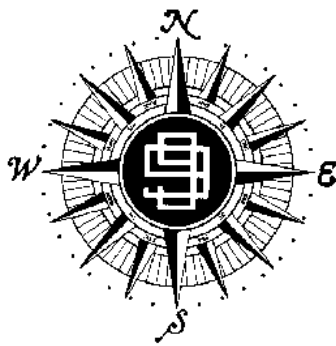


AUX TANK

NEWSLETTER OF THE SAN FERNANDO VALLEY CHAPTER OF

THE NINETY-NINES INTERNATIONAL ORGANIZATION OF WOMEN PILOTS

The San Fernando Valley Chapter of The Ninety-Nines was founded on February 1, 1952. The mission of The Ninety-Nines is:
To promote world fellowship through flight
To provide networking and scholarship opportunities for women and aviation education in the community
To preserve the unique history of women in aviation



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March 2010

Centennial of Women's Flight

We celebrate the Centennial of Women's Flight during the second week of March. Many of us have plans to introduce a girl or woman of our acquaintance to the joy of flying. This should be a terrific celebration!

But let's not stop there. I had a great lunch flight with Linda Worden and Nina Yates a couple of Saturdays ago – what a pleasant way to spend a couple of hours. And I got to know each of them a little better. I want to encourage you to think about flying with other 99s. Going to lunch in Camarillo? Call a 99 from our chapter or another chapter.

Remember that our FWP's would love the chance just to be in a plane, even sharing expenses, and have the experience of viewing the world from above while relaxing for a change. And there are many of our chapter members who do not fly as pilots in command anymore. They too would be very happy to have an invitation from you for a short flight some week-end. Flying is terrific. Flying with friends, or to make new friends, is even better!

Blue skies!

Maureen Kenney



VOTE! VOTE! VOTE!

You have received your Ballots for the International Election, and for the Section Election. The International Ballots must be mailed by May 1st.. The Section Ballots must be mailed by April 1st.

You will also be receiving the Chapter ballots soon. These ballots must be mailed by May 1st.

Please learn about the candidates and vote wisely. If you have question about a Section or International candidate, call or E-Mail anyone who attends Section Meetings or International Conferences on regular bases.

But most important: . **PLEASE VOTE....**



Nominating Committee

This is a reminder from your friendly Nominating Committee. We have empty spots we need to fill..

We will be holding elections for next year's Board starting on April 5th. Please consider running for one of the following positions: Chairman, Vice Chairman, Corresponding Secretary, Recording Secretary or Treasurer. Holding a position on the SFV99s Board will provide you with an impressive addition to that all important resume, not to mention the FUN you'll have. So give it a try - throw your hat into the ring! Contact anyone on the Nominating Committee if you are interested in running. Nominating process will end March 31, 2010.

Michele Albiez - 30480@msn.com
Jeanne Fenimore - jeannefenimore@Earthlink.net
Ruth Logan - rlogan02@yahoo.com

March Anniversaries

Jan Wood	1956
Michele Albiez	1979
Susan Theurkauf	1988
Linda Hernandez	2001
Marilyn Perna	2003
Linda Worden	2004

BREAKING NEWS

We have a New 99
KELSEY LOMEN

Has passed her
Checkride.

March Birthdays

Kelsey Lomen	3/1
Ceci Stratford	3/2
Kathy Smither	3/11
Joanne Davis	3/12
Natasha Pavlovich	3/14
Jan Archibald	3/21
Sylvia Sanderson	3/21
Maureen Kenney	3/30

Chapter Fly-ins

Now that spring is around the corner and the weather will be improving we can look forward to lots of flying. Here is a list of upcoming chapter fly-ins so you can save the date.

March 21 (Sunday)	The Antelope Valley St Patrick's Day Poker Run & BBQ 9am to 1pm
April 11 (Sunday)	Furnace Creek Death Valley (details to follow)
May 15 (Saturday)	Big Bear
June 13 (Sunday)	Santa Maria for brunch at the Radisson

Details of future flights to follow. If the flight is canceled we can always meet at Rocky's for lunch!

A NOTE FROM CECI

Hi, fellow women pilots,

Maureen Kenney and I took her daughter-in-law Shinta Kenney for a flight today to introduce her to aviation. We commemorated the centennial of licensed women pilots!! We're participating in the program attempting to log the most flights by women commemorating our 100th anniversary. Photos attached.

Our flight was from Whiteman to El Monte. We had lunch there in their cute restaurant. As we were leaving we met Monika Petrillo (who showed her "Flyabout" movie at our meeting). She was there with 2 little girls and another woman, introducing them to flight for the centennial, too!

All of you can participate, too! We have until March 12 to enter the contest. If you fly a non-pilot woman/girl, you can record it. Look at www.centennialofwomenpilots.com and register. (The website is a little cumbersome, but if I could figure it out, anyone can!).

Ceci

Safety Report

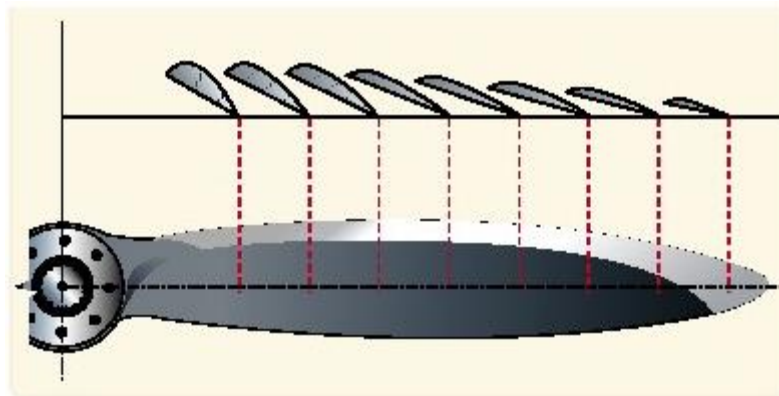
“Prop-er” Safety Facts



Think a propeller is just a big fan in front of the pilot? Well, you may be right. If it stops unexpectedly, the pilot starts to sweat a LOT!

All kidding aside for the moment, here are a few interesting facts about propellers:

- Most propellers are made of aluminum. It's lightweight, which is why they use it for airplane parts, but it isn't a very hard metal, so it's prone to nicks and pits. Of course, some ultralights and antiques use wood props (usually with metal strips on the leading edges). There are also some exotic or composite (fiberglass, Kevlar, carbon/graphite) props (especially helicopter rotor blades) out there, but even though they are lighter and stronger and less prone to corrosion than aluminum, they're way too expensive. So, unless you fly an unusual airplane – and maybe even if you do – this article is for you. ☺
- Modern propellers (actually, the basic design technology we use hasn't changed much in about 40 or 50 years) are pretty efficient at converting engine torque to thrust, with a maximum efficiency of about 85%. Props are really airfoils, and the angle of attack changes along the length of the blade (that's the “twist” – see the diagram below and notice how the shape looks like the cross section of an aircraft wing!). It's kinda interesting to think about how the engine just makes the crankshaft spin down the longitudinal axis of the airplane, but the propeller is hooked on to that and ends up pushing a lot of air past it, making you and the airplane go forward. (Yeah, OK, so I'm an engineer, and I happen to think simple physics is pretty elegant!) ☺

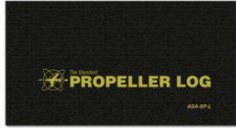


Airfoil cross-sections of a propeller blade

- On takeoff, prop tip speeds can approach the speed of sound. Actually, some even go supersonic, which creates a LOT of noise. The longer the blade and the higher the engine RPM, the faster the blade tip goes. Some aircraft have RPM limitations just for this reason. I won't go into the math here, so don't stop reading, please!
- The centrifugal loads – that's the force that tries to pull the prop away from the hub – can amount to between 10 and 20 tons (quick arithmetic: 20,000 to 40,000 lbs) PER blade. If there's even a tiny crack in your prop, you can get an idea of how much force there is pulling on it. Wow! For those who fly a controllable pitch prop, you can also see why it's important to make sure that there's no extra looseness or wobble in the hub assembly. Do you check for that every time you fly? Of course, we all know that it's VERY seldom that airplanes lose propeller blades – they've been well engineered over the last 100+ years. Still, it's always prudent to check. The unbalanced forces that happen in such a case take over so fast that a pilot can't react and close the throttle fast enough to prevent the engine from being ripped from its mounting. VERY nasty and very fatal if you're in the air!
- Propeller blades do twist and flex to a certain extent when they are turning – even the fixed pitch ones. The stresses imposed on the blades will be more concentrated in those spots where there are nicks, pits, etc. If left untreated, the metal can be weakened enough to cause blade failure. Now, this is pretty extreme, and it's certain you'd never leave the ground with a visible crack in the prop, but since most of the planes we fly are getting way past 25 years old, it's important to make sure the props are in good shape and are overhauled as needed. If you rent, it's doubly important to check carefully, as you don't

know who flew it last and where it went! Any nick or gouge over 1/32 of an inch should be “dressed out” by an A&P mechanic.

- If the “P-Lead” isn’t connected to the magneto, grounding that mag, you will have a “hot” prop. If you aren’t “grounding the mags” (turning the ignition switch momentarily to “OFF”) before shutting down EVERY TIME, you may as well assume that if you move the prop at all, it could start the engine. Think it’ll never happen to you? Well, I have had it personally happen to me at least 4 or 5 times over the years that I’ve been flying. The key is in the “OFF” position and the engine just keeps running quite happily. Oops! Usually, it’s a case of “the mechanic forgot” and is easily remedied. Again, if you rent, and you weren’t the last one to shut the engine down, you’d better assume the prop is “hot”.
- Propellers are required by the FAA to have a log book all their own, and they are subject to ADs and SBs (that’s Service Bulletins) just like the rest of the airplane. These should be known to you, and should be checked at the time of overhaul. A reputable shop will make sure they’re complied with, but it’s always wise to know about them yourself, because in the end, it’s your responsibility (legally and for safety) to make sure they’re complied with before you go flying.



- Ever wonder why most props are painted instead of polished or buffed? to stop oxidation and corrosion. If left to the air, the aluminum will begin corrode. There are some “purists” who have lots of time and will keep props all buffed out, but that’s not the majority of us. If the paint on your wearing thin or is chipped, it would be a good idea to repaint. Note that reason for painting the back of the prop flat black is that it cuts down on and the possibility of “flicker vertigo” (I really must do a safety article on that one of these days).



Simple: to their prop is the glare

- One last note: It’s a really good idea to have a “dynamic” balancing done on a prop. The static balancing done at an overhaul shop is good, but once the prop is mounted to the engine, there are other things that can contribute to imbalance and it’s nice to have it “tuned up”, so to speak. The less stress a prop has, the longer it will last and the safer you’ll fly. It’s amazing how much the overall vibration can be reduced, and everything in the airplane, from pilot to instruments, benefits from a smoother ride.

I hope you learned something new about propellers!

Fly Safely!

Claudia Ferguson, Safety Chairman

San Fernando Valley 99s

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Calendar of Events

Date	Event
April 5	99s Meeting
April 23	Aviation Career Day @ Syncro
April 30-May 3	SWS Meeting – Concord, CA
May 8	Challenge Air @ WHP (rescheduled)
July 5—9	99s International Meeting, Kona, HI

No WHP-SFV99s Movie Nights till Spring!

www.sfv99s.org (San Fernando Valley 99s)
www.ninety-nines.org (International)
www.sws99s.org (Southwest Section)



AUX TANK

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