



Air Force Association

Chapter, State, and National Aerospace Education Activities

Featured Items

Cyber Patriot V Salute
STEM Activities
2013



Aerospace Education Council Chairman, Jerry White

I take the opportunity in this newsletter to highlight our awards program. An award is something given to a person or a group of people to recognize their excellence in a certain field. Awards are often signified by, certificates, commemorative plaques, medals, badges, pins, or ribbons. An award may carry a monetary prize given to the recipient. An award may also simply be a public acknowledgment of excellence, without any tangible token or prize.

The above comments pretty well summarize the awards program run and managed by our Association. As you also know, we are in the season wherein award nominations have been submitted and evaluated, and decisions made as the significant achievers (individuals and chapters) have been selected. Many of you have already been recognized at the local and state levels, while some of you will be recognized at our National Convention. To all of you, congratulations on a job (or jobs) well done.

Since this awards season is all but over, it is not be too early for you to start to focus on how you will manage your next awards season. Lets start with how you will recognize your individual Chapter members. Each Chap-

ter has a variety of ways they can recognize outstanding members, community partners, educators, and programs and they include internal Chapter initiatives such as dinners; public presentations of certificates and plaques; Chapter coins; newspaper articles with photos; and other creative endeavors. The real question is not how you will recognize someone, but who the recipients will be. At the Chapter level, that is still to be determined.

Another TBD person is your Teacher of the Year (TOY) nominee. As I have been reading through the Chapter newsletters, I began to see a trend with Teacher of the Year nominations. Many Chapters depend of membership to nominate a teacher they think has done a good job. Lets face it, many of us are getting older and don't have the interface with school systems we once had because our kids are no longer in the school systems. And for those of you who have children who are still students, would you really know a great teacher when you saw one? Maybe, maybe not!

Let me offer an alternative to the individual member nomination process. One of our chapters has established dynamite relationships with local school systems. They went to the school administration office complex and explained the nuts and bolts of the TOY

program and the benefits to the teacher, their school, and the school system in terms of public relations and school system validation. Once the Chapter had their attention, they asked if the administration knew of teachers who met the basic criteria. A couple of names came up immediately. The Chapter interviewed the nominations and made a choice. Once the choice was made, further face to face meetings were held with the candidate to gather more details and get clarifications. The chapter also took the time to take photos to document the actions their Chapter TOY had taken in support of STEM activities. These photos amplified what was in the narrative and gave state evaluators a visual reference that highlighted the TOY's efforts.

That's fine you may say, but what proof do you offer that their procedure would get better results than some other Chapter? Well, the results are in and these are the facts: in the last four years, this chapter has had three State Teachers of the Year and one National Teacher of the Year. There are added benefits. The Chapter established an outstanding working relationship with three principals, the school officials in their county, and were asked to be part of the counties STEM transition team.

Their system works for them, why not give it a try to see if it will work for you?

AFA - CAP Joint Activity

On 9 March 23 Utah teachers experienced an in-service training sponsored by the Utah AFA. Its title, "Out of the Classroom; Into the Sky" was very accurate as teachers attended a workshop at the Hill AFB Museum and also had the opportunity to fly with Civil Air Patrol (CAP) pilots. The day's event was hosted by the three chapters in Utah, the Northern Utah Chapter, the Salt Lake City Chapter and the Ute Rocky Mountain Chapter in conjunction with the Civil Air Patrol and Hill AFB Museum staff. Funding was provided by the Utah Aerospace Education Foundation, the education funding arm of the Utah AFA.

Teachers were trained on the use of CAP training materials by Susan Mallett, CAP Youth Development coordinator. The teachers were also introduced to the museum learning center to prepare them to use the facility to educate their students. Since all teachers were elementary teachers, the event was geared to exciting youth in the 10 to 12 year age group about the possibilities of STEM careers and the related educational opportunities.

The day's training also included CAP flights and more training held at the Ogden Hinckley Airport led by Lt Tim Cole, Utah CAP Education Coordinator. At the end of the day, teachers were given a certificate verifying they had completed the 6 hours of Professional Development and more importantly returned to their classrooms with new ideas for exciting and innovative training for their students.



Teacher Training at Ogden Hinckley Airport



Teachers with Pilot at their CAP Airplanes



CAP cadets advancing their knowledge in the museum learning center

Kit Workman, Utah AEF President, welcoming teachers to the event



Susan Mallett leading the museum class



Teachers working on Museum projects in the classroom



CIVIL AIR PATROL
UNITED STATES AIR FORCE AUXILIARY



Civil Air Patrol Offers FREE STEM Programs for AFA Chapters

CAP and AFA have been partners in Aerospace/STEM Education for many years. In the last three years, CAP has provided AFA with complimentary Aerospace Educator Memberships (AEMs) for any teacher with whom any AFA chapter is working. The benefits of this free membership are many. Most exciting are: over 30 free K-12 aerospace/STEM Ed materials shipped to educators; a website full of other resources (www.capmembers.com/ae); the Aerospace Education Excellence (AEX) program that culminates with a trip to an Air Museum; Teacher Orientation Program (TOP) Flights; and AE Grants for CAP educator members provided by AFA since 1996. Find out more by clicking [HERE](#).

A special NEW program for CAP AEMs is the free **STEM Kit Program**. Four teachers from the recent **Utah AFA AE Workshop** just received STEM Kits! (Tami Pandoff, King Elementary in Layton, and Tamyra Cox, Bluff Ridge Elementary in Syracuse, both got Robotics kits, while Jennifer Roberts, Lincoln Elementary in Layton, and Janet Hone, South Jordan Elementary in South Jordan, both received Rocketry kits!) Find out more [HERE](#). For more information about any program, contact afa@capnhq.gov.



Montage of CAP Materials



Teacher getting pre-flight briefing.



Teacher with certificate after TOP Flight.



Teacher using Robotic STEM Kit

Gerrity Chapter 215

Rose State College – A Cyber Patriot Center of Excellence

The Air Force Association's CyberPatriot program announced that Rose State College of Oklahoma was its fourth CyberPatriot Center of Excellence. Rose State has partnered with the Cyber Patriot program from the get-go in 2008. They partner with Gerrity Chapter in all aspects of the program to help recruit and train Oklahoma teams. The Gerrity Chapter has been instrumental in garnering the support of the entire state from the Governor, Secretary of Education, Secretary of Commerce, to many schools and academies throughout.



Tennessee Valley Flyer Chapter 335

Chapter Trains Future ACEs

Elementary teachers from across the Tennessee Valley participated in the Chapter's first-ever Aerospace Education (AE) Teacher Workshop. The workshop was possible due to the generous donations by McLarty Landers of Huntsville, Lockheed Martin and the U.S. Space and Rocket Center. However, this would have not been possible without the efforts of the Chapter's former VP for AE, John Phillip, and the Chapter's Secondary School Teacher of the Year, Ms. Jennifer Kennedy, who developed and taught the courses to an eager group of gifted elementary teachers. In addition to hearing about the various aerospace education programs that the AFA and the Civil Air Patrol (CAP) offers, teachers were provided two lessons suitable for elementary students.

The program was developed in part using materials provided under the partnership with the CAP) Aerospace Education Membership (AEM) Program and the Aerospace Connections in Education (ACE). Each teacher attending was provided, courtesy of the Tennessee Valley Chapter, a free AEM and eligibility to participate in the ACE program. An AEM membership provides products designed to ignite the minds and spirits of young people toward STEM subjects and careers.

AFA Chapter member, John Phillip, describes "Forces of Flight" to group of gifted elementary teachers.



From the Tennessee Valley Flyer Newsletter: Cyber Patriot

After Action Thoughts from Participants

Thanks to Jacob Hoogstra

I learned and enjoyed much from my experience with Cyber Patriot. Before I joined my CP team my knowledge of computer security was minimal. What I did know was from just messing around at home. When I joined CP and had a chance to see what it was like through the initial practice round, I realized that there was a lot that I needed to learn. In between each CP round, I would go home and research everything I could to prepare for the next round, and whenever there was a topic brought up by another member of

my team, or my coach, such as security templates, I went home, found out how to make them and made whatever templates I needed for the next round of competition.

Everything I've learned from CP has been self-taught, and I can say over the course of these past few months, I learned more about computer and network security than I could have in a year. CP simply provided me the means to motivate myself through competition and get the job done.

But CP was much more than just learning about computers and testing myself against other students across the world that share my ambition. CP has been an enjoyable experience that I wish I could do forever. Throughout the competition, the team had its ups and downs, especially after we got our wake-up call in Round 1 after we realized what we were really dealing with. But the downs have made the fun experience of working with my teammates and sharing this experience with them worthwhile.

Given the opportunity I would recommend the CP competition to everyone. It is more than just an opportunity to compete with others while going to win a trophy; it is an opportunity to get together as a team and to make bonds with those people that you will never forget.

Thanks to JD

I have been involved with CP for three years. We started out knowing very little. It was a humbling experience. This motivated us to learn more about network and cyber security. This experience has changed the way I look at computing and computers and I am more aware of security issues and the job opportunities in the field. In fact I have decided to major in computer science and focus on cyber security.

My experiences with CP led to the development of friendships with people I would not have normally met and has given me a different outlook on teachers as I saw a different side to them out of the classroom. In addition, because of CP, I received an internship with a local cyber security company last summer. I enjoyed it so much and I guess was successful as they have hired me as a part time employee and offered me this position throughout my college career.

Thanks to Dale TeGantvoort

This was my first year participating in the CP competition, and I had the privilege of being able to start up our first JROTC team, which was even more special in my opinion. At the very beginning of the season, I was unsure how this all was going to play out, as we did not have what seemed to be a compatible team; there was much bickering and unease amongst the team mates, so the coming months proved to be full of surprises. After the first round, I learned an important lesson about being calm when faced with uncertainty. Near the end of round one, there was nothing but anger in the room, and that was not a way to handle things. When round two came around, I was surprised to see how well everyone worked together all the way down to the bitter end, and the calmness and patience through the ordeal proved to be a good thing, as we made it through to the third round. Although we did not fare as well in the third round as we would have liked, the experience in itself was a great one.

Through the season, I got to learn a lot about a computer's inner workings and even became interested in computer forensics, which was a big shock. My time on the CP team has given me many skills that I will be able to take with me into my college years, and hopefully relate them to my intended major. The experience was overall an enjoyable one, and I am proud to say that I got to experience it for myself.



USA Today
Visions of



Nebraska Chapter 188

Chapter 188 hosts two major events each year...a golf tournament in August and an awards/scholarship banquet in April which combined raise about \$10,000 a year. It also works with Offutt AFB during the Air Show which contributes about \$1,200. The Chapter is fortunate to have a significant defense contractor presence in the area which participates in and sponsors events. Some of these companies also have grant money the Chapter pursues. Northrop has been a great supporter. Currently the Chapter is seeking a \$10K grant from Google. That grant will help with the \$8K annually awarded in scholarships and \$2K in text book grants to airmen pursuing an associates or bachelor degree, and \$1.5K for Arnold Air Society.

Gabriel Chapter 433

Leesburg CAP Squadron Recognizes Cadet of the Year

Chapter President Dallas Kennedy attended the quarterly Aerospace Education Night at the Leesburg Civil Air Patrol squadron. Mr. Kennedy took the opportunity to explain the AFA's role and interest in Aerospace Education and to present the AFA Cadet of the Year award. Clay Wilkins, Gabriel Chapter member and CAP Region 3 Aerospace Education director, coordinated the event. The Gabriel Chapter supported the Leesburg Squadron with an Aerospace Education grant in 2012, which supported a cadet project to build and operate a wind tunnel for testing model aircraft and examining aerodynamic principles.

Richmond Chapter 243

Chapter getting involved with Rockets, Robotics, & Cyber Space. This coming school year will be a very busy year for Aerospace Education programs for Richmond Chapter 243... Chapter VP for Aerospace Education Keith Shaffer says new grant availability, and new request for assistance from AFJROTC units the Chapter serves will produce a much greater involvement for the Chapter. These are very important areas of education and through AFA and AFJROTC programs students get the opportunity to get involved with tomorrow's technology areas today. If you are involved in similar programs and might want to get one started at your school, please contact Keith. We are always looking for new programs to start and volunteers to work with these programs are always needed.

Chapter 242 JROTC News

Annual Pancake Breakfast

JROTC programs in Chesapeake spent the month of February selling tickets and chapter members and cadets from Grassfield HS got up early on Saturday 23 Feb and served around 500 pancake meals. The money will be used to fund buses to take cadets to Washington DC where they will visit the National Air and Space Museum, The Marine Museum, Arlington National Cemetery and the Vietnam and Lincoln Memorials.

Indian River HS Wins Academic Challenge

Cadets from Indian River continued their winning ways in capturing the Fall 2012 Semester AFA/Air Force JROTC Academic Challenge. Six schools were represented and the competition was close, but Indian River correctly answered the final three questions to pull out the victory.

An AFJROTC Alternative

The Winchester, VA, Public School Board of Education will consider AFJROTC as part of their up-coming budget cycle. Since USAF funding is uncertain, the parallel ROTC program called Air Force National Defense Cadet Corp (AFNDCC) is being considered. It is the identical program except the FULL cost of instructors and uniforms is borne by the school. The start up cost would be \$125K and each following year the cost would be \$80K. In the past year, 12 AFNDCC units have been funded for normal AFJROTC funding as other high school units were de-activated.

The goals for AFJROTC and AFNDCC are identical: Promote Citizenship, Develop Leadership and critical/creative thinking, Improve Physical fitness, Teach effective communication, Provide incentive to live drug-free, Strengthen positive self-motivation and self-esteem, Train to work as a team member, stir interest in Science, Technology, Engineering and Math (STEM).

Goddard Chapter 266

Aerospace Education

Juan Cruz, Chapter President, had the opportunity to attend the Santa Barbara County Education Office (www.sbceo.org) Annual Grant's Presentation at Buellton's Santa Ynez Valley Marriott Hotel. Chapter 266 was a \$500 grant sponsor to Mr. Chris Ladwig, Vandenberg Middle School 7th and 8th grade science teacher. Mr. Ladwig and his students built a bionic arm designed to teach fluid dynamics, design/construction of industrial robots, circuit boards, and touch sensors. Learn more about Mr. Ladwig's efforts at www.ladwig.vmsteacher.org.

Sarasota – Manatee Chapter 429

STEMsmart Meeting

The Venice based Gulf Coast Community Foundation has taken a strong lead in promoting STEM in the local classrooms through a program they call STEMsmart. STEMsmart was created by a group of community investors — and instigators — that teamed up to combine their individual expertise to create the most effective STEM program in the country. With a deep knowledge of the community available through the Gulf Coast Community Foundation and the two county school systems - Sarasota and Charlotte Counties - and a corresponding knowledge of classroom technology from HP and Texas Instruments; the students of Sarasota have some of the best minds in the country focused on giving them a chance to take their everyday smarts and turn them into super powered STEMsmarts. At a recent meeting, Chris Pfahler, the Community Foundation's Director of Community Investment told those in attendance about the STEMsmart program, what it has accomplished, and how we — the Sarasota–Manatee Chapter -- can help help become involved.



Blue Ridge Chapter No.424

Western North Carolina Regional Science Fair

The Chapter set up an exhibitor's table and provided information about AFA programs such as Educator Grants for teachers, Visions of Exploration program, and Cyber Patriot. They also set up a flight simulator

where students tried their hand at flying radio-controlled aircraft. In addition, Blue Ridge Chapter volunteers helped judge science fair projects for junior and senior high school students. The event was held at Western Carolina University in Cullowhee on February 5 and 6. This was the largest STEM event in Western NC and attracted over 250 projects from students across 16 counties. WCU hosted 800 of the best and brightest science, technology, math, and engineering students together with their parents and teachers.

One Person Made a Difference

Gina Giles was recently recognized for her service to the Chapter and the AFA through her commitment to Aerospace Education. Gina expanded the Chapter's support to key high schools in Northern Virginia, cultivated a relationship with the cadet program of the Leesburg Civil Air Patrol squadron, and was instrumental in the support and development of the Chantilly High School JROTC CyberPatriot team. VA State President Peter Jones graciously attended the Chapter's Membership Meeting in March and personally presented Gina with a plaque from the Air Force Association.

Chuck Yeager Chapter 209

13th Annual Mountaineer Cadet Officer Leadership School

Concord University, Athens, WV, again will host our annual Mountaineer Cadet Officer Leadership School June 16-22. As the co-sponsor, this chapter will present numerous awards to the outstanding cadets at the graduation pass-in-review on Saturday, June 22. This has been a popular and instructive school for Air Force JROTC cadets from many schools. Last year there were 175 cadets from 16 high schools in five states who went through a week of training, education, discipline, athletics, and drills.

Alamo Chapter 234

Earle North Parker Essay Contest Winner

Maj. Gen. (Sel) Theresa Carter, left, and Alamo Chapter President Al Swaim, right, present the Earle North Parker Essay Contest Award to Randolph High School senior Robert Joseph Brust III. Brust's essay topic was on remotely piloted vehicles and their importance to national security. In summary, he said RPVs provided the technology that enabled the most wanted terrorist to be eliminated. He said the future of RPVs is limitless, but we must never forget that the RPVs are machines and require the expert knowledge of skilled and dedicated people to operate them effectively and use the information they provide successfully.



Visions of Exploration Reminder

This program provides educators with a curriculum designed to enhance students' understanding of math, science, engineering, technology and aerospace education. This program is an ideal way for chapters to give something back to the community and inspire today's youth.