

EAA 663 NEWS

Livermore, California



EAA 663 Chapter Members and some of the members' homebuilt planes July 2018

Membership Meetings

First Thursday of the month

Doors open at 7:00 p.m

Cookies & Meeting 7:30 p.m

Thursday, April 4, 2019

Presenter: **Peter McCutchen**

406 ELT Systems & Survival Techniques

Presentation: ~8:00 PM

Guests Welcome

Board Meetings

3rd Thursday of every month at 7:00 PM

April 18, 2019

Location: Tom Irion's House
1638 Prima Drive, Livermore

Save the Date



First 2019 Young Eagle Event
Trina Anderson - Young Eagles Coordinator
KLVK Terminal 9:00AM April 13 Saturday
Pilots needed

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EAA 663 Young Eagles Coordinator 209-609-2161

Bob Farnam

EAA 663 Tools 925-989-5035

Will Pitt

EAA 663 Website 925-337-4220

Kirk Knight

EAA 663 Newsletter 510-390-0840



Peter McCutchen - Guest Speaker
How to survive an off airport landing!
406 ELT and Survival Techniques



EAA Chapter 663 planes on the ramp at Watts-Woodland O41 3/16/2019

EAA Chapter 663 Minutes

MARCH 2019 MINUTES: GENERAL MEETING EAA CHAPTER 663, 3/7/2019, 7:34 PM FIVE RIVERS AVIATION MEETING ROOM, KLVK.

Chapter President John Youngblood called the March 7, 2019 meeting to order for EAA Chapter 663 members and guests. Secretary Kirk Knight held down the second in command chair on the flight deck. Vice President Chuck Ray and Treasurer Mark Palajac were in the midst of other adventures. Thirty-two members and guests were in attendance.

Chapter 663 meetings warm up about 7:00PM with the practice of showing the ~20-minute monthly EAA Chapter Video produced by EAA HQ in Oshkosh. Most of the featured content is not available online. Members and guests can arrive at 7:00 for ad hoc discussion, as the audio track is kept low enough to be heard but not to interfere. Often people will turn to watch something of interest in the video.

GUESTS: Eric Pollinger is thinking about building an RV-14 and trying to convince his wife it's a good thing to do. Yes!" said Trina Anderson, who shared building responsibilities with Dave on their RV-9A, and now enjoys flying it, too.

John McCallister regularly flies an RV-6A, was previously a member, and is back again to be a member of the community.

TREASURERS REPORT: Although he wasn't in attendance, John read Mark Palajac's report that the Chapter has 64 members as a result of one renewal and two new members. NASA sent a refund for \$1,7450 so the balance is \$5,234.52

Mark is accepting \$30 payment for 2019 memberships. Bring your checkbook to the April Meeting for membership.

NEWSLETTER: Kirk Knight is also editor and mentioned members had responded positively to the partial transcript of last month’s presentation about problem solving in nuclear reactors.

Kirk is soliciting stories about recent flights, flyouts, BBQs, Young Eagle ADSB suggestions as 2020 is right around the corner, insights from your first or your 30th BFR. If you have photos, stories you want to tell (record it with your iPhone voice memo and I’ll transcribe), videos, lessons learned or other items of interest kindly send them to captkirk@woz.org.

YOUNG EAGLES:

Our superb Young Eagles Coordinator, Trina Anderson reviewed plans for our first event of 2019 on April 13, at Livermore. Young Eagles and parents will gather at the new Livermore terminal building. If you know kids who would be interested in their first flight and if you’re available fly, please sign up with an email to Trina.

**Call or email Trina 209-609-2162
DNTAnderson@gmail.com**

2019 Young Eagle events:	
April 13, 2019	KLVK
May 18, 2019	KTCY
June 8, 2019	KLVK
July 13, 2019	KTCY
August 17, 2019	KLVK
September 14, 2019	KTCY

Trina is setting up a blue box in the back of the meeting room with handouts for Pilots and Young Eagles so you don’t have to wait for events. If you have someone who wants to fly, pick up some blank registration form and follow the instructions. There is also info for new pilots. Same for Eagle Pilots. The child safety program is for 3 years, and this is the third year. If you’re new you’ll need to take the online training and certification.

New this year are the AVIORE comic books. It’s about aviation, how planes work, and stuff to do while they’re waiting for their flight.

2019 BBQa:	
April 13, 2019	KLVK
May 18, 2019	KLVK
June 8, 2019	KLVK
July 13, 2019	KLVK
August 17, 2019	KLVK
September 14, 2019	KLVK

BBQs: The schedules are the same days as the Young Eagles events, but BBQs are only in Livermore

Location is Hangar 114 at the NE corner of LVK. Beverages cold at 3:30PM, coals at 5:00PM. **Check the gate code for the fence!** Bring your own entree to barbecue, and a side dish or dessert to share. Soft drinks and adult beverages, plates and flatware are provided.

Conversation is free, spouses and supervised children are welcome. To the surprise of some, there is often sparkling conversation that includes subjects in addition to flying, often related to food and travel. Photos reveal there the beanbag competitions are heating up, so practice your tossing skills. Last year’s beanbag skills demonstrated rapid process improvements while retaining safety margins and a sense of humor.

FLY-OUT EVENTS:

Dave Walters is demonstrating increasing success – except for weather challenges - with organizing weekend fly outs.

Dave placed a chart on the whiteboard and asked, “How far are you willing to go for a \$100 hamburger?” Put a mark on the chart to places like Redding or Red Bluff ...That’s a little far... Not surprisingly, distance marks correlated with the cruise speed of the plane!

Dave also brought a coffee carafe that’s in the back of the room to accompany our cookies. He also has some decaf for those who prefer lower octane.

He’s contacting other EAA Chapters such as 512. The goal is VFR flights so everybody can participate. Slack is a useful resource with the goal of organizing a couple weeks beforehand, but there are last minute changes due to weather. **eea663.slack.com**

MARCH FLYOUT, to Yolo area Saturday, 16 March – Dave reports, “Ray seemed to like this venue so I'll take his lead! WATTS-WOODLAND, O41, 59nm from KLVK, Class G, Rwy 18, 36, LP, 3759'x60', Elev 125', TPA 1000', CTAF 122.800. I will invent an IFR alternative if necessary. Meet on the O41 ramp at 1145 hrs for the short 1/4 mile walk to Yolo Fliers Club on the golf course. Please respond as to your intention to join us to Dave Walters, grayson_segal@yahoo.com, 925/348-3584 no later than 0800hrs on 16 March so that I can make reservations.”



*EAA Chapter 663 Members & Friends
Yolo Fliers Club Watts-Woodland O41 3/16/2019*

shows are: Route 66, 3/15>4/21. Wizard of Oz, 5/31>7/21. Ripcord, 8/23>9/15. Grease, 10/25>12/15. Go to Sierra Repertory Theatre on line for more info. Let me know of your choices and I will make arrangements based on the most popular response and announce the results and then make plans. Maybe we'll get a group rate! Aviate, Dave”

APRIL 20 FLYOUT - John Youngblood gives this a double thumbs up! We were aced out the first time we scheduled this due to the fires in the area, but, do a dance and we'll try and make this a GO! IFR conditions in Quincy will put us in Lodi. IFR in Livermore will reschedule this event!

Saturday, 20 April, QUINCY - Gansner field, 201, 141 nm, Elev. 3418', TPA 4415', Rwy 07 LP, 25 RP, 4105'x60', ASOS/AWOS 135.60 (530)283-6528, CTAF 122.70. Meet at west end of field at tiedowns at 1145 hrs for the short walk to Patti's Morning Thunder Cafe to the south. Please contact **Dave Walters** no later than 0800 hrs on the 20th at grayson_segal@yahoo.com or 925/348-3584 with your intention to fly with us so I can make reservations for our group. Aviate, Dave

WEBSITE: www.663.eaachapter.org
 Brad Olson gave a status update. We previously had a website he put a lot of work into setting up at EAA663.org. Now he's using EAA's free hosting service is not the same, not as easy to use, and not as capable.

He transferred the old URL to a new domain service and will then use web forwarding to invisibly allow the old EAA663.org name to connect to the new free EAA webserver at www.663.eaachapter.org. He's also

purchased a mail package from Webs.com so we can have email sent to President@EAA663.org and it is forward to John Youngblood, and future officers but that isn't working yet.

This isn't yet designed to accommodate all our photos our past *Grapevine* Newsletters, but it does have some to provide a presence.

TOOLS: Bob Farnam has no new tools. See the list of tools in the February *Grapevine*.

FLIGHT PERFORMANCE TESTING: John Youngblood had photos of a new Catto 3 blade



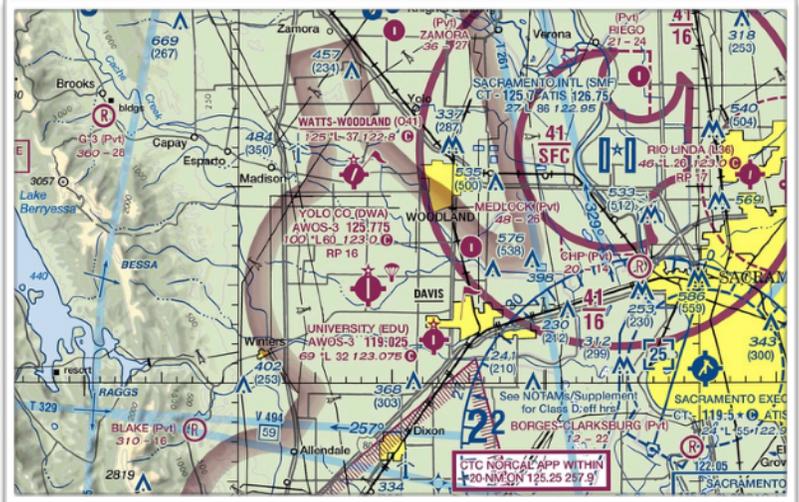
Catto Constant Speed Pusher Prop on John Youngblood's Velocity

constant speed pusher prop on his Velocity. "It's the first Catto built prop especially designed for a rear engine IO550," said John. "So far we've done only four flights and see improvement in both top end speed and rate of climb. Rate of climb is most significant. Normally, we climbed at 1,400'/min at full gross weight at LVK @ 60°F. We're now experiencing 1,900 - 2,000 ft/min.

"A formation take off and flight with another Velocity XLRG with same engine and gross weight had us 'walking away' during climb and about 6+ knot increase in speed at 7,500' and 12,500'. Both flights were at 50°F LOP and same power settings.

Additional test hops will give us a better number on top end."

Catto has built a couple for Berkuts and reports are an additional 10 knots in speed and 1,000 feet per minute improved climb compared to existing props such as John's Aero Composite model. Craig Catto started with a McCauley hub and had to make some mods,



Watts-Woodland O41 3/16/2019



Catto prop blade

and then more mods. MT offers a constant speed pusher prop as well, and the Catto appears to be an improvement in performance on that as well.

One look at the Catto prop and you'll see it looks different. It has an airfoil curvature all the way out to the tip, as just one distinction.

BOARD MEETINGS: Next Board Meeting is scheduled for April 18th 7:00PM at the home of Tom Irion in Livermore. Email John Youngblood for meeting address, all are welcome.

APRIL 2019 Chapter Meeting will be on April 5th at 7:00PM at Five Rivers Aviation Livermore Airport. Speaker will be **Peter McCutchen** on 406 MHz ELT (Emergency Locator Transmitter) systems as well as survival techniques for off-airport landings.

HANGAR TALK: There was a discussion of three runway excursions at KVLK due to unusually strong and gusty crosswinds. It's not a violation but after any runway excursion you are asked to self-report to the tower via phone, such as "I had a runway excursion, I exited the pavement and was on the dirt, the plane got away from me due to a strong wind gust, I didn't hit any runway lights, I checked and there is no damage or injury." The Tower will acknowledge your report. The key lesson is for the pilot to voluntarily confess via a self-report.

https://www.faa.gov/airports/runway_safety/excursion/

The problem on this day was at least two of those pilots had an excursion, each was observed by the tower, there was damage to the plane, the pilot did not self-report, and FAA went looking for them. Now those pilots have a problem! One of the planes, a 182, had sufficient damage that the insurance company totaled the plane, but that may also reflect an insurance policy that was inadequate.

There was a story about a fourth plane on landing that clipped a light and caused damage. Many pilots commented on the unusual weather with some cautions of perhaps 5 knots of crosswind gusting to 22 knots.

This prompted a suggestion that instructors should use these unusual weather events as teaching opportunities, even for experienced pilots, to call students on such days to get some experience in these conditions.

The key is "demonstrated crosswind capability" which is not a limitation and may not be practical for most pilots. John Youngblood noted that if you see gusts of 10 knots – for example, 10 knots gusting to 20, you should think, "Do I really have to fly today?" He also recounted a challenge when he discovered AWOS averages numbers. In his situation the AWOS reported 10 gusting to 20, but in reality, it was 0 gusting to 20! He carried an extra 10 knots on landing but that wasn't enough.

If you're in the air returning to base and you hear that kind of wind report should start exploring "Where will I land?" Go to another airport. It's not unusual to see this at Livermore and you need to look over the METARs at Tracy, Byron, Concord, Oakland, even Modesto. Get a Lyft or Uber home.

Dave Anderson noted, "If you have an experimental plane **you wrote the book on demonstrated crosswind capability!** When the winds are steady it's less of a challenge to handle 25 30 even 35 knots crossing that those unpredictable gusts. You can also use visual clues of flags, trees, water, smoke, dust to give you a sense of what's going on.



***Cross wind landings take practice
"Demonstrated crosswind capability"***

A question came up about recent accidents. A Mooney flew into Mt Diablo. The preliminary NTSB reports WPR19FA083 reported on February 8th the Mooney M20F departed Hayward to the south at 8:00PM (darkness) in VMC conditions with clouds at 5,000 feet, and turned northeast. It was flown solo by the owner who was a student pilot. No flight plan was filed but the NTSB shows the destination as Lincoln. The aircraft flew into Mt. Diablo at about 2,850 feet MSL, about 1,000 feet below the peak of 3,849 feet and 3/4 mile to the southwest. It appears the pilot wanted to remain below the Bravo airspace but that put him in danger of CFIT. John Y. observed that if you get to 5,000 feet, you're above the tallest peaks in the Bay Area, so CFIT won't be an issue, but that assumes there isn't a cloud deck for a VFR pilot.

The other story was about a Glassair III that crashed near Discovery Bay resulting in the death of two men, one of whom was the builder. [Secretary: Research indicates this seems to be from October 2012 as there are no other Glassair accidents in the area. NTSB # WPR13FA022]

AOPA FLY IN: Add space on your calendar for the AOPA fly-in at KLVK scheduled for June 21-23nd. Of the three days, the first 2 days of events will be open to the public on Friday and Saturday June 21st and 22nd. Space will be provided for 60-70 exhibitors, with as many vintners who can fit. It will be a similar footprint to the 2018 Open House. They're preparing for 300-700 planes, dependent upon weather.

POLO SHIRTS WITH EAA 663 LOGOS: First shirt is \$10 for members; all other shirts are \$22. Ask Mark Palajac.

MEETING BREAK 8:34 PM

MEETING RESUME: 8:47 PM

GUEST SPEAKER:**Trystan Clark - Flying Around the World**

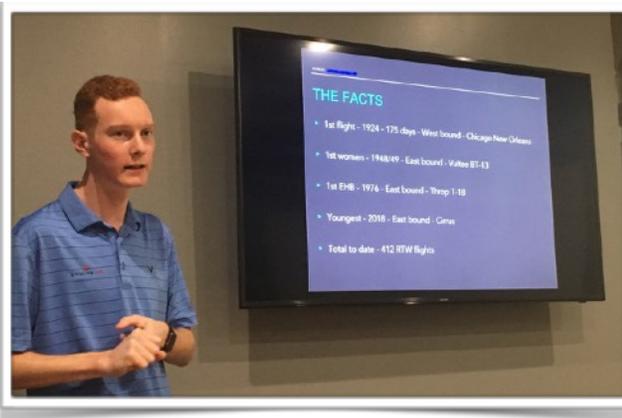
I've been flying since my first Young Eagle flight in 2008. I'm now a private pilot and working on my instrument rating. We're – there are two of us – are going to fly around the world. This is an abbreviated version of what we're doing.

The first world flight was 1924 it took 175 days. It was westbound. The choice of eastbound vs westbound is a key factor when it comes to winds and daylight. The first women – it was two women flying together - they went eastbound in a BT-13 Vultee and it took them a year. The youngest person to solo was in 2018 in a Cirrus.

Between 1924 and the time of this presentation there have been 412 round the world flights. The term for those who have flown around the world in light aircraft is "Earthrounders." <http://www.earthrounders.com>



Trystan Clark - Flying Around the World



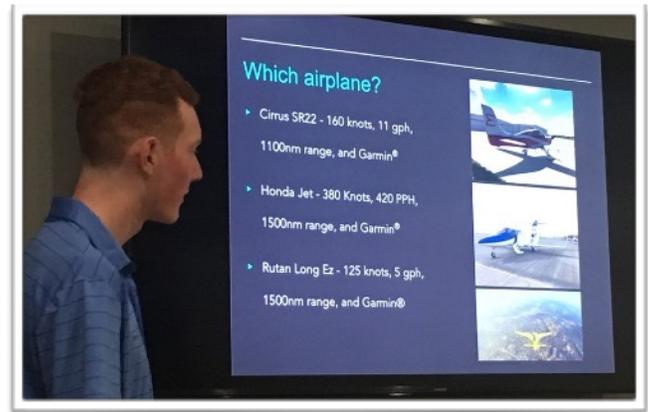
Why fly around the world? First you have to be adventurous. You have the opportunity to network with incredible people. Exploring the world. Your navigational skills will be challenged by oceans, Africa and the Pakistan/Afghanistan border.

The first factor is: Which airplane can you take? People have flown ultralights and 152's – it took him 5 years – and we have a pilot in Concord who flew his RV-9A.

Route is the next factor – eastbound or westbound? Everyone has an opinion. I met a woman who has flown 5 times around the world solo in her Mooney 201, setting many records.

A question from the audience was "why not fly northbound or southbound?" Trystan knew of a Bonanza pilot at Livermore who had indeed flown over the north pole and south pole, but not completely around the world.

Choice of fuel is a big factor: 100LL or Jet-A? Jet-A has the advantage of being available just about everywhere, while 100LL has limited distribution to islands and third world countries. Diesel engines on planes such as the Diamond DA-62



are more fuel-efficient while being 10% faster than a Cirrus.

Safety, communications and ditching. When you're over the ocean you on an IFR flight plan and that means an instrument rating. You're using an HF (high frequency) radio which must be installed and redundant. You'll want a ham radio license. You can't have a satellite radio per FAI regulations.



Insurance is an expensive problem that improves with more hours and more ratings.

He had quite a bit of information on choice of airplane Our fellow 663 Chapter Member Ray McCrea flew his LongEZ to South Africa, and back, with his longest leg of 1,490 nm.

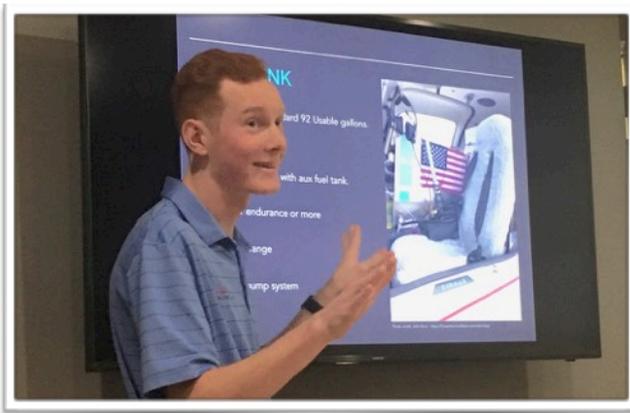
We've chosen westbound because tailwinds and longer days on those 2,000-mile legs. Weather is a big factor in certain latitudes to avoid typhoon

season. September – February the winds within 15° of the equator are generally 15-30 knot tailwinds. You're also most fatigued flying eastbound because your days get shorter and you tend to get less rest.

Networking is so critical, everyone has words of advice, especially on safety factors. Rest is very important and the preferred method is to take a full day of rest at each location with a separate planning day.

Your handler, who you hire to cover your permits and legal permission to land a plane. You don't touch a permit yourself! They're cheap by comparison. For example, Cirrus is 125% over gross weight at takeoff, you'll need a permit from the FAA, but that certified aircraft will be accepted by other countries. An experimental plane literally is an unknown, so each country you overfly will demand a separate permit.

John Bone, a retired airline pilot, lives in Apalachicola, Florida and flew a Cirrus N140BV around the world. He needed larger fuel tank. <http://www.earthrounders.com/n140BV.php>





John Bone Cirrus N140BV



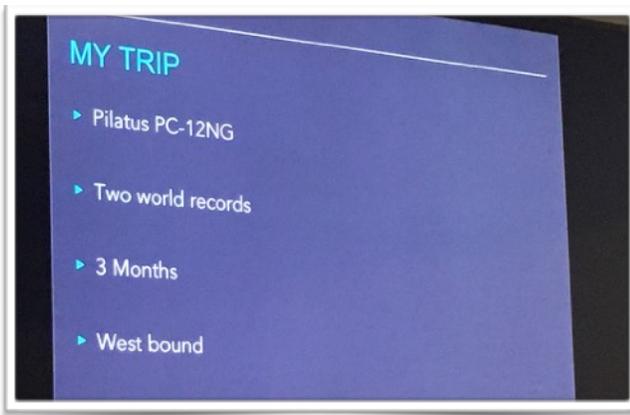
Trystan Clark - Safety Considerations

My trip.

A friend broke the record for youngest pilot a couple years ago. We met at Oshkosh and talked about working together.

We're going to take a Pilatus around the world. It's our sponsor's. Our goal is to break 2 world records. We'll have 2 of the youngest Pilatus captains going around the world.

The second is the most people flown around the world at once. It's our way of getting more people involved in aviation. We'll do this in 3 months. The Pilatus has a very reliable turbine that uses Jet-A. We'll go up, up and over by going into Russia. We'll have more public outreach in next few months. There's a lot of details still to be ironed out.



Trystan took many questions from curious 663 members, demonstrating his efforts to get this right. Trystan has come a long way from his original inspiration. Aside from his encyclopedic memory, both technical and anecdotal, what came through in his presentation were his maturity and acknowledgement of risks and risk management. He also demonstrated a compelling concept to inspire future pilots.

MEETING ADJOURNED by John Youngblood. 9:31 PM
Minutes reported by Secretary Kirk H. Knight.



**Craig Hofstetter is selling his
2003 RV-6A N122EA**

After retiring for Delta Craig has been teaching IFR at San Jose State

Contact Mark Palajac markpalajac@gmail.com
510-557-4020 or the owner directly, Craig Hofstetter
408-718-1339 cmhofstetter@gmail.com.

310 TT on A&E
Lycoming IO-360 (180hp); fuel injected
Hartzell CS Prop
IFR capable
Second owner:
purchased from owner/builder in Oct '18.
Selling due to medical condition



Avionics:

Garmin GNC-300XL
Garmin/Apollo MX20 MFD
Bendix King KX-155 Nav/Com
Zaon XRX Collision Avoidance System
Apollo SL-10 Audio Selector Panel
Apollo intercom
Garmin GTX 327 Transponder (ADS-B Out compliant w/Garmin GDL-82 upgrade)
PTT (both sticks)

Electronics Intl UBG-16 Engine Analyzer
S-TEC-30 - 2-axis autopilot
Electric elevator trim; manual aileron trim Electric Flaps
3 - independent fuel gauge systems Whelen Strobes
Panel wired by I-A
Excellent build quality Always hangared Paint: 9 out of 10



Since Prop Strike (10/2018):

Engine:
Completely torn-down/inspected; no damage or corrosion found
"Zero" time since tear-down
New rings, bearings, magnetos (both); suction pump
New shock mounts
Prop:
Governor overhauled; no damage found
New Hartzell blades
Wheel brakes completely disassembled/inspected. All o-rings replaced.
Replaced all fuel and oil lines (including fire shielding) in the engine compartment
Nose gear "anti-splat" mod installed
Fresh Condition Inspection
New (uninstalled) windshield included with purchase

Fly Out Survey

by Dave Walters
Choose your top 10

Location		Distance (NM)	Airport MSL	Runway (length)	Picks
Half Moon Bay	KHAF	35	66'	5000'	_____
Lodi	103	35	59'	3574	_____
Nut Tree	KVCB	41	116'	4700'	_____
Watsonville	KWVI	45	163'	4500'	_____
Sac Exec	KSAC	50	23'	5503'	_____
Mather AFB	KMHR	57	98'	11301'	_____
Woodland	041	58	125'	3769'	_____
Los Banos	LSN	59	121'	3801'	_____
Salinas	KSNS	62	84'	6004'	_____
Castle AFB	KMER	63	190'	11802'	_____
Columbia	022	69	2120'	4673'	_____
Auburn	KAUN	83	1538'	3700'	_____
Willows	KWLW	111	141'	4125'	_____
Lake Tahoe	KTVL	112	6268'	8541'	_____
Harris Ranch	308	116	470'	2820'	_____
Truckee	KTRK	126	5901'	7000'	_____
Bridgeport	057	128	6471'	3854'	_____
Quincy	201	141	3418'	4105'	_____
Red Bluff	KRBL	148	352'	5431'	_____
Oceano	L52	167	14'	2325'	_____
Delano	KDLO	170	316'	5659'	_____
Shelter Cove	0Q5	176	73'	3407'	_____
Kern River	L05	202	2614'	3500'	_____

August 2018

EAA 663 Tools as of March 2019

1. “G” Meter. This is a free standing mechanical “G” meter that can be temporarily mounted in an airplane for phase 1 testing.
2. Antenna analyzer/SWR meter. Has a local radio frequency oscillator which allow SWR checking across the aircraft band to measure SWR and resonant frequency. Has other tests also.
3. Battery Load Tester. Test your battery under load for a valid test.
4. ELT Beacon tester, 406 and 121.5. Can test whether by direct connection to the beacon or by radiated signal wirelessly. For 406 beacons, can read out the information being broadcast.
5. Bead Breaker. Smaller unit intended for tires up to motorcycle size.
6. Borescope, rigid. Self contained with integral screen and recording
7. Borescope, articulating, for use with smartphone. The camera can be remotely bent around up to 180 degrees for a better look at engine internals
8. Brake riveter, hammer type.
9. Brake Riveter, Screw type.
10. Carbmate carburetor synchronizer (for Rotax mostly). This unit is intended for engines with twin carbs
11. Compression tester. Standard unit.
12. Crimping tool, heavy. For crimping heavy lugs such as used on battery cables
13. Drill Doctor. For sharpening drills, knives and scissors. Electric
14. Panel punch. Mechanical punch for aluminum panels in both standard sizes for round gauges.
15. Prop balancer. Active prop imbalance measure. Optical rpm measure and mechanical vibration amplitude measure with phase difference to allow placement of balance weights, typically on the spinner.
16. Scale, crane. Hydraulic scale for use with a crane for measuring lifted weight.
17. Scales, electronic. With 4 scales, 4 rollup ramps, and a master control which will show the weight on each wheel. Has tare weight adjustment.
18. Spark Lead Tester, High Voltage leakage. Generates high voltage on spark leads to check to leakage.
19. Spark plug tester, pressure. Can check sparking under pressure. Needs separate compressor.
20. Spark plug resistance tester. Check for proper range of internal resistance of spark plugs.
21. Tachometer, optical
22. Tensiometer, cable. Measure cable tension.
23. Tubing flaring tool.
24. Ultrasonic cleaner, mostly for injectors. Small bath cleaner used with clean water and a few drops of detergent.
25. Wire marker, Kroy. Makes shrink wrap wire marker with alpha or numeric markings. You may have to buy the marker stock you want to use.