

CIVIL AIR PATROL  
SAN DIEGO CADET  
SQUADRON 144

SPECIAL  
POINTS OF  
INTEREST:

- Check out up-coming events on Page 2
- Explore Cadet Programs on Page 1—3
- Meet your cadet staff on Page 3
- Learn about aerospace current events on Pages 4 & 5
- Achievements and Accomplishments on Page 7

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# Squadron 144



## News

VOLUME I, ISSUE 4

SAN DIEGO CADET SQUADRON 144

## CAP Celebrates its 69th Anniversary



OFFICE OF THE NATIONAL COMMANDER  
NATIONAL HEADQUARTERS  
CIVIL AIR PATROL  
United States Air Force Auxiliary  
MAXWELL AIR FORCE BASE, ALABAMA 36112-6332

1 December 2010

Dear CAP Volunteer,

Congratulations to the members of Civil Air Patrol on the occasion of our 69th anniversary. CAP was founded on Dec. 1, 1941, less than a week before the Japanese attack on Pearl Harbor led to America's involvement in World War II. Members of CAP's Coastal Patrol quickly proved their worth during the war by conducting aerial patrols that discouraged and eventually stopped deadly German U-boat attacks on shipping in American waterways.

We are reminded of the sacrifices of early CAP pioneers with legislation pending in both houses of Congress that, if passed, would award a single Congressional Gold Medal to CAP for their service. These members' extraordinary contributions to America represent CAP's proud legacy of selfless sacrifice and service to country and community, which still thrives today through you and the other 61,000 citizen volunteers of Civil Air Patrol.

Over the past almost seven decades, CAP has evolved into a world-class public service organization of everyday heroes – pilots, technology experts, communicators, chaplains, teachers, youth mentors and others – who provide emergency services, search and rescue to those in need, conduct aerospace education and youth programs at more than 1,500 locations and help more than 100,000 students in thousands of schools nationwide.

Civil Air Patrol members go above and beyond every day, making a profound difference in America's communities. As a vigilant CAP volunteer, you save lives and preserve liberty for all. Thank you for your contributions to CAP's 69 years of service.

Always vigilant!

Sincerely

*Amy S. Counter*  
AMY S. COUNTER  
Major General, CAP  
Commander

## Upcoming Events

- ⇒ December 3, 2010  
Recruiting Opportunity/  
Presentation  
Poway, CA
- ⇒ December 11, 2010  
Tour of Classic Rotors Museum  
Ramona, CA  
Cost—FREE
- ⇒ December 26, 2010-January 2, 2010  
Cadet Officers Basic Course/RCLS  
Naval Air Station Leemore, CA  
Cost: \$140 plus meals  
(approx. \$77)
- ⇒ January TBD, 2011  
Squadron 144 Banquet  
Details Coming Soon
- ⇒ January 15, 2011  
Deadline for NCSA Applications  
Cost: Varies per activity
- ⇒ February 4-6, 2011  
Southern California Combined  
Squadron Winter Bivouac  
Big Bear, CA  
Cost: \$25



## DECEMBER 2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
		Weekly Meeting				Classic Rotors Museum
12	13	14	15	16	17	18
		Weekly Meeting				
19	20	21	22	23	24	25
		NO MEETING				Merry Christmas
26	27	28	29	30	31	
		Weekly Meeting				New Year's Eve

## JANUARY 2011

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
		Weekly Meeting				Happy New Year
9	10	11	12	13	14	15
		Weekly Meeting				Deadline to apply for NCSAs
16	17	18	19	20	21	22
		Weekly Meeting				
23	24	25	26	27	28	29
		Weekly Meeting				
30	31					

# Cadet Promotion Structure Chart

Are you wondering what it takes to become a C/Co? Are you a parent and don't know what your cadet is working towards?

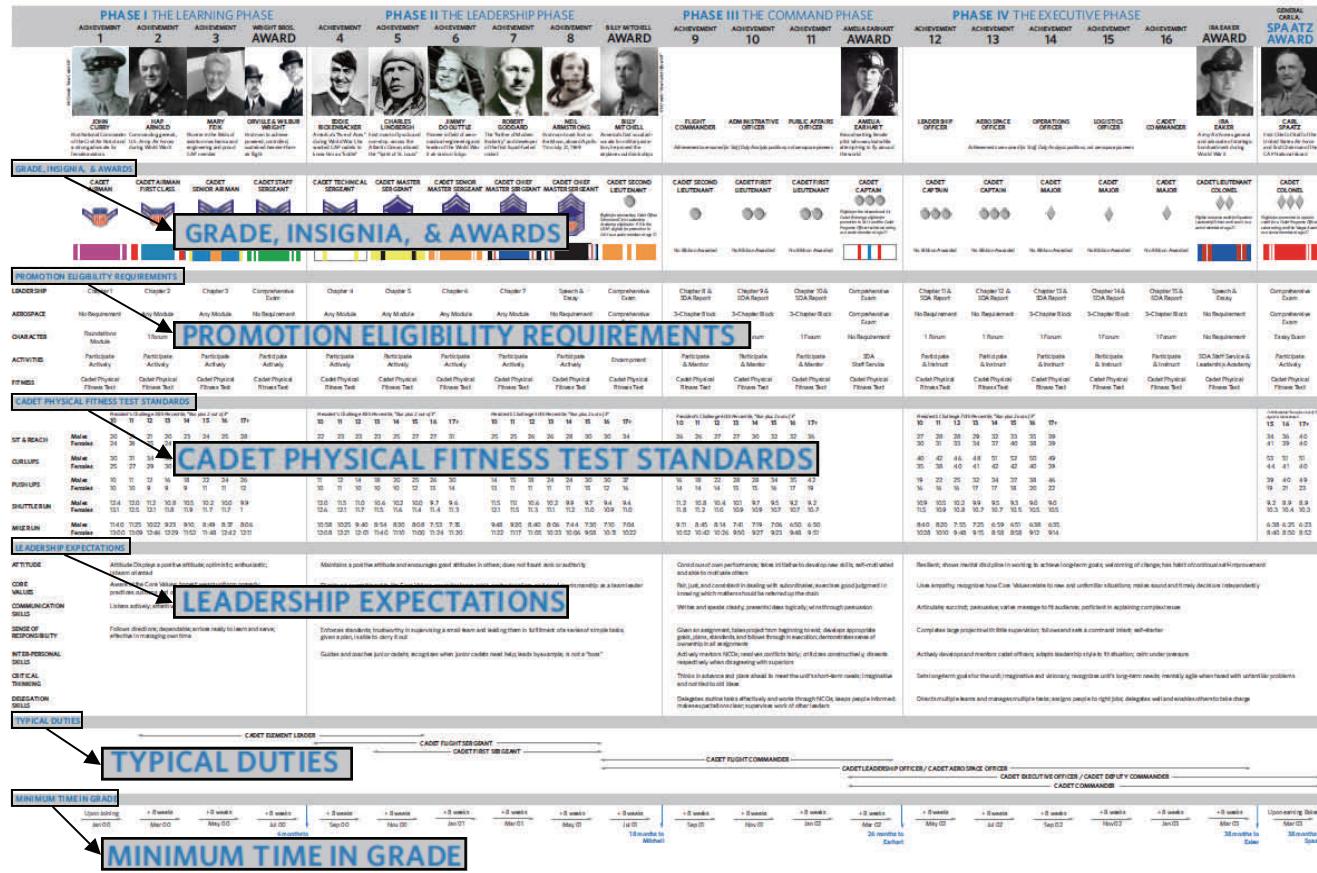
Visit [http://members.gocivilairpatrol.com/media/cms/Cadet\\_Super\\_Chart\\_94732A5667D92\\_C5995ABD1FAC3.pdf](http://members.gocivilairpatrol.com/media/cms/Cadet_Super_Chart_94732A5667D92_C5995ABD1FAC3.pdf) to see the Cadet Super Chart which outlines what it is the cadets do and why! Don't understand it, ask your Cadet Staff or contact the Squadron Leadership Officer, 1st Lt Sonya Petty.

## CIVIL AIR PATROL CADET SUPER CHART



April 2009

GENERAL CARLIS SPAATZ AWARD



# Getting to Know Your First Sergeant

By: C/CMSgt Jesse O'Keefe

Howdy Y'all. Most of you know me as "Chief O'Keefe", or "1st Sgt", but I'm gonna tell you a bit about a guy named Jesse. Jesse is currently a home-schooled sophomore who enjoys activities such as, banjo practice, or tinkering with mini-2 stroke engines. He loves bluegrass and country music, and would do anything for a live concert. He has always enjoyed everything aviation related, and currently nurses and flies his own fleet of RC airplanes, though they are currently grounded from some late-last-season injuries. He has also done some experimenting with helicopters in the past.

An average weekday in Jesse's life could go something like this. Get up at 7am, shower/eat break-

fast etc, start school, finish school around 3pm, and somewhere between get ready for music lessons or tennis practice depending on what day of the week it is. Get home and go for a run or a bike ride, and then practice music until dinner, then practice until around 9pm and go to sleep. On weekends he might sleep in a bit, and then help with putting up the latest retaining wall or fence, and do some work on his planes. Once a year his family enjoys a Fishing/Camping/Hiking trip in the Sierras's.

He joined CAP when he was 13, and still thinks it is the best thing that ever happened to him. He encourages every single CAP cadet out there to do these three things with the program. 1. Give all you have to the program, 2. Get all you can from the

program, 3. Enjoy the program. He says the grand combination of

those three things will help you not only with learning to follow, promoting, and building leadership skills, but above all, your enthusiasm will rub off on others, causing them to do the same, which will build their enthusiasm, which will rub off on others....

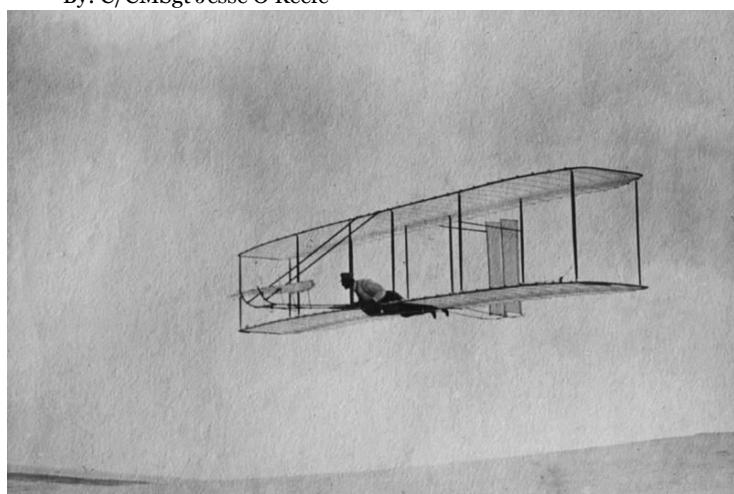


**“That's not flying, that's just falling with style.”**

— Woody, from the 1996 movie 'Toy Story,' regarding Buzz Lightyear

# Gliders—From 1903 to 2010

By: C/CMSgt Jesse O'Keefe



As we go into December, one of the most recognizable events in aviation history gets closer. December 17th, the day that Orville Wright piloted the Wright Flier for 12 seconds and covered 120 feet. This short hop in a powered airplane may not seem like a major event, but just imagine the complete sense of success after freeing mankind from the face of the earth. All of a sudden, there was no longer a “block” that was keeping us on the ground. This powered flight gets most of the glory

for starting aviation history, but my favorite works of theirs, were the gliders. The three Wright gliders brought them to three conclusions.

The first glider.

- That was fun.

The second glider.

- This ain't gonna work.

The third glider.

- Otto Lilienthal was wrong, this might work.

After the glider phase of their testing, they realized that one of the problems to sustained flight was the lack of a propelling force, which turned their efforts to powered flight. But their work with gliders has laid the foundation for modern gliders as we know them today. My favorite modern glider design comes from our very own Tehachapi CA. The Carbon Dragon was designed by Jim Maupin, and has developed quite the loyal following.

The Carbon Dragon (a home-built balsa wood and carbon fiber production) quite literally flies in the face of the multi hundred thousand dollar “glass ships”, and does quite well. Jim Maupin's simple idea was this. To create a glider that harvests every single “microburst”, and turns it into energy that sustains flight. Doing this would mean creating the lightest, slimmest, most rigid, and slowest glider possible. The result was a glider that has a sink rate of about 1.67 feet per second. In the words of another carbon dragon pilot, “That thing just looks like it flies around horizontally.”

Flying in “microlift” requires a whole new approach to flying a sailplane. The pilot must use techniques such as Slope Soaring, Wave Lift, and Dynamic Soaring. The days of Thermal duration are not gone, but as new concepts and technologies are developed and used, Glider flight times are becoming longer. So long, that a glider of a certain size, if the pilot is skilled may pass up the flight time of a powered plane of the same size. The Carbon Dragon is just one of a growing number of glider designs that are taking advantage of such techniques, and improving on the 1st successful design by the Wright Brothers.



# Paper Airplane Snaps Amazing Images from Space

Article By: Tariq Malik at [http://www.msnbc.msn.com/id/40153545/ns/technology\\_and\\_science-innovation/](http://www.msnbc.msn.com/id/40153545/ns/technology_and_science-innovation/)



An oversize paper airplane sent up toward the edge of space by a British online tech publication has snapped stunning photos of the final frontier and Earth far below.

The paper aircraft's Vulture I mission took place Oct. 28 as part of the Paper Aircraft Released In Space (PARIS) project, conducted by three space enthusiasts with The Register, an online technology publication in Britain.

Photos from a camera attached to the plane show the curve of the Earth and the black of space beyond.

"The project came about as a response to the Japanese proposal to throw paper planes from the International Space Station," Register writer Lester Haines told Space.com in an e-mail. "We thought we could do better, so we did."

Haines and fellow space fans Steve Daniels and John Oates built the space-photographing plane out of paper straws and stiff paper, which served as internal ribs. The paper skin was painted orange and silver. They set the plane loose from a staging ground in Spain.

The plane was carried skyward by a helium balloon and reached a maximum altitude of about 89,591 feet (27,307 meters), which is nearly 17 miles (27.3 km), before descending to Earth and landing in a thick wooded area, according to Register mission updates.

The widely recognized edge of space is about 62 miles (100 kilometers).

The Register's Vulture I mission is the latest effort to build homemade high-altitude balloon craft to

snap photos of Earth and space.

Haines said the project cost about £8,000 (almost \$13,000) to build the oversize paper plane, obtain the weather balloon and launch the mission. The Register chronicled the Vulture I mission from start to finish over the last year.

"It was quite an emotional moment to see the plane go off into the blue yonder, but recovering the Vulture I intact was a once-in-a-lifetime event,"

Haines said. "Things got even better when we saw the photos, and especially the video footage of the plane release. Spectacular stuff."



The Piasecki H-21 is the last flying H-21 in the world.

UH-12, Kaman HOK, and a Piasecki HUP-3/H-25. If practical, Classic Rotors will maintain rotorcraft in flying condition and currently has the following flight worthy

## Classic Rotors Rotorcraft Museum

By: 1st Lt Sonya Petty; Information Provided by <http://www.classicrotors.org>

Based in Ramona, California, Classic Rotors has four helicopters under restoration including a Sikorsky H-19/S55, Hiller UH-12, Kaman HOK, and a Piasecki HUP-3/H-25. If practical, Classic Rotors will maintain rotorcraft in flying condition and currently has the following flight worthy

helicopters: Vertol H-21B (tandem rotor), Kamov KA-26 (co-axial rotor), Hiller UH-12, Piasecki HUP-1 and a Sikorsky H-19. The H-21B is the only example still flying. The KA-26 is the only one certified to fly in the United States. Other helicopters at the museum include: Mil-2, S-52, Bell 47-B3, Alouette 3, Bolkow 102, mini500, and the QH-50.

They have additional rotorcraft, including some unique one-of-a-kind and very rare rotorcraft such as the MonteCopter model 15 tri-phibian, the four-place Jovair YH30 (McCulloch MC4 tandem rotor), the Brantly 305, the Sikorsky H03S (used in Korea for rescue), the Ram-Jet powered Hiller Hornet, the DuPont DP-1, and the Rotorway 133 Scorpion.

## Shuttle Launch Delayed until at least December 17th

Article Excerpt from <http://www.nasa.gov>

Discovery's launch is currently targeted for no earlier than Dec. 17, after shuttle managers determined more tests and analysis are needed. Some problem areas the launch has seen are:

The Program Requirements Control Board, or PRCB, reviewed on Nov. 23 repairs and engineering evaluations associ-

ated with cracks on two 21-foot-long, U-shaped aluminum brackets, called stringers, on the shuttle's external tank. Managers decided the analysis and tests required to launch Discovery safely are not complete.

The work will continue through this week.

On 23-Nov teams have completed final inspections on the

stringer repair work on space shuttle Discovery's external fuel tank at NASA's Kennedy Space Center in Florida. The environmental enclosure, built to support foaming operations, was removed. Flight Crew Systems mid-deck stow operations are under way.



The cracks on space shuttle Discovery's external fuel tank have been repaired at NASA's Kennedy Space Center in Florida.

# Model Rocketry Program

By: 1st Lt Sonya Petty

The Model Rocketry Program is off to a great start! Congratulations to cadets Amos, Angquico, Brown, Costello, Duggan, Fletwellen, Hodson, Horton, Magallanes, K. Munzenmaier, L. Munzenmaier, O'Keefe, Olson, Overton, Rigg, Scott, Vaughn, Veta, and zu Hone for successfully completing the written portion of Phase I-III of the program. The cadets have now learned the history of rocketry, how rockets fly, how to determine if a rocket is stable, safe launch exercises (also outlined below), and how to determine the altitude of a model rocket. We will be executing the build and launch phases of the program through the spring.



## SAFETY

Congratulations to everyone in the squadron that has passed their first set of exams for the model rocketry program! With this program in mind this month's safety article will highlight some of the safety considerations to be applied when the squadron reaches the point in the rocket program when you will get to fire model rockets. The materials presented in the article come from the National Association of Rocketry (NAR) website <http://nar.org>. CAPR 50-20 CAP Model Rocket Program states that the NAR safety code will be followed by all CAP members involved in the model rocket program.

### Model Rocket Safety Code

- Materials.** I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.
- Motors.** I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.
- Ignition System.** I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the

## Model Rocketry Safety

Provided By: Capt Chris Natwick

launch switch, and will use a launch switch that returns to the "off" position when released.

- Misfires.** If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.
- Launch Safety.** I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet away when I launch rockets with D motors or smaller, and 30 feet when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance.
- Launcher.** I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the

launch rod is above eye level or will cap the end of the rod when it is not in use.

- Size.** My model rocket will not weigh more than 1,500 grams (53 ounces) at liftoff and will not contain more than 125 grams (4.4 ounces) of propellant or 320 N-sec (71.9 pound-seconds) of total impulse.
- Flight Safety.** I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.
- Launch Site.** I will launch my rocket outdoors, in an open area and in safe weather conditions with wind speeds no greater than 20 miles per hour. I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.
- Recovery System.** I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.
- Recovery Safety.** I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.

## A Note to Parents

By: 1st Lt Sonya Petty

Have you noticed your cadet on the computer a lot more recently? This may be due to the start of online testing for cadets. What this means for you, is that your cadet can now take their exams (usually two every two months) online while open-book. They will still need to take comprehensive, closed-book exams at the squadron for their award exams so it is imperative that they really know the material they are testing over. I suggest staying involved, quiz them over the material (closed-book) and help them help themselves.

If you have any questions about this new testing procedure please e-mail me at [smmrlinkrat@yahoo.com](mailto:smmrlinkrat@yahoo.com).





Citizens Serving Communities  
*Above and Beyond*

### Civil Air Patrol

#### San Diego Cadet Squadron 144

Direct questions, comments, and submissions to:

1st Lt Sonya Petty

Phone: 918-361-6730

E-mail: smmrinkrat@yahoo.com

For more information about CAP visit:

<http://www.gocivilairpatrol.com>

<http://www.capmembers.com>

<http://capnhq.gov>

## Civil Air Patrol

### Citizens Serving Communities: Above and Beyond

Civil Air Patrol was founded in December 1941, one week before the Japanese attack on Pearl Harbor, by more than 150,000 citizens who were concerned about the defense of America's coastline. Under the jurisdiction of the Army Air Forces, CAP pilots flew more than one-half million hours, were credited with sinking two enemy submarines and rescued hundreds of crash survivors during World War II. On July 1, 1946, President Harry Truman established CAP as a federally chartered benevolent civilian corporation, and Congress passed Public Law 557 on May 26, 1948. CAP was charged with three primary missions – aerospace education, cadet programs and emergency services. With the passage of Public Law 106-398 in October 2000, Congress provided that "The Civil Air Patrol is a volunteer civilian auxiliary of the Air Force when the services of the Civil Air Patrol are used by any department or agency in any branch of the federal government."

<http://www.sq144.com/>

# Achievements & Accomplishments

#### November Promotions:

- Andrew Overton was promoted to C/SMSgt

#### November Accomplishments:

- Danyon Olson officially joined Squadron 144
- There have been a lot of new faces visiting the squadron lately—keep up the great work recruiting!
- C/SrA Amos, Cadet Angquico, C/Amn Brown,

C/SSgt Costello, C/AIC Duggan, C/Capt Flewellen, C/TSgt Hodson, C/TSgt Horton, Cadet Magallanes, Cadet K. Munzenmaier, C/ Amn L. Munzenmaier, C/ CMSgt O'Keefe, Cadet Olson, C/SMSgt Overton, C/ Amn Rigg, C/AIC Scott, Cadet Vaughn, C/SSgt Veta, and C/AIC zu Hone have all completed the written portion of the CAP Model Rocketry Program!

#### Special thanks to:

- CMSgt O'Brien for all of your help and support of Squadron 144. We wish you all the best as you retire from the California Air National Guard!

*Did we miss a promotion, achievement, or accomplishment? Send submissions to 1st Lt Sonya Petty no later than three days before the end of the month.*