



AUX TANK

NEWSLETTER FOR THE SAN FERNANDO VALLEY CHAPTER OF THE
NINETY-NINES INTERNATIONAL ORGANIZATION OF WOMEN PILOTS

THE SAN FERNANDO VALLEY CHAPTER OF THE NINETY-NINES

FOUNDED ON FEBRUARY 1, 1952

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OUR MISSION

The Ninety-Nines is the international organization of women pilots that promotes the advancement of aviation through education, scholarships, and mutual support while honoring our unique history and sharing our passion for flight, and to quote the 99s first elected president Amelia Earhart "TO FLY FOR THE FUN OF IT." Originally established in 1929 by 99 women pilots, the members of the Ninety-Nines, Inc. are now represented in every area of aviation today.

SFV 99s

P.O. Box 7142

Van Nuys, CA 91409

www.sfv99s.org

hello
spring

Friendly Reminders

1. Starting in August, our Chapter meetings will be held at the FlyAway on the 2nd Tuesday of every month.
2. If you would like to be on the Board of Directors, please contact Lisa and the Nominating Committee at lafusano@gmail.com
3. AUX TANK Editor needed! I will be stepping down this summer. June will be my last newsletter. It's a great position and opportunity to help serve the SFV 99s. I will be available to train the new Editor. Let me know if you are interested. Email Stephanie at auxtank@sfv99s.org

FROM THE CHAIRMAN

Hello Ladies...

Yay! Spring is finally here! Hope you're enjoying the beautiful sunshine. I'm looking forward to seeing all of the gorgeous flowers in bloom, especially the poppies.

We have some great 99s activities this month...

April 8th is the Antelope Valley 99s Poppy Poker Run. Join the fun & fly into some of our local airports: Fox, Mojave, Tehachapi, Inyokern, Cal City, and Rosamond, collect your playing cards, bring back your hand for awesome prizes, and enjoy some delicious bbq .

April 27-29th is the Southwest Section Meeting in Bakersfield. Come join in for some cool, local activities - white water rafting, fishing, wine tasting, etc., meet other SWS 99s sisters, and get updates at our business meeting. It's a great time to share aviation stories with some amazing women pilots.

VOTE, VOTE, VOTE! We will also be voting for our new chapter board of directors, ELECTRONICALLY - for the first time! Make sure you are all set-up & ready to vote.

Time for Chapter Awards! We want to recognize YOU for your flying achievements & participation with the SFV 99s. Check out our website - sfv99s.org (Members Only section) and submit your application for Woman Pilot of the Year, Rookie Pilot of the Year, and the Schubert Service Award - TODAY!

Looking forward to seeing you all soon!

Happy flying,

Alisa Liley

(ah.lee.sah)

SFV 99s Chairman



Mark your calendar!
YOU WON'T WANT TO MISS THIS.



April 2, 2018 (Mon. 7:00PM)

Chapter business meeting, Airtel Hotel, Earhart Room @ VNY

April 7, 2018 (Sat. 8:45AM - 2:30PM)

Girls STEM Day @ Mount Saint Mary's University (Chalon Campus)

April 8, 2018 (Sun. 10:00AM - 2:00PM)

AV 99s Poppy Poker Run

April 25, 2018 (Weds. 6:30PM)

Board Meeting - Conference Call

April 27, 2018 (Fri. 9:00AM - 3:00PM)

Aviation Career Day at Van Nuys Airport

April 27-29, 2018 (Fri. - Sun.)

SWS Spring 2018 Meeting, Bakersfield, CA

May 7, 2018 (Mon. 7:00PM)

Chapter business meeting, Airtel Hotel, Earhart Room @ VNY

May 23, 2018 (Weds. 4:30PM)

Board Meeting @ Maureen's house

June 4, 2018 (Mon. 7:00PM)

Chapter business meeting, Airtel Hotel, Earhart Room @ VNY

June 9, 2018 (Sat. 11:00AM)

SFV 99s Awards Banquet @ 94th Aero Squadron @ VNY



SFV 99s AWARDS BANQUET



COME AND ENJOY A FUN DAY WITH YOUR 99s
June 9, 2018
11:00AM

94th Aero Squadron, 16320 Raymer St, Van Nuys (KVNY)

Come and enjoy a fun day and some awards. We will be awarding our Schubert Service Award, 49 1/2 of the Year, Friend of the 99s, and especially Woman Pilot of the Year and Rookie Pilot.

We have a lot of wonderful candidates this year, so this should be a good one.
Don't forget we will install our new Board.

Cost is \$36.00 per person

Lunch Choices are:

- Chicken Scallopine with Risotto
- Oven Roasted Tri-Tip with Roasted Red Potatoes
- Ginger Veggie Stir Fry

All come with Green Salad, Fresh Vegetables, and New York Cheese Cake

To sign up, contact Jeanne Fenimore at jeannefenimore@earthlink.net
Send your check to Nina, our Treasurer.
We will have a sign up sheet.

Come and have some fun!

Girl Scouts Aviation Badge Day

By Lisa Fusano



Aviation Explorers Morgan, Cathy, and Dana helped out tremendously at Girl Scout Aviation Badge Day.

04/05 Geny Haase

04/26 Golda Neuman

04/18 Doris Minter

04/27 Nina Yates

04/19 Sarah Weiss

04/30 Bertie Duffy



SFV 99s CHAPTER MEETING

WITH GUEST SPEAKER CAPT. JENNY LYNN BURNETT, CAP

April 2, 2018

We had an amazing meeting with our guests from Civil Air Patrol - Van Nuys Hawker Squadron 128. Capt. Jenny's speech was informative and inspirational!



AttaGirl

A big shout out to the SFV99s volunteers from Girl Scout Day!

- Kimberly Chan
- Ruth Logan
- Ceci Stratford
- Jeanne Fenimore
- Paula Sandling
- Stacie Vournas
- Stephanie Weier
- Alisa Liley (and daughters)
- Annelie Hubinette (and daughters)
- Charlotte Kaber
- Kimberly Jenks
- Lisa Fusano
- Linda Amor
- Lilian Holt
- Morgan Gale
- Nicolette Hanson
- Shokoufeh Mirzaei
- Cathy Chen



did you know?

The first woman in the U.S. to become licensed to fly a plane was Harriet Quimby (1875–1912) in 1911. She was also the first woman to fly across the English Channel.



1. What clouds have the greatest turbulence?

- a) Towering cumulus.
- b) Cumulonimbus.
- c) Nimbostratus.

2. In the Northern Hemisphere, a magnetic compass will normally indicate a turn toward the north if

- a) A left turn is entered from a west heading.
- b) An aircraft is decelerated while on an east or west heading.
- c) An aircraft is accelerated while on an east or west heading.

3. An operable 4096-code transponder with an encoding altimeter is required in which airspace?

- a) Class A, Class B (and within 30 miles of the Class B primary airport), and Class C.
- b) Class D and Class E (below 10,000 feet MSL).
- c) Class D and Class G (below 10,000 feet MSL).

Carb Icing – Baby, It’s Cold Inside!

Actually, I suppose I should have saved this article until June, when there’s lots of moisture and haze aloft and the weather isn’t quite so chilly – but still chilly enough when you’re airborne for moisture to condense in some pretty inopportune places (and goodness knows it’s been moist enough with all the rain lately!). However, carburetor icing is a subject worth discussing at any time of the year, so I’ll continue and share a few thoughts with you. Those of you who fly jets will most likely not be too interested, but the rest are invited to read on. ☺



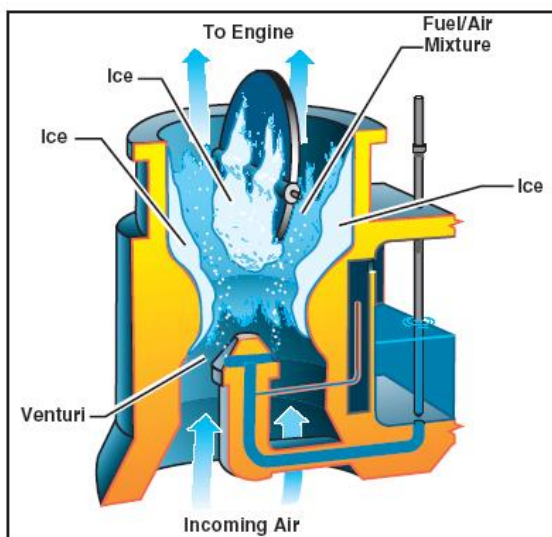
As you no doubt learned in ground school, there is a lot that goes on in the carburetor of a light aircraft. Fuel and air are drawn in, swirled around and directed to however many cylinders you have in an “even mixture” way. We are also able to control the fuel to air ratio (via the “mixture” knob) so that this mixture is as efficient as possible for the altitude at which we are flying. This technology has been around for quite a long time and is usually very reliable. As with all things that are “reliable”, it’s always a good idea to understand the sorts of things that can happen to interfere with that reliability so that when they happen we won’t be frantically wondering what’s going on. Being able to recognize the presence of ice in the carburetor and knowing what to do about it are worth a review once in a while.

So how does ice end up in the carburetor, and why, and where? The quick answers are that: 1) there’s water in the air going into the carb within a certain temperature range, 2) the water freezes on cold carburetor parts, and 3) it’s usually at the venturi and butterfly valve. I’ll explain further.

The greater the humidity of the air, the more likely it is that some of it will end up as carb ice. This isn’t a guarantee, but the probability goes up. When you get the weather information before your flight, the information is right there for you in the “dew point” number. As the temperature of that air goes close to its dew point, you know what will happen – the moisture will condense out in the form of water drops. There do not have to be clouds for this to happen. Humidity and low temps are enough. So now perhaps you’ll pay a little more attention to the ATIS or AWOS when you hear temperature and “dew point” information? If they’re not so far apart and the ambient temp is above 32 degrees F, you might want to tell yourself to watch for carb icing symptoms. Note that the possibility of carb ice decreases if the air is already colder than 32 degrees. Colder air is already less humid, and below about 15 degrees F, any humidity will condense right into ice crystals without sticking to your carburetor. If it’s that cold, let the carburetor STAY cold. If the air actually does contain ice crystals, adding carb heat can CAUSE carb ice by melting the crystals back into water which will quickly freeze again on carburetor surfaces. NOT so good!



When the aircraft carburetor is vaporizing fuel, it is cooling the intake air by evaporation. The more fuel that passes through the carburetor, the more cooling takes place (obviously!). At full throttle, much more cooling is going on than at idle. The lowered pressure in the venturi also results in air cooling. Your carburetor can get pretty cold as a result. There can be a theoretical air temperature drop of as much as 60-70 degrees F from all these factors combined. Brrr!



In a carburetor (the one shown is an “updraft” type) there are typically two places where ice forms: in the venturi where the air pressure is decreased and where the fuel introduced, and also down stream of the throttle butterfly. Ice forms near the aircraft carburetor butterfly when water droplets strike parts of the carburetor (typically the butterfly and venturi) that are freezing. Freezing is determined by: the outside air temperature, the temperature drop, and heat absorption from the engine. With the throttle partly closed, such as in a low power descent, you may have 10 inches or

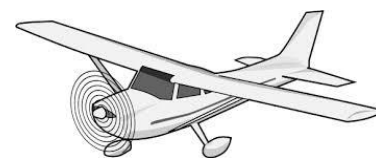
more pressure drop across the throttle butterfly. At rich mixtures the ambient temperature at which carburetor ice forms is even higher - Lycoming publishes a temperature range of 20 - 90 degrees F. for carburetor ice. Hard to believe, isn't it?

So how do you know you have carburetor ice, and what do you do about it? Well, most of the time you don't actually know, you only suspect that something just isn't quite right. What you do about it if you suspect carb ice is (again obviously) apply FULL carburetor heat. Don't mess with partial carb heat unless you've got a carb temp gauge that will indicate whether you're within the temperature range for caution. There will be certain symptoms to recognize, and they usually creep up on you while you're busy doing something else, so a certain amount of vigilance is called for.

You might notice that for a given throttle position you are not developing as much power as you should. In a fixed-pitch airplane like a 152 or 172, the scenario might be as follows: You are flying along and you begin to sense a decrease in RPM. You check the engine tach and sure enough, it's lower than the last time you looked. You pull the carburetor heat knob full out and observe a big drop in RPM followed by an increase – this while the knob is still out. The increase in RPM is the key. What has happened is that you've had a build-up of carburetor ice, which caused less air in proportion to the amount of fuel; therefore, the mixture was getting too rich. And you applied heated (less dense) air to the inlet which caused another drop in RPM. As the ice melted and allowed more air into the carburetor throat, the fuel-air mixture became more optimum and you got an increase in RPM. When you feel you are no longer in carb icing conditions, you can push the carburetor heat knob back in (all the way) after the RPMs have stabilized and your RPM then increases to its full potential. In airplanes with constant speed props the propeller governor is going to maintain a constant RPM, so your key is going to be the manifold pressure gauge. MP will fall off, then increase, just like the RPM in the above scenario. In either case, the eventual result of ignoring carburetor ice buildup is that your engine's fuel/air supply will become so rich that the engine will quit. I'd be willing to bet the ranch, the big house, and all the cattle that you don't want that to happen unless your aircraft is chocked on the ramp!

Carb ice can form on the ground as well as in the air if the conditions are right. When you are doing your runup and you pull the carb heat knob out, wait briefly to see if there is an abnormal drop followed by an increase. If so, then it's likely that there was carb icing.

And finally, why do some aircraft develop carb ice more easily than others? The airflow around various engine configurations is different enough to foster conditions that are in some cases rather conducive to the formation of carb ice. It's another good reason to know the characteristics of the plane you fly. In my Cessna Cardinal, for example, which I've had for a LONG time now, I've only had carb ice once and that was in the middle of clouds and rain. But in the Cessna 150 models that I flew while learning, my instructor had me apply carburetor heat every time I made a landing because carb ice was likely to form.



Have a safe flight!

Claudia Ferguson, Safety
San Fernando Valley 99s
Aviation Safety Counselor
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DON'T FORGET TO APPLY

~ PILOT OR ROOKIE OF THE YEAR AWARD
If you're interested please contact Lisa at
lafusano@gmail.com

~ SCHUBERT SERVICE AWARD
If you're interested please contact Stephanie at
auxtank@sfv99s.org

Deadline is **May 15th**. Check our website for details.

SfV99s.org



1. b) Cumulonimbus.
2. c) An aircraft is accelerated while on an east or west heading.
3. a) Class A, Class B (and within 30 miles of the Class B primary airport), and Class C.

