



MUSEUM NEWS

President's Propwash

Dan Petroff

We made it into the New Year in great shape except for maybe the waistlines but that's another story. Our bank accounts are in good shape and we are looking to increase membership so we can get more help at the museum. It's great to see 8–10 people at the lunch table on Tuesday and Thursday.

The New Year brought us some good challenges in that we have been offered a loan of a PT-20 by Dave Masters, and a donation of an Aeronca Champ. To accommodate them we have to move the Safari, Fly Baby, and the Pitts Special out of the hangar. This is being accomplished. Dave's PT-20 is in the hangar so stop by and see it. The mobile gift shop trailer is well under way with hopes of having it ready for the open house on May 14th.

Speaking of the open house, put that on your calendars to come out and help and enjoy. We need people both the day before and day of the event. Also, if you have stuff to donate for the yard sale bring it by on a Tuesday or Thursday when we are there. We will also, be scheduling some clean up days for the museum both inside and outside. Great way to get your exercise

We have a new board member Merle Ensign; please welcome him. He has some very good ideas to bring in more resources and we welcome that. On the down side Frank Nichols is leaving us for Ashland Oregon. We will miss Frank and Patricia and maybe the first winter with snow will bring them back.

The Airster is coming along well thanks to Chris Anastacio, who I understand is moving to Colorado in August. That's a bummer for us. Jerry Impellezarri is getting the Stinson back in flying status, putting in a new engine that we had. It will need an annual when Jerry is done. The prop shop has been busy repairing propellers and dressing up some wall hangers for sale. Thank you Gene and Herb. We are hoping that Gene will get his repairman's certificate soon so both he and Herb can sign off on repairs. ❖

Member Meeting

Thursday, March 10, 2016 at 6:00pm

Topic: Evolution of US Aircraft Jet Engine Technology: An Historical Perspective

Speaker: Larry Rinek (see page 2)

Holder's Country Inn
998 S. De Anza Blvd., San Jose, CA 95129

Museum Work

Mobile Gift Shop

Doug Rosskilly and Rich Chacon have been working to get the mobile gift shop ready for open house on May 14th. It is about 80% complete The finishing details always take longer than expected. If you want to lend a hand, stop by and we will put you to work.



Mark Your Calendar! The 15th annual Fly-in and Open House will be held on Saturday, May 14, 2016.

Museum Work *(continued from page 1)*

Safari

To make room for Dave's PT-20 and the Aeronca Champ we have to move some aircraft out of the Mattos hangar. The Fly Baby is stored in a container, but we had to temporarily move the Safari to Hollister where Ken McBride was kind enough to let us use part of his hangar. Thanks Ken. ❖



March Speaker, Larry Rinek

Evolution of US Aircraft Jet Engine Technology: An Historical Perspective

Jet engines are now the propulsion preference for most military and commercial aircraft, as well as the high-end of general aviation (business jets). Why did this technology replace aircraft piston engines? How did US companies perform in developing aircraft jet engines (a technology invented overseas), from the 1940s to present?

This presentation will trace the origins of US turbojets (mostly licensed from designs developed in the UK, some independently developed) and the later development of world-class high-thrust turbofan engines for military and commercial (airliner) aircraft applications. The presenter will bring the story up to present, and look briefly into the future. Jet engine developers have had to overcome major technical obstacles along the way, including inferior high-temperature materials, engine control issues, insufficient thrust, presence of axial compressor surge and stall, and low propulsive efficiency (excessive fuel burn). Larry Rinek will walk through key historical milestones of aircraft jet engine development, starting in Europe (simultaneous work in the UK--Whittle, and Germany--Ohain, 1930s). Then, the US story will be



GE90-115B Turbopan Engine for the Boeing 777-300ER

outlined (with focus on GE, Pratt & Whitney, Westinghouse, plus some others) including successful technical solutions they applied along the way. At the conclusion, he will show breathtaking video clips of various US jet aircraft taking off. On display will be various scale models of famous USAF jet aircraft as well as key research books and reference materials on jet engine technology.

Mr. Rinek is a published aviation historian, a guest lecturer in aero engineering for 8 colleges and universities across the USA and Canada, a former USAF officer, and he recently retired as a Senior Technology Consultant from Frost & Sullivan (in Mt. View, CA). Holding a BS cum laude in engineering plus an MBA, he is a veteran of the aerospace industry.

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Vintage Flyer is published 4 times a year (March, June, September, December) for Wings of History members and others interested in aviation history and aircraft.

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WINGS OF HISTORY Mission Statement:
Wings of History is a non-profit organization dedicated to aviation history through education, preservation, restoration, and flight.

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This newsletter available on our website at wingsofhistory.org

Do you have an interesting story to tell? Send us your story and we'll consider it for publication in the *Vintage Flyer*. You can e-mail Evie Liebgold at evieliebgold@gmail.com. The deadline for articles is the 20th of the month preceding publication.

Please visit our website at <http://www.wingsofhistory.org>
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Yearly dues: General \$40.00; Student \$10.00; Sustaining \$100.00

March Speaker, Larry Rinek *(continued from page 2)*

try, and an active member of various aero/technical organizations, including: the American Institute of Aeronautics & Astronautics (AIAA), Society of Automotive Engineers (SAE International), American Aviation Historical Society (AAHS), Society for Aviation History (SAH), Wings of History (WOH), Air Force Association (AFA), and the Aircraft Engine Historical Society (charter member of the AEHS). Besides having private flight training (in a 1946 vintage Piper J-3C Cub), plus cockpit time in some USAF jet aircraft (KC-135A, T-33), he is currently an avid pilot of radio-controlled (RC) model aircraft. ❖

PT-20

Dave Masters: I have had a PT-20 for over 50 years and it has been in flying condition since around 1968. For those who don't know about the PT-20: In 1939 Ryan modified 30 of the STAs for the military, making the cockpit openings larger (like the STM,) and designated them PT-20s. All but one or two were re-engined to the 125 Kinner and re-designated PT-20A. When I bought this Ryan, it was a PT-20A and I converted it back to a PT-20 with a Menasco engine. For the past 15+ years, it has been based at the Sonoma Valley Airport (sonomavalleyairport.com) and has moved to the Wings of History Museum.

Dan Petroff: Dave is also going to loan us a spare Menasco engine for display next to the PT-20. This should make for a good exhibit. Stop by and see it. Dave is in and out of the museum Tuesday and Thursday so you can talk with him about the aircraft. ❖



The PT-20As at the Ryan Co. at Lindbergh Field. Mine isn't in view in this picture but I'm sure it was there. It had a field number 57. In 1939, only 30 PT-20 were manufactured. All but one was re-engined with a 125 hp Kinner engine.

Note the big Consolidated building. I think the B-24 was designed in San Diego. Rubin Fleet was a big man down there.



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Dave Masters' beautiful PT-20 in the Mattos hangar

Wings of History Air Museum

16th Annual Open House and Fly-in
Saturday, May 14, 2016
7:00am to 3:30pm



Wings of History Air Museum and San Martin Airport
Highway 101 and San Martin Ave.

Free Admission



On display: aircraft, antique cars, tractors

Free tethered hot air balloon rides
(early morning, when wind is calm)

Food available all day (8:00 to 3:30)

Radio-controlled model aircraft
demonstrations

Free Young Eagles airplane rides
for kids 8 to 17 provided by EAA Chapter 62
from 10:00 to 2:00. Rides are limited to first come–first served



Watercolor sketches by Suhita Shirodkar

A special thank-you to our event partners:



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