

Aerospace Education Newsbrief

from
CIVIL AIR PATROL

February 2010

News Flash!!!.....

- 1. CAP AE Mission Awards**– CAP AE Mission Awards recognize outstanding CAP wings in each region and the top three wings in the country. The selection is made using the Annual AE Activity Report from each wing. These reports, along with the AE Plan of Action for each wing, are due to the Region DAE, with a copy to NHQ, by **Feb 15**.
- 2. AFA/CAP AE Cadet of the Year Nominations** are due to Region DCS/AE by **Feb 15** and to NHQ from Region by **March 15**. Nomination forms can be found at www.capmembers.com/ae under the AFA link or in CAPP 15.
- 3. Air Force Association (AFA) AE Grant Cycle Deadline for CAP Educator Grants is March 31, 2009**. Complete the application for the educator grant at: http://members.gocivilairpatrol.com/aerospace_education/aem_specific/educator_grants_and_scholarship_information.cfm NOTE: The twenty December Unit Grant Recipients are posted on the Announcements section at www.capmembers.com/ae. The next deadline for AFA Grant cycle for *units* will be June 30, 2010. Information can be found at: http://members.gocivilairpatrol.com/aerospace_education/internal_specific/grants.cfm.

Contests, Workshops, Resources and NASA Opportunities.....

- 4. NEW! High School Students Can Send Experiments Flying with NASA** – NASA is inviting student teams nationwide to design a flight experiment or technology demonstration to be sent to the near space environment of the stratosphere, an altitude of 100,000 feet. The Balloonist High Altitude Flight competition will launch on a NASA weather balloon May 25-27, 2010, in Cleveland, OH. To participate, student teams in grades nine through 12 must submit their flight experiment or technology demonstration proposal to NASA's Glenn Research Center in Cleveland by **Friday, Feb. 19, 2010**. To find out more about this opportunity, go to <http://www.grc.nasa.gov/WWW/balloonsat>.
- 5. NEW! Celebrate the Launch of the Solar Dynamics Observatory with Tweetups and Launch Events** – Solar Dynamics Observatory is launching in February 2010, and NASA wants you to be involved! Teachers, museums, libraries and individuals have many ways to participate. If you are interested in hosting your own launch event, NASA has step-by-step instructions for you to plan and run your event successfully. For more on presentation ideas, activities, and other goodies go to <http://sdo.gsfc.nasa.gov/mission/launch/hostevents.php>. Also, through Twitter, the SDO team has made it possible for anyone interested in being able to participate in their own tweetup event to have access to materials and assistance. For more information on how, please go to <http://sdo.gsfc.nasa.gov/sdoisgo/>. Remember, the launch date is subject to change.

6. **NEW! Astrobiology Summer Institute for High School Teachers** – The Astrobiology Summer Science Experience for Teachers, or ASSET, is being held July 18-24, 2010, at San Francisco State University. ASSET will feature presentations by leading astrobiology researchers from the SETI Institute, NASA and the California Academy of Sciences. The 6-day workshop features a combination of cutting-edge science, inquiry-based teaching and learning, and leadership skills development to support teachers and teacher trainers. Applications are due **Feb. 12, 2010**. For more information, visit <http://www.seti.org/epo/ASSET>.
7. **NEW! NASA Langley Research Center/National Alliance of Black School Educators Lecture Series for 2010** – Free, interactive programs will be broadcast through webcasts in 2010. For information on the times and dates of this series of webcast events, visit <http://dln.nasa.gov/dln/>.
8. **Connect with The Space Place and SciJinks through Facebook and Twitter** – The Space Place is an extensive, content-rich Web site from NASA for upper elementary-age kids and their teachers, parents, and anyone else who likes a simple, readable, fun presentation of a wide range of space and Earth science and technology topics – <http://spaceplace.nasa.gov>. (On Facebook, <http://facebook.com/nasaspacespace> and on Twitter, <http://twitter.com/nasaspacespace>.)

SciJinks is a highly interactive Web site that provides middle-school students and audiences of all ages an amazing science education opportunity. Provided by NOAA and NASA, the web site transports visitors to the wild world of weather to learn about predicting global weather patterns – <http://scijinks.gov>. (On Facebook, <http://www.facebook.com/scijinks> and on Twitter, <http://twitter.com/scijinks>.)
9. **NASA Education’s Act Now page highlights upcoming NASA opportunities available for teachers and students.**
<http://www.nasa.gov/audience/foreducators/topnav/actnow/index.html>
http://www.nasa.gov/audience/forstudents/k-4/home/Act_Now_Students.html
10. **“Kids in Micro-g!” Challenges Students to Design an Experiment for the Space Station** – This design challenge is geared toward students in grades 5-8. Its purpose is to give students a hands-on opportunity to design an experiment or simple demonstration that could be performed both in the classroom and aboard the International Space Station. Experiment proposals may be submitted by educators on behalf of their student groups. Proposals may be submitted via e-mail or postal mail during the period from **Jan. 4, 2010 through Feb. 19, 2010**. For more information about the challenge, including a scoring rubric, proposal requirements and a list of materials available to the astronauts, visit http://www.nasa.gov/mission_pages/station/science/nlab/experimentchallenge.html.
11. **NASA Invites Young People to Take Virtual Space Station Spacewalks** – A new video game based on actual work astronauts performed during the course of several NASA missions is available online. To take a virtual spacewalk in the Station Spacewalk game, visit http://www.nasa.gov/multimedia/3d_resources/station_spacewalk_game.html.
12. **NASA Launches New Careers Web Page** – NASA Education has launched a new Web page that serves as a starting point to learn about jobs at NASA. Visit the site to learn more about scientists, technical experts, engineers, mathematicians, physicists, accountants, astronauts, pilots, astronomers and experts in many other fields. Visit the new NASA Education Careers Web page at <http://www.nasa.gov/education/careers>.

- 13. NSAA (Norton Space and Aeronautics Academy) Teacher Training Opportunity: Goldstone Apple Valley Radio Telescope Program** - The Lewis Center for Educational Research in Apple Valley, California, announces an opportunity for K-12 teachers to participate in a unique program. This program uses radio astronomy to provide an opportunity for students to experience real science and to learn that science is an ongoing and actual discovery is possible. Students and teachers team with scientists to conduct cutting-edge research leading to discovery. In 2010, the teacher training program will also include Radio Jove. Radio Jove is a hands-on educational activity that brings the radio sounds of the sun, Jupiter, the Milky Way galaxy, and terrestrial radio noises to students, teachers and the public. To bring this program into the classroom, teachers must attend a five-day class. Teacher training classes are scheduled to take place at the Lewis Center on **March 8-12, July 19-23, and October 25-29, 2010**. To find out cost and requirements for this program, visit <http://www.lewiscenter.org/gavrt/opportunities.php>. For more information about GAVRT and Radio Jove, visit <http://www.lewiscenter.org/gavrt/> and <http://radiojove.gsfc.nasa.gov> .
- 14. Online Training for Teaching Hands-on Engineering Activities with NASA and DESIGN SQUAD** – an online workshop has been developed for educators and afterschool leaders to build their skills and confidence in guiding kids through engineering activities like those found in the On the Moon Educator Guide from NASA. For more information about this self-guided online workshop go to <http://pbskids.org/designsquad/parentseducators/workshop/welcome.html>.
- 15. The National Museum of the U.S. Air Force Officials Launch Virtual Tour** – Museum officials launched a free museum tour podcast on their website so visitors have access to a wealth of information as they tour the museum. The podcast, available at www.nationalmuseum.af.mil , acts as a virtual tour when visitors are exploring the application on a computer. Tour segments for the Early Years Gallery and Air Power Gallery are now available to the public. More segments will be added throughout 2010.
- 16. “From Earth to the Universe” Exhibit on Display Worldwide** – This collection of astronomical images that showcase the most dramatic views of the universe will be exhibited in over 250 locations throughout the world in 2010. These exhibits, held in public parks, airports, art centers and at other unique sites, will bring the wonders of the universe right to you. To find dates and locations for the exhibit, visit http://www.fromearthtotheuniverse.org/table_events.php. (Click on USA for end-of-year USA locations.)
- 17. NASA Invites You to Send Your Name to Mars** – Submit your name to be included on a microchip that will be sent to Mars as part of NASA’s Mars Science Laboratory mission, scheduled to launch in 2011. The “Send Your Name to Mars” Web page enables anyone to take part in the mission by sending his or her name to the Red Planet. To submit names, visit <http://marsprogram.jpl.nasa.gov/msl/participate/sendyourname/> .
- 18. NEW FEB Listings! Look for the latest offerings on NASA TV** – The February NASA Television Education File Schedule is found at <http://www.nasa.gov/audience/foreducators/topnav/schedule/index.html>. NASA TV’s main site can be located at <http://www.nasa.gov/multimedia/nasatv/index.html>.

19. 2010 NASA Education Resource Showcase Series with Digital Learning Network

(DLN) - NASA presents a series of videoconferences to assist educators in staying current on NASA education resources and related products. During the videoconferences, participants will be able to submit questions to the presenter that will be addressed during the presentation. In the coming months, the following topics will be covered:

- **NASA Fit Explorers: Feb. 24, 2010, 4-5 p.m. EST**
- **NASA eProfessional Development Network – Robotics Course: Mar. 31, 2010, 4-5 p.m. EDT**
- **MoonWorld: April 28, 2010, 4-5 p.m. EDT**
- **On the Moon: May 26, 2010, 4-5 p.m. EDT**

For more information about these videoconferences and to sign up online, visit <http://dln.nasa.gov/dln/content/webcast/>.

20. The Educational Materials section of NASA's web site offers classroom activities, educator guides, posters and other types of resources that are available for use in the classroom. Check out the latest offerings at this wonderful site at <http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/>. Other resources for educators include STS-129 Educator Resource Page with classroom resources at <http://www.nasa.gov/audience/foreducators/sts129-index.html>; NASA Education Spacesuits and Spacewalks Web site can be found at www.nasa.gov/education/spacesuits; visit the new Robotics web site at <http://www.nasa.gov/educators/robotics>.

21. Lockheed Martin, the Space Foundation and SpaceClass announced the launch of a strategic online education collaboration called *Orion's Path*. *Orion's Path* is an interactive lesson on SpaceClass -- the only web-based education program using videos and virtual science labs to engage students in research being conducted for space exploration. Lesson contents meet National Learning Standards for middle school grades and use of the site is free to teachers. To sign up, go to <http://www.lockheedmartin.com/products/Orion/OrionsPath.html>.

22. NASA Announces eClips for Educators and Students – This web-based educational project is offered free to every student and educator in the country, from kindergarten level through lifelong learners. NASA eClips are short, five- to 10-minute video segments available on-demand via the Internet for the current school year. Check out the potential of this project at <http://www.nasa.gov/education/nasaclips>.

23. National Space Biomedical Research Institute – This institute focuses on the effects of long-term spaceflight on the human body and how to counter any negative effects it might have. The institute provides educators with valuable teacher activity guides on Bones and Muscles, Food and Fitness, and Sleep and Daily Rhythms. To find out more about NSBRI go to <http://www.nsbri.org>. The link to the teacher guides is <http://www.nsbri.org/Education/Materials.html>.

24. Butterflies in Space Project provides students with real-time research opportunity – On Nov. 16, 2009, Painted Lady butterflies flew aboard space shuttle Atlantis to the International Space Station. The butterflies will spend several months in space as part of an exciting experiment to observe their life cycles and behaviors in microgravity. For your class to join in the investigation and view the data and to download the teacher's guide, go to http://www.bioedonline.org/space/STS_Mission_129.cfm and http://www.k8science.org/space/STS_Mission_129.cfm.

Information for Aerospace Education Officers.....

25. CAP Teacher Orientation Program (TOP) Flights – Wings are making plans for teacher flights in 2010 and are involving teachers in the complete experience by implementing teacher workshops prior to the flights. Invite new AEMs (Aerospace Education Members) in your wing to receive an orientation flight and get their students excited about aerospace. Or, invite teachers in your community to become AEMs and fly. Remember to keep the Wing Commander and your wing POC (usually the Director of Aerospace Education) informed and supportive of your efforts. Please contact Judy Stone at jstone@caphnq.gov with your plans (number of teachers flying, date, and estimated cost). To find out more, go to the Teacher Orientation Program (TOP) Flights section at www.capmembers.com/ae.

26. CAP Aerospace Education Member (AEM) contact information – CAP Region and Wing Commanders, DCS/AEs and DAEs in each region and wing have accessibility to the names and contact information of Aerospace Education Members in their wings and regions. We would like you to know who these outstanding people are so you can invite them to AE workshops and teacher flights and any other relevant programs that would apply to Aerospace Educators for your area. This information can be found in e-services under Member Reports and Aerospace Education links and requires permissions received from your commander.
<https://www.caphnq.gov/CAP.eServices.Web/Default.aspx>

27. Information for CAP Directors of Aerospace Education (DAE) pertaining to the Yeager Test: **NOTE: Members taking the Yeager test need only take and pass one of the two tests provided on the Yeager test site. The second test is for those who may need to take the test a second time to receive credit for passing.** CAP members receive immediate feedback when they take the Yeager Test online! After successfully passing the test online, the member will automatically have his/her accomplishment posted to his/her records and the Yeager Certificate will be available for download as a pdf. (NOTE: A Form 127 and CAPC 20 are only needed if the exam is taken with pencil/paper.) This process should streamline the CAP Yeager test process and make the reporting easier for all concerned. **DAEs can track which wing members have taken and passed the online test by logging in at <https://ntc.cap.af.mil/login.htm> and going to “Test Reports” in the left column of the menu. This link is restricted to those assigned to CAP region or wing HQ. If the DAE is not assigned to the wing HQ, please contact ae@caphnq.gov for specific permissions.**

More AE Information for Educators and AEOs.....

28. 2010 Aerospace Education Excellence (AEX) Award Program- Make sure that YOUR unit or classroom participates and completes the AEX Award Program to receive a classroom plaque and participant certificates. Any CAP unit or any K-12 teacher who is a CAP member can participate! Apply easily and electronically in CAP e-services. You will receive an email confirmation and your AEX books will arrive in the mail soon after. To receive your unit or classroom plaque and participant certificates, simply fill out the electronic report on line upon completion of the program. To apply and report online, go to <http://www.caphnq.gov> and enter e-services with your password or follow the first time user steps to enter e-services.

29. Adams State College Offers Graduate Credit Opportunities for CAP Educators! Adams State College in Alamosa, Colorado, is offering graduate credit for completing specific requirements in association with CAP's Aerospace Education Excellence Program (AEX) lessons. See www.capmembers.com/ae for further information, or go directly to http://www2.adams.edu/extended_studies/independent/aex/aex.php

30. CAP Aerospace Education materials can be ordered online! AEMs and AEOs can order the tools needed to promote the AE program in their local communities and schools. AEOs can receive a complete set of AE materials for presentation to prospective educators. Order one copy of each our materials via our online ordering system. Sign in at CAP's e-services: <https://www.capnhq.gov/CAP.eServices.Web/Default.aspx>. Look on the far right column and find CAP Materials and click Submit Order. You will find a drop down menu where you should choose AE Materials. Fill out the order form and the mailroom will process and fill your order. If you need any further assistance, please contact ae@capnhq.gov.

31. The 2nd Edition of the CAP AE textbook, *Aerospace: The Journey of Flight* and accompanying Teacher's Guide is available for purchase through Vanguard Industries** – The book may be purchased for \$20.35 and the Teacher's Guide may be purchased from Vanguard Industries for \$8.25 :

http://www.vanguardmil.com/store/index.php?main_page=index&cPath=6_383_387&zenid=6044a0e8c93b91526f4cf28cbd681887.

***The textbook is also downloadable in CAP e-services. After entering e-services, go to Aerospace Downloads in the left column and click there to see the textbook chapters.*

<https://www.capnhq.gov/CAP.eServices.Web/Default.aspx>

32. Scott Crossfield Foundation web site can be found at:

www.scottcrossfieldfoundation.org – To continue the legacy of famed pilot, Scott Crossfield, and CAP's AE Award namesake, you can share memories of Scott Crossfield on this site. If you have a story to tell, you can go to the "Tell A Story" section and add your story. At this site, you may also make a donation to the foundation in order to maintain and perpetuate Scott Crossfield's legacy to teachers.

33. Satellite Tool Kit (STK) for the Classroom – Analytical Graphics, Inc. (AGI) is offering the leading off-the-shelf satellite software package to CAP's educator members at no cost. This program is an awesome program to educate about satellites to cadets and students. For licensing and to receive your disk, contact Dr. Jeff Montgomery at jmontgomery@capnhq.gov. For more information about STK and CAP's aligned implementation initiatives, go to http://members.gocivilairpatrol.com/emergency_services/advanced_technologies/index.cfm.

Thanks to EACH of you for promoting aerospace education all across our great nation!

Sincerely, the CAP NHQ AE Team

