



# The ThunderWord

Thunderbird Field EAA Chapter 1217 November, 2005

Scottsdale, Arizona

## PRESIDENT'S CORNER

Greetings from my corner of the hangar! We had a great turnout last month to listen to Chapter 1217 Vice President Terry Emig talk about his trip up to the Reno Air Races and participating in the Aviation Heritage display. At the last minute, we received a call from Scottsdale Airport asking us to have our meeting in the old FAA building because the Terminal Building was getting new carpet. Even though it was a little on the cozy side it worked out for this meeting. This month we will be back in the main terminal building to avoid any more flashbacks of having meetings in old FAA buildings.

We had a tremendous turnout of Chapter volunteers at our Young Eagles Airlift last month. A big thanks to everyone who participated. I was able to take five Scouts for rides in my Cub and it was great to see the enjoyment in their faces as they took the controls for the first time. I always like flying over the farm fields in the Cub with the door open and smelling the freshly mowed hay fields and the defoliant rising off the cotton, and its great to share this experience with first time fliers!

On a more somber note, later that day Mark and Deborah Lundell's son, Jake, was killed in his Nord 3202 at Casa Grande. He was turning to avoid an aircraft doing a straight-in ILS that had cut him off in the pattern, in his abrupt maneuvering the Nord stalled at too low an altitude to recover. The Lundell's were very moved that so many in our Chapter came to Jake's memorial service and sent cards. I had flown with Jake several times in their Aeronca L-16B and thought he was an excellent pilot, and a really outstanding young man. The Lundell's have given so much to

supporting EAA, Warbirds, Young Eagles, and our Chapter that it was especially hard to share in their loss.

Hope to see all of you at this month's meeting!

*Curtis*

## NOVEMBER CHAPTER MEETING

This month's Thunderbird Field EAA Chapter 1217 meeting will be on Thursday November 17<sup>th</sup> at 7 pm. The location is the Scottsdale Airport Terminal Building. Our featured guest speaker will be Vic Hannig from Falcon Executive Aviation. Vic's company provides Sport Pilot training and rental of Light Sport Aircraft, as well as sales and maintenance of all types of planes. Remember guests and family are always welcome.

## YOUNG EAGLE AIRLIFT

Saturday October 22<sup>nd</sup> was our annual Chapter 1217 Young Eagles Airlift at the Casa Grande Airport. This year we had perfect weather with calm winds and temperatures in the seventies. The event kicked off at 0700 with a free breakfast for Chapter 1217 members provided by the Boy Scouts. At 0745 Chapter President Curtis Clark gave an introduction of the pilots, and Scout leader Rob Morrison ran through the morning's scheduled events. Promptly at 0800 the first Young Eagle took to the skies. When the dust settled at 11 am we had taken ninety-two kids for Young Eagle rides and not one kid got sick! Chapter 1217 Young Eagle Coordinator Bob Kruse kept everything running smoothly and even found time to run

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the pre-flight activity teaching the kids about the various airplane parts. This year's event had the best weather we have ever had and was probably the most fun from a participant's viewpoint.

Young Eagle Event Coordinator: Bob Kruse

Ground Crew and Loaders:

Fred Dibernardino	Sherri Schellenberger
Bill Unternaehrer	Chris Clark
Frank Pankow	David Roberts
Marty Skalon	Tom Weidlich Jr
Cheryl Walker	Lacy Parker

Pilots and Planes:

Curtis Clark	Piper Cub
Larry Destman	Stearman
Terry Emig	Stearman
Jim Hudspeth	Cessna 182
Don Lindholm	Cessna 170
Brian Mitchell	Bell 47
Brian Ryckmen	Cessna 180
Billy Walker	Bellanca Cruisemaster
Tom Weidlich	Stearman

Display of Aged Pilots and Antique Planes

Bob Mohan	Cessna 170
David Roberts	Waco RNF



**VP TERRY EMIG TAKES A YOUNG EAGLE FOR A RIDE IN HIS STEARMAN**

## **HOLIDAY PARTY**

Keep your calendars open for the afternoon of Saturday December 17<sup>th</sup> as the day of our EAA Chapter 1217 holiday extravaganza. This year's event will be held at Chapter member Ron Landon's home in the Arcadia District. An invitation with all the particulars will be sent out next month.

## **SPORT PILOT TOUR**

Chapter 1217 has been contacted by Ron Wagner at EAA headquarters to help co-sponsor the local stop of the EAA Sport Pilot Tour. He requested that Chapter 1217 along with other Phoenix area EAA Chapters be the hosts of an event that will showcase Light Sport Aircraft (LSA) and the Sport Pilot. There will be displays and demonstrations by LSA manufacturers and dealers as well as seminars on a variety of subjects from buying to maintaining your LSA. There also will be presentations, aimed at the current A and P mechanic and IA, on how to maintain and inspect the new breed of LSA. By attending some of the seminars you will also qualify as a participant in the FAA Wings program. Typically in the past, these events have drawn 12-15 manufacturers and 250 participants. If you have some free time and want to get in on the ground floor of planning this event, or if you are interested in hosting the event at your facility, give Curtis Clark, 602-953-2571, or Jim Moss, 602-992-1611, a call.

## **AVIATORS BULLETIN**

Everyone of has in his or her head a part or piece they are on the lookout for their plane or project. Now there is a publication called Aviators Bulletin that might have exactly what your looking for even if you didn't know you needed it. They call themselves a bulletin board at a price you can afford. For only \$14.00 per year you get twelve issues jam-packed with everything from flying planes for sale to a guy looking for old broken aircraft clocks. The really neat thing is that with each subscription you can also

post an ad or even multiple ads, it costs a little extra if you want a picture. In the past couple of years I have found an extra set of Cub wings and sold over two thousand dollars of miscellaneous stuff/junk that was lying around my shop and hangar. Trade-a-plane is great, but it is really pricey so you don't see a lot of the little things or the wanted items listed in their publication. If you have junk, I mean aircraft parts to sell or are looking for that elusive left rear main plane for your zeppelin you have in the shop, drop these folks a note with a check for \$14. Aviators Bulletin 116 Bryant Street, Ojai, California 93023 or give them a call at 805-646-6042

## **PERFORMANCE PROPELLERS**

*Drive 278 miles southeast from Scottsdale, turn down a dirt road and drive 2 miles past the dry wash and turn up the mountain at the big cottonwood tree. Now it's only another mile straight up a rock-strewn path that most four wheel drive trucks shouldn't have a problem with.*

We weren't looking for the Lost Dutchmen's mine, we were driving to pick up the prop that I had ordered for my Breezy. On top of a mountain near Patagonia in the southern part of our state is the location of Performance Propellers, a small business that has been building custom made wood propellers for the homebuilder since 1988. From his picturesque shop, Clark Lydick and his wife Judy have built close to two thousand props at a production rate of one a week. Clark hand built his house and workshop and relies on solar power, with occasional usage of a gas generator to power the larger power tools.

When most people build their homebuilts, there is a tendency to the "more money equals more performance" school of thinking and the demand for wooden props hasn't kept pace with the large number of kit planes produced. Most folks go with a constant speed prop using the adage that

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they need both initial acceleration and top end performance, and don't consider wooden props. They should consider that the modern wood prop through blade shape and design can provide you with both, for one quarter of the price and at a weight savings of around fifty pounds over a constant speed prop. So considering you would save fifty pounds, or 5% of your empty weight on a 1000 pound empty weight plane, and save you \$4,000. over a fancy new Hartzell prop and governor, maybe you should do some more research.

The plane with the wooden prop, through more efficient blade shape near the hub will be faster than the plane with a constant speed prop. Also, an experimental wood prop will not be subject to the Airworthiness Directives and required overhaul periods that owners of certified props are required comply with even if it is mounted on a homebuilt. Legally that is the FAA's viewpoint no matter what you have done in the past, if it was built to a type specification it must be maintained in accordance with it even if you use it on a homebuilt blimp! One other thing to think about is that if you hit your metal prop on something with the engine running, like the ground, you stand a good chance of bending the crankshaft and on most certified engines there is that nasty requirement to do a teardown to inspect for internal damage. That goes back to the maintaining the component in accordance with its type certificate. If your plane had a experimental wood prop on it when you kissed the runway you would have a pile of splintered wood and a bruised ego but no teardown requirement, plus the replacement cost would be \$4,000. less. Well enough about why you should consider a wooden prop and on to the process!

Performance Propellers fabricates custom two and three bladed propellers for experimental aircraft up to 300 horsepower. Their props are used on planes from ultralights to unlimited aerobatic planes. Each prop is made up of 40 to 70

laminations of rock hard maple. Each layer of veneer is impregnated with type A Resorcinol glue providing a vapor barrier at each layer. The hub thickness is between 4 and 4.5 inches, depending on application. All of the three blade and larger two blades have fibreglassed tips to provide extra strength. All of their props have a poured-in leading edge to make them rain proof, the material is very similar to what was used on "Super balls." If a prop is to be used in a pusher configuration like on a Cozy or Long-eze, the inboard ten inches is also fibreglassed to prevent exhaust and loose parts from damaging the propeller.

Clark's props are designed to give good takeoff performance without compromising cruise performance. This is achieved by shaping the propeller to provide a quasi constant speed characteristic that allows for good takeoff RPM (i.e. good takeoff horsepower) and good cruise RPM at high throttle settings. This RPM governing of the prop is a result of the blade's profile and flexibility. The multi-laminated blanks allow them to have this blade flexibility while maintaining good blade integrity.

Each propeller is custom made for each individual and their airplane. For instance if you had an RV-4, besides horsepower they would discuss home field elevation, runway requirements, empty weight of this specific plane as well as the type of flying you will be doing. Builders have varying desires for their static and maximum RPM levels and engines of the same rated horsepower vary in strength. The prop is hand crafted to computer generated technical data, and is then sent to the customer in a sealer coat. After flying the plane for 40-50 hours, the prop is returned to Performance Propellers for any final tweaking based on valid flight test data and personal preferences. After the modifications are completed the prop receives the addition of the poured-in rain proof leading edge, fiberglass tips and final sealer coat. This customization of your prop comes at no additional charge.

Performance Propellers also offers custom refinishing on other brands of wood props and in some cases, repitching and the addition of rain proof leading edges. If all of this has you asking for more information, contact Performance Propeller at 520-394-2059 or [props@dakotacom.net](mailto:props@dakotacom.net). The preferred method of shipping your prop is via UPS and they provide complete packing and shipping services.

Judy also says that after many years of making prop extensions, she has sold that company so they can concentrate on building props. Contact Sabre Manufacturing (817-326-6293 or [www.sabremfg.com](http://www.sabremfg.com)) and they will provide extensions, crush plates and hardware.



**CLARK LYDICK, JUDY SABRE AND HOMER WITH A PROP FOR A DRAGONFLY**

# Thunder Ads

## FOR SALE

### SHEET METAL TOOL KIT & RV-6/8 VIDEOS

Never used, Cleveland Complete Sheet Metal Airframe Tool Package (paid \$1670 2 yrs ago); C-Frame Table; Set of 4 "From the Ground Up" RV-8 construction videotapes (cost new \$80); Set of 10 George Orndorff RV-6/8 construction videotapes (cost new over \$200). Asking \$1500 for everything. Will sell videotapes and tool set individually. Contact Chapter 1217 member Denny Myrick 480-502-0547.

### MISCELLANEOUS PARTS, ETC.

Lancair Dynafocal engine mount with cowling and two new fiberglass wing tips. RV-6 constant speed spinner painted white. Vernier control cable 3/4" 10-32 with bearing from RV. New stainless oil line pre-bent for Lycoming gov to constant speed prop. Gascolator new. Two new Facet 1/8" port electric fuel pumps. New landing light with 100 watt bulb. Carb airbox bowl fits any carburetor. Fuel cap and mount. Two new Matco break cylinders with reservoir 1/2 in. bore. Call Fred 480-661-6613

### MUSTANG II PARTS

Parting out Mustang II. Lycoming IO-360A1B6, Hartzel CS prop, located in Arlington Washington. Tony Burdo [tburdo@msn.com](mailto:tburdo@msn.com)

### CESSNA 140 WHEEL PANTS

Set of wheel pants for a Cessna 140, never installed, back plates, wheel nuts included. \$400 obo. Rich Bursley 623-521-4104.

### GlaStar Fixtures

All fixtures to build a GlaStar airplane. Will take \$150. Bill Grieme 480-998-9164

### Lycoming 0-235-C1

673 SMOH, Sky Tec starter, removed from Long Eze for 0-320 upgrade. \$6500. Mark Boram 520-883-0672

### RV-3 Parts & Misc

RV-3 wings, flaps, ailerons and wing tips \$1000., 2 US army flight helmets, 8 new David Clark listen only headsets \$100. each, 2 yellow tagged cranks for an 0-320 and an 0-290-G. Dick Wall 602-788-9848

### COZY 3 PLACE PROJECT

Fuselage finished thru Chapter 8. Have most raw materials to finish fuselage and wings. Includes plans, landing gears, metal kit, epoxy pump, news letters, etc. Asking \$1500 (firm) for all. Jim Stevens 623-872-7531 after 3 pm. Location: Avondale, AZ

### Skybolt Project

Most major work complete. Hangered at DVT. \$10,000. Stuart McDonald 602-954-9343

### JEFFAIRE BARRACUDA PROJECT

Fuselage on gear, wings built. Instrumentants, gauges and a whole lot more. 80% complete. Must sell for only \$9,900. Hangered at Glendale, AZ. Call John 480-704-3250

## SERVICES / WANTED

### Instrument Instruction

Get your instrument rating with a club member J. Robert Moss CFII, expert in Garmin 430 / 530 IFR operations, Cirrus checkouts. Call Jeff 480 699-7447

### Designated Pilot Examiner

Chapter member. Paul Jones 520-251-1251

### Prop balancing, Annuals, Prebuys

Jim Berdick AI 623-581-9152

### Annuals, Restorations, Fabric Work

Eloy Airport Julie White 520-466-3442

### Aircraft Welding and Restorations

Evans Aviation 480-585-3119

### Airmen Physicals

Dr. Henry Givre AME, Chapter member and RV-4 owner. 520-836-8701

### Aircraft Photography

Mike O'Connor [CrashOConnor@aol.com](mailto:CrashOConnor@aol.com)  
480-515-5105

### BFR's

Fred Lloyd 602-234-1940

### Flight Instruction

Learn to fly, get a new rating, or BFR. Samir 480-518-5346.

### Machine Shop

High quality parts fabrication for homebuilts at a reasonable price. David Leverentz 520-898-4321

Want to see your aircraft-related ad here in the Thunderword?

Send an E-mail to [EAChapter1217@aol.com](mailto:EAChapter1217@aol.com)

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