

Newsletter



569

Lincoln, NE

March, 2007

Meeting Announcement

Date: Tuesday, March 6
Time: 1930 hrs
Place: Duncan Aviation Engine Shop
Shop Classroom
Program: Mark Novak

Mark Novak will share with us his experience of flying his T-6 Texan and various other military aircraft.

There is a Ford in your future

President's Message

Dennis Crispin



The big news this month is that we have been selected to host the EAA's Ford Trimotor on its fall tour. I have tentatively accepted the invitation pending approval of the chapter. The proposed dates are Thursday thru Sunday, September 20 thru 23. The aircraft will fly passengers each day at \$50.00 per ticket. It will be available for public viewing when not flying.

The three engined Ford airplane was the first American aircraft designed to be a scheduled passenger airliner. First operational in the late 1920's, the Ford was involved with a great many of the things that we take for granted in modern

air transport. Paved runways, passenger reservations, presold tickets, radio navigation, in-flight meals, and onboard restroom facilities were all innovations that came with the Ford. The Trimotor had only a short service with the fledgling airlines. The Boeing 247, Douglas DC-2 and others came onto the scene by the mid 1930's and rendered the Ford "Tin Goose" very obsolete. The aircraft soldiered on for another 50 years in a variety of third world and bush operations.

Of the few hundred built only a handful remain in existence, mostly as museum pieces. The EAA's Ford Trimotor, now fully restored to original airline condition, is the only one that regularly flies passengers. We are honored to have the chance to exhibit this rare bit of living history.

Last month we announced that Steve Davey has found it necessary to resign as our Vice-President. He is moving out of state to pursue career opportunities. Here is a great big thank you to Steve for doing a great job as Vice-President and being a fine member of our chapter.

Eric Corbridge, our newly elected Vice-President, is off and running and has a good start on getting our meeting programs organized for the year.

The e-mail has been busy lately with information on the pending regulations that are being formulated by the FAA. There are some rather nasty words being bandied about like "more fuel taxes", "higher licensing costs" and "user fees". One fear is that a much more restrictive regulation on air tours might put the EAA's Young Eagle program out of business. I don't understand it all. Would some member who

understands regulations and politics like to look into this and report to our group? This might be a good opportunity to do some organized letter writing to senators, congressmen and the FAA. Read Tom Poberenzy's comments at:

<http://www.eaa.org/communications/eaanews/070214airtour.html>.

I made a goof in last month's newsletter. The trial plans set that we have is for an RV-7 – not an RV-8. The plans are complete with the drawings at a reduced scale. Even if you are not contemplating building a Van's aircraft, the plans contain a world of great information. I intend to read them when time permits. Roger Aspegren will retain custody.

Dennis Crispin
President EAA Chapter 569



1929 Ford Tri-Motor 4-AT-E – NC8407

(source <http://www.airventuremuseum.org>)

Henry Ford mobilized millions of Americans and created a new market with his Model T “Tin Lizzie” automobile from 1909 to 1926. After World War I he recognized the potential for mass air transportation. Ford's Tri-Motor aircraft, nicknamed “The Tin Goose,” was designed to build another new market, airline travel. To overcome concerns of engine reliability, Ford specified three engines and added features for passenger comfort, such as an enclosed cabin. The first three Tri-Motors built seated the pilot in an open cockpit, as many pilots doubted a plane could be flown without direct “feel of the wind”.

Ford Motor Company built 199 Tri-Motors from 1926 through 1933. EAA's model 4-AT-E was number 146 off Ford's innovative assembly

line and first flew on August 21, 1929. It was sold to Pitcairn Aviation's passenger division, Eastern Air Transport, whose paint scheme is replicated on EAA's Tri-Motor. This is why our Ford resides in the Pitcairn hangar at Pioneer Airport. Eastern Air Transport later became Eastern Airlines.

In 1930, NC8407 was leased to Cubana Airlines, where it inaugurated air service between Havana and Santiago de Cuba. The airplane was later flown by the government of the Dominican Republic.

EAA's Ford Trimotor returned to the U.S. in 1949 for barnstorming use. In 1950 it was moved from Miami, Florida to Phoenix, Arizona and was refitted with more powerful engines for use as a crop duster. With two 450 HP engines and one 550 HP engine, it became the most powerful Model 4-AT ever flown. In 1955 it was moved to Idaho and fitted with two 275 gallon tanks and bomb doors for use as a borate bomber in aerial fire fighting. Then in 1958, it was further modified for use by smoke jumpers.

After working for a variety of crop spraying businesses, our Tri-Motor moved to Lawrence, Kansas in 1964, where its new owner flew barnstorming tours. During this period it had a variety of roles, including serving as the primary setting for the Jerry Lewis comedy, “The Family Jewels.” In 1973, the aircraft was still being used for air show rides, including the EAA's Fly-In at Burlington, Wisconsin. While at the 1973 EAA Fly-In, a severe thunderstorm ripped the plane from its tie-downs, lifted it 50 feet into the air and smashed it to the ground on its back. EAA subsequently purchased the wreckage.

After an arduous, twelve-year restoration process by EAA staff, volunteers and with assistance from Ford Tri-Motor operators nationwide, the old Tri-Motor once again took to the air. Its official debut was at the 1985 EAA convention in Oshkosh. It was displayed in the AirVenture Museum until 1991 when it returned to its former role of delighting passengers. Ford Tri-Motor NC8407 is the flagship of EAA's Pioneer Airport, a part of the AirVenture Museum experience.

In preparation for its 75th birthday year, the airplane received a new coat of paint in

November 2003, kindly donated by Gulfstream, Appleton.

Ford Tri-Motor 4-AT-E Specifications

Length 49 ft. 10 in.
Height 12 ft. 8 in.
Wingspan 74 ft.
Total Wing Area 785 sq. ft.
Gross Weight 10,130 lbs.
Empty Weight. 8,013 lbs.
Engines (three) Pratt & Whitney R985
Fuel Capacity 234 gal.
Fuel Consumption 45 gal./hr..
Oil Capacity 24 gal.
Stall Speed 64 mph
Normal Cruise 90 mph
Range 500 miles
Price At Factory \$42,000.

Aviation Career Exploration Camp

For many years, the Department of Aeronautics has embarked on a vigorous aviation education program designed to reach the youth of America with ideas and opportunities for careers in aviation. This program is our Aviation Career Exploration (ACE) camp designed for youth 13-17 years of age. The camp is geared toward motivating, inspiring and challenging our young people to follow their dreams. Our ACE camp also provides the opportunity to develop an awareness of the role of aviation in our society and to encourage students to explore career opportunities in the field of aviation.

This year the camp will be held June 17 - 22, with the students based at the Platte River State Park, midway between Omaha and Lincoln. The students will spend their days exploring the many facets of aviation. Tours include an FAA Control Tower and Radar Approach Control Facility, the Strategic Air & Space Museum, both the Air & Army National Guard, the Lincoln Airport, Duncan Aviation and Offutt AFB. The students will receive an orientation ride in an airplane and learn about aerodynamics, aviation weather, flight planning and rocket building. The camp wraps up on Friday, June 22, with a

graduation ceremony at the Strategic Air & Space Museum theatre. Parents and guests are all invited.

The camp proves to be a break from the ordinary summer time activities and is an interesting week long adventure in exploring the many rewarding career areas in aviation. For more information about ACE Camp 2007, contact David Morris at the Nebraska Department of Aeronautics, e-mail David.Morris@aero.ne.gov or 402-471-2371.

SUPERIOR AIR PARTS CYLINDERS AD

The FAA has issued AD2007-04-19 which is effective March 12, 2007. This AD applies to Superior Air Parts, Inc. (SAP), cast cylinder assemblies, part numbers (P/Ns): SA47000L-A1, SA47000L-A20P, SA47000S-A1, SA47000S-A20P, SA47000S-A21P, SA52000-A1, SA52000-A20P, SA52000-A21P, SA52000-A22P, SA52000-A23P, SA55000-A1, SA55000-A20P installed in Teledyne Continental Motors (TCM) 470, 520, and 550 series reciprocating engines.

This AD also applies to SAP, cast cylinder assemblies, P/Ns SL32000W-A1, SL32000W-A20P, SL32000W-A21P, SL32000WH-A1, SL32000WH-A20P, L32006W-A1, SL32006W-A20P, SL32006W-A21P, SL36000TW-A1, SL36000TW-A20P, SL36000TW-A21P, SL36000TW-A22P, SL36000W-A1, SL36000W-A20P, SL36000W-A21P, SL36006W-A1, SL36006W-A20P, and SL36006W-A21P installed in Lycoming Engines (LE) 320, 360, and 540 series reciprocating engines and Avco Lycoming 540 series reciprocating engines.

This AD results from the discovery of nine separated SAP cylinder assemblies installed in TCM 470, 520, and 550 series reciprocating engines and one separated SAP cylinder assembly installed in LE 320, 360, and 540 series reciprocating engines. We are issuing this AD to prevent cylinder separation that can lead to engine failure, a possible engine compartment fire, and damage to the airplane.

The affected Part number and serial numbered cylinders must be removed from service by 150 hours time in service, due to improper hardening. The affected part numbers and serial numbers

were manufactured between April and November 2005.

For the complete text of this AD:[http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/0/c4a8f058198aa6dc8625728b0051cf75/\\$FILE/2007-04-19.pdf](http://www.airweb.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/0/c4a8f058198aa6dc8625728b0051cf75/$FILE/2007-04-19.pdf)

Superior Air Parts has issued Service Bulletin B06-1 E titled Cylinder Assembly Recall Due To Head Cracking. This bulletin called out in the AD, also lists the cylinder part numbers and serial numbers. The web page that this bulletin is listed on also includes a Quick Check Form to determine if your cylinders are affected.

Superior also includes a Warranty claims form on their web site. You must have the cylinder part numbers and serial numbers and time in service for both forms. Superior is allowing a labor allowance of 3 to 8 hours depending on cylinder location on the model engine. Superior will replace any affected cylinders with either Standard Cast or Investment Cast cylinders.

For the Superior Service Bulletin, Quick Check and Claims Form

<http://www.superiorairparts.com/sb0601/>

Minutes of the Club Meeting February 2, 2007

1. Introduction of guests and builder's reports.
2. Treasurer's report.
3. Steve Davey, Vice President will be moving to Houston, TX. Erick Corbridge was elected to take over Vice President.
4. We may help out with Young Eagles flights at Evelyn Sharp days in Ord.
5. Possible locations for another mall show were discussed.
6. Possible events for 2007 were discussed.
7. Doug Volkmer discussed the status of his RV-7A project.
8. John Zimmer showed slides from his Alaska trip in his Piper Arrow.

Rich Boelts, Secretary

Minutes of the Executive Meeting February 17, 2007

1. The change of Vice President was discussed.
2. A gift certificate for Crete Aviation.
3. Young Eagles Flights – obtain a list for the newsletter.
4. Ford Trimotor will be in Lincoln Sept 20 thru 23. Rides will be \$50. Items we need to address regarding the visit:
 - supply hangar space for the Trimotor
 - coordinate with airport authority
 - contact antique car clubs
 - contact Historical Society
 - contact newspaper, TV and radio
 - provide housing for crew
 - contact local businesses about sponsorship
5. We still need to organize some flying activities.

Rich Boelts, Secretary



Things to Do

- Mar 3** – Chapter 1055 Breakfast –
8:00-10:00 - York, NE
- Mar 6** - EAA Chapter 569 Meeting –
Duncan Aviation Engine Shop, 7:30pm
- Mar 7** – Free AOPA Air Safety Foundation
Seminar. Topic: “Say it Right!
Radio Communication in Today’s
Airspace”, 7:00pm – 9:00pm,
Bellevue West High School
Main Cafeteria, 1501 Thurston Avenue
Bellevue, NE - Phone: 402-293-4046
- Mar 17** – Chapter 569 Breakfast –
7:30-10:30 - Crete, NE
- May 27** – Young Eagles –
Evelyn Sharp Field – Ord, NE

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For Sale

OXYGEN SYSTEM FOR SALE: Sky Ox 24 cu ft aluminum cylinder with 2-place regulator, mask, 2 cannulas, and case. Filled with oxygen but never actually used. Sporties 7498A, list \$530 (without oxygen). Asking \$350. Wayne Martin 488-6849 cwsmart@windstream.net.

To: Dennis Crispin
President, EAA Chapter 569



Dear Dennis,

I would like to take this opportunity to say I really enjoyed your February newsletter. It was very educational and will be helpful to Chapter 569's membership. The accident report is quite similar to many that I read. I receive accident reports daily and I've been reading them for many, many years. They all seem to be very similar, rarely is there a new and very unusual one. Gear up landings are common and, of course, ground loops, forgetting to put the landing gear down, running off the end of the runway hasn't changed much over the last 60-70 years. The question from the private pilot test exam is also very helpful to the reader and pilot and I can well remember when flight instructing, once a person got the private license, I would offer them another free lesson. The answer usually was "I already got my license" and that would be the last you would hear from the pilot.

Give Doug Volkmer an A+ for putting out a very fine, informative newsletter.

Sincerely,
Paul H. Poberezny
EAA Founder and Chairman of the Board

Accident Report

Accident occurred Thursday, March 24, 2005 in Cascade, MT

Aircraft: Abbott Glasair Legend, registration: C-GUTT

Injuries: 1 Uninjured.

The aircraft was descending in light snow, at idle power, on an ILS approach when it passed through an area where the outside air temperature increased from eight degrees Fahrenheit to thirty-two degrees Fahrenheit in a time span of about 20 seconds. Soon thereafter the aircraft's engine suddenly stopped producing power. Because he was unable to get the engine restarted, he descended straight ahead, and eventually lowered the landing gear for an attempted off-field power-off landing. Although he was able to make an uneventful touchdown in a rough open snow-covered field, as the aircraft began to roll, its wheels sunk into the snow, and all three gear legs collapsed. When the gear collapsed the airframe contacted the terrain and sustained substantial damage. After the accident, recorded data was downloaded from the aircraft's electronic engine fuel control system, and it was determined that at the time of the power loss, fuel pressure to the engine was within normal parameters, but N1 rpm and ITT (inter-turbine-temperature) were dropping. An inspection of the engine did not reveal an evidence of any anomaly or malfunction, but it was discovered that just upstream from the compressor, and just downstream from the NACA-form engine air inlet ducts, was a protective screen with one-eighth inch diameter openings in its surface. The loss of power during the sudden OAT increase was consistent with the previously dry snow becoming wet and heavy during the rapid temperature increase, and then accumulating on the aforementioned protective screen, starving the engine of inlet air.

The National Transportation Safety Board determines the probable cause(s) of this accident as follows:

The accumulation of wet snow on the engine inlet assembly protection screen during a rapid increase in outside air temperature, while on an instrument

approach for landing. Factors include falling snow, a sudden and significant increase in outside air temperature, and rough, snow covered terrain in the area where the pilot found it necessary to attempt a forced landing.

Questions from the Private Pilot Test Exam

1. How will frost on the wings of an airplane affect takeoff performance?
 - A. Frost will disrupt the smooth flow of air over the wing, adversely affecting its lifting capability.
 - B. Frost will change the camber of the wing, increasing its lifting capability.
 - C. Frost will cause the airplane to become airborne with a higher angle of attack, decreasing the stall speed.
2. Every physical process of weather is accompanied by, or is the result of, a
 - A. movement of air.
 - B. pressure differential.
 - C. heat exchange.
3. A temperature inversion would most likely result in which weather condition?
 - A. Clouds with extensive vertical development above an inversion aloft.
 - B. Good visibility in the lower levels of the atmosphere and poor visibility above an inversion aloft.
 - C. An increase in temperature as altitude is increased.
4. Which conditions result in the formation of frost?
 - A. The temperature of the collecting surface is at or below freezing when small droplets of moisture fall on the surface.
 - B. The temperature of the collecting surface is at or below the dewpoint of the adjacent air and the dewpoint is below freezing.
 - C. The temperature of the surrounding air is at or below freezing when small drops of moisture fall on the collecting surface.

Answers: 1. (A) 2.(C) 3.(C) 4. (B)

**A MESSAGE FROM
EAA FOUNDER, PAUL POBEREZNY**

I guess as Willie Nelson would say in his song, we are "on the road again." A new beginning for some newly-elected Chapter presidents and officers as well as old (and we don't mean of age). But I guess old is a nice experience as we learn more about our fellow human beings.

As mentioned by EAA Headquarters in a recent e-mail, I offered to be of help to our Chapter Program and share some of the articles I came across while reading Chapter newsletters (which over the years has been thousands). I know of no other aviation organization that has accomplished so much for the good of aviation with our 950+ EAA Chapters - maybe they should be called "churches" with many denominations of varied interests of aviation.

For me, it is difficult to realize how quickly my life has passed by for it was more than half of a century ago when Ray Stits of Riverside, California stated that he would like to form the first EAA Chapter (1953). Others followed; some failed along the way maybe due to a lack of enthusiasm, leadership or not enough local interest. But then some encouraging leadership appeared and the chapter was reborn.

Many years ago some members objected to their aircraft being called "experimental." It was felt that "experimental" was a word degrading their handy work. I suggested the word "custom-built" (I even mentioned it to FAA on one of my many visits to Washington). My FAA friends told me it would be difficult to change, dollar-wise and any forthcoming regulation could conceivably be more restrictive than what we were enjoying at the time. The issue was brought to the membership. The word "experimental" was the word of choice and as we can see today, has had no negative impact on this wonderful movement, working with hand and mind, to be creative, and to explore through the freedoms we as aircraft homebuilders have earned by its safety record and quality of workmanship. One only has to look at what you/we - the experimenters, far-reaching thinkers, craftsmen and women have accomplished:

non-stop flights, non-refueled around the world, flights into space and thousands of designs operating with a very reasonable safety record. The many aviation companies, large and small, supplying kits, hardware, engines, propellers etc.

Some times I have wondered who are we? I know what the letters E.A.A. stand for - Experimental Aircraft Association - but what is it that brings us together? It came to me while reading Chapter newsletters and attending fly-ins or Chapter meetings. We are an aeronautical, educational and social group. Each of these elements bring us together and if we take one of these elements away, I don't think we would be the wonderful family we are and aviation is richer for it. That large growing family now extends around the world. We will continue to read your Chapter newsletters and will share with you and your Chapter newsletter editor some of the fine articles we read in other newsletters. Maybe we can reduce the ever-increasing plea of newsletter editors to their own Chapter members stating "I can't print anything if you don't send in anything."

EAA Chapters represent a lifeline of communication between its members and EAA Headquarters. Let's keep the lines of communication open and rest assured we're reading your Chapter newsletters.

Sincerely,

Paul H. Poberezny
Founder and Chairman of the Board

GA SALES SET ANOTHER RECORD IN '06
General aviation experienced a record \$18.8 billion in 2006 industry billings according to figures released by the General Aviation Manufacturers Association (GAMA). Shipments of every type of GA aircraft increased, including pistons, 2,465 to 2,750 (11.6 percent); turboprops, 365 to 407 (11.5 percent); and business jets, 750 to an all-time high 885 (18 percent). The total billings represented a 24.1 percent increase over 2005.

To view the complete report, visit <http://www.gama.aero>.



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