

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
- Learn about Aerospace Current Events on Pages 4 & 5
- Read this month's Safety Article on Page 6
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Squadron 144



News

VOLUME 2, ISSUE 3

SAN DIEGO CADET SQUADRON 144

Winter Survival Bivouac

By: C/A1C Bryce Duggan, Bivouac Assistant PAO



On February 4, 2011 cadets left their homes from all over the California Wing leaving for the Cold Weather Survival Bivouac. As the cadets arrived out in the cold, they checked in one by one, being assigned to their teams, waiting for the great events to begin. Over the weekend cadets learned techniques and operating requirements for flying in cold weather conditions, winter survival techniques, things to pack, search and rescue in the snow, how to put injured people securely on a stretcher, and even a snow shoe building class. There were two hikes through the local mountains. On the Saturday afternoon hike the cadets were shown two different shelters. One was built from materials found in the forest and the other from ma-



terials you should carry when hiking in cold weather conditions. The Sunday morning hike gave the cadets the opportunity to demonstrate what they had learned in the classroom on how to find certain points with compasses. The Ski Patrol taught many

of the search and rescue classes. Utilizing their techniques, the cadets participated in finding a lost person by using a hand held device similar to those used in aircraft search and rescue missions. The cadets thought this class was very interesting. As the weekend went on the cadets enjoyed the indoor and outdoor interactive classes over the weekend. Over this bivouac cadets learned some of the skills needed to survive outdoors in the cold snow and high altitude. By the end of the weekend all of the cadets knew the symptoms of hypothermia, frostbite, and other cold weather concerns and how to treat them if



necessary. Thanks to all the excellent staff, because without them this bivouac would not have run so smoothly.



We are getting ready for the next bivouac out in the desert in May! Plans are in the works for desert survival classes, model rocket launches, and living rough with tents and MREs! Hope to see you all there!



Upcoming Events

- ⇒ March 12
Orientation Rides
Fallbrook Airport
Fallbrook, CA
Cost: FREE
- ⇒ March 19
Titan Phase Rocket Launch
Time and Location TBD
Cost: FREE
- ⇒ March 25-27
Basic Cadet School (BCS)
Escondido, CA
Cost: \$35
- ⇒ March 26
Riverside Air Show
Riverside, CA
Cost: TBD
- ⇒ March 29
5th Tuesday Activity
Solid Rock Gym
Cost: \$10, Families welcome
- ⇒ May 13-15
Desert Survival Bivouac & Saturn Phase Rocket Launch
More info coming soon!
- ⇒ May 27-30
CAWG Cadet Programs Conference
Camp SLO
Cost: TBD
- ⇒ July 16-23
CAWG Encampment
Camp Pendleton
Cost: TBD

MARCH 2011

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 Weekly Meeting	2	3	4	5
6	7	8 Weekly Meeting	9	10	11	O-Rides
13	14	15 Weekly Meeting	16	17	18	19 Rocket Launch
20	21	22 Weekly Meeting	23	24	25	26 Air Show
27	28	29 5th Tuesday Activity	30	31		Basic Cadet School
BCS						

APRIL 2011

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

March Memory Work

By: 1st Lt Sonya Petty, Squadron Leadership Officer

As stated in previous newsletters, all Cadets and Senior Members are expected to learn and know the information in this section. You will be quizzed about this during inspections and review boards so BE PREPARED.

There are four phases in Cadet Programs. These are:

- **PHASE I—THE LEARNING PHASE**
- **PHASE II—THE LEADERSHIP PHASE**
- **PHASE III—THE COMMAND PHASE**
- **PHASE IV—THE EXECUTIVE PHASE**

Each phase focuses on a different aspect of leadership development. In **Phase I**, you are expected to learn how to be a good follower. In **Phase II**, you are expected to learn how to lead by example and get the job done. In **Phase III**, you are taking command and delegating to others how to get the job done. In **Phase IV**, you are managing how to get the job done. For more information on the Leadership Expectations of each phase, go to http://members.gocivilairpatrol.com/media/cms/Lead_Expectations__Chart_8D2330B9ECD83.pdf

Cadet Commander's

Corner

Greetings Squadron 144 Cadets, Seniors, Sponsors, and Parents,

Well, it has been another great month for the squadron. As our squadron continues to grow, plans to offer more opportunities for cadets aspiring to hold staff positions are in the making.

Later this month, the support side of the squadron will open up 6 or 7 new positions that cadets could apply for, such as PT NCO, Testing NCO, and some others. The application process will be announced in the upcoming meetings. If you're looking to develop your leadership skills and help out on Tuesday nights, polish up those resumes!

Thanks for all your hard work over the past month and remember to keep our Squadron Commander, Capt Jeff Cable in your thoughts and prayers as he continues his recovery.

Keep up the good work,
DANIEL GORIN, C/Capt, CAP
 Cadet Commander, Sq 144

Model Rocketry at Squadron 144 Takes Off!

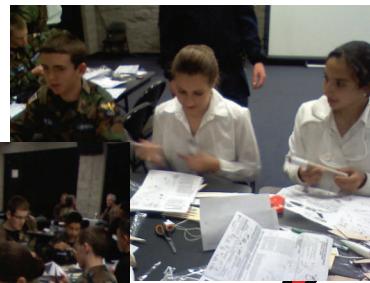
By: 1st Lt Sonya Petty, Sq 144 AEO



Last month the cadets at Squadron 144 built their Estes Model Rockets! These rockets will be launched on March 19th at Fiesta Island. Please bring your friends and families to this exciting event!

In April, we will be building two-stage rockets and egg-carrying rockets to

launch at the Desert Survival Bivouac in May! Make sure you're there for all three events so you can get your Model Rocketry Badge!



F-35 Joint Strike Fighter

By: Sponsor Member Patrick O'Keefe



If you've been paying attention to the news lately, you may have seen or heard reports on the test flight program for the F-35 Joint Strike Fighter. Or if you follow the federal budget, you may have heard some of the debate over the cost of the program. If you are interested in congressional battles over military procurement, you may have heard of the recent controversial congressional decision regarding cancellation of funding of a second source for the single jet engine.

F-35 has been making a lot of news lately, but this airplane had its beginnings way back in the 1980's. The prospect of an aging fleet of A-6 Intruders, F-14 Tomcats and AV-8B Harriers had the Navy and Marines developing new attack, fighter and Short Take-Off/Vertical Landing (STOVL) aircraft. The Air Force likewise had to plan to replace its aging fleet of F-16 Fighting Falcons and A-10 Thunderbolts. Due to political and budgetary factors, many "false starts" in various development programs occurred in the late 80's and early 90's. I personally recall helping some friends carry their belongings out the door the day that they were laid-off from the Rancho Cucamonga, California General Dynamics facility when the Advanced Tactical Aircraft (designated the A-12) was abruptly canceled back in 1991. Back in those

days when a contract was canceled, there was no obligation for contractors to give advance layoff notices!

After years of additional technology development, as well as congressional and military negotiation and compromise, the Joint Strike Fighter Concept Definition Phase (CDP) was birthed in 1996. Defense contractors Boeing and Lockheed were down-selected and tasked to develop demonstration aircraft. Both contractors entered flight test with their respective aircraft in 2000 and completed their flight competition in 2001. Late in that year, the Lockheed Martin team was awarded the first installment of the largest military procurement program in U.S. History.

Today, the F-35 Lightning II is the up and coming "general purpose" fighter and attack aircraft for the U.S. Air Force, Navy, and Marines. It is also the future fighter for many program partner nations including UK, Canada, and Australia. It is a stealthy, multi-role aircraft with an advanced suite of sensors and weapons designed to outperform any enemy aircraft well into the future. The F-35 comes in three variants: conventional takeoff and landing (CTOL) being procured by the Air Force, the STOVL being procured by the Marines, and the carrier variant (CV) being procured by the Navy.

The technology present in the F-35 is nothing short of amazing. The Distributed Aperture System (DAS) provides the pilot with a 360 degree "view" around his aircraft. This electro-optical system gives the pilot the ultimate advantage in situational awareness and protection against a multitude of potential threats. The Electro-optical targeting system (EOTS) also gives the pilot a huge advantage in long-range target/threat suppression. The pilot will no

longer be dependent upon the Head Up Display (HUD) for situational awareness, but upon a state of the art Helmet Mounted Display (HMD) combined with a leading edge multi-function display system (MFDS) in the cockpit.

The F-35 pilot will communicate, navigate and perform Identification Friend or Foe (IFF) tasks with an integrated, configurable CNI suite. This suite hosts a broad array of capabilities performed by numerous "federated" boxes in past aircraft. The new Multifunction Advanced Data Link (MADL) allows F-35 pilots to share a common view of their battle situation with very high data rate tactical data and video links. This low-observable communication function is also planned for other Air Force stealth aircraft: F-22 air superiority fighter and B-2 stealth bomber aircraft. I have had the opportunity to contribute to the CNI development effort for the past nine years. It has been very rewarding to participate in the development of the programmable logic infrastructure as well as selected navigation (Instrument Carrier Landing System) and IFF (transponder) function hardware in the CNI system. It is great to see this stuff working in flight test!

This is just a small sampling of what this aircraft is all about. For all the details on the F-35 Lightning II, go to www.jsf.mil.



Photos Courtesy of Lockheed Martin

Shuttle Endeavour Rolls out for STS-134

Article Provided By: Examiner.com <http://www.examiner.com/space-shuttle-in-orlando/with-discovery-orbit-endeavour-rolls-over-for-sts-134-launch-preparation>

With space shuttle Discovery in orbit nearly midway through her final mission on STS-133, Endeavour began her move Monday morning from Orbiter Processing Facility Bay 2 to the Vehicle Assembly Building at Kennedy Space Center, where the orbiter is to be mated with two twin solid rocket boosters and external fuel tank in preparation for Endeavour's final journey on STS-134.

Endeavour's first motion out of OPF-2 occurred at 7am Monday morning. The orbiter was backed out and parked on the road to the VAB for nearly 3 hours in order to allow KSC employees to have a photo-op with the space shuttle, which they have (in many cases) dedicated their careers to.

The move from OPF-2 to the VAB is only about a quarter-mile, and takes place on a 76-wheeled transporter.

Endeavour's roll-over marks a significant milestone in STS-134's processing. Once inside the VAB,

Endeavour will be hoisted vertical Tuesday to be mated with two twin solid rocket boosters and an external fuel tank.

Endeavour is scheduled to roll-out from the VAB to pad 39A March 9th, with launch currently slated for April 19th at 7:48pm EST. Sunset should be at 7:56 p.m., so if it launches on schedule, spectators should be in for quite a beautiful sight.

The mission will be commanded by Mark Kelly, whose wife is Rep. Gabrielle Giffords, the congresswoman who was shot, but survived, the deadly shooting in Tucson, Ariz., earlier this year. Also on the six-person crew will be pilot Gregory H. Johnson, mission specialists Michael Fincke, Roberto Vittori of the European Space Agency, Andrew J. Feustel and Gregory Chamtoff.

The 14 day mission will deliver the Alpha Magnetic Spectrometer and an Express Logistics

Carrier 3 to the International Space Station.

STS-134 will mark Endeavour's 25th and final flight, as well as her 11th flight to the International Space Station. The baby of the space shuttle fleet, Endeavour was commissioned to replace Challenger, which was lost in an accident in 1986. Up to date, the orbiter has completed nearly 4,500 orbits of the Earth with 148 crews, having traveled over 103,000,000 miles since her first flight on STS-49 in May of 1992.



Helicopter Designer and Hero Passed Away

Article By Stephen Miller. Full Article Available at <http://online.wsj.com/article/SB10001424052748704124504576118501841531370.html>



Charles Kaman introduced turbine engines that made helicopters fly higher and faster than ever before.

His innovations in propeller designs helped him to create round-backed Ovation guitars, among the most popular instruments made in the U.S.

Mr. Kaman, who died Monday at age 91, founded Kaman Corp. after his career as an aeronautical engineer stalled at United Aircraft Corp., where Igor Sikorsky's designs ruled. Mr. Kaman had different ideas that he hoped would put a helicopter in every garage.

"I believed that the skies were going to be black with helicopters," Mr. Kaman recalled in a 1996 interview with Design News.

The company produced the H-43 Huskies, which used Mr. Kaman's distinctive twin-rotor design in

search and rescue operations during the Korean and Vietnam wars. An early version of the twin-rotor concept, which eliminated the need for a rear rotor, is on display in the Vertical Flight exhibition at the Smithsonian National Air and Space Museum.

Kaman Corp. went on to become a major supplier of aircraft parts such as ball bearings, with total annual sales of more than \$1 billion currently.

Mr. Kaman grew up in Washington, D.C., where his father was an engineer who supervised the construction of the Supreme Court Building. He dreamed of becoming a pilot and competed in national model-glider competitions. When deafness in one ear kept him from pilot's school, he studied aeronautical engineering instead.

After graduating from Catholic University, Mr. Kaman worked as an engineer in the rotary-wing division of United Aircraft. During World War II, he helped design the R-4 and R-5 helicopters for the military.

Using a home-built calculator he dubbed the Aeronalyzer, Mr. Kaman came up with innovations in wing design and a dual-rotor configuration, neither of which interested Sikorsky. In 1945, Mr. Kaman started his own company, and within a few years sold two helicopters to the Navy.

In the early 1950s, Mr. Kaman started building helicopters with turbines instead of piston engines,

an innovation that spread to nearly all other helicopter manufacturers, according to Rhett Flater, executive director of the American Helicopter Society.

Mr. Kaman also introduced remote-controlled helicopters, but they were little used. In recent years, Kaman Corp. has revived the concept and is currently producing remote-controlled K-Max heavy-lifting helicopters for deployment in Afghanistan. Kaman also produced some of the first helicopter blades made from composite materials.

A guitar player who was good enough to have once played with Tommy Dorsey's orchestra, Mr. Kaman drew on his knowledge of acoustic vibrations and composite materials to design what became Ovation guitars.

Demanding and involved in all aspects of his businesses, Mr. Kaman was known for waking up his employees at odd hours, demanding they come in to work. In the 1980s and 1990s, he led the design of the K-Max, which he called the "aerial truck," because it can lift three tons.

He was wrapped up in the project when the American Helicopter Society was celebrating its 50th anniversary, in 1993.

Rest in peace Mr. Kaman and thank you for your dreams and innovations.

SUI at Sq 144 on 22 MAR 2011

Wing Headquarters will be conducting a Subordinate Unit Inspection (SUI) of Squadron 144 on Tuesday night 22 Mar 2011. This means that guests will be attending the Squadron meeting and Cadets and Senior Members should be dressed to impress and showing the customs and courtesies you display on a regular basis.

- Uniform for the inspection will be Class A Blues for everyone who has them and service blues for everyone else.

- On the night of the inspection, Cadet Sponsors will be assisting the Cadet Staff as necessary to complete the regular squadron meeting.

To make sure we're ready, we will plan on a full dress rehearsal inspection on 17 Mar 2011 at the Squadron.

If you have any comments or questions, please direct them to Capt Ross Veta.

Basic Cadet School (BCS)

BCS will be hosted at Escondido Chart High School. Take advantage of this local activity!

Student Requirements

- Current CAP member
- Recommended for C/Airman Basic and C/Airman

Training

- Beginning Drill and Ceremonies
- Proper Wear of the CAP Uniform
- The Missions of CAP
- The Cadet Honor Code
- The Organization of CAP
- The History of CAP
- The Activities Portion of the CAP Cadet Program
- The Cadet Physical Fitness Training Program
- Basic Customs and Courtesies
- Introduction to Attitude and Discipline

SAFETY

How to Properly Jump Start a Car



By: Capt Chris Natwick



Most people think they know how to use jumper cables on a car's battery, but you'd be amazed how many people do it the wrong way. Follow these suggestions when getting your car back on the road. The following tips are provided by the U.S. Navy Safety Center. The safety center can be found at <http://www.safetycenter.navy.mil>.

- Check your owner's manual before jump-starting your car or using it to jump-start another car. Some new cars had specific instructions or prohibit jump-starting.
- If it is OK to jump-start, attach the jumper cables correctly.
 1. Clamp one cable to the positive (+) terminal of the dead battery. Don't let the positive cable touch anything metal other than the battery terminals.
 2. Connect the other end of the positive cable to the positive terminal of the good battery.
 3. Connect one end of the negative (-) cable to the negative terminal of the good battery.
 4. Connect the other end of the negative cable to metal on the engine block on the car with the dead battery. Don't connect it to the dead battery, carburetor, fuel lines or moving parts.
 5. Stand back and start the car with the good battery.
 6. Start the stalled car.
 7. Remove the cables in reverse order.
- Wear a pair of splash-proof, polycarbonate goggles with the designation Z-87 on the frame. This certifies that your goggles are meant for activities such as automotive repair.
- Batteries contain sulfuric acid, which gives off flammable and explosive gas when a battery is charged or jump-started. Never smoke or operate anything that may cause a spark when working on a battery.
- Whenever you change the oil, take time to check your battery for damage such as cracks, corrosive materials and loose wires.
- Make sure you have a pair of jumper cables that are free of rust and corrosion and have no exposed wires. (Never use electrical tape to cover exposed wires.)
- Make sure you buy a battery that is recommended in your car owner's manual.



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

February Promotions:

- Ian Rigg was promoted to C/SrA
- Joaquin Magallanes was promoted to C/Amn
- Darius Brown was promoted to C/AIC
- Lauren Munzenmaier was promoted to C/AIC
- Ross Veta was promoted to Major

February Accomplishments:

- Joaquin Magallanes and Kaylin Munzenmaier completed Basic Training Flight
- Cadets Terence Belprez, Charles Broderson, and Anthony Elwers officially joined Squadron 144!
- Erik Munzenmaier, Julia Munzenmaier, and George Elwers joined Squadron 144 as Sponsor Members!

Special thanks to:

- All of the Senior Members and Cadet Sponsors who helped facilitate the Winter Survival Bivouac!
- Big Bear Valley Composite Squadron 6750 for the use of their facility for the Winter Survival Bivouac!

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.