EAA 690 2018 Summer Campers

June 13th - 17th, 2018

Alpha Camp

Caroline Davis, Davis Eaton
Nathan Jovanovic, Alexis Joyner
Lauren Sams, Steele Smith
Elijah Thomas, Joshua Thomas
and Nikolai Varela



Alpha Campers and Mentors

Bravo Camp

Anthony Baker, Learh Bland,
Christopher Harding, Sean Marx
Chase Michael, Antonio Perry
Sahaj Patel, Lane Rumbaugh
and Avery Woods



Bravo Campers and Mentors

Charlie Camp

Jordan Barker, Bethany Beard
Jason Castro, Cameron Yancey
Joseph Papotto and David Voll



Charlie Campers and Mentors

A great bunch of kids and, we are sure a number of future pilots will come from this group. Enjoy the next several pages, exclusively from this years summer camp.

Volunteer Presenters, Mentors, and Guest Speakers

EAA 690 has a fantastic group of people that devoted endless hours in preparations and sacrifice to support this years summer camp. With 24 campers in attendance it took all these folks to support the activity and make summer camp a fast paced enjoyable time for the kids.

This years campers were exposed to Model Aviation, Wing Building, Fabric Workshop, Drones, Tool Box build, Wing Rib building, Wing Covering, Airfoil building, Wind Tunnel testing with Winston the Wind Tunnel, Making an Aileron, Electronics and Soldering, RC Models, Using Flight Simulators, Introduction to Helicopters with Heidi the Helicopter Trainer, Flight Training and Ground School. In addition to these activities our guest presenters, outlining career opportunities in the field of aviation, encouraged the campers to pursue their dreams of flight.

The schedule was full, well rehearsed and comprehensive. Hats off to all that participated, Job Well Done!

<u>Shawn</u>	<u>Bills</u>	<u>Ralph</u>	<u>Knight</u>	<u>John</u>	<u>Post</u>
<u>Bruce</u>	<u>Buell</u>	<u>Joel</u>	<u>Levine</u>	<u>Wes</u>	<u>Riddick</u>
<u>Zak</u>	<u>Clements</u>	<u>Aimee</u>	<u>Michael</u>	<u>Chuck</u>	<u>Roberts</u>
<u>Hugh</u>	<u>Colton</u>	<u>Brian</u>	<u>Michael</u>	<u>Gay</u>	<u>Roberts</u>
<u>Melisa</u>	<u>Foures</u>	<u>John</u>	<u>Morrow</u>	<u>Billy</u>	<u>Stewart</u>
<u>Duane</u>	<u>Huff</u>	<u>Christopher</u>	<u>Motta</u>	<u>Sherita</u>	<u>Sutton</u>
<u>Fred</u>	<u>Huppertz</u>	<u>Dakoda</u>	<u>Neilson</u>	<u>Cheyenne</u>	<u>Thompson</u>
<u>Greg</u>	<u>Jannakos</u>	<u>Vince</u>	<u>Oviedo</u>	<u>Jeremy</u>	<u>Welsch</u>
<u>Alex</u>	<u>Kirkland</u>	<u>Kathi</u>	<u>Parks</u>		



Editors Note:

We have made every effort to include all those that participated in this years summer camp, if I have left anyone out it was unintentional and I apologize for any omission.

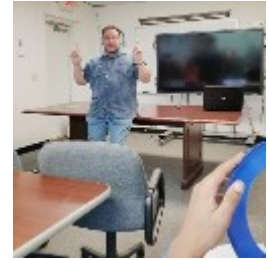
Guest speakers cont. on page 5

Guest Speakers cont. from page 4

Using their own life experiences, these folks presented our campers with insight into future opportunities in the field of aviation.

Vince Oviedo

Air Traffic controller at LZU for nearly 22 years Vince shared his experiences with our campers and described how young folks could get started.



Zak Clements

From young eagle to Air Ambulance pilot. Zak outlined his path in aviation and his life long interest in flying. He explored the many opportunities that exist for young people in aviation today.



Melisa Foures

Turned her passion for flying into a full time job as an airline pilot. She shared her journey into flying with our campers and encouraged them to pursue a career in aviation.



Cheyenne Thompson

Cheyenne is the head CAR (customer service rep) at Gwinnett Aero, she works the Front Desk. She will be starting college in September semester hoping to major in Special Needs for children or aviation management. She definitely kept the Bravo Group's attention!



Sherita Sutton

On Tuesday, June 12th Ms. Sutton, Community Outreach Representative at the Aviation Institute of Maintenance came in to speak briefly with the students. During her visit she covered three topics of discussion with the students.

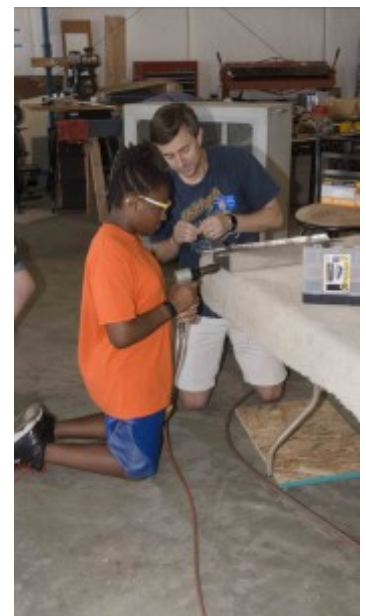
What it is to be an Aircraft Maintenance Technician How to become an Aircraft Maintenance Technician
The importance of doing what you love

She explained some of the day to day functions of Aircraft Maintenance Technicians in the commercial aviation sector. In this arena she discussed how the AMT's make sure that every commercial aircraft is safe for every single commercial flight. She introduced the students to the usage of Turbine Engines in other industries, such as ships, trains and power sources; as well as how only qualified AMT's are allowed to maintain those Turbines regardless of the industry. She elaborated on other career opportunities as well.

After detailing the possible career options she went on to discuss how an interested student could become a Certified and/or Licensed Aircraft Maintenance Technician and that would be to obtain their Airframe Powerplant Certification and/or License. Ms. Sutton used a brief moment to discuss the Aviation Institute of Maintenance as an option for FAA Certified training but used most of this time to emphasize the importance of the training being FAA Certified.

After the students learned about the importance of AMT's in the world of Aviation, Ms. Sutton took some time to encourage the students to find their passion and figure out how to turn that into a career.

The students seemed to enjoy her presentation as well as the gifts that she brought.













Summer Camp Rewards

By: Chuck Roberts

I am blessed in many ways, not the least of which is being associated with the many giving, caring members of our chapter whose only wish is to share their wide and varied talents with the youth of the community. Our chapter's youth aviation summer camp may well be the single largest demand of their giving to reach out to the population in general. They spend the week doing all the work of the camp plus they spend enormous amounts of time preparing throughout the year before the camp.

This year I had the honor of teaching four class elements: airfoils (using our new wind tunnel), wood wing rib and wood wing construction, fabric gluing and shrinking (first to learn the skill and then to cover their wing), and helicopters using Heidi the helicopter trainer.

The airfoils and wind tunnel were new this year and went quite well. The class (Bravo) began with a short discussion of the issues of airfoil shape and the general impact upon lift and drag. The majority of the class time consisted of the students making their own designs and testing them in the tunnel. Once they saw the performance (lift, drag and stability) of their design they each went back and made a different design and tested that. While I provided enough material for each student to make three designs time allowed them to make only two apiece. Furthermore, it is clear that a stiffer material will be used for the ribs next year.



After lunch on Monday the Alpha group started learning how to build a wood wing rib (one per student) on a jig. It was explained, at the time, the ribs they were making they would use to build a wing section later in the camp. The following morning they built the wing by sliding their ribs onto the spars and nailing them in place. Then they nailed on the aluminum leading edge and stapled on the aluminum trailing edge. In the afternoon they each made a second rib which they kept to take home.



On Wednesday morning the Alpha group learned how to glue aircraft fabric to small wings and then how to shrink the fabric tight in two heat steps. Once gaining these skills, after lunch, the students applied and shrank the fabric on their large wing. Having completed this large and meaningful project I had each student autograph the wing which we will hang on display in our chapter hanger as we did last year. These fine youth went from no knowledge of wood and fabric aircraft construction on Monday to having gained the skills and completed a covered wing by the end of the day Wednesday. Outstanding!

On Friday afternoon the Bravo group joined me in hanger 6 for a one-hour presentation/demonstration of helicopter flight controls and flight considerations using Heidi the helicopter trainer. They showed genuine interest and had many meaningful questions.

Heidi the helicopter trainer. They showed genuine

Our chapter's primary value to the airport and general community is the outreach nature of all of our youth-related programs: Young Eagles, Youth Build, Airport tours, summer camp and hosting famous old aircraft which visit our airport. We go out to the community through shows, school visits, etc. to communicate all we have to offer them in the way of education and entertainment. That's what we're all about and summer camp is one part of it.

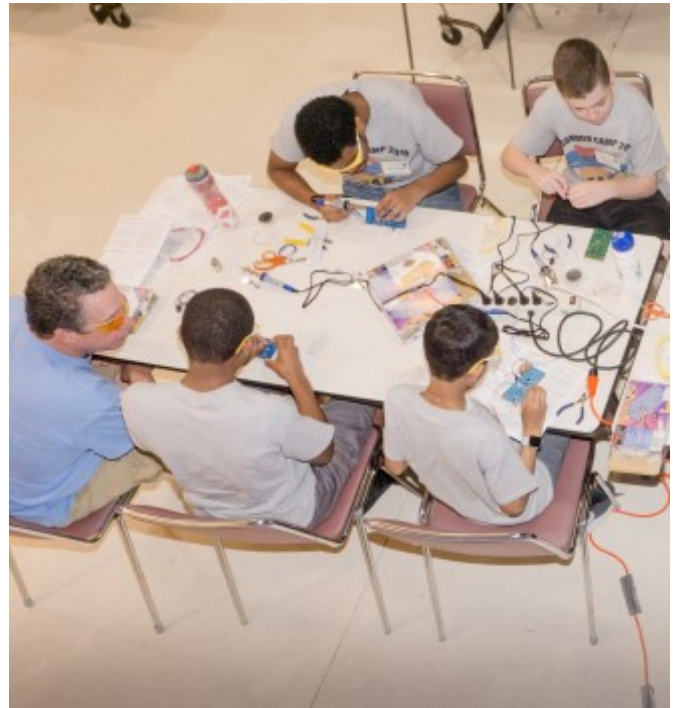
Observations on Summer Camp

By: Brian Michael

Our annual Aviation Summer Camp was another great success. We had an excellent turnout with 9 campers in each of the Alpha and Bravo camps and an unprecedented 6 campers in the Charlie camp.

This year we made a few changes in hopes to make the experience better for everyone involved. Instead of offering a composite session, we held a couple electronics sessions, both lead by Billy Stewart. The projects had the Bravo campers create simple circuits that demonstrated the concepts used when building the panel of a home-built aircraft. We also exchanged our traditional propeller carving session with a airfoil design and testing session using Chuck Robert's latest creation, Winston the Wind Tunnel. The session had the Bravo campers build several wing shapes and allowed the campers to test their designs to see how different shapes allow for differing amounts of lift and drag.

We also had many of our tried and true sessions, each with great participation from the campers. I covered the metal working sessions, and Chuck Roberts took the lead on the wood working sessions. The result of which is another covered wing section with which we get to decorate the hangar. Joel Levine and Dakota Neilson each took on the model aircraft and drone sessions, respectively



Something we decided to try this year was to have a flight simulator session. Jeremy Welch managed to get each of the campers taking off, and doing some simple flight maneuvers fairly quickly. There were some technical challenges that needed to be overcome, but all-in-all, I think Jeremy did a great job showing the campers that they can fly an airplane, and understand what it is that they were looking at inside the cockpit.

Finishing up the camp were some wonderful motivational speeches by Melisa Foures and Zak Clement. Both of

whom have recently joined the ranks of commercial pilots flying for regional airlines.

I can't thank the volunteers enough. Especially Gay Roberts for all the work she put in to organize the camp schedule, handle finding campers, ensuring that all of their paperwork was in order, and just in general made sure everyone had what they needed to make the camp successful yet again this year. I'm looking forward to next year already!

Observations on Summer Camp (cont. from page. 13)

By: John Post

We had 6 campers in the Charlie camp that were totally immersed in flight training and aviation for the entire week. They were divided into two groups with some going to Advanced Aviation and some going to AeroVentures Flying Club.

The weather was bad for almost the entire week and the flight portion of the camp was done in between rain showers and thunderstorms. Each camper received nearly 4 hours of flight training plus ground instruction. (The market value would exceed \$1,000.)

John Post and Fred Huppertz, flight instructors, were joined by Jeremy Welsh and Alex Kirkland, youth members of the chapter, teaching ground school and doing airport tours including a trip to our amazing control tower. They also received several hours on the chapter's flight simulators which helped augment the training time in the actual airplanes. It proved very beneficial.

The Charlie Camp was a tremendous success and our campers had good things to say about it. The parents of the campers were impressed with the atmosphere of the camp and the enthusiasm of the volunteers.

Several of the campers said they were going to sincerely consider going into aviation as a career because of the camp. AeroVentures Flying Club and Advanced Aviation are to be commended for their devotion to helping our youth find their way into the wonderful world of aviation.



By: Billy Stewart

A new class for the Bravo group was an introduction to electronics. In the first session, campers were introduced to breadboard prototyping and basic components such as resistors, capacitors, LEDs, and transistors and built several circuits on the breadboard. In the second session, the campers were introduced to soldering and built a project from a kit that generated a European siren.



By: Dakota Neilson

Chris Motta and I talked about the future of aviation and STEM careers with unmanned aerial systems also known as drones being the focus of the conversation. As part of the session the campers were given the opportunity to fly the chapter's Indutrix micro quadcopters. The intent of session is to start a dialog and show different career paths in aviation besides being an airline or corporate pilot and to talk some of the basic unmanned systems rules for hobbyist.

Dakota is the Director of Flight Operations for VersaTOL Unmanned Helicopter Solutions and holds commercial ASEL/AMEL certificates and is a flight instructor and Chris is the Chief Operations Advisor to Pitchlink, a UAS service provider, and holds a commercial rotorcraft certificate.



R/C Models at Summer Camp

By: Joel Levine

Firstly, I wish to thank Ralph Knight and Alex Kirkland, both members of the Stone Mountain R/C Flyers and Greg Jannakos for their help with the model portion of the Aviation Summer Camp. Without their help the build portion of the sessions would have been very difficult to manage.

For most of us, model aviation was a stepping stone into full scale aviation and understanding what makes an aircraft fly and how to adjust it can be best taught with basic rubber band powered models at various levels of complexity. This year we made a change at the entry level that worked out well.

The Academy of Model Aeronautics (AMA) offers a trainer that goes together quickly, is made of foam for durability, has trim tabs to investigate the forces that act on an airplane and flies well. Most of the campers were able to get reasonable flights after trimming the craft in spite of the wind.



The Bravo session used the tried and true AMA Delta Dart. This model requires building the balsa structure on top of the plans that served as the covering. Although it flies great it turned out to be a bit much in the time allowed.

Both groups got to see a range of R/C models from trainer to giant scale acrobatic fliers. They were invited to visit the Stone Mountain flying site where they could see the airplanes flying and arrange for hands on flight training. Modeling aviation started the week off and hands on drone flying, a special interest area of model aviation ended the week until next year.

UPCOMING AVIATION EVENTS



Chapter Events

Rich Programs, Rewarding Experiences, come join the fun.

Pancake Breakfast & Program

The first Saturday of every Month
Next event July 7th 2018
Serving 8:00 - 10:00 AM



Chapter Board of Directors Meeting

The second Tuesday of every Month
Next Event July 10th 2018
7:00 PM - 9:00 PM (see Notams for details)



Chapter Business Meeting & Program

The second Friday of every Month
Next Event July 13th 2018
7:30 PM - 10:00 PM

Young Eagles

The third Saturday of every Month
Next event July 21st 2018
8:30 PM - 12:00 Noon



GARS Meeting (Gwinnett Amateur Radio Society)

The second & third Tuesday each Month
Next events July 10th & 17th 2018
7:00 PM - 9:30 PM



Monthly Youth Ground School

Watch for EAA 690 Notams announcing future Youth Ground School Schedules



<https://www.facebook.com/groups/ea690/>



<https://www.instagram.com/ea690/>



<https://twitter.com/ea690>

About EAA 690



EAA 690 is a chapter of the Experimental Aircraft Association, located at Briscoe Field (LZU) in Lawrenceville, Georgia. A diverse chapter with over 250 members we offer a wide range of aviation-related activities. While the Pancake Breakfast and our monthly meetings are the norm we regularly conduct fly-ins and are heavily involved in youth education through EAA's Young Eagles program, youth aircraft build projects, summer camps, ground schools and simulator instruction. We frequently host historical aircraft such as EAA's B-17 "Aluminum Overcast", the Ford Tri-Motor and DC-3 to benefit, educate and entertain the local community.

Our technical counselors are some of the best in the business, and willingly donate their time to our youth builder programs and homebuilders as they progress through the various phases of constructing an aircraft. We have pilots with a wide variety of experience from former airline and military pilots to general aviation pilots with private pilot certificates. "Hangar flying" is a fun part of the mix and our facility is often used for aircraft annual inspections, meetings, special events, and training. We also have an extensive array of aviation tools for loan to members and, a library full of aviation information.

Come join us on the first Saturday of every month at the hangar to enjoy a \$7 Pancake Breakfast and, to learn more about EAA 690. **Visit our web site for more information: www.eaa690.org**

Directions to EAA 690

I-85 North to GA-316, Take GA-316 to Hurricane Shoals Rd NE and Turn Right
Go to Airport Rd NE and turn left, Go to 690 Entrance on the right



NavCom

The NavCom is the official monthly newsletter of EAA chapter 690. The NavCom editor is Tom Hilborn, please send original articles, art and photos for inclusion in future issues to: editor@eaa690.org attn. Tom Hilborn, or call Ph. 404-406-6638. Permission is hereby granted for the reproduction of NavCom articles by other EAA Chapters, provided that proper credit is given to the author and to the NavCom. Comments and suggestions are always welcome.

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