Silent auction successful...
The Aero Club sponsored a silent auction on September 6 during the Vintage Aircraft day at Wings Field. Auctioned off were numerous aviation-related items including photos, books, prints, original oil paintings, pins, models and other items from the collection of the late Rusty Russell, former Aero Club board member. Over two thousand dollars was raised for the Aero Club Scholarship Fund. Only a few items remained unsold.

First Flight stamp issued...
The Postal Service has printed 85 million copies of a First Flight commemorative stamp. It depicts Orville at the controls of the 1903 Wright Flyer at Kill Devil Hills, N.C. Information is available at USPS.com.

Aging aircraft guide available...
From the EAA: The FAA's Best Practices Guide for Maintaining Aging General Aviation Airplanes is now available for download in PDF format on the EAA website (www.eaa.org). The FAA recently mailed hard copies of the guide to U.S. owners of single- and twin-engine aircraft with reciprocating engines built in or before 1974. EAA and other aviation organizations contributed to the guide, which provides guidance for owners and type clubs to develop checklists and other information specific to a model type.

NASA attempts to see wingtip vortices...
Thirty years ago the destructive effects of swirling wingtip vortices were just barely understood. Now, researchers from NASA's Langley Research Center use newly development equipment to collect acoustic data at Denver International Airport and track the vortices with laser radars. Scientists will also test new gadgets from Lockheed-Martin and Flight Safety Technologies that, when aimed at active runways, listen for the existence of sounds which would identify

100th Anniversary of Flight Celebration

Don't miss the Aero Club of Pennsylvania's 100th Anniversary of man powered flight on December 17, 2003. The Aero Club of PA, formed in 1909, will celebrate the Centennial of First Flight with a gala dinner at the at the Desmond Hotel in Great Valley, PA. The guest speaker will be former astronaut Dr. Joseph P. Allen, Mission Scientist for the Apollo 15 exploration of the lunar surface. Dr. Allen was the primary contact with lunar astronauts Dave Scott and Jim Irwin. He will provide first hand experience of the serious as well as humorous aspects of man's exploration of the moon.

Our location will again be the beautiful Desmond Hotel, conveniently located in the heart of Chester County. The hotel boasts some of the area's finest meeting rooms. We will be provided with a premier meal and high quality service.

Once again, we will open the dinner to members and non-members. Attendance is hoped to exceed 100. See page 7 for more details about the dinner and the reservation form.

Joe Allen is an Iowa-born physicist, who received his doctorate degree from Yale University. Currently, Joe is Chairman of the Board of Veridian, Inc. of Arlington, Virginia.

At the time of Apollo 15, Joe manned the Capcom console and was the primary contact between the astronauts and Houston control.

Published quarterly by the Aero Club of Pennsylvania for those interested in aviation in the Greater Delaware Valley

Continued on Page 3...
PRESIDENT’S MESSAGE

Norm Blanchard

On December 17th, 2003, the Aero Club of PA will celebrate the centennial of the Wright Brothers’ First Flight, at the prestigious Desmond Hotel in Great Valley, PA. Please turn to page seven right now, fill out the reservation form, write the check, and mail it to our PO Box in Blue Bell, PA. Invite your family, neighbors, and friends, as you will not want to miss this opportunity to hear from former astronaut, Dr. Joseph P. Allen, Mission Scientist for the Apollo 15 exploration of the lunar surface. Joe has a great sense of humor and was pivotal to the success of the lunar mission. It will be an exciting evening as we celebrate this seminal event in aviation history.

Were the Wright Brothers the first to fly? Not really. Jean-Francois Pilatre de Rozier “flew” in a hot air balloon in 1783. In 1890, Clement Adler (French national) bounced a ball like, steam powered device a few inches off the ground for over 150’, but it was neither a controlled nor a sustainable flight, and he subsequently abandoned the project. Later, in 1894, Sir Hiram Percy Maxim (American born inventor of the Maxim machine gun) “flew” a heavy, steam powered machine a few inches above a tethered railroad track, and his contributions to aviation were considered by his contemporaries as both original and significant. Most pioneers of flight credit Otto Lilienthal (German) for his early flights with hang gliders as significant to the science of aeronautics. Unfortunately, Lilienthal died in a hang glider crash in 1896. On October 10th, 1898, Augustus Moore Herring flew a compressed air engine hang glider for about 50’ in St. Joseph, Michigan, but was never credited as flying the first heavier than air machine, although a newspaper reporter witnessed the event. Samuel Pierpont Langley (former head of the Smithsonian) failed an attempt to fly a piloted aircraft only days before the Wright Brothers’ First Flight. The rivalry between Langley and the Wright Brothers’ resulted in the Wright Flyer being sent to the Science Museum in London, and it did not return to the U.S. until after 1948, following Orville Wright’s death.

So, on December 17th, we will celebrate the first sustained, piloted, controlled, and powered, heavier than air flight, thanks to the Wright Brothers’. Come celebrate with us at the Desmond Hotel.

BOARD OF DIRECTORS REPORT

Jeff Kahn, Secretary

The Aero Club board met at Wing’s Field on October 23, 2003. Tim Boyle provided the treasurer’s report. Reduced expenses helped improve the club’s cash position. In addition, positive market forces, new contributions, and proceeds from the silent auction have increased the value of the Scholarship fund. Steve Najarian provided a marketing report. The primary effort underway is the advertising for the Wright Brothers’ Dinner. Rob Dant reported on progress of this issue of PA Pilot. Nancy Kyle reported on the success of the silent auction which took place on September 6. Total proceeds exceeded $2,000. Tim Boyle reported for Lou Fitzpatrick on membership. The club is in the middle of its membership renewal drive. More than half of current members have renewed so far.

On new business, Norm Blanchard discussed progress of preparations for this year’s historic Wright Brothers Dinner. An all-out effort is underway to provide the best dinner yet and to raise attendance beyond the 100 mark. Invitations will go out to prominent local aviators. Dinner information will be posted at local airports and e-mail announcements will go out to local aviation organizations.

Finally, following the club’s new goal of a maximum 2-year presidential term, President Norm Blanchard will step down as of the Dinner. Current secretary Jeff Kahn is expect-
AVIATION NEWS
Continued from Page 1...

fy the vortices. Lasers can actually detect sounds. Implementation is a few years off, but the goal is to let controllers know exactly where vortices are so that they can speed airport operations.

Sleep tight America... Think how things have changed at your favorite airport since 9/11. Fences where there didn’t used to be fences; proplocks, barbed wire, ID cards, and more. Yet recently, officials at Gerald R. Ford International Airport, in Grand Rapids, Mich., were shown how easily all of that can be circumvented by a man with a mission. The Associated Press reported that a 21-year-old man was arrested after he climbed a 10-foot fence and boarded an empty Comair jet parked with its door open and ladder down. The suspect took a seat toward the rear of the jet, but was later detained by crew members until airport police arrived. His motivation, however, appears to have been (relatively) benign; it seems he was trying to get to New York to visit Howard Stern’s radio show.

New fractional rule... From AOPA: Capping a multiyear effort, the FAA recently announced updates to safety and compliance requirements for fractionally owned aircraft. The good news is that it doesn’t affect smaller aircraft flown by the people who own shares, or flying clubs and partnerships. The FAA made it clear that the new rule only concerns those who provide professional flight crews, traditionally for jets. Fractional programs are created by people or corporations that share ownership while the aircraft are scheduled and maintained by a management company. Since the number of fractional programs has increased in the past 16 years, the FAA thought the changes were necessary. The rule takes effect in December 2004.

Reducing fatal accidents... Although equipment failures do occur, most aircraft are operating normally when they crash. The FAA is making GA accident prevention a priority through training and technology. The FAA set a “goal” of 374 fatal GA and Part 135 accidents for 2003, but this year hasn’t gotten off to a promising start. By the end of July there had already been 299 fatal accidents. By 2007, the FAA wants no more than 350 fatal accidents. Apparently, the only way that will be achieved is if pilots set similar goals, because human factors are by far the leading cause of aircraft accidents.

Air Museums

Greater Delaware Valley Air Museums

Army Air Field Museum (MIV)
Millville Airport, NJ
P47 artifacts and WWII memorabilia
www.p47millville.org

American Helicopter Museum (N99)
Brandywine Airport, West Chester, PA
Helicopters, displays, photographs, interactive exhibits
www.helicoptermuseum.org

Air Victory Museum (VAY)
South Jersey Airport, Lumberton, NJ
Aircraft, Engines, F-86L, F-104G, Smith Mini Biplane
www.airvictorymuseum.org

Delaware Valley Historical Aircraft Assoc (NXX)
Willow Grove Naval Air Station
Messerschmitt 262b-1a, UH-1V, F7U-3, YF2Y-1, F9F-2, C-1A, F-14A, P-3B Orion, FJ-4B Fury, A-4M, HUP-2
www.dvhaa.org

Naval Air Station (WWD)
Wildwood, Cape May Airport, Hanger #1
F4F Wildcat, SNJ Texan, SB2C Helldiver, PBY, F4U
www.usnasw.org

MidAtlantic Air Museum (RDG)
Reading Regional Airport, Reading, PA
B-25, DC3, P2V Neptune, Martin 404, Vickers Viscount
www.maam.org

Golden Age Air Museum (8N1)
Grimes Airfield, Bethel, PA
1926 Winstead Special, 1930 Great Lakes, 1931 Bird CK, 1932 Pietenpol Air Camper, Cessna 195
www.goldenageair.org

Air Mobility Command (DOV)
Dover Air Force Base
C-5, C-54, B-17, C-47, C-141, P-51, F-101, PT-17
Restorations: KC-97, C-121 Super Constellation, C-133
www.amcmuseum.org

Glenn L Martin Aviation Museum (MTN)
Martin State Airport, Hangar #5
Martin 202, A-7 Corsair, F4 Phantom, B-57, More
www.aviaatlantic.com/glmartin.html
Delaware Valley Regional Planning Commission Meeting Report

AIRPORT NEWS

September 11, 2003
By Steve Najarian

PHILADELPHIA INTERNATIONAL [PHL]
Terminal E hammerhead construction is proceeding. The new STARS radar installation will provide additional operating capacity. Terminal D hammerhead is in design stage and will provide additional gates for Altrans.

PHILADELPHIA NORTHEAST [PNE]
Hangar work will be completed by the end of the year. Two new taxiways are in design stage.

DOYLESTOWN [DYL]
Taxiway paving and stormwater runoff system project is near completion. A bi-pass taxiway will also be constructed.

QUAKERTOWN [UKT]
20 new hangars are under construction. Penn Dot has provided funds for taxiway construction. Open house for neighbors is planned to improve relations with the community.

TRENTON MERCER [TTN]
Runway 16-34 rehab, lighting, and PAPI/REIL installation is underway. Corporate activity is brisk as Merck doubles its hangar size and nine new small corporate size hangars are under construction.

POTTSTOWN LIMERICK [PTW]
126 aircraft visited the airport during the "Fly-In Breakfast." 960 meals were served. The airport owner, Exelon, a Chicago based company, does not want to be in the airport business. They have not yet announced their intention regarding plans for the airport. Montgomery County is considering acquisition.

SUMMIT [EVY]
Master Plan is nearly completed. Runway extension to 5320 feet is planned with no land acquisition required. Open house for community relations' enhancement is planned.

FLYING W [N14]
Parking ramp improvements are done.

WINGS [LOM]
Facility improvements including a new itinerant parking apron to reduce noise is planned and has initially been rejected by the local township. New proposed hangar construction plans also include noise abatement considerations. The airport has instituted a noise abatement program with the local pilots, including relocating the medivac helicopter parking to avoid tension with neighbors.

NEW GARDEN [NS7]
Phase 2 of the Airport Master extension has been received, as well as a grant for environmental assessment. A pre-app for hangar expansion will be considered for FY 05. Positive signs for acquisition of the airport by the local government have surfaced.

BRANDYWINE [N99]
The construction of new hangar facilities on the northeast corner of the airport is nearly complete. Flight Dynamics has moved its aircraft maintenance operation to one of the cells of the new hangar facility. Harborsburg Jet Center is leasing space in Brandywine Aero's maintenance hangar for aircraft maintenance and soon to follow avionics shop. The new maintenance shop is open for business. Aviation Day invited the neighbors to inspect the airport facilities. Free rides in two J-3 cubs, a SkyArrow, and Piper Dakota were well received and overall the event was successful. The Helicopter Museum will had its annual "RotorFest" event on October 18th.

CECIL COUNTY [58M]
A second community hangar is complete and ten T hangars will be installed. The PAPI is operational. Land acquisition of 46 acres is ongoing and ramp and taxiway access is complete. Anticipating future TSA requirements, security guidance is being developed by the Maryland Department of Transportation and the Airport Owners Association. Washington-Baltimore ADIZ air traffic control security modifications are hurting several airports in that area.

PHILADELPHIA SEAPLANE BASE [9N2]
Seaplane training continues at this historic site at Essington, PA under Bob Mills airport license. Hank Grenfel serves as airport manager and FAA Designated Pilot Examiner. Lou Fitzpatrick serves as CFII for recommendation checkrides.

The beacon image to the left is a composite photo. The tower portion is from the beacon at the former Shannon Airport in Downingtown, PA, and is still in place today. The light is the previous light atop the Chester County Airport (40N) beacon tower.

Featured Aero Club Discount Merchant

Featured Aero Club Discount Merchant

Piedmont Hawthorne Aviation [ABE]
Hawthorne Aviation at Lehigh Valley International Airport is your stop when travelling in and out of Allentown. Hawthorne's facilities include a pilot lounge, weather planning station, modem lines, conference room, and vending area. Courtesy van service is normally available to local destinations, and rental cars are available for distant locations. Ramp space is plentiful and aircraft handling is available up to Boeing 727. Capabilities include de-ice, cargo handling, GPU's, and airdstart, and Hawthorne is a certified repair station. So whether you are flying your C-152 or Boeing 727 into Allentown, fly in to ABE and ask ground for taxi to "Hanger 7".

The lobby is manned from 6AM to 10PM, but line services is available 24 hours. Telephone, 610-266-7343 or 800-796-0050. http://www.flypiedmont.com/abe

WEEKEND 100LL FUEL DISCOUNT

General Manager: Paul Tobin
Former GA columnist and Aero Club President dies

Frank Kingston Smith, a former president of the Aero Club of Pennsylvania and the aviation author who coined the term “weekend pilot”, died in Florida at age 84. Smith wrote the book “Weekend Pilot” that caught the imagination of the non-flying public. He had suffered from Alzheimer’s disease for several years. Smith contributed articles to “AOPA Pilot” beginning in the 1960s and wrote a popular column in the magazine from 1978 to 1983. In the 1970s he headed a Washington, D.C.-based aviation trade association. Starting in 1987 he worked for Piper Aircraft as a goodwill ambassador for general aviation, encouraging the public to learn to fly. He wrote nearly 1,000 articles and 16 books. Smith began his career as a Philadelphia lawyer who was urged by friends to use flying as a way to relax.

FAA unveils new pilot certificates...

From EAA: FAA Administrator Marion Blakey told a dismayed crowd at a forum at EAA AirVenture that it could be another year before the final rule on Light Sport Aircraft/Sport Pilot is complete. Blakey had initially drawn a standing ovation when she said she has signed off on the rule, but when she added comments about the delay, the disappointment was shared among the attendees. The rule now must be scrutinized by the Department of Transportation and the Office of Management and Budget. Blakey said she’s being conservative in her timeline estimate and it’s possible the process will take six months or less; but she doesn’t want to raise any false hopes.

New certificates, TFRs...

From EAA: FAA Administrator Marion Blakey commented that TFRs are here to stay (so let’s learn how not to bust them), the age-60 rule isn’t going anywhere, there’s nothing the FAA can do to change the fate of Meigs Field, and new pilot certificate (sporting an FAA logo hologram and other safety features) will be issued to all airmen as they achieve new ratings. Blakey reminded the crowd that the TSA and the Secret Service play a major role in creating security-related restrictions and the FAA is trying to get the word out to pilots as soon as possible when new restrictions are implemented. She said they’ve even used local media to broadcast warnings of new TFRs. Blakey said she welcomes suggestions on how to improve the notice process. Blakey also confirmed that more pop-up TFRs are likely as the 2004 election race swings into high gear.

Pilots unprepared for next generation airplanes...

A recent “General Aviation Technically Advanced Aircraft FAA-Industry Study” says, “The traditional GA training system has inadequate methods, and does not specifically include training to exploit the additional safety opportunities of new technologies” found in so-called Technically Advanced Aircraft (TAA). According to the study team, made up of FAA, industry, insurance and safety group representatives, many pilots flying these technically advanced aircraft could use additional training. The study focused on 11 accidents involving Cirrus 20 and 22 aircraft over the past three years.
In this segment of Flight Safety some of the various malfunctions of the pitot static system will be addressed. We are going to start with the more elementary situations and progress from there.

**Pitot Tube Failure and/or Blockage**

A malfunctioning pitot tube, due to damage, blockage or ice build-up will affect the airspeed indicator. The application of pitot heat should generally prevent icing problems in the pitot static system. But, in the event that the pitot tube becomes inoperable, all is not lost. Remembering that **ATTITUDE + POWER = PERFORMANCE**, merely selecting a suitable attitude on the attitude indicator and the appropriate power will yield the desired performance without the airspeed indicator. Practicing this with a CFI can be useful. Be careful not to cover the airspeed indicator, since it is a required instrument.

**Static Vent Failure**

Failure of the static system due to ice or damage will affect the altimeter, vertical velocity indicator and the airspeed indicator. Should the static system be entirely blocked, a constant static pressure may be trapped in the system. This means that the altimeter indication will not change, and the vertical velocity indicator will remain on zero even if the airplane changes altitude. This could also present the pilot with a dangerous situation especially at night or in IMC conditions. The airspeed indicator will read incorrectly. This is because the indicated speed measures dynamic pressure, which is nothing more than the pitot total (ram) pressure minus the static pressure. Consequently, when the airplane climbs, the too-high trapped static pressure will cause the airspeed indicator to read low. The problem here is that by following the diminishing airspeed, it is possible that other critical airspeeds such as Va and Vne may be exceeded.

On the other hand, on a descent, the trapped static pressure will be too low for the current altitude, causing the airspeed indicator to read high. This could dupe the pilot into pulling up and slowing ultimately to a stall. Fortunately most aircraft are fitted with an alternate static source in the cockpit, which should be applied whenever a blocked static system is suspected. Opening up the alternate static source will cause a temporary upward "jump" in all three instruments, then return to normal. This jump is caused by cabin pressure in non-pressurized aircraft being slightly lower than the external pressure, due to the venturi effect caused by the airplanes motion through the air. The airspeed indicator will read about 5 knots high, the vertical velocity indicator will show a brief climb and the altimeter will read about 50-100 feet higher, until stabilizing.

Should normal and alternate static sources become blocked, the instrument glass of the Vertical Velocity Indicator may be broken to admit cabin static pressure into the whole static system. If the inner mechanism of the instrument is not damaged, it will read in reverse. In other words, when climbing it will show a descent and when descending it will indicate as a climb. This is due to the fact that the direction of airflow through the broken glass is reversed.

Become familiar with the pitot static instruments. They are frequently taken for granted. Check out some of these situations with your favorite CFI.

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**Member Story** By Ed Siefken, Aero Club Board Member

*Ed Siefken was an Ammunition Sergeant in the 52nd Armored Infantry Battalion of the 9th Armored Division. Days after being the first Division to cross Ludendorff Bridge at Remagan, near Erpel, Germany in March, 1945, Ed was delivering ammunitions, when he heard a strange airplane...*

*I didn’t know what it was at the time, but around noon, this ME-262 came out of the overcast and strafed us. I skinned my shins jumping into the ditch. I watched it go straight up, and I thought, ‘This can’t be, this can’t be, he’s got to stall; he’s got to stall’. But he kept going up, and up, and I was flabbergasted. The next day he came by again at noontime. We had P-51’s, P-38’s and P-47’s waiting for him, but they couldn’t get him”.

*“Finally, on the third day, they sandwiched him in, P-51’s on top and P-38’s on the bottom (or maybe it was the other way around), and they got him. I watched this guy go down, the first ME-262! Our outfit was the one that got to the field where there were about six of them, but they didn’t have pilots or fuel to fly them”.*

*“That’s not recorded in the history books, but I was there! I saw the first 262 go down!! It scared the hell out of me. But the dummy came by the same time each day at lunch time, so we were ready for them, and he went down with the plane.”*
**Aero Club of Pennsylvania’s Annual**
**WRIGHT BROTHER’S DINNER**

**Wednesday, December 17, 2003**

6:00pm Cash Bar, 7:00pm Dinner

Members and non-members welcome!

**Place:** Desmond Hotel, 1 Liberty Blvd, Great Valley, PA, 610-296-9800

**Cost:** $35 per person, payable to Aero Club of Pennsylvania

**Reply:** Send check so that it arrives no later than December 10, 2003.
Due to expected response and space limitations, we regret that there can be no phone reservations, no walk-ins, no partial payments, and no refunds for cancellation. We cannot hold a space unless payment is received.

**Speaker:** Apollo 15 Mission Scientist, Joe Allen, “A Man on the Moon”

**Directions from King of Prussia:** Take Route 202 South to the Great Valley/Rt 29 North Exit. Proceed through the light at ramp end. Continue on Liberty Boulevard to the Desmond hotel, 1/2 mile up on the right. Note, the entrance is poorly marked. If you reach the light at Route 29, you passed it.

**Directions from points West:** Route 202 North to Route 29 North Exit. Turn right at the end of the ramp and proceed one block to the light; turn right onto 29N at Wawa. Proceed through the first light (Swedesford) and right at next light (Liberty Boulevard). The hotel is the very first left.

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**Dr. Joe Allen** is an Iowa-born physicist with a doctorate degree from Yale. Currently, Joe is Chairman of the Board of Veridian, Inc. of Arlington, VA, a national security company. At the time of the historic Apollo 15 mission, Joe manned the Capcom console and was the primary contact with lunar astronauts Dave Scott and Jim Irwin. All contact between the astronauts and Houston control were through Joe, who was the Mission Scientist for the Apollo 15 exploration of the lunar surface. His keen scientific mind and knowledge of geology were critical in the successful exploration of the lunar surface. In addition, Joe's understanding and support for the challenge that the astronauts faced allowed him to motivate the crew and keep spirits high. Joe will provide first-hand experience of the serious as well as humorous aspects of man’s exploration of the moon from his prospective as Mission Scientist.

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Cost $35 per person, payable by December 10 to:
Aero Club of Pennsylvania, PO Box 748; Blue Bell, PA 19422

NAME: __________________________ Number Attending: ____ x $35 = $__________
ADDRESS: __________________________ Addl. Scholarship Contribution: $_______
CITY/STATE: __________________________ Total Enclosed: $_______
PHONE: __________________________

Please list name of attendees so we can make name badges (use other side if needed):
ATTENDEES: __________________________, __________________________
___________________________, __________________________
**FAA will try a new customer-friendly approach**... From AOPA: The FAA Office of Regulation and Certification has kicked off a new initiative to treat pilots more like customers. It affects everything from medical issues to pilot deviations to field approvals and supplemental type certificates (STCs) - every aspect of aviation that a flight standards district office (FSDO) deals with. The initiative is intended to provide earlier resolution of disagreements, better documentation of decisions, and more accountability by FAA employees for the decisions they make. What it means to pilots and aircraft owners is that they now have the right to ask for a review of any inspector’s decision made in the regulatory or certification process, without fear of retribution. When a GA pilot or aircraft owner questions or disputes an action, FAA managers are expected to thoroughly review the matter and be accountable for the answers they provide. The FAA intends to prominently display information on requesting a review in all FAA regional and field offices.

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