



# Teacher Flights

# Soar

## to new heights in 2019

*By Jennifer S. Kornegay*

“November Two-Zero-Three-Seven-Tango cleared for launch on two-two-right. Break. Winch. Whiteline. Whiteline!” After a three count, the mile-long cable goes taut, and I am forced back into my seat as the 340-horsepower turbo-diesel revs up. Less than a second later, the Schweizer 2-33 is airborne at 40 mph. Maj. John Chapman slowly pulls back on the stick. Less than a minute later, we release at 1,400 feet over the other end of the runway. Wow. I have to catch my breath. Then I take it all in: the landscape, the San Gabriel Mountains, the Pacific Ocean, the clouds, the blue sky. It is simply beautiful. But I can’t laze in the magnificence surrounding me. Maj. Chapman gives me the controls for a couple minutes and has me do the maneuvers I learned on the simulator.”

With only 47 CAP gliders across the nation, not everyone can experience nonpowered flight, but Karen Vaughn had this advice for educators in California: "I encourage you to talk to your local CAP squadron leaders about taking a trip to SoCal and getting TOP rides in a glider with the incredible members of Squadron 41. Go ahead. Experience your own WOW!" Photo by Capt. Jeff Vaughn, California Wing

**K**aren Vaughn, a Civil Air Patrol aerospace education member, vividly recalls the thrill ride she recently experienced during a Teacher Orientation Program (TOP) Flight in California with Los Alamitos Glider Training Squadron 41.

Her description proves what Susan Mallett, educational outreach coordinator at CAP National Headquarters, already knows: By providing the opportunity for teachers to take orientation flights in CAP planes, TOP Flights energize and excite educators about aviation education, and these teachers pass this enthusiasm along to their students, advancing CAP's aerospace education mission.

That's why CAP began the program in 2004. Teachers who take orientation flights with CAP use this experience as a springboard for building student interest in aviation as well as a greater interest in math and science. Whether flying in one of CAP's 560 propeller planes or — as Vaughn did — one of the organization's 47 gliders, educators have the opportunity to experience and share the power and awe of flight.

While the program is a popular perk for educator members, in years past it has typically received only about \$7,000 in corporate support and was designated a "C" mission, not an "A" — or U.S. Air Force — designated mission. That limited the type and, therefore, the number of CAP pilots who could perform TOP Flights.

For fiscal 2019, though, CAP



Vaughn was trained on a CAP Flight Simulator STEM Kit before her flight. Then she worked in a two-place glider simulator with her pilot, Maj. John Chapman, to prepare even more as he sat behind her, getting her ready for liftoff in a CAP glider. Here, Chapman points out the controls in the glider before their flight.

Photo by Capt. Jeff Vaughn, California Wing

worked with the Air Force to get the flights rated as an "A" mission, which in turn freed up more pilots.

In addition, the new designation came with more money — a lot more.

As part of CAP's effort to bring greater diversity to aviation, as well as help offset the national pilot shortage, the Air Force provided significant fiscal 2019 TOP Flight funding — some \$92,000, which has allowed the program to grow at an accelerated rate.

John Desmarais, CAP's director of operations, is leading the charge to support numerous CAP pilot shortage initiatives for cadets and educator members. "Operations is thrilled to be able to support opportunities for teachers to be able to fly and learn about aviation first-hand, and then share it with youth across the country," he said.

Mallett agreed. "This flight experience

program for educators is enhancing everything we are doing to promote aviation education. The wave of interest is surging as we are able to offer so many more flights," she said.

The additional funds allowed more than 1,000 teachers to take TOP Flights this year — an 85% increase over years past.

The chance for first-hand flight is the initial draw, but TOP Flights give teachers more than an adventure to take back to work. It empowers them with practical information.

"It can be intimidating to try to teach about aviation when there has been little experience with small planes," Mallett said. "CAP's pilots do an amazing job taking the teachers through a very thorough preflight briefing, to include flight planning, fuel calculation and learning how the movable parts of the airplane



Teachers like Pam Peterson of York, Nebraska, and Stacy Robinson of Cache, Oklahoma, get excited when they get out of the classroom and into the sky. Peterson, an eighth-grade science and STEM teacher at York Middle School and a NASA Space Grant Consortium ambassador, and Robinson, a teacher at Cache Intermediate School, took their TOP Flight in one of CAP's signature red, white and blue Cessnas. Obviously, they enjoyed their flight.

control flight.

"They even give the teachers confidence enough to take the yoke of the airplane while in flight."

Teachers of all STEM (science, technology, engineering and math) subjects find clear curriculum connections. Science teachers can apply real-world knowledge on the basic principles of flight; math teachers can use air pressure and fuel level checks; and those focused on engineering get an up-close-and-personal examination of the multiple pieces and parts of CAP's aircraft.

Pilots also take the time to outline how and why CAP uses its aircraft for search and rescue and disaster relief missions, allowing them to spread the word about the organization's service to communities, too.

Dr. Jeff Montgomery, CAP's

director of aerospace education, is excited at the interest both teachers and pilots are showing in this enhanced program, taking full advantage of each flight and adding some fun extras that amp up the engagement with students.

"The pilots usually fly the teachers from their local airport, and we do that intentionally, so they fly over areas where they live and work," Montgomery said. "We encourage teachers to take photos and videos to share with their students. Some teachers do a live-streaming Q&A segment, making this a classroom in the sky."

Sometimes the students file out onto their school's playground and line up to form the school initials so the teacher can snap a photo when the TOP Flight plane flies. They've even had school principals get on the phone

with teachers during the flight and broadcast the conversation over the school's intercom system so students can hear a "message from above."

"Sharing motivational cheers, such as 'Aim High!' or 'Keep Soaring!' sends the students into animated excitement," Mallett said. "All of our pilots and aerospace education officers are working diligently to make the flight experience inspirational and motivational for the entire school community."

According to Mallett, the program has enjoyed a banner year but continues to expand to teacher workshops and conferences.

"We are collaborating with other organizations to enhance their offerings for their educators, partnering with conference events like the Space

Exploration Education Conference held annually in Houston, Texas, and most recently, the Space Port Area Conference at the Kennedy Space Center in Florida to fly up to 20 teachers a day," she said.

"TOP Flight days are delightful and motivational STEM professional development opportunities at the beginning or end of a school year, as well."

With every flight, Mallett and others involved see the program is having the desired effect and achieving its goal of furthering and enhancing aerospace education.

"We've had multiple people become AEMs who were motivated by the chance to take the TOP Flight," she



CAP's 2018 National Aerospace Educator, Georgia's Brian Johnston, takes the controls as he flies over the space shuttle runway during the summer Space Port Area Conference for Educators at Kennedy Space Center in Florida.



Rachel Snoddy, an Alabama 4-H teacher, is presented with a certificate after completing her TOP Flight with Capt. Bob Colley, a CAP pilot with the Maxwell Composite Squadron.

said. "We know this motivation is being transferred back to the classroom, and that spells success!"

But perhaps the strongest evidence for the effectiveness of TOP Flights

comes from the educators themselves. In an email to CAP National Headquarters after her flight, Vaughn had this advice for her fellow teachers: "Go ahead. Experience your own WOW!" ▲



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