

AUX TANK

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

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**The San Fernando Valley Chapter of Ninety-Nines
Founded on February 1, 1952.**

November 2019

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.





Friendly Reminders

Voluntary Chapter Donations of \$25 are still being accepted.

Please make checks payable to the SFV99s and mail to our PO Box, bring to the **December 10 Chapter Meeting**, or pay via PayPal on our website.

Thank you!

Need a name badge or a mentor? Please contact our Membership Chair Nina Yates (ninayates@pacbell.net).

FROM THE CHAIRWOMAN

Season's Greetings!

We kicked off the month of November with our Chapter Meeting at the Van Nuys FlyAway on November 12. Van Nuys Tower Controller Peter Kasabian was our guest speaker and led an informative and fun Q&A with our members regarding the VNY airspace and the complexities of the airport's operations with only one active runway. Many of our members in attendance participated and asked Peter engaging questions that will help us all be safer pilots - especially when flying into VNY.

We have our annual holiday events coming up in December (dates below) and I hope to see many of you there. I'd like to take a moment to thank you all for your continued support and



participation in the SFV99s. Please don't hesitate to let me know how we can better serve, and/or support, you and your aviation goals.

I hope your Thanksgivings will be spent in the company of your loved ones with lots of laughter and joy. Safe travels, safe and happy Black Friday shopping if you dare, and look forward to seeing you all in December!

Happy Thanksgiving!

Kimberly Chan

SFV99s Chairwoman

Happy Birthday to:

Christina Merrick
November 3rd

Juliann Sikora
November 12th

Kathryn Arnote
November 30th

Upcoming Events

Saturday, 12/7 @ 9:30am: Cookies to the Tower (Vista @ WHP)

- 'Tis the holiday season: Join us box up cookies, enjoy lunch and a gift exchange!
- [Click here](#) to RSVP by December 2. \$20 lunch payments must be received PRIOR to the event.
- Contact Annelie Hubinette or Lisa Fusano for more details.

Tuesday, 12/10 @ 7pm: Chapter Meeting (FlyAway)

Saturday, 12/14 @ 5pm: Holiday Party (Lilian's)

- [Click here](#) to RSVP by December 10.

Happy Anniversary to:

Kathy Smither
November 1989

Anne Marie Radel
November 2003

Beth Wilke
November 2017

Jennifer Gamon
November 2018

Jeanne Fenimore Southwest Governor of the 99s presented the Governors Award to Vice Chair Janie Thomas of the Los Angeles Chapter for their attempt in saving the Compass Rose at Santa Monica Airport.

Photo by Lilian Darling
Holt



Welcome to our Newest Member

Karen Waters is our newest FWP member. She's a student at Glendale College, studying human resources. Her goal is to get her Private Pilot

Certificate. She'll be learning to fly at WHP.

Nina Yates

Photo by Lillian Darling
Holt



Got Air? (Good Air, That Is...)

Now that cooler weather is upon us and we're probably flying with cabin heaters on during the flight, I thought I'd re-visit the issue of carbon monoxide and remind you of a few facts about what it is and why we as pilots need to be especially concerned about avoiding it. To understand better how this works, please put your "science hat" on (nothing too obscure, I promise!), and read further.

Carbon Monoxide (also known in chemical shorthand as "CO") is a somewhat chemically "unstable" molecule made up of one atom of Carbon and one of Oxygen. These molecules are very ready and willing to make another, stronger chemical bond with some other molecule or atom that will make them more stable. (You can think of it as Carbon having 2 hands to hang on with - if it's only hanging on with one hand, it's still looking for another atom for its other hand.) Usually, that's another Oxygen atom, and the resulting stable molecule becomes Carbon



Dioxide or CO₂, which is part of every breath we exhale. Anyway, back to "CO". Once the CO molecules make that additional bond, they'll become stable and quite content to "stick like glue" to whatever it was they bonded with.

Like most of the rest of the "air" around us, CO is tasteless, odorless, and colorless, so you get no initial clue as to whether you're breathing it or not. Mostly, CO is a by-product of combustion. It's one of the things that make up smoke and smog - so well known to all of us here in SoCal. Internal combustion engines, including aircraft engines (jets, too), are major producers of CO. Normally, when things are operating according to design specifications, the CO is all vented out the engine exhaust pipe and kept away from people. Light aircraft heater systems pass air around those exhaust pipes to quickly heat the air before sending it to the aircraft cabin. If there's a hole or crack of any size in the pipe, CO can be sent with the heated air. Uh-oh!

That said, I now take a trip to the world of human physiology long enough to talk about our red blood cells and the fact that they circulate into our lungs just looking to bond up with some oxygen molecules. They take this oxygen back out of the lungs and off to our brains and the rest of our body parts which all need oxygen to keep going. The more of these oxygen molecules (usually coming in "chemically stable" pairs in the form of O₂) that are available, the better, which is why we carry supplemental oxygen at high altitudes where air/oxygen molecules

in general are scarcer, or we pressurize the cabin to pack them in tighter and make sure there are as many O₂ oxygen molecules available as we need to keep our bodies working.

Because of its somewhat “unstable” nature, CO will stick to blood cells in a chemical bond 200 times stronger than regular oxygen (O₂). There’s no contest. CO wins every time. If CO is in your lungs, it’ll be in your bloodstream as quick as your next breath. It’s also completely useless to your body – it can’t be processed into useable energy like O₂ can. CO disables and eventually kills by attaching itself to so many blood cells that there are not enough cells left to carry the O₂ the body needs. Pretty soon, all the red cells are disabled with CO, and the brain doesn’t have enough oxygen to be able to think straight anymore. If you’re lucky, before it’s too late, it’ll make you feel sick or hypoxic so you’ll realize what might be happening to you. Otherwise, you will just lose consciousness and shortly thereafter expire from oxygen deprivation.

The only way for the body to get rid of CO is for the affected blood cells to die. The ER will treat suspected CO victims with a blood transfusion. What that means is that “carbon monoxide poisoning” is just that – poisoning - and it isn’t something you can “fix” while you’re flying. It takes a human body about 72 hours to recover. Unlike altitude hypoxia, you can’t just go to a lower altitude or use your oxygen system and be “all better”. It takes 3 DAYS to replace those contaminated blood cells, and that’s why it’s so important to prevent CO poisoning. It’s not “fixable”, except with a transfusion, and those come with risk.

How can you protect yourself? Well, as I stated earlier, cracks in the exhaust system are usually the ways CO gets into airplane cabins. Most of our single-engine airplane heaters

warm the air to heat the cabin by passing it over the outside of the muffler. This method works really well, but it is vital to check on a regular basis that there are no cracks in that muffler. Given the age of most of our planes, the metal can be fatigued and crack more easily than when it was new. Don’t count on being able to smell exhaust fumes. In flight, shut the heater off if you suspect it is causing trouble, and open any vents and windows (check placards for airspeed restrictions) so that you can dilute the CO as much and as quickly as may be. Land as soon as you possibly can. BTW, do you take a warm jacket when you fly? Even on a warm day? If the heater is off, you may need it at altitude!

Probably the best thing you can do to protect yourself, even after good maintenance, is to put a warning device in your cockpit. There are several different devices that can be bought to warn of CO presence in the cockpit.



They range from very simple to rather high-tech. You can buy an inexpensive little card that has a specially treated disc mounted on it, and if CO is present, it turns black. These cards work well as long as you remember to give a glance now and then during your flight and replace them at their expiration date. They are also small, and you can stick them just about anywhere. If you rent, you can stick it to your clipboard or something you take with you and can keep within sight. There are other much more sophisticated aviation devices that act similar to like the smoke detectors in your house. They will measure the CO and set off an aural alarm if too much is present. These are a bit more convenient in that they don't necessarily require you to scan them. There are also some very scientific detectors that will give a continuous readout of the ratio of CO to air molecules in PPM (parts per million). One note: there are now some very inexpensive (< \$8) hand-sized CO alarms for sale, but whether they would be FAA-approved, I do not know. Use at your own risk!

As a last emergency option on your way to landing, an oxygen system with a mask (vs. the nasal cannula tube which won't seal you off from the CO) can help if CO presence is suspected. Sealing yourself off from the CO and breathing pure O₂ will help your body get as much oxygen as it is still capable of absorbing. It won't cure you, but it may keep things from getting worse. Land as soon as practicable to get yourself out of the CO-polluted cockpit! Make sure the aircraft exhaust system is thoroughly inspected, and repaired if necessary, before it flies again.

So, there's my little aviation science message. It's not meant to be a "Chicken Little" story, but just a bit of useful information that might help you have a safer flight. And that's what it's all about!

Have a safe flight!

Claudia Ferguson, FAASTeam Safety Counselor

San Fernando Valley 99s

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Genevieve's Wings

Atta Girls:

Mindy Nye received her
Commercial Helicopter
Certificate

Annelie Hubinette
completed her IFR Night
Cross Country

Kathryn Arnote for Chairing
the Sees Candy Holiday
Chapter Fundraise

A mere 4 years ago Genevieve won an AOPA scholarship which I sponsored. She was able to get her private pilot certificate with that boost. She says that helped her reach a long time dream and changed her whole life. It set her on an exciting aviation journey which is still going on. (She is a member of the Pikes Peak Chapter of the 99s).

After her private, she got her instrument, commercial and CFI, in a



Genevieve at flight school at COS

very short time! She flew everything she could, including aerobatics, mountain flying and teaching. She also applied to the Air National Guard for a pilot position. She was accepted in the Jacksonville, FL Guard, poised to fly F-15C fighters!

Genevieve and I met in Colorado Springs in 2016 when Chuck & I were visiting my brother in



Genevieve, Ceci & Chuck in Colorado Springs

Boulder. How fun to meet someone who really took flying so seriously and was already starting a career in aviation. She showed us her FBO at Peterson AFB (a joint use civilian-military airport) and we walked around the local aviation museum. She proudly showed me an F-15 which she'll be flying. My first impression – Wow, that's huge and intimidating!

I followed Genevieve with emails, phone calls, texts, and Facebook over the next 3 years, always impressed with her excitement about her future and passion about her flying. After Officer Training School she was commissioned into the Air Force and started various training courses. Then last year she actually started flying – primary training in the T-6A Texan II. Here, students master contact, instrument, low-level and formation flying.



Genevieve and her F-15

She was assigned to Laughlin AFB (Del Rio TX) for advanced training in the T-38 Talon, a supersonic jet trainer. Each member of her class (20-02 of the 47th Training Wing), received over 500 hours of classroom instruction in instrument flight procedures, aerodynamics, systems and weather. It takes a year of highly concentrated effort to earn Air Force pilot wings.

Genevieve talked about how difficult and challenging the training was, especially instrument procedures. It was constant study, study, study, with chair flying every day, in addition to the actual flying. She wanted to share a pivotal moment of her military career with Chuck & me and invited us to her Air Force graduation – as her



Ceci & Genevieve at the Blessing of the Wings

“surrogate grandparents”. I was humbled and excited at this invitation. What an honor. Of course we would go!



Genevieve receiving her diploma

Graduation was October 25, 2019 at Laughlin AFB. We stayed with Genevieve’s parents and husband at an airbnb north of Del Rio. Her in-laws were at the base, but joined us for all activities and meals. Meeting her family was a wonderful experience in itself. All were very gregarious and fun-loving. Several of us were treated to a T-38 simulator flying session with Genevieve.

The first event, on October 24, was “Blessing of the Wings” held in the base chapel. Each class member’s wings were blessed by the chaplain at a short service.



Graduating Class of 20-02

One set of wings was to be engraved with the pilot's name and mounted in the chapel as a continual call to prayer. The other set went with the pilot who usually gave them to their parents or spouse.

Graduation was the next day in the base auditorium. Two classes, totaling 35 pilots (including 4 women), received their diplomas and wings from Lt. Gen. Anthony Rock (who also flew F-15Cs). After the ceremony all proceeded to the ramp to have photos taken around the airplanes.

Genevieve's group from Jacksonville actually flew in an F-15 to honor her! Her husband, Erik (who flies C-130s in the Air Force Reserve), pinned her wings on in front of a T-38 and all of us got photos with her by the T-38 and F-15.

I can't express my joy and pride as I participated in this significant event! It epitomizes my own passion for mentoring and inspiring young people to join the rank of aviators and to help fund this amazing industry! She's off to survivor training now and later introduction to fighter fundamentals. I can't wait to see how her F-15 training proceeds (to start early next year at Klamath Falls, OR) and her actual career progresses at Jacksonville! I'll keep you posted!



Ceci & Genevieve @ T-38



Ceci giving General Mal's Mother of Pearl wings from WWII



Graduating Class 20-02



Air Force

Ceci Stratford

San Fernando Valley 99s

November 17, 2019

Note: For more information on Genevieve and Ceci, read "Passing Along the Passion" by AOPA's Dan Namowitz, September 12, 2017, <https://www.aopa.org/news-and-media/all-news/2017/september/12/passing-along-the-passion>