



Chapter Seven *Long Beach*

President's Message

By George
McDaniel

DECEMBER MEETING IS SPECIAL AND IS STARTING EARLY !!! 6:30 p.m.

We have a special meeting planned for December, please try to come early. We have a very special presentation on the history of the Wright Brothers by Steve Shackelford. There will be cookies, cakes and other festive foods for all.... Everyone I've spoken to that has seen Steve do his performance said it was great, please come early and see it.

This will not be a regular EAA meeting but more a Holiday Celebration and Celebration of the Anniversary of Flight. We will be hosting the FAA FSDO office. Be sure to thank them for setting up the performance by Steve.

Christmas will be here soon and I am starting to get into the Holiday Spirit. Once again I'm counting my blessings for having so many great friends. I appreciate everything that all of you do for me, my family and our EAA Chapter. I want to wish all of you a very happy holiday season and hope to see you at the meeting.

VP's Chat Room

By Don
"Crash"
Thompson

Program -- Dec 11, 2003

We do have a speaker for December.

Our program for December will be by Steve Shaackelford from the FAA FSDO office. His topic will be the history of the Wright Brothers lading up to Dec 17, 1903 and the resulting effect they had on the aviation world back at the turn of the century.

Steve has a very interesting program lined up and you will not want to miss a second of his presentation.

Meeting start time this month at **6:30 p.m.**

IMPORTANT NOTICE

Meeting Time Changed Due to Program

The Chapter Board Mtg for Dec 2003 is post-poned until January 8, 2004 or sooner by Special Notice.

EAA Chapter 7 will be providing deli sandwiches, condiments, hors d'oeuvres, refreshments, snacks, and deserts



Aviation Oil Use It or Loose It

Clearing the Air About Oils, Use,
Analysis and Additives

by Chuck Newcomer, TC

All About Aircraft Oil For Piston Engines

By Stephen M. Sunseri, Exxon/Mobil

March 2000

A great deal is published in aviation magazines about "best maintenance practices." And there is no doubt that preventive maintenance is the key to keeping an aircraft ready while also reducing operating, maintenance and replacement costs for your customer.

One of the areas involving preventive maintenance that is a "given" is oil changes. Yet, as simple as this seems, there are often misunderstandings about what types of oils should be used, how often the engine should be serviced and other important elements related to engine oil. Following is a review of engine oil basics, as well as some important points to consider related to engine oils.

Viscosity

Selecting the right viscosity or "thickness" of oil for a particular engine is very important. We often hear people say "The heavier the engine oil, the better it will protect the engine." Indeed, viscosity is the single most important physical property of an engine oil because one of its primary functions is to separate moving metal parts within the engine.

However, there are trade-offs when choosing oil viscosity. Selecting a lubricant that's too thin will result in insufficient lubricant film, which can lead to increased wear of engine parts and potential metal-to-metal contact in engine parts such as journal bearings, which require hydrodynamic lubrication (separation by lubricant film).

Conversely, selecting a lubricant that's too thick will result in increased fluid friction or "drag," increased power requirements and will adversely effect fuel economy. Fluid friction will also result in mechanical overheating of engine parts and increased oil temperatures, which can accelerate oxidation and reduce a lubricant's life.

Engine OEMs recommend oil viscosity based on a particular engine's ambient operating temperature. Make sure you're using the correct oil viscosity for your customer's engine and operating conditions.

Oil Changes

Oils are designed to get dirty. That's how they keep an engine clean. This only works if you change the oil when you're supposed to. If an engine has full-flow filtration, you should change the oil every 50 hours or every four months, whichever comes first. Without full-flow filtration, you should change the oil every 25 hours.

Since water and contaminants settle to the bottom of cold oil, you should change the oil when it's hot. When the engine is fully warmed before it is drained, a higher percentage of contaminants is removed with the oil. If you drain it when it's cold, some contaminants will remain in the oil pan and will compromise the fresh oil.

Oil Filters

Always change the oil filter when you change the oil. Otherwise, you could leave behind a quart or so of dirty oil that is mixed with the fresh oil. Additionally, filter life has been reduced by the first drain interval and may plug or fail during the next drain interval, leaving the engine unprotected.

Oil Temperature

Maintain oil temperature in the **180 to 185 F range** during flight. This range will allow moisture that has accumulated in the oil on the ramp to boil away during flight.

When the aircraft sits on the ramp or in the hangar, the engine heats up during the day and cools down at night. This cooling process condenses water vapor in the engine, forming moisture, which drains into the oil. This can lead to rust on engine components.

Oil temperatures that are "in the green" are not necessarily hot enough to boil moisture away, so check the aircraft's engine temperature gauge for accuracy. Some gauges are marked with actual numbers. Some are not. If the gauge is marked, it should read approximately 212 F when the probe is placed in boiling water. If your gauge is not marked, a good practice is to mark your oil temperature gauge with a reference mark at 180 F.

In turbo-charged engines, high temperatures are often a concern. Peak temperatures can often be 70 F higher than oil sump temperatures (gauge temperatures). So if engine oil temperature is significantly above 180 F, check baffles to make sure there is good airflow to cool the cylinders. Tell the pilot to keep an eye on CHT, EGT, and lean the engine appropriately.

Oil Consumption

Some oil consumption is good. It indicates that the oil is providing a seal at the compression ring. Low oil consumption may indicate that sealing is inadequate, leading to blow-by, power loss, and increased cylinder bore wear.

So what's the right amount? Well, if engine oil consumption exceeds the oil consumption test limits as defined by the OEM (this is the number that helps determine if the rings have seated during run-in), then it's too high and there may be a problem with an unseated or broken ring.

The maximum limit for all Textron Lycoming engines can be calculated using the formula: **$.006 \times BHP \times 4$** , **$7.4 = Quarts \text{ per hour}$**

Again, this is the maximum rate of oil consumption allowable during run-in, and averages about one quart per hour. Following break-in, oil consumption should stabilize at some lower rate.

The lower limit is more difficult to establish because there are many variables affecting oil consumption. In the early 1980's, the University of Illinois followed 12 engines through TBO and established average rates of .081 quarts per hour and .095 quarts per hour using multi-grade and single-grade oils, respectively.

Unless there is a problem, engine oil consumption should stabilize and remain somewhere in the range of between **0.08 quarts per hour on the low end**, and the oil consumption test limit should be as **defined by the OEM on the high end**.

Oil Analysis

If changing oil on a timely basis is the most cost-effective insurance for an engine, then oil analysis is certainly the most cost-effective rider you can add to this policy.

As an aircraft engine oil does its job, its composition changes. It accumulates contaminants, such as combustion byproducts, dirt, corrosion particles, and metallic wear particles, which can impair lubrication and accelerate wear. Analyzing the content of this used oil can help you discover engine problems before they become failures. The best part is that oil analysis costs only pennies per flight hour.

There are several things you can do to enhance the accuracy of this analysis. First, take oil samples properly.

Filling the sample container mid-way through your drain will ensure you get a representative sample and NOT all the dirt on the bottom of the pan. And, as stated previously, always drain engine oil when it is hot. Additionally, change the oil and take samples at consistent intervals.

Finally, don't rely on the results of a single sample. Unless something is drastically wrong, trends take time to develop. Trends established over five to ten drains are much more representative of what may be going on in a given engine than any single sample.

Additives

Supplementary additives, even those sold under popular brand names, are expenses your customer can live without. If you've purchased top quality engine oil (SAE J1899), it's unnecessary for other products to be added to the crankcase.

The manufacturer of the engine oil has done all the work necessary to ensure that the oil will perform all the necessary functions the engine requires it to perform. The notable exception, of course, is the Lycoming additive LW-16702, an anti-scuffing/anti-wear additive required for some Lycoming engines (O-320-H, O-360-E, LO-360-E, TO-360-E, LTO-360-E, TIO and TIGO-541 engines) to name just a few.

If you have any questions please contact me at cnewcomer1@earthlink.net.

To all of the Members of Chapter 7 I bid you and your families a very Merry Christmas and a Happy and Healthy New Year.

This will be my last Technical Article for Chapter 7 and I thank you one and all for a great Chapter

and for all of your friendship. I have greatly enjoyed my time with you and also serving as your Technical Counselor for these few short months. You have a great set of leaders that make each and every month not only enjoyable, but very informative.

May God bless you all and your families. *Chuck and Michele Newcomer* (soon to be Califoregans).

It has been my privilege to be a Technical Counselor for Chapters 7 & 92 and I would like to take this opportunity to Thank one and all in these two chapters for your friendship, support, and for all of the many things I have learned. I have greatly appreciated this time and all of the events that we have been a part of. Thank You, Chuck Newcomer.



by
John Mahany
Master CFI
Member, Ch 7

Ice at 45 Degrees Fahrenheit ? It Can Happen to You

You are flying along in your aerial steed on a beautiful day with clear skies, and unlimited visibility, taking it all in. Life is good! This is why you fly! Suddenly, you are shaken out of your reverie by a rough running engine, and you notice a drop in engine RPM. What's this?

Carburetor Ice is insidious. It can sneak up on you. It catches you off guard. You are not thinking about it, then it happens. Why is this? In a Cessna, the carburetor is mounted on the bottom of the engine. The heat from the engine rises, up and away from the carburetor. The carburetor mixes air and fuel, atomizing the mixture. As a result of atomization, there is a temperature drop down stream of the main discharge nozzle in the carburetor. The temperature drops as much as 70 deg. in this process, as fuel is atomized, and ice can result if there is enough moisture present. The conditions are ripe for this on warm days, when there is a lot of humidity in the air.

This carb ice can be removed and prevented by applying 'Carburetor Heat'. When you apply carburetor heat, you take hot exhaust gas, and reroute it through the carburetor, melting any ice that has formed. When using carb heat, make sure you use it all the way on. Do not use partial carb heat. There is no half-way position.

Finally, if you find that you need to use carb heat for an extended period of time, you should re-lean the mixture. The reason for this is that when you turn on carb heat, you are sending warm air, which is less dense, into the carburetor. The mixture, which had been

properly leaned, will now suddenly be too rich, as a result of the now less dense air entering the carburetor. You should lean out the mixture to compensate for this.

When I was flying out of Kenai, Alaska, a few years ago, there was an airplane that I flew, called the Britten Norman BN2-A Islander, which some of you might be familiar with. The Islander was kind of ugly, I thought, but it was fun to fly. It is a medium size twin, and a STOL aircraft, with two Lycoming engines. These engines had a tendency to develop carb ice if there was a cloud in the vicinity of the sky where I was flying. We used to joke about carb ice, because the Islander would get it so often. I became very accustomed to dealing with it as a result.

As Rod Machado points out in his Private Pilot Handbook, which I have and refer to regularly, "Some engines makes and models are more susceptible to carburetor ice than others...You simply need to be aware of the icing potential of different engine models."

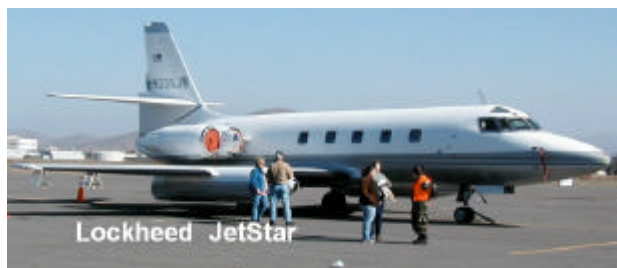
Fly Safe, keep the Blue side up and the greasy side down! ✈️ As always, I welcome your suggestions for future articles.

Merry Christmas, Season's Greetings and best wishes for the New Year!

French Valley Open House 2003

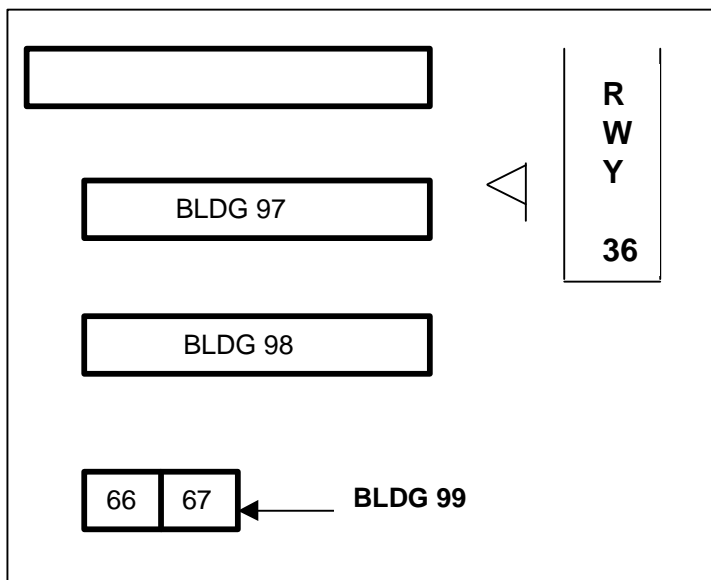
November 22nd dawned bright and sunny in the Inland Valley area but the winds were blowing. Dust clouds could be seen in the Perris and Hemet areas. I headed for my hangar (#66) and found the winds to be pleasant. Temperatures were brisk but livable. I began to set up the food in anticipation of arriving members of Chapter 7. The calls came in (cell phones are great for calling ahead on weather conditions), and I played weatherman.

Don Thompson & Diane arrived after a moderate ride through the Corona pass. Mike Stearns was in the area I believe with a student and did get to see some of the display aircraft. John Mahany hitched a ride with Bob Luskin. John will do anything for a ride in a tail-dragger. Tom and Alicia Griffith brought their poodle along for the trip. George McDaniel arrived later with his son Hunter.



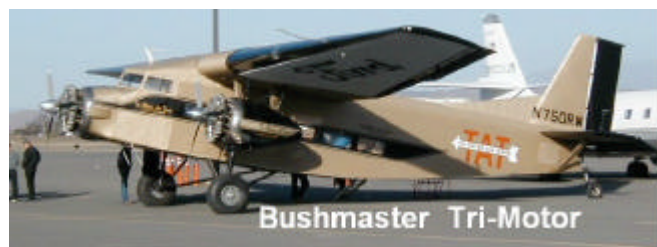
Since the food was provided "free" by the Economic Development Council, the lines were atrocious. This put pressure on those willing to buy their own lunch to face a line almost quite as long at the local terminal restaurant. Chapter 7 members enjoyed a simple repast of ¼ lb. hot dogs, hamburgers and a chili everyone seemed to enjoy.

A call from Mike Stearns said he was having difficulty trying to find my hanger number. As mentioned in my invite I specifically said I was the very end hangar on the southwest end. Since that set of hangars is only a set of two units, it is set back from the rest and requires a walk around the last full set of hangars. Bob Luskin with John Mahany decided the walk from the display area was a bit too much and taxied to the area, as did George McDaniel when he arrived.



Prior to the official opening of the show I attempted to view the display area and found that the batteries in my digital camera were "dead". Not bad for use since Oshkosh at the end of July. By the time I got back to my vehicle, I needed to return to the hangar as things were already on the stove for arriving guests. The display aircraft were not out in force early but the drive-in autos were settled in with tailgate parties already in progress.

The autos ranged from antiques, classics, and muscle cars. There was a pristine Dodge Charger, some excellent roadsters, and excellent workmanship on a couple kit cars.



After all was done with clean-up at the hanger and we all said our farewells, and set the directionals for home. There were a few stragglers on the ramp which I managed to find. "Sid" Gillman was still conversing with the group from the Bushmaster and the main hangar display was open. I borrowed a few pix from the Chapter 1279 web site of some planes that were on display during the day.

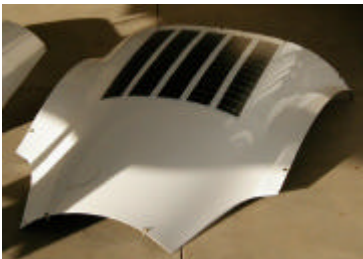


"Sid" Gillman, Turner T-40

Roaming through the hangar later in the day and Sunday I found several interesting projects close to my hanger area. Just four hangars to the east is a Stemme motor-glider.



Stemme Glider (wings folded)



To help conserve battery power for the transponder it utilizes a large solar panel on the back deck.

One of the best examples of a Gypsy Moth was found to be in a hangar about seven rows to the north. You have to see this up close to appreciate the detail.



DeHavilland Gypsy Moth

Lancair Legacy, two-place, O-520, 300 hp. Travel in the lap of luxury and speed.



J Shablow, RV8-A



Jerry Thweet, RV6-A



FRED Baron, Lancair 235/320



Skip Slater, Lancair Super ES

Calendar of Events

The list of air-show and aviation events shown here are limited to 3 to 4 months in advance. If there is a event with Chapter participation such as the AOPA convention, it may be carried longer. With plans to establish committees within the chapter to organize events, there is hope to generate interest in attending most aviation events in the Southwest region, and fly-out events of our own for breakfast, brunch or local points of interest.

Dec 13: Van Nuys, CA. EAA Chapter 40 Young Eagles event. Syncro Aircraft facility. Guest participant to fly Young Eagles in his DeHavilland Beaver, **Harrison Ford**. Ctc: 818 / 725-4AIR. Mtg3rd Sat. at Rocky's Restaurant, 9 a.m., Whiteman Airport.

Dec 17: Palm Springs, CA. 100th Anniversary of Flight Celebration / Open House, Palm Springs Air Museum, Ctc 770 / 778-6262.

Dec 17: Riverside, CA. Flabob Airport Centennial of Flight open house, fly-in, balloon launch. Ctc 909 / 683-2309, x-104.

Jan 10-11: Upland, CA. 29th Annual Pomona Valley Air Fair, Cable Airport. Ctc 909 / 982-8048.

Feb 28: Palm Springs, CA. P-51 fly-in. Palm Springs Air Museum. Ctc 770 / 778-6262.

Mar 27: Riverside, CA. Riverside Municipal Airport Airshow 2004. Ctc 909 / 682-1771 or fax 909 / 686-2415.

Apr 14-20: Lakeland, FL. 30th Annual EAA Sun 'N Fun Fly-In. Ctc 863 / 644-2431 or <http://www.sun-n-fun.org>

So-Cal Corner

My sincere thanks to the chapters that are participating in the newsletter exchange between the southern California chapters. It is a source of news of other chapters in the immediate area. The classifieds in the newsletter are a good source of parts without having to buy sight unseen or have shipped cross-country. I urge you to support these other chapters and you may want to attend some of their events. Newsletter editors: please direct your snail-mail exchange newsletter to: P.O. Box 344, Hawthorne, CA 90251-0344 or e-mail to: always1@verizon.net

EAA Chapter One. Flabob Airport, Rubidoux, CA. Darlene Heller now at the helm wanting to continue the great traditions started by EAA Dave Stits. Applying for 501(c)(3) tax status.

EAA Chapter 11: Santa Monica, CA Newsletter bi-monthly. Miss receiving their newsletter. Maybe again soon.

EAA Chapter 14. Brown Field, San Diego, CA. Had a great trip to the March Museum. Interesting & colorful 8-page newsletter. Lot of news and activity. Web site: <http://www.eaa14.org>

EAA Chapter 40. Van Nuys, CA. Meet at Whiteman A/P 3rd Sat. 9 a.m. Dec 13 Young Eagles (see Calendar section). Forming chapter hangar at Whiteman. Air fair scheduled for Whiteman Sep 2004. Working on their 501-c-3 status. New website: <http://www.eaa40.org>.

EAA Chapter 49. Lancaster, CA. Thank you for your newsletter via snail-mail.

EAA Chapter 92: Orange County, CA. Starting October, meeting moved to Chino airport, first Saturday. Web site: <http://www.eaa92.org>

EAA Chapter 96. Torrance, CA. Christmas party moved to Alpine Village this year. LOTS of activity and camaraderie. Hangar still full of projects. Web site: <http://www.eaa96.org>

EAA Chapter 40. Van Nuys, CA. Excellent work on the VNY air fair. Great work guys, keep it up. New web site: <http://www.eaa40.org>

EAA Chapter 71. Bakersfield, CA. They're back! Great photos and coverage of Reno '03. Great deals on used parts. Home of Harmon Rockets.

EAA Chapter 494, Corona, CA. Chapter hanger, lots of projects moving right along.

EAA Chapter 527, Santa Barbara, CA. Great newsletter, see copy at the meeting table. Great activity in chapter.

EAA Chapter 1000: Edwards AFB, CA. Mtg held at Flight Test Museum. The Chapter Project Police raided the Chapter One open house to spy on the projects there. Web site: <http://www.eaa1000.av.org>

EAA Chapter 1279: Murrieta-Temecula, CA. French Valley Airport. LastSunday of month, 2 p.m. Terminal Bldg. Open House sponsored by local Economic Development Agency was success. Great exposure to gain new members. Lots of projects in the pot. Chptr Xmas dinner Dec 11. Next mtg Jan 26. New web site: <http://www.eaa1279.org>

At this time I want to thank all the participating chapters. We look forward to other chapters joining the exchange. I wish I could publish all the interesting articles I read in the various newsletters.

Classified Section

Nuts. Bolts. Engines. Planes & T'inas



1958 Tri-Champ model, Champion Aircraft Co. White with two-tone blue trim. Always hangared. Stits cover. Tandem seating. C-90 engine 594 hrs SMOH. TTAF 2490. Cruise 100, stall 38. **True showman quality.** \$29,900. Contact Dwight at 714 / 828-7027.

'69 Grumman Yankee, AA-1, 150-hp engine upgrade, less than 400 SMOH, overall package rated 8 out of 10. Was IFR certified, can easily be recert'd. Fresh annual 10-03 Extensive annual, 6 new control cables, new brake pads, etc. Financial setback forces sale. **\$26K FIRM.** Located at Whiteman Airport. Bill at 818 / 990-2748.

Newsire Bits 'n Pieces

Los Angeles Airport VFR Mini-Route reopened to a 24/7 status as of Dec 2nd. A two directional route is available via the Santa Monica 128 radial at 2,500 feet. Communicatin must be maintained with the LAX Tower on 119.8, LAX must be using the west traffic configuration (95% of the time), there must be a 3,000 foot ceiling, and both Santa Monica and Hawthorne airport must be in a VFR status.

Pilots should advise the Southern California Approach Control (SOCAL Approach) that they are requesting the "mini-route". Reporting points are LMU (Loyola Marymount University) on the north and the TRW (now Northrop Grumman) complex on the south.

This transition is now available 24 hours a day, weather and traffic configurations permitting, for all aircraft regardless of their departure or arrival points.

If you have any questions regarding this procedure, please contact Steve Ramirez, Los Angeles Tower Support Specialist, at 310 / 342-4914.

Editor's Soap Box The Year Y2K+3 In Review

2003 was a very good year for EAA Chapter 7. We did not lose any members to old age, poor health, or aviation accidents. Our membership grew with some strong additions of active flyers and builders. Projects are still moving along, and even some are wiping off the dust.

We managed to have some very memorable programs, active participation of members with "show & tell", supported sending a Young Eagle to the EAA Air Academy, and actively supported the Young Eagles program to help achieve EAA-HQ's goal of flying ONE MILLION Young Eagles before Dec 17, 2003.

We look forward to Dec 17th and having the replica of the Wright Flyer built by EAA members recreating the famous event of 1903. The Young Eagles program has sowed many seeds which have taken root, even in our own chapter.

Recent elections confirmed the support of our past officers. As we begin 2004, we look to them for

guidance and future growth. Membership is running about 66, with monthly attendance in the mid-thirties. Let's all do our part to spread the word that we have a chapter worth being a member and participating in aviation events. Let each member make it his personal goal to bring a new member into the chapter. New ideas will be voiced and all will benefit.

In 2003 we saw Oshkosh and Copperstate as group events. A revised and vibrant web site. For 2004 we hope to add other fly-ins such as Marysville and Arlington. Why not one of our own fly-outs? Where do you want "your" chapter to go? **The possibilities are endless if we as members continue to have vision and make our dreams reality.**

When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return.

Leonardo da Vinci (1452 - 1519)



**The
Eagles Nest**
by Darwyn Wolff

The Young Eagles Rally planned for Saturday December 13th at Aeroplex has been cancelled due to ramp repair activities. A date has not yet been set for the next rally though it is likely to be February 2004 or possibly January if the planning can be completed. The EAA Young Eagles Office has announced that the ONE MILLIONTH Young Eagle has been flown as of November 13th, 2003. The pilots and ground volunteers of Chapter 7 have certainly contributed their fair share of effort to this remarkable achievement. We constantly hear of young people who join the aviation community through the inspiration of a Young Eagle ride. I know of several personally. As the program continues we see more and more awareness and interest from the general public. It is enlightening to get affirmative responses from many people when asking if they have heard of the Young Eagles Program.

With the ?One Millionth? goal achieved we enter another phase of the Young Eagles program. I would like to encourage you to share any ideas regarding improvements in the program. We should especially consider methods to provide highly inspired Young Eagles the means to find the resources they need to successfully pursue an aviation career. As we enter the

next century of powered flight let's think about how we can not only inspire but also enable the young people who would join us.

Secretary's Notepad

Submitted by
Merv Meyer
Chapter Secretary



BOARD OF DIRECTORS Meeting of Nov 13, 2003

Board members decided not to rent a space for the annual Christmas party. There will be a potluck dinner here at the meeting space in AeroFlite after the monthly December meeting.

Darwyn Wolff , Chapter Young Eagles Coordinator, told board members that he will need help in setting up the December 13 Young Eagles event. Woody Fowler, Chapter Treasurer, brought up the matter of locating the next candidate to send to the Air Academy. The selection should be done by February. Darwyn has a candidate. He will contact her.

Voting rights in a chapter require not just chapter membership but membership in EAA National also.

MEETING MINUTES

General Meeting
October 9, 2003

Attendance: 35

George McDaniel, Chapter President, led members in the Pledge of Allegiance to the Flag.

OLD BUSINESS

Woody Fowler, Chapter Treasurer, gave his report. Dick Ryan moved that the report be accepted. Don Myhra seconded the motion. The motion carried.

Billy Wilkerson moved that the minutes, as read in the newsletter, be approved. Lou Pirrone seconded the motion. The motion carried.

Videotapes are available for check-out. They are located on the table next to the officers' table. Louis Bigelow has provided the Chapter with a number of data CD's of the 4313 manual. Some are still available at the video table.

NEW BUSINESS

Guests were introduced:
MARK KING, a national EAA member. He joined Chapter 7 tonight.
OLIVER and NICK WALTON, sons of SCOTT WALTON, Chapter member
JIM SKYDELL, EAA member, program presenter

George McDaniel, Chapter President, informed members that this year's Christmas party will be a potluck in our meeting space, following the December 11 meeting.

Don Thompson, Chapter Vice President discussed voting for the next slate of officers. There is space on the ballots for write-in candidates. Don distributed the ballots and later collected them.

John Mahany, Chapter Flight Counselor, recently received another award, the aviation safety counselor of the year for the FAA's Long Beach District and for the Western Pacific Region, which includes California, Nevada, Hawaii and Guam.

John recommended a number of instructors for chapter members who are interested in aerobatics training. The best appears to be Bud Davison, who operates out of Scottsdale Airport in Arizona.

In early November John attended a long (5 hours) meeting with controllers from Southern California TRACON , representatives of Jet Blue Airlines and other general aviation users like himself. Only Long Beach Airport in the Los Angeles basin does not have flight following at start-up. After take-off the pilot must switch frequencies and contact TRACON for an assigned code. John got the impression that the tower at Long Beach Airport will eventually assign a code at start-up, like all the other towers. South departure out of Long Beach Airport is restricted because of the practice area due south of the field. John asked about a southwest departure to avoid the practice area. A southwest departure would be over the Palos Verdes Peninsula. John was told that minimum altitude over the peninsula is 15,000 ft. Apparently the people who live here have political clout.

Because of heavy traffic in the Los Angeles basin, any traffic rule changes are a complex deal. As far as rules are concerned, general aviation pilots have less input than the airlines. John will continue to attend these user meetings to listen and learn and to protect his future as a flight instructor. He will keep us informed about future meetings.

John recommended the aviation book section at the Long Beach Central Library to chapter members.

John will be bringing a high school student who wants a career in aviation to a future EAA meeting. The student's name is Chris Case. He is an Eagle Scout and has acquired the aviation merit badge.

John told members that Air Lifeline is critically short of pilots. Air Lifeline transports invalids who can't afford to fly by airlines to medical treatment centers. Air Lifeline also flies organs to hospitals. A minimum of 300 hours of flight time

are required. Insurance of one million dollars is required and the airplane used must be at least a four-seater.

George McDaniel informed members that Chuck Newcomer, Chapter Technical Counselor, is moving to Oregon. He informed members that Don Myhra, Chapter 7 member, has been elected President of Chapter 92.

George said that the millionth Young Eagle has been flown. More information is on the EAA internet site.

Darwyn Wolff, Young Eagles Coordinator, cannot predict if he will be free from work to coordinate the Young Eagles event on Saturday, December 13. He wants a volunteer to coordinate the event and to take over the paperwork.

Don Thompson, Eagle Vice President, asked members to join him on a Thursday morning, December 11, flight to Chino Airport for breakfast. He will organize a commemorative flight to Flabob Airport on Wednesday, December 17, the 100th anniversary of the Wright brothers first powered flights.

George said that a candidate for the Air Academy must be at least 12 years old.

Member Scott Walton brought a photo album of the KR2 he is building. The fuselage is longer than blueprint spec. It is a kitplane, but he said that he is building it nearly from scratch. He quoted Ken Rand, the designer, who used the notation on his plans, "improvise as needed."

PROGRAM

Jim Skydell, Director, 12th Region, Soaring Society of America, distributed information pamphlets and copies of a recent issue of Soaring Magazine. Jim was introduced to glider flying when he was a student at Cornell University. He got rated in a Schweizer glider. He closed his surgical practice several years ago. He moved to California where earlier he had first seen sailplanes built of composites and settled in California City.

In soaring adverse yaw is more of a problem than in powered airplanes. The rudder must be used constantly. Most sailplanes have a yaw string as an indicator on the windshield.

Jim's sailplane has a 42:1 glide ratio; a power off Cessna 172 has a 6:1 glide ratio.

There are two ways of getting airborne, being towed by a powered airplane or by winch. The winch at the California City Airport has a winch with a mile-long cable.

There is a term, net climb, finding air which is rising faster than the sailplane. Without net climb, the sailplane is flying downhill.

There are three kinds of lift: thermal lift ; over the Mojave Desert a thermal lift area can be 500 feet wide...ridge lift ...wave lift, over standing waves over the summits of mountains. If you find laminar flow over a standing wave your flight will be smooth. Release from the towplane is when the towplane stabilizes at the crest of the wave. Below the crest are areas of turbulence, called rotors, which are dangerous.

In 1986a sailplane out of California City set an altitude record of 49,009 feet. Distance record is 1532 miles.

Spoilers are used to bring the sailplane down for landing. Racing sailplanes carry water for added weight. Best climb performance is without water. Water is jettisoned before landing.

Later model sailplanes have, when assembled, an automatic hook-up device to ensure that control surfaces are correctly attached. Mode C transponders are installed for collision avoidance. These transponders must always be on. The Soaring Society of America is negotiating with the FAA to get a waiver to install battery-operated transponders.

The physical adaptation of the pilot involves three factors: altitude: temperature; fluid balance

The altitude adaptation is avoiding hypoxia. Already at 8700 ft MSL oxygen saturation begins to drop. The period of useful consciousness at 30,000 ft is 90 seconds. Without an oxygen mask or a pressurized cabin decompression sickness(the bends) sets in.

Flying out of California City the pilot must be prepared for a temperature variation of 110 degrees Fahrenheit on the ground to minus 40 degrees Fahrenheit riding the crest of a wave.

For long flights the pilot must maintain fluid balance. It is healthy to urinate every 30 minutes. Less frequent means that the pilot has inadequate fluid intake.

This is what is necessary to go somewhere:

1. Always stay within range of a runway.
2. Know alternate landing sites.
3. Be skilled at pinpoint landings.
4. Plan ground crew retrieval for out landings.
5. Have emergency equipment on board, including ELT (Emergency Locator Transmitter).

A sailplane flight is a lift, sink, lift sequence. Flights are not allowed into Class A airspace. A n on board computer can provide a stream of data from a GPS, a database providing optimum speed, navigation data to goal.

A glass sailplane with a 20 meter (65 ft) wingspan has a glide ratio of 60:1. But it has half the roll rate of a sailplane with a wingspan of 15 meters (49 ft 7 in). California City control tower frequency is 133.65 MHz.

**In our dreams we are able to fly
And that is a remembering
of how we were meant to be.**

Madeleine L'Engle

REFRESHMENTS

December. Chuck Newcomer
January Bill Haynes

If you would like to volunteer for refreshments please contact George McDaniel. Day 562 / 630-1175, evening 949 / 951-0957.

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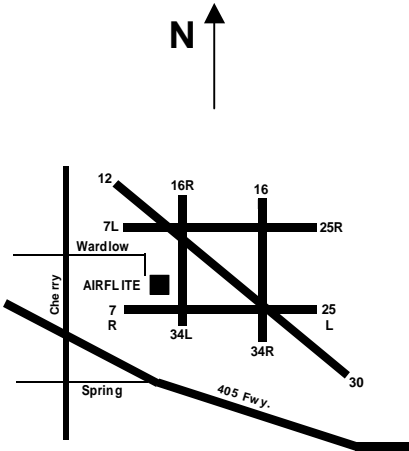
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Chapter 7 meets on the second Thursday of each month at 7:30 pm.

We meet at the AIRFLITE facility on the long Beach Airport. Airflite is located on the west side of the airport near the C-17 building. Go east on Wardlow Road from Cherry Avenue to the **Airflite** sign. Turn right, go to the large parking lot at the end and park. Go upstairs to the third floor with the large open area. Board meetings begin at 6:30 p.m. Board meetings are open to all members.

Web-Site: www.eaa7.org

EAA Chapter Seven Non-Profit Declaration and Legal Disclaimer

EAA Chapter Seven exists as a non-profit organization whose sole purpose is to promote the interests of its members. EAA Chapter Officers, Directors and Leaders serve without compensation and have sworn to carry out the will of the membership by means of Democratic processes and rules of order set forth in the Chapter's by-laws. No claim is made and no liability is assumed, expressed or implied as to the accuracy or safety of material presented in this publication. Viewpoints of those who contribute to this newsletter are not necessarily those of EAA Chapter 7, the EAA, or their board members. You must be of good character, adhere to the chapter's by-laws, and respect the chapter's Mission and Value Statement to become a member of the chapter. Dues are \$12.00 per year payable to Chapter Treasurer. Chapter dues are payable at the first meeting of the calendar year. New members joining after the first month are prorated at \$1.00 per month through December of the calendar year. Member correspondence and newsletter contributions are encouraged which can be submitted by mail to the address appearing on this page or my e-mail.



Chapter 7 Newsletter

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**ADDRESS CORRECTION
REQUESTED**