



ON GUARD SAN FRANCISCO BAY GROUP 2

Group 2's Monthly Magazine

Welcome to On Guard

By Lt Col Noel Luneau, Public Affairs Officer Group 2

Welcome to the Volume 2, Issue 2 of the Group 2 Magazine - On Guard!

In this edition we have some great stories in our Cadet Programs section including stories from two winners of CAP flight scholarships, and numerous updates to our ES, Aerospace Education, Aircrew Education and Education and Training sections. The answers to February's Mystery Word Search are also posted along with a new Mystery Word Search.

Article Submissions. This is your magazine, and we welcome all your contributions to it with short stories, photos, and short videos of your Squadron or event. We are looking for articles for the **April edition**, due 30 March 21. Please send all articles to the Group 2 website [Here](#).

Also please tag Group 2 on Instagram, Facebook, and Twitter and we will collect posts, stories, and reels there. Tag us on **Instagram** and **Facebook** as: @civilairpatrolgroup2. Tag us on **Twitter** as: @CAPGroup2CA.

Just a reminder that we have a **YouTube** channel for the group so send us any videos that you want to share with the world!

The QR Code to the right is a link to an online version with viewable video clips.



CONTACT US

ON GUARD MAGAZINE
eMail: noel.luneau@capwg.cap.gov

EDITORIAL STAFF

- LT COL NOEL LUNEAU
Editor-In-Chief
- CAPT JOSEPH SPEARS
Editor Cadet Programs
- CAPT VAN EMDEN HENSON
Editor Aerospace Education
- LT COL NOEL LUNEAU
Editor Emergency Services
- LT COL NOEL LUNEAU
Editor Aircrew Safety
- CAPT RICHARD WEST
Editor Education and Training

CONTRIBUTORS

Lt Col McDowell Maj Michelogiannakis, Capt Breton, Capt Hollerbach, 2d Lt Ilia Shabalin, SM Brie-Anne Paterson, C/1stLt Preston Kwok, C/CMSgt Samuel Low, C/CMSgt Zachary Pham, C/SrA Law.



ON GUARD SAN FRANCISCO BAY GROUP 2

What's inside this issue



01

Welcome

01 Welcome	02 What's Inside	03-09 General	10-22 Cadet Programs
23-26 Squadrons	27-29 Emergency Services	30-32 Aerospace Education	33-37 Aircrew Professionalism and Safety
38-40 Education and Training	41 Fun and Games		

02

What's Inside



03-04

General



05-07

Cadet Programs



08-10

Cadet Flight Training



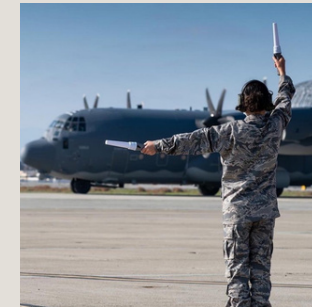
11-14

Squadrons



15-22

Emergency Services



23-26

Aerospace Education



27-31

Aircrew Education



32-35

Education and Training



36

Diversity



37

Fun and Games

GENERAL

CAWG WING CONFERENCE - 22-25 SEP 22

The California Wing Conference Planning Committee is excited to announce that the 2022 conference will be hosted at the Warner Center Marriott in Woodland Hills, CA. Our theme this year is Aspire to Inspire, the pandemic has affected so many people, but Civil Air Patrol members inspire so much of our communities each and every day. Please read some important information below.

When:

Please join us 22-25 September 2022.

Where:

Warner Center Marriot 21850 W Oxnard St, Woodland Hills, CA 91367

Venue Details:

The Warner Center Marriott is proud to offer CAP members a discounted room rate of \$142.75/night.

Additionally, Marriott is offering CAP members discounted overnight parking at the adjacent parking garage.

Website Information:

The conference website (conference.cawgcap.org) is currently under construction, please keep an eye out for an email from your conference staff about event registration and hotel reservations!

Important things to remember:

- You must reserve your hotel room separately from registering for the conference. Conference staff cannot access hotel reservations, please double check with Marriott if you feel you may have missed reserving your room.
- Once conference and banquet registration closes, there will be no exceptions.



GENERAL

CADET PROGRAMS CONFERENCE 2022 - 27-30 MAY 22

Cadet Programs Conference is confirmed, back and in-person, at CAMP SAN LUIS OBISPO from 27-30 MAY 2022, and registration will open soon, so mark your calendars and get your forms ready!



WHAT IS CADET PROGRAMS CONFERENCE (CPC)?
CPC is a 3 ½ day conference completely dedicated to cadets! Cadets can choose from a wide-range of different classes to attend – everything from dance lessons to leadership, robotics to how to play chess! Special events include a Friday night social, and a Saturday Activities, Career, and Education (ACE) Expo where cadets are able to play games and visit various booths highlighting different local, regional, and national CAP activities, careers, colleges and clubs! Culminating with the CPC Banquet hosted on Sunday evening. The banquet is similar to a military ball with pomp and circumstance, an amazing guest speaker, you can cheer on your fellow cadets receiving various awards, take pictures at a photo booth, and dance the night away with your friends. This is a once a year activity that you won't want to miss!

WATCH OUR CPC 2020 VIDEO HERE
<https://youtu.be/a3GiRsEywxg>

So if you are a new cadet to CAP, or a new senior member involved in Cadet Programs, this is one event you will not want to miss!

Also, check out photos from previous CPC's on our Facebook page here:
<https://www.facebook.com/cawgcadets/photos/>

SENIOR MEMBERS: We are also looking for Senior Member support in nearly every department, plus for the Overnight Crew and Transportation. If you are interested in serving on any department, please email brent.restivo@cawgcap.org and kendal.grossgold@cawgcap.org with what department you would like to help with!



CADET PROGRAMS

SQUADRON 10 ORIENTATION FLIGHTS

IN CIVIL AIR PATROL SQUADRON 10 HIGHLIGHTS - FEB 1 - MAR 1, 2022

On March 5, 2022, cadets C/CMSgt Srivatsan, C/Amn Chan, C/Amn Akin, and C/AB Ponnappalli took part in powered orientation flights flown by Capt Mateos and 2d Lt Kandah.

“O-Flights are not just about getting yourself in a plane. That’s what everyone envisions, but you also learn a lot about the basic structure of the plane you’re flying in—which was a Cessna 182 for us—and about general maintenance. We checked and filled fuel, made sure there was no oil leakage, and watched Capt Mateos test the brakes. It’s really fascinating to see all these parts come together in real time, and what it adds up to is really a wonderful view and the exhilarating experience of being 3,000 feet up in the air.”

– C/CMSgt Srivatsan

“We got an excellent view of San Jose, and it was a very fun experience. It was terrifying because of it sometimes being bumpy so descending is scary, but the pilot was very nice and said I did a great job. Airman Akin is a wonderful pilot!”

– C/AB Ponnappalli



Squadron 10 C/AB Ponnappalli poses prior to his flight with Capt Louise Mateos. Photo by 2nd Lt Kandah.



Squadron 10 cadets C/CMSgt Srivatsan and C/Amn Chan with their pilot Capt Louise Mateos. Photo by Capt Mateos



Views of the San Jose area from the CAP aircraft. Photo by C/CMSgt Srivatsan.

CADET PROGRAMS

LEADERSHIP MISTAKES

BY C/CMSGT ZACHARY PHAM - SQ. 36

Cold and at attention I stood in Tango flight. "Will Cadet Zachary Pham please report to the squadron commander." I awkwardly walked front and center. With a hand raise and oath recital, I began my leadership journey. Throughout my career, moments of success and failures helped shape me into the cadet I am today. In this essay, I will go over my leadership mistakes and the lessons I learned from them.

To start off, My first mistake is promoting too quickly with gaps of knowledge. Most of my airmen career was during the virtual period. Due to the pandemic, the lack of in-person meetings and CAP opportunities left me with a fragile base of knowledge. Nonetheless, I kept promoting, only chasing the rank. Another aspect that hindered my cadet growth was that I did not take the achievement tests seriously. I used the term 'open book' to its fullest extent, I did not absorb any important material. After I was promoted to staff sergeant, I started taking tests more seriously and actually taking notes and reviewing material before each assessment even though it was still an open book test. Another thing that helped with gaining knowledge is being part of line staff. I joined with a weak base of knowledge, but my position required me to learn the material, so I did. However, I still needed to strengthen many areas of growth.

Secondly, another mistake that affected my leadership is not taking advantage of opportunities and events. During my time as an airman, I only attended BCS. However, once the pandemic started, I realized how much these opportunities are worth in a cadet's development. I started attending more CAP events. Every single event I attended I still fondly remember. This does not only apply to attending, but also staffing events. I had many opportunities to advance my leadership by staffing, but I never took them with fear of failure or lack of knowledge. In the future, I hope to attend and staff future events.

Lastly, another valuable mistake, going off the first, is not being prepared for Phase II. During virtual meetings, I was promoted to Staff Sergeant with my half-baked knowledge. I soon realized the mistake of my unpreparedness during my first position as Great Start NCO. I had no idea about teaching and giving feedback. With that realization, I attended NCOS to better my skills as an NCO. Even to this day, I still regret not being prepared sooner in my NCO career. However, as time passed on, I learned along the way from other cadets and most importantly, actually leading. Like the saying goes, the best way to learn is to teach.

Mistakes are mistakes, but it is what you do with your mistakes that shape you. Do you sulk in your mistakes or do you use them as a learning tool to make yourself better. By sharing my failures, I can help others avoid them and help myself improve in the future.



C/MSGT Zachary Pham speaks to Squadron 36 cadets about leadership mistakes and how to overcome them.

CADET PROGRAMS

OPEN COCKPIT DAY AT THE OAKLAND AVIATION MUSEUM

BY SM BRIE-ANNE PATERSON

Cadets from squadrons 18 and 156 spent Sunday March 6th, 2022 volunteering at the Open Cockpit Day at the Oakland Aviation Museum. This event was a way to spark the interest and imagination for all ages. Event attendees could walk around the interior of the museum and check out models and life size aircraft and try their hand at flying in 3 different flight simulators. Then they could enjoy a meal, live music, and a chance to look and climb into several aircraft outside.

NCOs spent some of their time helping out at the recruiting booth gaining experience in both public speaking and sales. They each had to come up with their own spiel and do their best to recruit potential cadets. The cadets took turns working as docents introducing their assigned aircraft to the public and answering questions. Watching their confidence in their abilities grow as the day went on was remarkable to see.

C/SMSGt Paterson regaled attendees who were waiting for their turn in the F-18 flight simulator with stories of how he flew and then crashed a KC-10 whilst in a flight simulator at a different event. Attendees found this funny to hear and fun to watch.

Brie Paterson

Editor Note: There will be two more open cockpit events Jun 19, 22, and Sep 11, 22. For more details, visit Squadron 18's event calendar on the website (<https://eastbay.cap.gov/members/events/>).



C/SMSGt Paterson regales how he crashed a KC-10 in a flight simulator.



Visitors at the Open Cockpit Day at the Oakland Aviation Museum.



C/SMSGt Paterson helps a visitor to the event with how an aircraft flies.



Left to Right, Cadet Justin Kobban and Cadet Jose Angel Ruiz.

CADET FLIGHT TRAINING

CADET FLIGHT SCHOLARSHIP WINNERS IN GROUP 2

BY C/1STLT PRESTON KWOK

I am thrilled to have earned this flight scholarship. I am nearing my checkride for my private pilot license and this money will allow me to finish up my training! Flying is my passion as every flight is unique and spurs my desire to more. This scholarship, will allow me to continue to pursue my passions and expanding my horizons!

My experience taught me that if you have the desire to learn something new, give yourself a challenge that many may not face and of course have lots of fun, I highly suggest applying for flight scholarships from National because it is a huge support!



Editors Note:

Congratulations to Cadets Kwok and Low for winning \$1,000 from CAP for the furtherance of their flight training.

Upon each release of this magazine, we add new scholarships that are available for application.

If you are Interested, we recommend that you make the time to apply for the scholarships. Also, ask the cadets what they did.

To start view the video on the next page that was produced by NHQ.

BY C/CMSGT SAMUEL LOW

For more than a decade now, it has been my dream to someday fly as a captain for a major airline. Like many cadets, this interest in aviation led me to join CAP in late 2018, and the few years I've spent in the program have been more enriching than words can describe.

I first learned about CAP's ability to assist cadets in their journeys towards becoming licensed pilots at CPC in early 2020, as a 14-year old Senior Airman. While I was ineligible to apply at the time, I recognized the meaningful benefits that cadet flight scholarships, national flight academies, and the Cadet Wings program had to offer. Even now, two years later, the potential of these opportunities are in my opinion, too impactful to be ignored. Flight training, as many know, is not an endeavor without costs. Last year, while the pandemic affected my ability to begin flight training, I worried much about the expenses required of me in order to obtain my private pilot's license. As the grateful recipient of a CAP flight scholarship, I now have a good portion of the financial burden lifted off of myself and my family, and a launchpad which will greatly assist me in starting my dream career path. The existence of such momentous opportunities is a testament to CAP and the Youth Aviation Initiative's desire to help cadets to advance their professional selves. To anyone interested in flying, I wholeheartedly encourage applying for these unique, potentially life-changing opportunities.



CADET FLIGHT TRAINING

AVIATION SCHOLARSHIPS

Ladies Love Taildraggers is offering a \$2,000 tailwheel endorsement scholarship in memory of aerobatic pilot and friend of Group 2, Jacque Warda. The scholarship is open to female pilots at least 17 years old with a minimum of a sport pilot certificate. Applicants must have a current flight review, medical/BasicMed, and participate in telephone interviews (if selected). Scholarship applicants must also state why they would like to earn a tailwheel endorsement and provide a statement of financial need. Emailed applications are due on April 15.



The International Stinson Club is awarding four scholarships worth up to \$500



in reimbursements for pilots who complete their tailwheel endorsement. Applicants must submit an essay explaining why they should be one of the recipients as well as a picture, home airport information, total pilot-in-command time, ratings, and the type of aircraft to be used.

Applications must be sent as a Word document via email to Jody Jones, president of the International Stinson Club, by July 1. Winners will be announced on July 25 at the International Stinson Club dinner during EAA AirVenture Oshkosh in Oshkosh, Wisconsin.

UPDATED SCHOLARSHIP LISTS

Check out the Aviation Scholarships Group on Facebook Here.

The group describes itself as a gathering page to share all the available aviation scholarships.

If it helps people finance their career in any aspect of aviation, please add it.

The Ninety-Nines – a professional organization dedicated to female aviators has been inspiring women pilots since 1929.



They have an extensive list of scholarships Here.

AVIATION RELATED COLLEGE SCHOLARSHIPS



Southwest Airlines is offering 20 scholarships valued up to \$5,000 for individuals 24 years old or younger who are interested in pursuing careers in the airline industry. There are many career paths.” Applicants must be accepted or enrolled in an applicable degree program or be able to demonstrate interest in an airline industry career by internship, work, or extracurricular activities. Applicants must possess a minimum of a 2.5 cumulative GPA and must be attending or planning to attend an accredited two-year or four-year college or university in the upcoming fall or spring semester. Applications are due by March 18.

PRIVATE PILOT OPPORTUNITIES FOR CADETS

NHQ PRESENTATION



CADET FLIGHT TRAINING

WENDOVER GLIDER FLIGHT ACADEMY 2021

BY LT COL NOEL LUNEAU

Great News for Cadet Staff, CFG's, Tow Pilots, Winch Operators, etc.

STUDENT APPLICATIONS ARE NOW CLOSED BUT WE ARE LOOKING FOR STAFF!

For Scholarships see the next page

The Nevada, Utah, California, and Idaho Wings are pleased to announce that the Wendover 2022 Glider Academy is underway!

What does this mean? For cadets, this means that a fantastic opportunity to take a step closer in achieving your flight goals has opened up! The Wendover Glider Flight Academy is an educational and flight training experience for CAP cadets. It features one week of flying, ground school, and other activities to help cadets take another step in reaching their Private Pilot Wings!

Where is it? - The academy will be held at the historic Wendover Army Air Base in Wendover, Utah!! (Wendover Airport 345 Airport Way, Wendover UT 84083)

When does it start? - The first day of the academy will begin on July 2nd, 2022, and the graduation will be held on July 9th 2022. (Staff are expected to arrive on the 30th of June)

Who should be there?

*(Cadet Staff) Encampment graduates preferably with past aviation experience, who like teaching, guiding, and helping the next generation of aviators!

*(Senior Members) All those who are CFG's, Tow Pilots, Winch Operators, or those who would like to volunteer their time into helping with the operation of this Academy!

*Senior Staff and Personnel should contact: C/Lt Col Altunin – Project Coordinator and Lt Col Elizabeth Tattersall - Lead CFG at the emails below and above cc'd:
ivan.altunin@nvwgcap.org
elizabeth.tattersall@nvwgcap.org

STAFF & STUDENTS APPLY NOW!



WENDOVER GLIDER ACADEMY

July 2nd - July 9th 2022



To Sign Up Contact:
C/Capt Luz Sandoval
Cadet Coordinator
luz.sandoval@nvwgcap.org
(775)430-0148



***Cadet Staff should contact:** C/Capt Luz Sandoval - Cadet Coordinator
luz.sandoval@nvwgcap.org
(Registration for staff is \$150.00)

Keep in mind the 20 student slots fill up fast and first priority will be given to the top 5 applicants from each of the participating wings (Utah, Nevada, Idaho, and California). If there are still slots left, priority is given to Rocky Mountain & Pacific Region Cadets, then in the event slots are still open, cadets from outside of either region may be selected. Registration cost for students will be \$800.00, local flight scholarships may be an option for financial aid for cadets.

Thank you and we hope to see you there!

Wendover 2022 Glider Flight Academy Planning Team

ON GUARD SAN FRANCISCO BAY GROUP 2

SQUADRONS



**SQUADRON
10
PALO ALTO**

**ROCKET ALTERNATE
15 FEB 22**

Squadron 10 cadets and prospective cadets were supposed to launch rockets but the motors didn't arrive- but without missing a beat they did a lesson on physics, practiced drill and command voice, introduced color guard concepts, got cadets needing their Redstone exams taken care of, and even had fun with a bearing test!



**SQUADRON
13
WATSONVILLE**

FEBRUARY CC REPORT

Cadet membership: 19 with 1 in the pipeline. SM membership: 31 with 3 new members and 1 in the pipeline. We were finally able to support a Young Eagles event after covid and weather cancellations for most of the past two years. Historically Young Eagles is the largest source of new cadet memberships. SQ13 completed its SUI packet and is scheduled for the virtual "on-site" inspection on 12 Mar 2022. AEOs coordinated with cadets and did a survey of cadet interest in available STEM kits to gauge not only which kit should be next, but what general areas of AE/STEM are most interesting to cadets. The Naval Postgraduate School has reached out with their new date for NPS Discovery Day (13 May 2022). SQ13 will definitely plan to participate and our CAC representatives have brought up attendance with the Gp2 CAC to see if we should make it a Group-Wide cadet event.



**SQUADRON
18
HAYWARD**

FEBRUARY CC REPORT

41 cadets 19 SM. Lost two cadets who moved away. We have 2 prospective cadets. While having virtual meetings we had good attendance with 32-38 members present. We are continuing to have cadets test and promote. Began in person meetings March 1st.



SQUADRONS



**SQUADRON
36
SAN JOSE**

**A UNIQUE MEETING
22 FEB 22**

On February 22nd, the meeting for Squadron 36 was more unique to many others as after opening ceremony the cadets were split in half into two groups. While one group was outside doing a uniform check, basic drill, and friendly competition in the form of a drill down, the other half of cadets were engaging in an emergency service class about NIMS: the procedure that the United States provides for its emergency service workers. After the meeting was half over they traded places. Just before the meeting ended with the closing ceremony, the cadets listened to a speech by Cadet CMSgt Zachary Pham about his regrets that he didn't take his time in promoting in the Civil Air Patrol, and advising cadets to make sure that they spend time learning.



**SQUADRON
44
CONCORD**

**BACK HOME
8 MAR 22**

We are happy to announce that Diablo Composite Squadron 44 is now BACK in the Clubhouse! ♥ Back home again! 😊



**SQUADRON
80
SAN JOSE**

**NEW PILOT
14 FEB 22**

Congratulations to SM Ashish Goel on passing your Form 5 and becoming a CAP pilot. We asked Ashish for a picture capturing the moment, and this is what we got. We don't have the heart to tell him that CAP aircraft are not the best if you have the need, the need for speed.



SQUADRONS



SQUADRON 86 SAN FRANCISCO

PROMOTIONS 8 FEB 22

Congratulations to all our cadets who promoted these past few weeks!

- C/1st Lt Carter Wong
- C/CMSgt Ainsley Wong
- C/SMSgt Peter Nascimento
- C/TSgt Benjamin Chow
- C/SSgt Izabella Chan
- C/A1C Arthur Liang
- C/A1C Emily Liang
- C/Amn Wilson Li
- C/Amn Kayden Chan



SQUADRON 156 TRI-VALLEY

MITCHEL AND MORE 4 MAR 22

Cadet Telli was presented with a Mitchell Award, the squadron resumed Glider O-rides, Upcoming - Powered O-rides resume, and they will we have a social on 3/30 where members will be presented the Unit Citation ribbon.



SQUADRON 188 OAKLAND

BUILDING REPAIR 6 FEB 22

Many thanks to Maj Hayes, Lt Baldwin, Lt Rainville, Lt Klavon and SM Thompson for their work on Squadron 188's roof this weekend. Photos by Commander Salimi.



SQUADRONS



SQUADRON 192 SAN CARLOS

FEBRUARY CC REPORT

Sq192 has a total of 52 members: 35 cadets; 10 seniors; 6 patrons; 1 sponsor. Annual growth +46% overall; +62% cadets; 0% seniors. 90-day growth +21% overall: +26% cadets; 0% seniors. We continued our routine cadet curriculum and included an Emergency Services session focused on cardiopulmonary resuscitation. Promotions: Nicolas Andalon to C/Amn; Alexander Andalon to C/Amn; Aviraj Dastidar to C/Amn; Daniel Caleb Hsiung to C/Amn; Arjun Mathu to C/Amn; Aryah Oztanir to C/Amn. Training: 2d Lt Garrison J Buchanan achieved Technician rating in Logistics while Capt Ian Harris completed the Training Leaders of Cadets Basic course. Duty Assignments: SM Nicholas Pegis was assigned as Squadron Fitness Officer and Assistant Squadron Leadership Officer



SAN FRANCISCO BAY GROUP 2

GROUP COMMANDER ATTENDS SQ. 156 MITCHELL AWARD CEREMONY

San Francisco Bay Group 2 Commander, Lt Col Shawn Lawson attends Squadron 156 to present Cadet Telli with a Mitchell Award.



EMERGENCY SERVICES

WATER SURVIVAL CLASS

BY LT COL GEORGE MICHELOGIANNAKIS, GP. 2 CD

On February 26th, group 2 organized a water survival class at the Berkeley marina. Some readers may remember previous iterations of this training, but unfortunately the covid pandemic still prevents our partner agencies from holding or inviting us to this training. To make this course possible, Lt Col Newton, California Wing (CAWG) Vice Commander graciously agreed to drive from SoCal to provide the training. The training itself consisted of an online course followed by a virtual classroom portion that covered many of the same topics. The material in this training ranged from checklist items for the aircrew, water survival rafts, how to make contact with the water, how to egress from the aircraft, hypothermia, and a range of other topics essential for water survival.

The Project Officer for the event Lt Col George Michelogiannakis commented that, "The practical portion was one of my most fun Civil Air Patrol activities in recent memory." The training was held in the Berkeley marina, with 16 attendees, and started with a simulated egress from four chairs arranged roughly similar to a Cessna 182 cockpit. The key takeaways in that exercise were not just the egress procedure, but also crew resource management, checklist usage, bracing for impact, the positioning of the water survival raft (when packed), and then where the group meets when in the water.

This was followed by the much-anticipated swimming portion! to mitigate the hypothermia risk, attendees were provided loaner wetsuits and personal flotation devices (PFDs), simulating inflatable PFDs that aircrew will wear for extended overwater missions.

Students had to wear appropriate aircrew clothing to keep it realistic, which meant flight suits for some attendees and blue polos for others. Once in the water, students had to swim approximately 50 yards, treat water or 10 minutes, and simulate flipping over and boarding a water survival raft. Everyone was in high spirits and made the experience rewarding and fun.



Capt Choate, Capt Stieber, 2d Lt Klavon, and 2d Lt Shabalin, practice their swimming drills. Photo credit: Lt Col Michelogiannakis.



Front L/R, Back L/R: Capt Hollerbach, Capt Mateos, Capt West and SM Vasudevan practice their egress drills. Photo credit: Lt Col Michelogiannakis.



Front to back: Capt Mateos, Capt West, SM Vasudevan, and Capt Hollerbach, practice their swimming drills. Photo credit: Lt Col Michelogiannakis.

EMERGENCY SERVICES

WATER SURVIVAL CLASS

BY LT COL GEORGE MICHELOGIANNAKIS, GP. 2 CD

Water Survival Instructor Lt. Col. Craig Newton, said that, "The dedication of the Group 2 members were tested in the cold waters of Berkeley bay. The water survival course requires both a classroom and a swimming test. Under the watchful eye of Maj. Jordan Hayes the safety officer, all members passed the national guidelines for their over water survival qualification."

This means that Group 2 now has many more members qualified for extended overwater operations, when water temperature allows. This increases our operational readiness and makes more of our members eligible for suitable missions.



A high level of morale is evident as members watch Capt West egress from the water. Photo credit: Capt Wilson.



Capt Wilson drying off after the swimming drills. Photo credit: Capt Wilson.



L/R: 2d Lt Fenech, Capt Gross, Capt Wilson, and 1st Lt Fritsche practice their swimming drills. Photo credit: Lt Col Michelogiannakis.



T/B: Capt Gross, 2d Lt Fenech, Capt Wilson, and 1st Lt Fritsche practice their swimming drills. Photo credit: Lt Col Michelogiannakis.

EMERGENCY SERVICES**JAN 22 ONLINE MISSION SCANNER GROUND SCHOOL****BY 2D LT ILIA SHABALIN, CAP SQ. 10 DCS**

On January 22 Group 2 hosted a Mission Scanner Ground School.

The Ground School was attended and graduated with flying colors by 17 senior members and 2 cadets.

Mission Scanner is usually the first Emergency Services aircrew rating new CAP members can receive. It opens up the door to flying in CAP, and to some people it's their first exposure to flying small general aviation aircraft. Even though Mission Scanner can be considered an introductory rating and a stepping stone for advanced aircrew career, this is when new member learns the "CAP way". The focus on safety, the aircrew roles, the types and the structure of the missions.

After graduating the Ground School members become Mission Scanner Trainees qualified to fly training flights, which sometimes can even turn into real SAR missions! This is the obligation that lies on the shoulders of the Ground School instructors. No pressure! Another aspect of the Scanner class is that's also the first chance for new members to meet with people from other squadrons, people they will fly with as part of the same aircrew. With all that in mind CAP has always tried to host the training in person.

This time was not an exception, this class was planned to be an in person event kindly hosted by Squadrons 80 and 36 on their home base at Reid-Hillview airport. But COVID has made its own adjustments, and to comply with the precaution measures the Ground School has pivoted to a virtual format. Semper gumbly. It has made the instructor's job especially challenging, not only they had to instill CAP fundamentals, but also keep the audience at their screens all day and have their attention. And all of our brilliant instructors did an outstanding job without missing a beat!

Thanks to all the students for their flexibility and devotion to CAP, and a special heartfelt thanks to the instructors:

- Maj Jordan Hayes
- Capt Louise Mateos
- Capt Tony Stieber
- Capt George Zioulas



CAP Mission Aircrew
Scanner Course

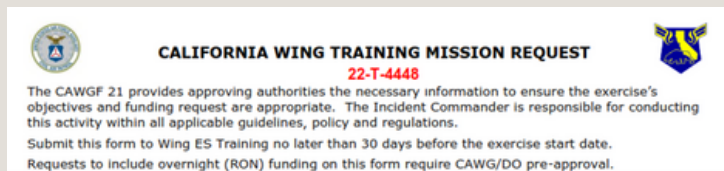
EMERGENCY SERVICES

BEING AN ACTIVITY PROJECT OFFICER

BY CAPT KEITH BRETON, SQ. 156

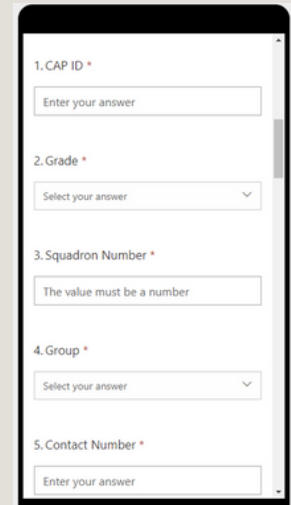
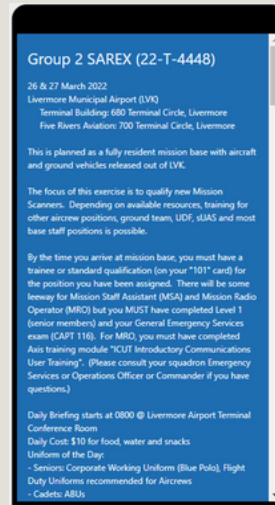
How can you make a major contribution to CAP activities? Agree to be the Project Officer (or PO for short). Unlike many other roles, there is no specific training, no SQTR tasks, just a desire to help make things happen. The job is not particularly difficult but does require a good sense of organization, a drive to make things happen, and strong follow-through skills.

Most activities in CAP require some sort of approval process. This is usually where the PO starts. It may be a CAWG Form 21 (Training Mission Request) or Form 29 (Event Operations Plan) but in either event, they are fairly short and simple forms. In parallel, it's time to start securing a location. This is also not usually too difficult as we have some excellent CAP locations such as the facilities for Squadron 188 on the Oakland Airport or Squadron 36 & 80 on the Reid-Hillview airport. Additionally, we have lots of local friends. At the Livermore airport we have excellent relationships with both the City of Livermore and the Fixed Based Operator (FBO) Five Rivers Aviation. They both are very supportive of CAP.



CAWGF 21

Now comes the fun part. You create a survey/questionnaire in Microsoft Forms (part of our Microsoft Office365 toolset) and invite your fellow members to participate and gather the information needed to maximize the benefit of the activity for our members. For example, when we plan a Search and Rescue Exercise (SAREX) we need to know what ratings a member currently has and which ones they would like to gain.



Microsoft Form

This is typically the point where the project officer works with the responsible officer for the activity. In the case of a SAREX, it is the Incident Commander (IC). For a local squadron (or even group) event, it would likely be the commander or maybe the operations officer. As a PO you do not have the ultimate burden of the activity but rather you assist the command staff in selecting personnel for specific roles and possibly reaching out to recruit.

What about the follow-through mentioned earlier? You need to make sure your facility and equipment (radios, airplane, vehicles) are confirmed as you get closer to the activity. You may follow-up with your fellow members to ensure their participation.

The best part? You are never alone in the process. Group 2 has a number of experienced members who are more than happy to mentor you. Acting as a project officer helps your visibility at the group level and will teach you how an exercise works. Plus, you can coordinate the training you want for yourself during the exercise. You will also meet many, many members of our group that you might not otherwise and you will become known as one of those people who "gets it done"!

The Best Practices Guide, Emergency Services Exercise Planning for Group 2 is being updated and will be released soon.

EMERGENCY SERVICES

NIST ADVANCED sUAS STANDARD TEST METHODS – TRAINING IN DUBLIN, CALIF

BY CAPT KARIN HOLLERBACH, CAWG DIRECTOR OF OPERATIONS UNMANNED

On the 18-20 February weekend, I attended an sUAS course in Dublin, California, on NIST Advanced sUAS Standard Test Methods. What's that?

NIST is the National Institute of Standards and Technology, part of the US Department of Commerce. What do they have to do with aviation? In the absence of other national standards equivalent to the FAA's private pilot checkrides, NIST developed sUAS testing standards for evaluating both pilot and equipment performance.

Last year, several Group 2 members and a few additional members from throughout California Wing attended a class on the NIST Basic sUAS Standard Test Methods and became "Proctors" (equivalent to Check Pilots for this flight test standard) – basically, a train-the-trainer type of course. That Basic Proficiency Evaluation for Remote Pilots (BPERP) method is now being used in CAWG for flight training. Our understanding is that it will become the CAP national standards for Form 5u sUAS flight evaluations.

This new course covered advanced topics. In particular, the course addressed constructing and managing NIST obstructed test lanes, night operations, beyond visual line of sight (BVLOS), and embedding apparatus within scenarios for real mission training. The course was the first of its kind, and we were fortunate to have Adam Jacoff from the Intelligent Systems Division of NIST, and the developer of this standard, leading the instruction.

I attended as an observer, as I am a candidate for becoming a future instructor. Another California Wing member, Lt Nick Irvine from Group 5, one of our CAWG Instructor Pilots, attended as a student.

The class was a lot of fun, though I'll admit the days were long. Since the course covered night flight, we trained until 9pm the first two nights. Although we are not allowed to do CAP sUAS night operations without NHQ permission, they are now legal (from an FAA perspective) provided the pilot has taken the "new" (early 2021) updated training. For SAR missions, one can easily imagine that night operations would be very useful.

In class, students flew the "obstructed lanes" – having to maneuver their drones into positions and orientations to clearly see a set of targets from specific positions and angles, while maneuvering in the vicinity of obstacles. We flew these both during the day and at night. We also practiced simulated BVLOS by having the pilot turn his/her back to the drone and flying strictly by looking at the controller and getting input from the visual observer / technician. Finally, we practiced more realistic search scenarios, with targets embedded in vehicles and buildings for search purposes... continued.



Lt Irvine flying the Open Lane using simulated BVLOS. Photo credit: Capt Hollerbach



Capt Hollerbach (center) trying to stay warm on a cold February morning while talking with instructor Adam Jacoff (left). Photo credit: Probyn "Probe" Thompson

EMERGENCY SERVICES

NIST ADVANCED SUAS STANDARD TEST METHODS – TRAINING IN DUBLIN, CALIF

BY CAPT KARIN HOLLERBACH, CAWG DIRECTOR OF OPERATIONS UNMANNED

...continued

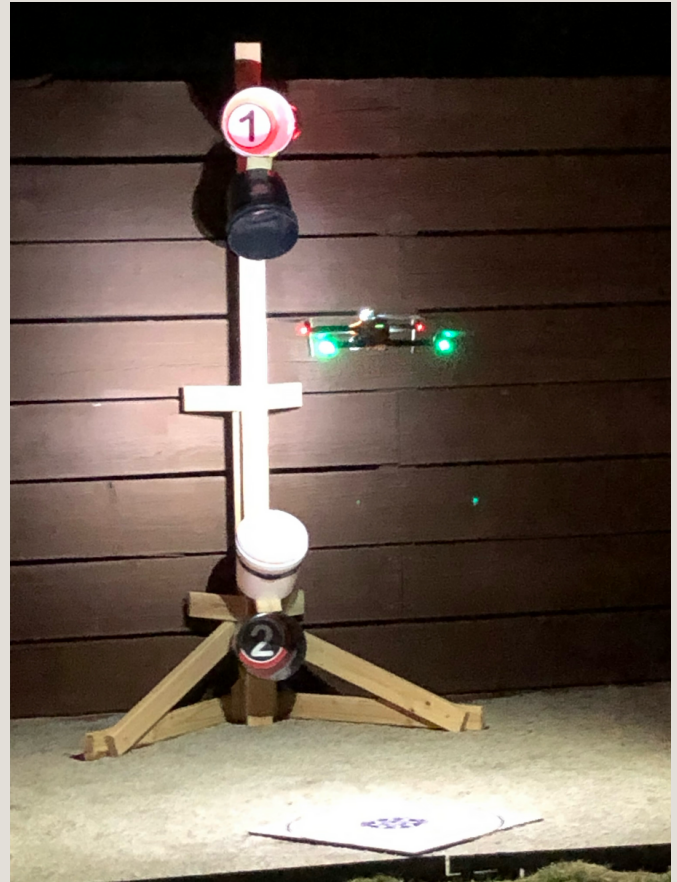
One unexpected bonus was the sudden activation of the sprinkler system out in the flying area... providing instant IP rating testing of all the equipment! OK, I'm joking – IP ratings provide a rating of the degree of protection by an enclosure for electrical equipment – e.g., telling you whether your drone can withstand flying in the rain. Most of the drones used in class are not meant for that! Fortunately, no equipment was damaged, and one of our hosts was able to turn off the sprinklers quickly.



Unexpected "rain showers" during the night operations. Photo credit: Probyn "Probe" Thompson

The training was held at and hosted by the Alameda County Sheriff at their regional training facility in Dublin, which provided outstanding support for the entire weekend.

For more information on Group 2 sUAS training, please reach out to Capt Karin Hollerbach or to Lt Margaret Salimi to see how you can get involved.



Drone flying close to its targets while also close to a wall (Obstructed Lane) during night operations. Photo credit: Capt Hollerbach

EMERGENCY SERVICES

THE "WINDY RADAR" MITIGATION PROJECT

BY LT COL KEVIN MCDOWELL

On Jan 5, 2022, Civil Air Patrol completed a new round of Windy Radar flights for the FAA and USAF. These flights are crucial in developing a plan to mitigate the interference and clutter created by wind turbines located in close proximity to Travis AFB.

Wind turbines cover the landscape of California and across the United States. They are an important part of the energy infrastructure accounting for a significant portion of the electricity supplied in the United States.

However, wind turbines located within the line of site of radar systems create a unique challenge especially for radar systems involved in air traffic control, weather forecasting, homeland security, and national defense missions. One such case is located at Travis Air Force Base, in Northern California.

The wind resource area (WRA) at Travis Air Force Base contains nearly over 600 wind turbines within a 5 nautical mile radius located approximately 9-nautical miles southeast of the base. It penetrates Travis Class D airspace (tower airspace).

Wind turbines may appear as targets identical to aircraft on air traffic control displays, they compromise air traffic control safety with false targets, and they increase workload for air traffic controllers.

The wind industry wants to increase the number of wind turbines in California. Newer turbines will be larger than current ones, cover greater swaths of land, and, consequently, exasperate air traffic control. Therefore, Travis AFB is seeking solutions to be able to cooperate with the wind industry while providing safe air operations.

One approach of providing technical mitigation for wind farm interference and clutter is 'infill' radar for coverage in and around the wind resource area. Basically, this involves excluding the currently degraded air traffic control radar that shows interference and clutter from the operator. This excluded area is then filled in with data from the infill radar that can process targets with little impact by the wind farm.

While the process begins with modeling proposed wind turbines and simulating the impact they may have on radar systems, real time data is required throughout all stages of the effort - and that is where Civil Air Patrol comes in. The FAA and USAF tasked CAP to fly a number of flights to assist in modeling, testing and validating the performance of an infill radar.

This effort, in conjunction with Travis AFB, FAA, USAF and other agencies, began in 2018. Major Steve Renwick was initially approached with a request to utilize CAP aircraft to fly a number of patterns in and around the turbine farms south of Travis AFB designed to stress the radars and trackers.

Patterns generally included various forms of parallel lines and expanding/contracting squares – something we know well! The goal of this set of flights was to gather data to allow for the analysis of the interference, determine the performance of the infill radar, and provide information critical to identifying potential changes for air traffic control.

During this initial phase, we flew approximately 140 hours (120 hours of sorties and 20 hours of relocation) utilizing dozens of pilots, observers, ICs, MRO, and staff. The data provided was extremely well received and was crucial in developing a plan to mitigate the interference and clutter. This initial effort, dubbed the Pilot Mitigation Program (PMP), eventually identified benefits for an additional primary radar and provided options for further consideration.



An infill radar unit that CAP is helping the FAA with data collections.

EMERGENCY SERVICES

THE "WINDY RADAR" MITIGATION PROJECT

BY LT COL KEVIN MCDOWELL

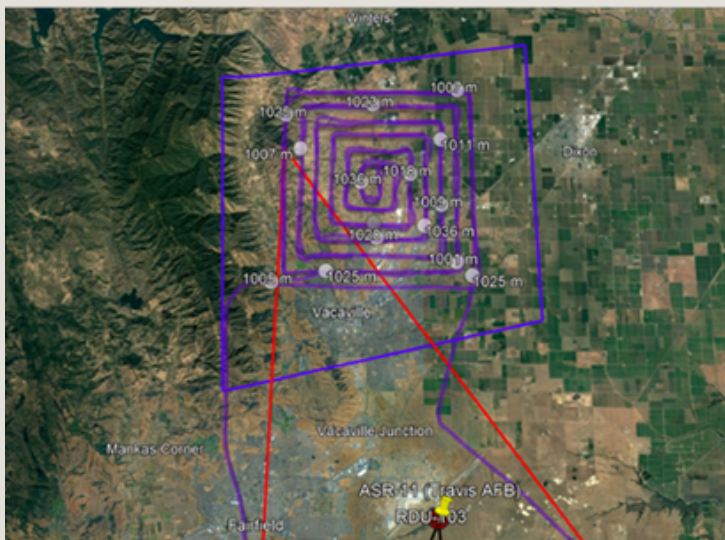
In 2021, CAP was again approached to continue our partnership to help certify and validate changes made to the software and radar infrastructure with a future goal of certifying infill radars for use in the National Airspace System (NAS). The current mission includes two 'sets' of flights. The initial set is led by the FAA to test and certify changes to the system. The second set of flights is USAF-led to explore system changes to improve infill radar performance for air traffic control operators.

In total, the current request is for approximately 12 days of flying, utilizing two aircraft each flying two sorties per day. Typical sorties are 2-3 hours.

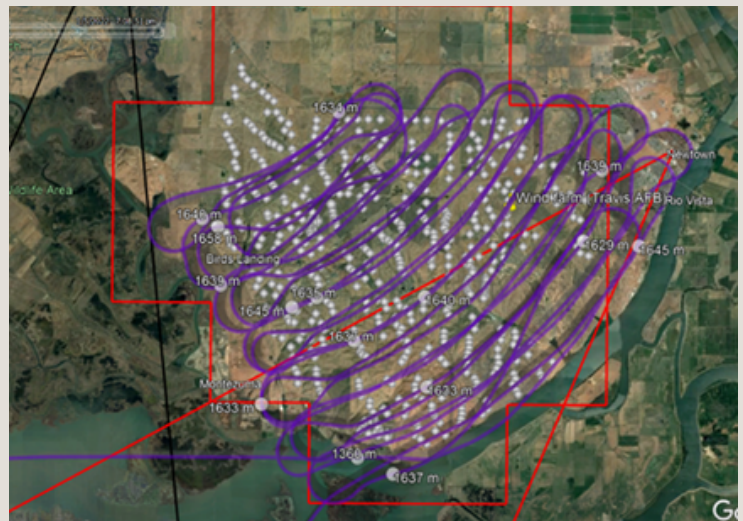
On Jan 5, 2022, after previously scrubbing the mission due to weather, the first of these flights was completed successfully. This not only included the 'typical' parallel and expanding square pattern, but a new pattern – a type of DME Arc, allowing the crew to dust off some, undoubtedly, older skills. A sampling of the GPS data is shown below. The first set of flights were completed on January 26th with almost 50 hours of flight time. The flights are planned to continue from Mar - May 2022.

The "Windy Radar" program has successfully highlighted the strengths and capabilities of Civil Air Patrol and California Wing. San Francisco Bay Group 2 has taken the lead with additional resources and support from members throughout the Wing. The flights conducted thus far have been extremely successful and have reinforced the customer's view of CAP and CAWG as a highly skilled and professional resource. The data provided has been critical in improving the radar infrastructure and, as a result, safety within the aviation industry and allowing for the continued expansion of wind energy as an alternative energy source.

Editor's Note: Windy Radar flights are commencing again. Sign up to fly this valuable mission.



The CAP aircraft flew north of Travis AFB so the FAA could baseline the infill radar performance in the clear without any wind turbine clutter.



The CAP aircraft flew over the wind turbines (white dots) to demonstrate infill radar performance with the clutter. The flight profile is challenging for the radar and the sharp turns are challenging for the trackers.

AEROSPACE EDUCATION



An invitation from the Arizona and California Wings

A VIRTUAL EVENT
MARCH 23, 2022

THE JOURNEY TO BECOMING AN ASTRONAUT DR. SIAN PROCTOR



INSPIRATION4
ALL-CIVILIAN ORBITAL MISSION

WHO: DR. SIAN PROCTOR
ASTRONAUT, GEO SCIENTIST, CAP MEMBER AND NASA
SOLAR SYSTEM AMBASSADOR

WHAT: PRESENTATION + Q/A
WHOM: FOR BOTH CADETS AND SENIOR MEMBERS
WHEN: 23 MAR 2022 -- 1900-2030 PDT
WHERE: ONLINE THROUGH MS TEAMS
COSTS: FREE!

REGISTRATION IS NOW OPEN
THROUGH THE LINK BELOW

<https://forms.gle/S83fqYHALNT19ibdA>

or via the QR CODE



ASTRONAUT DR. SIAN PROCTOR

DR. PROCTOR IS A GEOSCIENTIST, EXPLORER, SPACE ARTIST, AND ASTRONAUT. SHE WAS THE MISSION PILOT FOR THE INSPIRATION4 ALL-CIVILIAN ORBITAL MISSION TO SPACE. SHE IS ALSO ONE OF THE EXPLORER'S CLUB 50: FIFTY PEOPLE CHANGING THE WORLD. HER MOTTO IS CALLED SPACE2INSPIRE WHERE SHE ENCOURAGES PEOPLE TO USE THEIR UNIQUE, ONE-OF-A-KIND STRENGTHS, AND PASSION TO INSPIRE THOSE WITHIN THEIR REACH AND BEYOND. SHE BELIEVES THAT WE NEED TO ACTIVELY STRIVE FOR A J.E.D.I. SPACE: A JUST, EQUITABLE, DIVERSE, AND INCLUSIVE SPACE AS WE ADVANCE HUMAN SPACEFLIGHT.

BE PREPARED TO BE AMAZED WITH HER STORY!
A TRUE AEROSPACE ICON.

AEROSPACE EDUCATION



AN
AEROSPACE EDUCATION TREASURE
TROVE

THE MITCHELL INSTITUTE
FOR AEROSPACE STUDIES

AN AFFILIATE OF THE AIR FORCE ASSOCIATION

BY CAPT VAN HENSON



Have you heard of *The Mitchell Institute for Aerospace Studies* before? If you haven't, you are not alone. Most of the country likely has never heard of it. Moreover, most of the country doesn't much care that they've never heard of it. But if you are in CAP you are associated with three missions, one of which is Aerospace Education. And that means aerospace education for our cadets, for our seniors, and for the general public. It is our duty to make aerospace education available to all those groups.

So, what IS the Mitchell Institute for Aerospace Studies? What does it do, and how does that help us in our AE mission?

In their own words, "*The Mitchell Institute for Aerospace Studies is an independent, nonpartisan research organization established to provide fact-based policy options, inform debate, and empower our nation's leaders.*" To do this, they encourage questioning established doctrine, organization, and operational methods, in pursuit of better ways of meeting the national security goals of the country. An independent "think tank," they invoke history, science, and data analysis to suggest better solutions in the aerospace domain.

The Mitchell Institute has a treasure trove of material available. They maintain a calendar for **Events** open to the public, have a **News and Commentary** page with timely articles, have a **Podcast** (now on episode 67), a number of scholarly **Publicarions**, a set of six areas of **Issues** (Airpower, Space, Acquisition, Strategy, Budgeting, and Nuclear) and a section of **Resources** (Facts & Figures, Reading List).

Do they have an agenda? A slant? Of course they do. So does the Air Force and so does CAP. None of those organizations are free from a corporate "viewpoint." But the Mitchell Institute claims to be (and appears to be) nonpartisan; as with any think tank, the conclusions and interpretations are offered to the user, and it is up to the user to decide how to use the material. Spend a little time poking around their website - whether you agree or disagree, there is a lot of Aerospace Education material there: <https://mitchellaerospacepower.org/>

=====

First call: a total lunar eclipse is coming, May 15

Find a nice, dark place to watch!



Photo: Getty

Event	Time in Livermore*	Visible in Livermore
Penumbral Eclipse begins	May 15 at 6:32:05 pm	No, below the horizon
Partial Eclipse begins	May 15 at 7:27:52 pm	No, below the horizon
Full Eclipse begins	May 15 at 8:29:03 pm	Yes
Maximum Eclipse	May 15 at 9:11:28 pm	Yes
Full Eclipse ends	May 15 at 9:53:55 pm	Yes
Partial Eclipse ends	May 15 at 10:55:07 pm	Yes
Penumbral Eclipse ends	May 15 at 11:50:49 pm	Yes

AEROSPACE EDUCATION

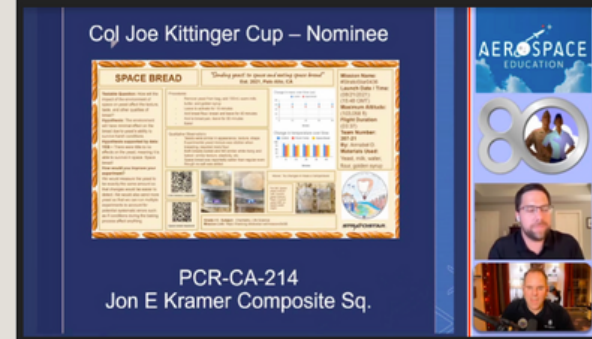
THE NATIONAL CAP CADET HIGH ALTITUDE BALLOON CHALLENGE IS BACK

**CAP SQUADRON 10 HIGHLIGHT, 2/1- 3/1, 2022
 WITH CONTRIBUTIONS FROM CAPT VAN HENSON**

The CAP High Altitude Balloon Challenge is returning for 2022! In this competition, squadrons from across the nation launch capsules 100,000 feet into the atmosphere to study the effects of the space environment on everyday objects. You can learn more about the competition [Here!](#)

Last year, Squadron 10's "Space Bread" team performed outstandingly well. A group of 20+ cadets collaborated throughout the summer to compile science project reports, produce pre-launch and post-launch documentary videos, and design mission patches. Their submission managed to reach the finalist round, placing in the top 4 of 100+ squadrons that competed. The squadron also won the award for the best hand-drawn mission patch, earning a \$200 grant!

This year, Squadron 10 hopes to reach new heights by expanding into a "space bakery" (more details coming soon) and winning the Kittinger Cup—a \$5,000 aerospace education grant and a trip to Florida. To do so, they need the expertise and support of every single cadet in their squadron! Colonel Joe Kittinger, the first man to perform a parachute jump from 100,000 feet and the sponsor of the competition, said his favorite part about working on Project Excelsior was the fact that he worked as part of a team, and for Squadron 10 to win, they truly need to excel as a team.



**2022 CAP HAB Challenge
 registration closes 30 April!**



Important Facts about the 2022 HAB Challenge

- Only one team per squadron may register.
- Each team should have at least two cadets for a team to be registered.
- Each squadron team can have as many cadets as are interested in actually working on the project. (No limit, but suggest that only those who want to work on this actually join the team.)
- Two composite or cadet squadrons can register as one team, but only one squadron should actually register (and add the second squadron at the bottom of the registration).
- If a Sr squadron wants to work with a composite or cadet squadron, the composite or cadet squadron POC should register and add the Sr squadron's info at the bottom of the registration.

AEROSPACE EDUCATION

AEROSPACE EDUCATION READING CORNER: "JIMMY STEWART - BOMBER PILOT"

BY STARR SMITH

REVIEW BY CAPT V. HENSON

AE Editor's Note: *I am an aficionado of books on aviation and space, and plan to include, each month, a brief description/review of an AE related book. Review contributions welcome!*

To anyone my age (older than dust!), Jimmy Stewart is a beloved movie star who made 102 films including some of Hollywood's most loved movies. His forte was westerns ("*Bend of the River*", "*The Man from Laramie*", "*The Far Country*", "*Winchester 73*"...) light comedies ("*Harvey*", "*Bell, Book, and Candle*"...) and Hitchcock suspense thrillers ("*Vertigo*", "*The Man Who Knew Too Much*", "*Rope*", "*Rear Window*"). Even if you aren't older than dust, you are very likely familiar with his classic Christmas Movie, "*It's a Wonderful Life*."

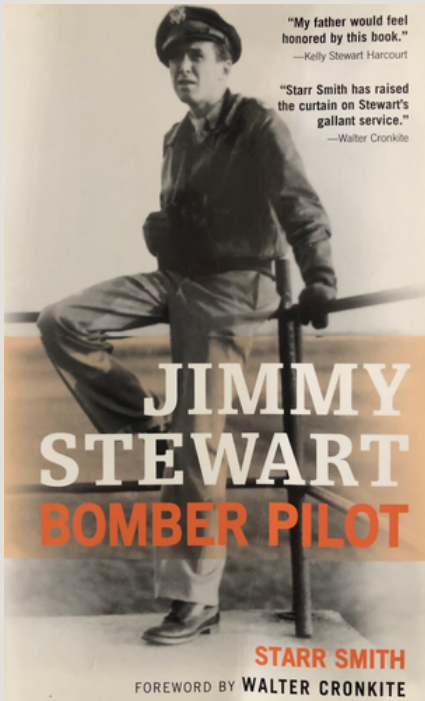
Beginning in 1951, Stewart's filmography added an aviation dimension, with with four standout films: "*No Highway in the Sky*", "*Strategic Air Command*", "*Spirit of St. Louis*", and "*Flight of the Phoenix*" (the original 1965 film, not the more recent re-make). Why did he make these films? First, of course, they tell good stories. But the reason is deeper. Stewart was a flier, and deeply believed in air power.

As World War II was looming, Stewart was drafted in the army as a private early in 1941 and assigned to duty as an ordinary soldier. But when the Japanese attacked Pearl Harbor in December 1941, the Army Air Corps noticed that Stewart, who had learned to fly in 1935, held a commercial ticket and had 400 hours in his logbook, and they determined to make him an instructor pilot. He wound up teaching pilots to fly heavy bombers - B-17s.

But that was just the beginning. Stewart went on to fly many missions in B-17s and B-24s, commanding a heavy bombardment squadron before finishing out the war as a wing operations officer and a Group Commander. After the war he remained an active officer in the USAF Reserves, eventually reaching the rank of Brigadier General (he flew on one bombing mission in Vietnam!).

The complete story of Stewart's military career is very nicely detailed in "**Jimmy Stewart - Bomber Pilot**," by Starr Smith, this month's book selection. This book covers Stewart's lifelong love of flying and his lifelong dedication to the Air Force and to air power as a tool to protect America and her interests. It paints a picture of Stewart that is very much like the characters he portrayed in so many of his movies: a humble, self-deprecating, gentle man who has a genuine concern for his neighbors (or in this case, the men and women with whom he served). He fought to be assigned to "real" duties during World War II when the Army would have preferred to have him filling a safe public relations role.

Reviews of this volume vary, with some feeling it is too superficial or glib, but the majority of reviewers concluding that is is a strong book covering Stewart's military life very well. I agree with the latter crowd- it is a great coverage of his military contributions, easy to read, and very informative. One thing I would have wanted to see that isn't in it, though, is that Stewart's fascination was not just military air power, but of aviation in the broad sense. This can be discerned from selection of roles in the aviation films he made: an aircraft designer convinced the plane he is on will crash ("*No Highway in the Sky*"), a pro baseball player who gives up his major league career to help create the post-war nuclear deterrent ("*Strategic Air Command*"), the story of Charles Lindbergh and his solo flight across the Atlantic ("*The Spirit of St. Louis*"), a washed up pilot-who crashes in the Sahara where he and the passengers fight to survive ("*Flight of the Phoenix*"). But of course, that wasn't Starr's purpose in writing this volume.



AIRCREW EDUCATION

THE IMPORTANCE OF AN HONEST SELF-ASSESSMENT

MAJ. GEORGE MICHELOGIANNAKIS - CIVIL AIR PATROL STAN/EVAL
NEWSLETTER - MARCH 2022

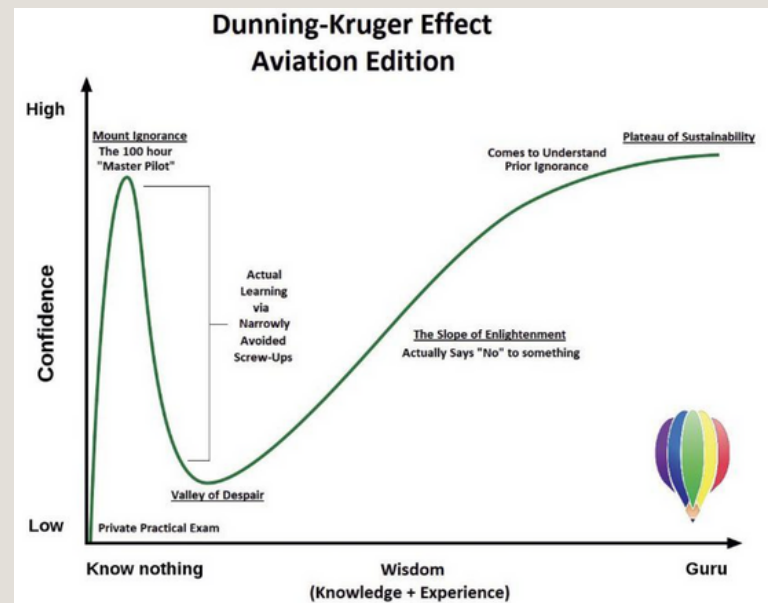
We all prefer to think of ourselves by our best moments. For instance, that time we scored the winning goal, when we found the missing airplane within dense tree coverage or when we landed with a howling (within limits) crosswind. But we neglect to connect those moments to the preparation and recency of practice that we had at the time. What would happen if we didn't fly for years and then act as a mission observer again? Just because we excelled at something once upon a time, it doesn't mean we always will.

Being honest to ourselves is also being responsible to our fellow CAP members who depend on us for the mission or for their safety. We all know that ES ratings expire every three years. But should you really participate in a high-profile mission where the USAF is perhaps watching if you haven't practiced at all in the last two years? Saying "no" and seeking refresher training is not a sign of weakness, it is a sign of responsibility and accountability. In my experience, people's respect usually increases when someone declines a mission due to recency or risk management, not the other way around.

For our pilot friends, this shows up in candidates during CAPF 70-5 or CAPF 70-91 flight evaluations if they haven't flown recently or aren't feeling confident but still attempt the evaluation anyway. Sometimes the reasoning is, "I might as well try". While this is not fair to the check pilot, it also goes against our core value of excellence. Moreover, it also shows overconfidence that can get pilots in trouble in the future by putting them in places and situations they aren't prepared to be in.

Self-assessment is a continuous process, not just an annual event before an evaluation. The FAA illustrates this with the figure below, which shows how a pilot's confidence grows too early with flight hours and then sharply drops usually after some scary or "near miss" experiences. We shouldn't have to rely on being scared to start being realistic about our skills.

Thankfully the solution is simple. Let's be honest to ourselves and responsible to our fellow members by being cognizant of our limitations and striving to improve ourselves, such that our peak is yet to come. That way we can consistently excel instead of relying on an element on luck.



Graphic above in, Rise to the Top, FAA Safety Briefing:
<https://medium.com/faa/rise-to-the-top-aae3c611ca48>

AIRCREW EDUCATION

HANDLING EMERGENCIES

CIVIL AIR PATROL STAN/EVAL NEWSLETTER - MARCH 2022

When we went through primary training there was an emphasis on handling emergencies. In CAP, we include emergency procedures on every Form 5 and Form 91 check ride. Emergencies can and do happen and we need to be prepared for them. Since emergencies are rarely scheduled, we need to be at the top of our game on every flight. This was brought home when one of our intrepid pilots suffered an engine failure in flight. Fortunately, the pilot was able to safely land at a nearby airport. Emergency training paid off.

For most emergencies, the first action we should take is to do nothing. Many experienced pilots recommend counting to ten before you do anything as this greatly reduces the chances of doing something stupid and making the situation worse. It also gets you over the "I can't believe this is happening" phenomenon. Of course, there are situations which require immediate action such as fire or an imminent collision. But most emergencies are best handled by the three Ps: Perceive, Process, Perform. We first Perceive that an untoward situation has occurred, then we Process the appropriate plan of action, and finally we Perform the required actions. Then rinse and repeat. Think before you act. This is especially important when facing an emergency that you have not specifically trained for. We train for engine outs, inadvertent flight into IMC and similar situations. As Capt Sullenberger discovered, there was no training for landing in the Hudson. Nevertheless, a cool head and basic airmanship saved the day. Part of having a cool head and clear judgement is practicing for emergencies, even if the emergency that occurs wasn't in the syllabus. You are far better prepared if you are used to being in the "emergency" mindset.

Instructors should ensure that every CAP pilot has the "MEMORY ITEMS" committed to memory. That's why they are called memory items. Rather than just memorizing them, it's useful to step through the emergency checklists while sitting in the cockpit. Explain why each step makes sense and what to look for. I find doing mock engine and fire emergencies while tied down to be very instructive. Have the pilot buckle up and place the controls as though they were flying. Then announce a fire in the engine and see what they do and how fast they do it.

It's amazing how many pilots fumble turning the fuel selector off. The most common issue is finding they can't reach it, because of the shoulder strap. By the time they readjust the shoulder strap you can announce that they have now burned up. Next time they strap in they will remember to leave enough slack to reach the fuel cut off lever. Surprisingly, there are some pilots out there that have never actually turned the gas selector to the off position. They also have no idea how long the engine keeps running after the gas has been turned off. It's also useful to talk about slipping the plane when flames are coming out of the cowling to redirect the flames (advanced students will redirect the flames to the side that the instructor is on). Lots of things to talk about.

Practicing an engine failure is also a good idea but must be done with caution lest you have a real emergency. Be sure you are at a healthy altitude and near an airport (or a really good field). Never pull the mixture to kill the engine. Keep the engine running and close the cowl flaps to keep it warm if you pull the power. It's also useful to demonstrate how going full course on the propeller can increase your glide (Ensure that the prop is in the full forward/fine position before applying full power or you risk raising the Manifold Pressure above limits). Always assume you will not be able to restore power (but I sure hope you can!).

Continued...



AIRCREW EDUCATION

HANDLING EMERGENCIES

CIVIL AIR PATROL STAN/EVAL NEWSLETTER - MARCH 2022

... continued

It used to be standard practice to pull circuit breakers to simulate emergencies, but experience has shown that it's not a good idea. It certainly is unacceptable in the SFRA (or any tightly controlled airspace) but not a good idea anytime. If you must pull a circuit breaker to demonstrate something, do it on the ground. As a rule, do them safely when practicing emergencies (that's not a contradiction). The NTSB files are full of practice emergencies becoming real ones. Don't go there. Do as much as you can on the ground or in simulators.

A great (and safe) way to practice emergencies is to do them in a Red Bird simulator. A good instructor can make the scenarios very realistic. Best of all, very few lives have been lost in simulators due to botched emergencies (I did spill my coffee once, with near fatal results).

Although practicing for specific emergencies may not prepare you for an actual emergency, it will provide you with the thought processes you need to handle unplanned emergencies. The more you practice for the unexpected the better off you will be when an untoward event happens.

A recent article in AIN Safety describes how one very competent Citation pilot handled an instrument failure right after takeoff. This is a tough situation to get into, but the pilot performed magnificently.



"The pilot of a Cessna Citation 501 departed in IFR conditions on a clearance that required 6,000 feet as the first level-off point. At approximately 3,000 feet the yaw damper and autopilot in heading mode were both engaged. Air traffic controllers issued a climb to FL230 and a turn on course when the pilot sensed a problem: speed rapidly increasing and the heading indicator spinning too fast for a standard-rate turn. The Citation's vertical-speed indicator and airspeed indicator showed a rapid descent with increasing airspeed, but the attitude indicator did not tell the same story. The pilot disconnected the autopilot and confirmed that the attitude indicator had failed. The only instrument the pilot felt sure of was the turn indicator, which he used to stabilize the aircraft and pull out of a steep dive. Climbing once again, the pilot managed to break out on top of the clouds and regain full control of the aircraft. The Citation then proceeded to a VFR airport recommended by controllers without injury to anyone on board."

I found it useful to review a helpful article in the Aug 21 Stan/Eval Newsletter by Lt. Hastings on when to declare an emergency. As an air traffic controller, he has a lot of good insights. It may also be useful to read this article from Aviation Safety ([Click here](#)). Fly safe!



AIRCREW EDUCATION

NHQ OPERATIONS NOTE: REVISED AIF (NHQ/DOV M. MOYER)

CIVIL AIR PATROL STAN/EVAL NEWSLETTER - JANUARY 2022

The new AIF (CAP Form 70-8) and AIF Standard (CAP STANDARD 72-4), dated 01 December 2021 are now published on the NHQ website. The documents have been redesigned with the assistance of the National DOV Team and your Region DOV's.

The new AIF content can be found at <https://www.gocivilairpatrol.com/members/publications/forms>

The new AIF Standard (CAP STANDARD 72-4) can be found at <https://www.gocivilairpatrol.com/members/publications/standards>

The redesign removes many tabs, mostly those including printed documents that are now found online and in the ForeFlight app. Additionally, the new AIF Standard allows for a variety of binder sizes and divider styles to assist with locally supplied material. The transition suspense is 01 March 2022, allowing a good three months to convert the fleet.

The AIF is a required document in CAP aircraft for flight, and it must be kept up to date. This redesign makes it much easier to keep the material current, but it still takes some effort. During preflight, every pilot should check the AIF to ensure it is in the aircraft and current. The AIF is as important to CAP flight legality as the aircraft registration or airworthiness certificate is to the FAA. Instructor pilots should ensure that they take the opportunity with students to ensure they teach this requirement. Check pilots should also evaluate the applicant's knowledge of CAP flight legality, including AIF materials, inspections, currency, and requirements.

CAP PILOT AND MISSION OBSERVER INITIALS AND RENEWALS

Initial:

SM Ashish Goel completed his Initial CAP Pilot with Lt Col George Michelogiannakis on 12 Feb 22.



Renewal:

Capt Tony Stieber renewed his CAP Pilot with Lt Col Michelogiannakis on 21 Feb 22.



Renewal:

Capt John Heldt, renewed CAP Pilot with Lt Col Noel Luneau, on 28 Feb 22



AIRCREW EDUCATION

DOV LINKS

PROFESSIONAL EDUCATION

Aircrew Education

1. FAA Hot Spots About to Sizzle
 - o NAFI - 3/16/22
 - o Link - [Here](#)
2. Aircrew Survival Videos
 - o FAA - Airmen Education Programs
 - o Link - [Here](#)
3. Fixing Your Float
 - o Aviation Safety
 - o Link - [Here](#)
4. How To Fly A Stop-And-Go Landing
 - o Boldmethod - 3/5/22
 - o Link [Here](#)
5. Why You Shouldn't Fly With A Dirty Windshield
 - o Boldmethod - 3/8/22
 - o Link [Here](#)
6. An Insidious Incapacitation - Cessna 206 Pilot's Report
 - o NASA's Callback - Issue 506/March 2022
 - o Link [Here](#)
7. BasicMed Is turning Five
 - o FAA - Safety Briefing - Jan/Feb 2022 - Page 8
 - o Link [Here](#)
8. Drones by the Numbers
 - o FAA - Unmanned Aircraft Systems - 3/14/22
 - o Link [Here](#)
9. Flying & CBD in 57 Seconds
 - o FAA General Aviation - 10/7/21
 - o Link [Here](#)

Accident/Incident Case Studies

1. Accident Probe: How High Will It Go?
 - o AVweb - 3/7/22
 - o Link [Here](#)
2. Accident Case Study - Traffic Pattern Tragedy
 - o AOPA's Air Safety Institute - 9/21/2018
 - o Link [Here](#)
3. How Calm Winds Nearly Led To A Runway Collision
 - o Boldmethod - 3/10/22
 - o Click [Here](#)
4. Aerotow Turn
 - o SSA - Safety and Training
 - o Link [Here](#)

GROUP 2 CAP AIRCRAFT

SEEN THIS MONTH



CAP445 at Reid-Hillview, with Squadron 10 cadets C/CMSgt Srivatsan and C/Amn Chan with their pilot Capt Louise Mateos. Photo by Capt Mateos



CAP445 with Capt John Heldt at Livermore. Photo by Lt Col Luneau.



CAP445 at Reid-Hillview, with Squadron 10 C/AB Ponnappalli. Photo by 2nd Lt Kandah.

EDUCATION AND TRAINING

27 FEB LEVEL 2 DAY (L2D) RECAP

BY CAPT RICHARD WEST

California Wing's Level 2 Day (L2D) concept is a single-day event designed to allow members to complete all the moderated modules for Level 2 of Civil Air Patrol's Senior Member Education and Training Program. Group 2 hosted a virtual L2D on 27 Feb with attendees from across California Wing. Besides myself, Lt Col Shawn Lawson and Capt Joseph Spears provided instruction to the 24 members who participated across all four Level 2 learning paths. Of these 24 members, ten completed Level 2 Part 1 and a further three completed Level 2 Part 2 by attending the course; more soon after.

Besides completing all the moderated modules for Level 2, participating members received details about next steps. While the L2D Instructors handled awarding credit for modules and submitting for approvals, participants needed to work with their command to ensure these approvals occurred. For some members, another round of submitting for approvals was required to receive credit for Level 2 Part 2 if the member completed Level 2 Part 1 the same day.

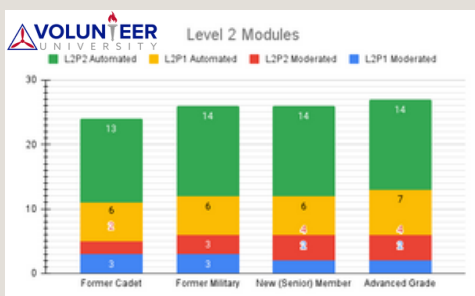
All students were reminded about the remaining requirements to complete Level 2 Part 1 and/or Level 2 Part 2. Analysis showed that most members who participated needed to complete a handful of remaining automated modules and/or earn a Technician rating. Those who emailed direct questions received a detailed analysis of their remaining requirements.

California Wing and Group 2 plan on hosting more L2Ds on a regular cadence throughout the year. With the pandemic restrictions lifted, these L2D offerings plan to be in-person which will further enhance the learning environment. Other modalities and schedules for offering Level 2 moderated modules are being actively developed by California Wing Education and Training, and beta offerings should be announced soon. Alternatively, members can take advantage of CAP's Virtual In-Residency program to complete moderated modules.

Level 2 Checklist

- Automated Modules
- Moderated Modules
- Yeager Award
- Technician Rating

9 AM	L2D: Accountability and Responsibility of the Adult Leader West, Richard Capt	
10 AM	L2D: Choosing Your Duty Assignment and Specialty Track West, Richard Capt	
11 AM	L2D: Mentoring West, Richard Capt	
12 PM		
1 PM	L2D: Communications Fundamentals (FC&NM) West, Richard Capt	L2D: CAP Communications Fundamentals (AG&FM) West, Richard Capt
2 PM	L2D: Basic Drill (AG&NM) West, Richard Capt	L2D: Bringing Your Service to CAP (FM) West, Richard
		L2D: Cadet West, Richard
3 PM		L2D: Leading Volunteers (FM) West, Richard Capt
4 PM	L2D: Leadership Fundamentals (AG&NM) West, Richard Capt	
5 PM		



EDUCATION AND TRAINING

UNIFORM BLUNDERS

FROM THE FEBRUARY 2020 PD NEWSLETTER OF PA WING

Members of the Civil Air Patrol agree to wear uniforms and conform to uniform standards, per CAPM 39-1. The Personnel track asks members to identify some common uniform errors and how to gracefully educate someone in correcting them.

1. Ribbons are out of order or upside down.

Not all of the SM PD ribbons are symmetrical. There is actually a "right side up" (see figure 3, below).

The order of precedence states that ribbons will all be worn in a certain order on a member's ribbon rack. The order of precedence is addressed in CAPR 39-3, Attachment 2. In Figure 3, these ribbons are out of order.



Figure 3 (above). The rack on top is not compliant with the CAP order of precedence.

Figure 4 (below): Note that the Leadership ribbon (white/purple) in the middle is actually installed upside down. The purple region should go to the wearer's right. The proper orientation is found in CAPR 39-3, Attachment 3. To read CAPR 39-3, Attachment 3, look to Figure 5.



Figure 4 (above). The rack on top is incorrect because the purple region on the leadership ribbon should go to the wearer's right.

Figures 5 and 6 (below): Snippets of CAPR 39-3 show which way to "read" to decode the order of precedence and which the orientation of the ribbons. Note that the Wilson, Loening, Leadership, and Membership ribbons do have a legitimate "right side up." Continued...

CAPR 39-3 ATTACHMENT 2 (CONT'D) 28 DECEMBER 2012 31

SENIOR RIBBONS

US in [redacted] ons (Worn Activity
 Search "Find" Rib [redacted]
 Air Search and Re [redacted]
 Counterdrug Rib [redacted]
 Disaster Relief Ribbon
 Homeland Security Ribbon
 Cadet Orientation Pilot Ribbon
 Con [redacted]
 IAC [redacted]
 Nat [redacted]
 National Color Guard Competition Ribbon
 Cadet Advisory Council Ribbon (earned [redacted]
 [redacted]
 Cadet Special Activity Ribbon
 Encampment Ribbon
 Senior Recruiter Ribbon
 Wartime Service Ribbons (Note 3)
 World War II Service Ribbon
 Antisubmarine Coast Patrol
 Southern Liaison Patrol
 Tow-Target and Tracking
 Courier
 Forest Patrol
 Missing Aircraft
 ROTC Ribbons (see ROTC Ribbons Note for cadets)
 Foreign Decorations
 NOTE [redacted] to 1
 July [redacted]
 NOTE [redacted] between
 February 1942 and July 1945.

Figure 5 - order of precedence.

34 CAPR 39-3 ATTACHMENT 3 (CONT'D) 28 DECEMBER 2012

SENIOR MEMBER PROGRAM RIBBONS

National Commander Citation
 Gill Robb Wilson Award
 (Bronze star denotes SOS)
 (Silver Star denotes ACSC)
 (Gold Star denotes AWC)
 Paul E. Garber Award
 (Bronze star denotes SOS)
 (Silver Star denotes ACSC)
 (Gold Star denotes AWC)
 Grover Loening Aerospace Award
 Leadership Award
 (Bronze star denotes senior rating)
 (Silver star denotes master rating)
 Membership Award

Figure 6 - senior member program ribbons.

EDUCATION AND TRAINING

UNIFORM BLUNDERS

FROM THE FEBRUARY 2020 PD NEWSLETTER OF PA WING ... CONTINUED

2. The gig line isn't straight.

A gig line is an imaginary line on someone's outfit where the opening of the pants and the opening of the shirt should line up. They should form a vertical line, perpendicular to the ground (see Figure 7).

If a tie is worn, the tie should also be centered to the gig line.

Gig lines are most likely to be altered when moving around. You need to check your gig line constantly. Don't be afraid to excuse yourself to the restroom to straighten up or to redo your outfit. Ask a close friend for help if you are stuck.

Make sure to check your gig line before reporting to superior officers, accepting awards, and posing for pictures.

The gig line of a CAP uniform is no different than wearing everyday street clothes.



Figure 7 - the red lines on the models illustrate the gig lines on the different CAP uniforms.

3. The ABU nametapes are incorrect.

The ultramarine blue (similar to electric blue) is only to be worn on the BDU. It is not worn on the ABU-ever. The ABU should only have the newer, dark blue.



Figure 8: Two Cadets are seen wearing the BDU, one with each type of nametape.

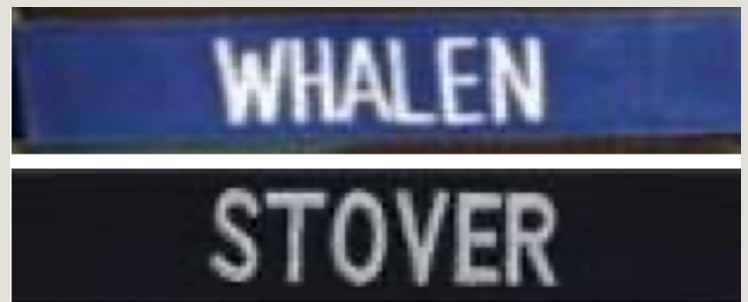


Figure 9: A better view of the different varieties of nametapes. "Whalen" has the ultramarine blue, which may be used only on the BDU. The "Stover" nametape may be used on the BDU or the ABU, but if used on the BDU, all the patches (wings, command insignia, nametapes, etc) must match.

4. Uniforms are not pressed.

This is pretty simple- iron your uniform if you can. Transport it in a carrier on a hanger before you wear it. Hang it up as soon as you take it off, and launder it regularly. BDUs should be starched regularly.

EDUCATION AND TRAINING

GROUP 2 EDUCATION AND TRAINING ACHIEVEMENTS

BY CAPT RICHARD WEST

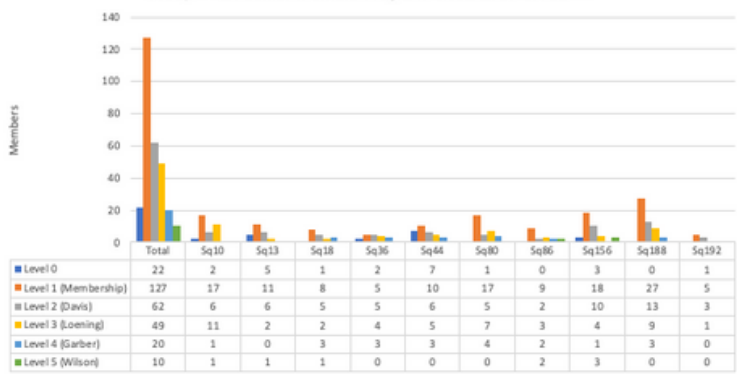
Feb Senior Member E&T Program Levels

- 2d Lt Ferland, Jeffrey B (611096) [Sq188]
Level 2 — Benjamin O. Davis, Jr. Award
2022-02-23
- SM Barde, Andre M (142301) [Sq80]
Level 2 — Benjamin O. Davis, Jr. Award
2022-02-28
- SM Chiofalo, Robert L (386080) [Sq188]
Level 1 — Membership Award
2022-02-09
- SM Hirvonen, Allison (678409) [Sq156]
Level 1 — Membership Award
2022-02-28

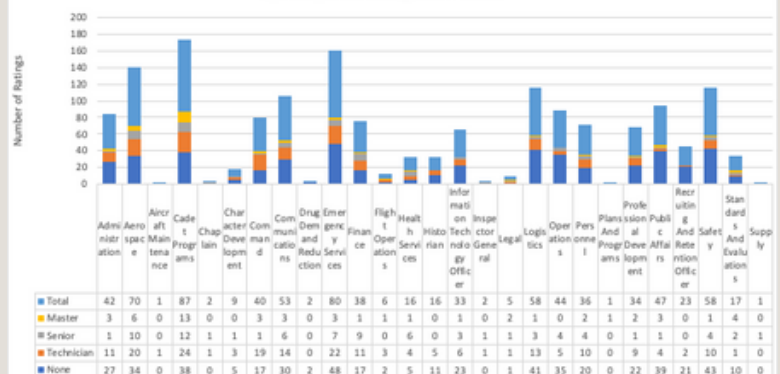
Feb Specialty Track Ratings

- 1st Lt Mahmood, Raheel S (648406) [Sq188]
Aerospace — Technician
2022-02-01
- Capt Weisemann, Claus (323541) [Sq188]
Aerospace — Technician
2022-02-01
- Capt Hockel, James J (474241) [Sq44]
Legal — Technician
2022-02-12
- Capt Hockel, James J (474241) [Sq44]
Administration — Technician
2022-02-14
- Capt Hockel, James J (474241) [Sq44]
Personnel — Technician
2022-02-14
- 2d Lt Buchanan, Garrison J (513431) [Sq192]
Logistics — Technician
2022-02-16
- 2d Lt Ferland, Jeffrey B (611096) [Sq188]
Emergency Services — Technician
2022-02-22

Group 2 E&T Senior Member Program Levels as of 28 Feb 22



Specialty Track Ratings as of 28 Feb 22



DIVERSITY

WOMEN'S HISTORY MONTH AND WOMEN OF AVIATION WEEK

A number of Civil Air Patrol lessons highlight the achievements of women in aviation and space fields. We have listed several below with links to each lesson.

Two of CAP's curriculum books, "Women in Aviation Volumes I and II", are devoted to telling the stories of 25 women air and space pioneers. "Women in Aviation Volume 2," (featured in the above video) is an extension of the first volume, which highlighted the contributions women have made in aviation and space fields since the beginning of the 20th century. The second volume begins with accomplishments from the 1960s and '70s. Project Manager Lt. Col. Randy Carlson (California Wing), focused on the stories of 25 diverse women, each representing a different chapter. Each chapter involves model-building relating to the aircraft or spacecraft the chapter's subject worked on. Also included with the hands-on activities are discussion questions and other activities designed to connect these pioneers from the past with today's youth. For instance, cadets and students are asked to explore present-day gender barriers that have recently been broken or have not yet been broken. The books align with national academic standards and highlight a wide variety of careers. Currently, these books are available in the AE Downloads and Resources section, along with our other curriculum products in CAP's member portal, eServices, at www.capnhq.gov.

The hope is that these women and lessons inspire the next generation of aerospace/STEM professionals.

Civil Air Patrol's national vice commander, Brig. Gen. Regena Aye, talks about the vital role women have played in American history and throughout our organization.



C/2dLt Giulia Telli flying in the CAP aircraft with instructor Maj. Jeff Ironfield.



Capt. Mateos and Lt. Salimi working on their automation tools and scanning patterns. CAP photo by Lt. Jose Alvarez, CAWG



CARDA handler Jerry Del Rio, search dog Zoom, and mission pilot Capt. Karin Hollerbach at Buchanan Airport.



From right to left, Maj. Kathy Brown, Lt. Lumen "Ada" Hurst, and Lt. Amanda Rohlke pictured in front of Oakland's CAP481.



Squadron 10 cadets C/CMSgt Srivatsan and C/Amn Chan with their pilot Capt. Louise Mateos. Photo by Capt. Mateos

FUN AND GAMES

MYSTERY WORDSEARCH

BY CAPT RICHARD WEST

Up for a challenge? How about a wordsearch without an answer key? There are 45 items hidden in this grid which are connected by a common theme. The hidden items can appear horizontally, vertically, and diagonally; possibly in reverse.



This puzzle honors 47 individuals. Two pairs share the same surname. Only one pair are siblings.



FEBRUARY MYSTERY WORDSEARCH

BY CAPT RICHARD WEST

The theme of February's Mystery Wordsearch? NASA Day of Remembrance (astronaut last names only)

27 January 1967

Apollo 1

- Lt Col Virgil "Gus" Grissom, USAF
- Lt Col Edward White II, USAF
- Lt Cdr Roger Chaffee, USN

28 January 1986

Space Shuttle Challenger (STS-51-L)

- Mr Gregory Jarvis
- Ms Christa McAuliffe
- Dr Ronald McNair
- Lt Col Ellison Onizuka, USAF
- Dr Judith Resnik
- Cdr Michael Smith, USN
- Lt Col Dick Scobee, USAF

01 February 2003

Space Shuttle Columbia (STS-107)

- Lt Col Rick Husband, USAF
- Cdr William McCool, USN
- Dr Michael Anderson
- Dr David Brown
- Dr Kalpana Chawla
- Dr Laurel Clark
- Col Ilan Ramon, IAF

