

GALA EVENT SALUTES AIR FORCE POWER THROUGH RESEARCH AND DEVELOPMENT

Air, Space and Cyberspace Power comes through R&D

by Bill Palmby, Executive Vice President

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Key Accomplishments Membership

Shingle Creek Hotel. Individuals and orga- twenty-three thousand square feet of exnizations associated with past and ongoing • hibit space. Air, Space, and Cyberspace power through * Research and Development (R&D) efforts . can be obtained at www.AFA.org and sewill be honored.

A golf mixer will be held on Wednes-: day the 22nd at Disney's Magnolia and • result of one of the most daunting R&D Palm courses. On Thursday and Friday: programs ever undertaken by man, one can morning, AFA will host the Twenty-Eighth $\, \cdot \,$ easily understand that maintaining status as Air Warfare Symposium. Key speakers the "World's Greatest Air Force" is all invited for the event include the Secretary of • about continuing to push the limits of Re-

On Friday February 24th, the chap- . the Air Force, the Chief of Staff, the Chief $ter\,will\,celebrate\,\text{``Air\,Force\,Research\,and'} \cdot \,Master\,Sergeant\,of\,the\,Air\,Force\,and\,other$ Development" at its annual black tie/mess ; general officers. Exhibitors will display the dress Air Force Gala dinner at the Rosen · very latest in military technology in over

> More information on these events lect the link to the Air Warfare Symposium.

Considering that aviation itself is the

See Gala R&D Awards, page 6

Visit our web site to get more Chapter information... http://centralflorida.afaflorida.org

MAKE YOUR RESERVATIONS TODAY!

CFC Golf Supporting AWS - Feb 22nd

AFA Air Warfare Symposium - Feb 23rd - 24th CFC Gala - Feb 24th

(More Info and Reservation Form, pages 6-7)



Central Florida Chapter Mission AFA advocates a strong national defense through aerospace power.

We support and encourage the study of science and technology, and . . .

We educate the Central Florida community on the importance of technology to national security.



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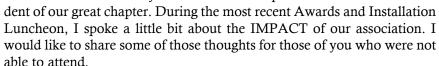
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From the President

Let's Make an Impact Together!!

Greetings fellow Central Florida Chapter members. I am extremely excited to serve as presi-



When I was a cadet in AFROTC many years ago, I first saw the IMPACT of our organization. I was invited to attend the national convention in Washington D.C. While there, I had the opportunity to meet the leadership of our United States Air Force and hear about the future course that they were charting for our Air Force. I can vividly remember talking with the Chief Master Sergeant of the Air Force about a variety of topics to include the rationale behind the selection of the new AF uniform. Without the IMPACT of the Air Force Association, I would not have been afforded that unique opportunity. That opportunity continues to this very day at our national convention and also locally each year at the Air Warfare Symposium held in Orlando each February.

Each year, our chapter also holds the scholarship opportunities program for local middle/high school students and their parents. At that event, those students are able to interact with current USAFA and AFROTC cadets to learn what it takes to earn one of those coveted slots in those two critical commissioning programs. Without the efforts of your Central Florida Chapter, those cadets would not be able to IMPACT those prospective students and their parents.

While serving as an Assistant Professor of Aerospace Studies at the University of Central Florida, I was able to serve on the selection board for the CFC AFA scholarship program. Through this valuable program, our chapter is able to provide much needed scholarship funding to deserving UCF AFROTC cadets. Seeing the faces of those cadets as they received those scholarships was yet another illustration of the IMPACT of our Central Florida Chapter. Those funds allowed many of them to spend less time worrying about how they were going to pay that semester's tuition.

As those cadets reached the end of their time at UCF, I was also able to see hundreds of them receive their commission as second lieutenants in the USAF. Our chapter was again there making an IMPACT by providing them with their first set of second lieutenant rank and a complementary AFA membership. More important than the rank itself was a solid understanding of the partnership between AFA and the USAF.

This is a just a small sampling of the IMPACT generated by our association. Over the next two years, it is my goal to continue the IMPACT on the Central Florida area. In order to do that, I am going to need your assistance. We have a variety of different programs that our chapter is involved in, and we are always looking for help. If you know of a program that you want to help with, contact the POCs listed in the FlightLiner. If you have an idea for a new program, let us know about it. Through the combined efforts of our membership, we can not only continue the IMPACT of our chapter, but we can also expand it.

Thanks,

Mike Liquori

CyberPatriot School Receives Computers

by Lt Col Sharon Branch, AFJROTC

for students across the nation.

given to the CyberPatriot students at . selves available to mentor students on

Phillips Dr. High School! The computers were presented by the Northrop Grumman Foundation with founding partners Science Applications International Corpora-



tion (SAIC) and The Center for Infrastructure Assurance and Security · (CIAS).

881). They have fielded a team since : cyber security. CyberPatriot's inception at the high • school level.

She sought out those who could help: the nation. with training and act as mentors to local teams. In doing so, Bonnie met • berPatriot see : Mrs. Roberta Myers, a Northrup:

AFA and aerospace industry Grumman manager, and her colleaders are both looking ahead at our · leagues, Mr. Edward Gold (also of nation's future and placing renewed . Northrup Grumman) and Mr. Glenn emphasis on cyber security! This · Goranson (Lockheed Martin). This brought about "CyberPatriot," a com- group helped bring about the Northrup petition that gives hands-on practice Grumman's computer donation which · allows more students to have the op-To demonstrate support, a re- portunity to participate. Mr. Gold cent gift of four laptop computers was • and Mr. Goranson also made them-

cyber security.

This type of partnership between the community and the schools provides a synergy that results in positive gains for the education of our future leaders in society.

AFA and CyberPatriot

Through CyberPatriot, the Air This is not a new venture for Dr. • Force Association wants to make the Phillips High School AFJROTC (FL- public aware of the importance of

CyberPatriot also reaches out to educate and train our students giving This year was special! AFA's them hands-on experience with com-Bonnie Callahan, reached out to oth- • puter cyber security. Annual competiers in the community to find help for : tions include teams from AFJROTC, our Orlando area AFJROTC units. · CAP, and high schools from across

For more information about Cy-

www.uscyberpatriot.org

Chapter Council Meeting

The Council meets on the second Thursday of each month at 7pm at the Showalter Flying Service building at the Orlando Executive Airport.

- All Officers and Council Members are requested to attend.
- All members are welcome.

Please check the calendar for any changes!

FlightLiner Note

Thanks to all who have contributed to make this the best Chapter newsletter!

Please send your comments and suggestions to Ken at: kennethkelly@earthlink.net

Deadline for articles for the next edition is April 12, 2012

Events Calendar

January 2012

12 * Chapter Council Meeting

16 Martin Luther King Holiday

February

9 * Chapter Council Meeting

20 President's Day

22 CFC Golf supporting AWS

23-24 AFA Air Warfare **Symposium**

24 CFC Gala (Shingle Creek)

March

8 * Chapter Council Meeting

24 AFA FL State Meeting (Tampa)

24 JROTC Drill Meet (Tampa)

25 Scholarship Opportunity Program (USAFA & AFROTC)

April

12 * Chapter Council Meeting (Deadline for FlightLiner articles)

May

10 * Chapter Council Meeting

Armed Forces Day

28 Memorial Day

June

14 * Chapter Council Meeting

14 Flag Day

* See details in this newsletter

ACE Program Lifts-off at Ridgewood Park

by Barbara Walters-Phillips, Event Organizer

(ACE) program had a successful assist with awards presentations at san Mallett, Youth Development lift-off last November at Ridgewood • the conclusion of the program in • Program Coordinator, National HQ Park Elementary School in Orlando. . June.

ACE is co-sponsored by your Central Florida Chapter AFA.

ACE is a highly motivational kindergarthrough

grade 5 curriculum which will be • taught throughout the school year: by teachers as well as community volunteers. Lessons are academic and also include character and physical education.

Members of the Central: Florida Chapter of the Air Force • Association attended the program

The Civil Air Patrol's Aero- · and they have been invited to par- · ered on the field during the program. space Connections in Education 'ticipate in teaching classes and to '

> The kick off was a fun event! A yellow hot air balloon with a big smiley face, provided by Skip Pringle, was teth-



Joe Kittinger shares some great aviation "secrets" with the new ACE program students.

Students were welcomed by Su-· of CAP. Evans High School's

> JROTC color guard presented the colors and the invocation was given by Richard Ortega.

The keynote speaker

was Col. (ret) Joe Kittinger, legendary aviator who holds the world's record for jumping from a balloon at 102, 800 feet. Thanks Joe!

The program concluded with all students singing the song "Up, Up and Away in my Beautiful Balloon" as they all flew their aeroprops provided by the ACE program.

CAP Receives International Honors

by John Lynn, CAP Liaison

Air Force auxiliary, will be awarded . collaborations. Past recipients ina World Peace Prize during a June : clude President Ronald Reagan of 14th ceremony at the U.S. Capitol. • the U.S., President Abdurrahman • often the first on the scene, transmit-Wolff announced CAP will be hon- amongst others. ored as the World Peace Corps: ington. D.C.

make a profound difference in volunteer emergency organizations. America's communities, saving . Peace Prize recipients for 2010.

ing to the core spirit of advancing . cur, CAP's citizen volunteers are . ties to serve their fellow citizens."

Civil Air Patrol (CAP), the U.S. • peace and justice and inter-religious

Mission's "Roving Ambassador for · versary on Dec. 1st. It has been · plays a leading role in aerospace Peace" at the ceremony in Wash- . conducting humanitarian missions . education and serves as mentors to from the early days of World War II: the more than 26,000 young people "Civil Air Patrol makes a huge • and is considered by many as the • currently participating in CAP cadet impact, going above and beyond to : world standard for aviation-oriented, : programs.

lives and preserving liberty for all," CAP performs 90 percent of conti- ternational honor," said Maj. Gen. said Wolff, in announcing the World 'nental U.S. inland search and rescue 'Amy S. Courter, CAP's national • missions as tasked by the Air Force • commander. "This reflects greatly The awarding council for the : Rescue Coordination Center. When : upon our 61,000-plus members, who World Peace Prize operates accord. • natural or man made disasters oc. • work diligently in their communi-



Chief Judge of the World Peace . Wahid of Indonesia and President . ting digital images of the damage Prize and retired U.S. Rep. Lester 'Kuniwo Nakamura of Palau, 'within seconds while providing di-• saster relief and emergency services CAP celebrated its 70th anni- for victims. Civil Air Patrol also

> "Civil Air Patrol is delighted In its Air Force auxiliary role, • to be chosen for this prestigious in-

We welcome YOU to join and participate in the Central Florida Chapter of the Air Force Association!

Membership News

To help keep our organization strong, each and every one of us should always be on the lookout for new members. The prospect list is rich: newly retired Air Force members, recently separated veterans, families of Air Force members, and just about any citizen concerned with a strong national defense.

"Our best recruiter is you!"

Tell our AFA story...

Telling "our" AFA story is easy when you consider the many things that our Chapter and other chapters around the nation are doing!

From Aerospace Education to educating Congress. From Veterans support to our support of Teacher Workshops. AFA is a key in motivating young men and women to become "our" Air Force of the future.

Let others know and they will want to join our AFA team.

How YOU can do it too...

When you find a candidate, there are some easy ways to help them join our great organization. Besides sharing what great things we do -- give them an application and ask them to complete it. Copies of the AFA application are available:

Printed — There is one in every FlightLiner. Cut it out and give it to a friend.

Online—Go to www.centralflorida.afaflorida.org and click the "Join Now" link down the left side.

Phone / Email —Contact the membership chairman (**Tommy Harrison**) to complete an application. Call 407-886-1922 or Email: tgharrison@aol.com.

Follow up...

You really want them to join, so follow up, welcome them, and again, share the AFA story.

AFA APPLICATION

Check here if renewal.

AFA

NAME	RAI	RANK (if applicable)			
ADDRESS					
CITY	STATE	ZIP			
Central Florida Chapter #303					
AFA CHAPTER CHOICE	D	ATE OF BIRTH			
PHONE EMAIL AD	EMAIL ADDRESS				
I understand the annual \$45 fee includes Magazine. AFA dues are not deductible as deductible as an "ordinary and necessary"	s a charitable cor	ıtribution but may be			
U.S. National Guard U.S. Reserve	Previous U.S. N Spouse/Widow Ancestor/Desc	(er)/Lineal			
Retired 0.3. Affiled Forces		vice w/ U.S. Military			

CURRENT PROFESSION

- . Aerospace Industry
- . U.S. Government
- Retired
- Other

MEMBERSHIP OPTIONS

- \$45 for 1 year
- \$110 for 3 years

• .

- **Life Membership** \$600 single payment
- \$630 extended payments
 - . Initial payment of \$90 and 4 quarterly payment of \$135 each
 - Initial payment of \$90 and 8 quarterly payment of \$67.50 each

DONATION

I wish to include a charitable donation to support AFA and its mission to promote Air Force Airpower.

\$10 # \$25 # \$50 Other \$_ Contributions to AFA are fully tax-deductible for Federal income tax purposes.

METHOD OF PAYMENT

- . Check enclosed (not cash)
- MasterCard
- . American Express

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Operations

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Retired

_ VISA

Account Number

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Expiration Date

Membership Info:

Tommy Harrison

tgharrison@aol.com or call 407-886-1922 Please mail application to:

Air Force Association

501 Lee Hwy Arlington, VA 22209-9963

Gala R&D Awards

(continued from page 1)

search and Development. During the Gala, several key organizations and personnel will be highlighted for their innovative efforts to "push the envelope" in critical R&D areas. It is important to note that these revolutionary breakthroughs were only possible due to the collaborative efforts between government organizations, industry and their academic partners.

The following represent this great endeavor:

Guided Munitions

The desire to increase the accuracy of airborne munitions has existed almost as long as there has been manned flight. Early efforts that predate WWII have now blossomed to the point where today's laser and Global Positioning System (GPS) guided : munitions can provide a single aircraft the same effectiveness as squadrons of World War II bombers. These amazing R&D efforts enable our Air Force to maximize target damage, minimize collateral impact - all, while reducing the number of aircraft and crew put in harm's way.

Human Effectiveness

As R&D efforts rapidly advanced the hardware and software available to the Air Force, it became imperative that similar advances in Human Effectiveness were needed to allow our Airmen to fully utilize: each new breakthrough. From cockpit design to Aircrew Resource Management. to improved G-force tolerance, Human Effectiveness R&D proved to be just as important as any state of the art aircraft or weapon. Other critical areas of Human Effectiveness R&D include: ejection seat research, laser eye protection, night vision goggle systems, helmet / visual target tracking systems and automatic speech recognition technology.

Low Observables

Low observable, or stealth aircraft refers to design features to reduce identification and tracking by radar, but also in visual and/or acoustic signature. In public perception, stealth is equated with the most modern, high-tech aircraft, but the roots of tific Research explored the application of the theories of high-frequency electromagnetic scattering to the reduction of aircraft radar cross sections. The U-2 and SR-71 aircraft were early attempts at stealth design. From the F-117 to more contemporary low observable aircraft like the B-2 and F-22, modern stealth aircraft have all benefitted from the basic principles and early experimental findings done over the course of several decades by the Air Force laboratories.

Precision Navigation

The convenience of a GPS portable navigation unit in your car is almost taken for granted today; however, many of us would be lost if not for the synergistic R&D efforts made by the USAF, industry and academia. These efforts began in the early 1920s when McCook Field engineers devised the radio beacon navigation system, which was later adopted by the Department of Commerce as the basis of air traffic control routes throughout the continental United States. During the 1960s, earlier systems evolved from systems for point-to-point navigation to systems providing precise velocity measurements necessary for the accurate navigation of aircraft and weapons alike. Indeed, Inertial Navigation Systems are still standard equipment in the Air Force's tactical and airlifter fleets and many ISR platforms. Ultimately, the technology of the ballistic missile and the communications satellite led to development of the "great enabler" of not only all modern precision navigation but the very concept of "battlespace," the Global Positioning System (GPS).

USAF Scientific Advisory Board

Following World War II, the speed of technological advances made it apparent that oversight was needed to help direct, steer and focus the almost infinite R&D possibilities available to pursue. To help fulfill this need, the Air Force Scientific Advisory Board (SAB) was formed by Gen Hap Arnold. The SAB provides independent advice on matters of science and technology relating to the Air Force mission and reports directly to the SECAF and CSAF. With visionary members like Theodor Von . Kármán, Jimmy Doolittle and Hans Mark, the technology go back many years. In the • the SAB provided forward looking advice



weather forecasting, satellite communications, medical research and unmanned aircraft. Today, the SAB focuses on future technology through in depth reviews of Air Force Research Laboratory science and technology developments and its studies of topics tasked by the SECAF and CSAF. These efforts serve to inform Air Force leadership and influence science and technology adopted by the Air Force.

Dr. Hans Mark

Dr. Hans Mark has been pivotal to the success of numerous R&D programs affecting the USAF for more than six decades. After earning his Doctoral Degree in Physics from the Massachusetts Institute of Technology, Dr. Mark was focused on teaching, consulting or leading R&D programs. He has served as the chairman of the Department of Nuclear Engineering and administrator of the Berkeley Research Reactor, the director of the Ames Research Center (NASA) and was the 13th Secretary of the Air Force. Dr. Mark was also indispensable to government and industry where he served as a consultant to the Institute for Defense Analysis, the National Science Foundation, the U.S. Air Force Science Advisory Board, the President's Advisory Group on Science and Technology and the Defense Science Board. Dr. Mark not only participated in Air Force R&D, but has also developed the oversight that provides direction to the overall R&D process.

Three Key Players...

The R&D areas cited above provide but a small example of the numerous advances that have made our Air Force what it is today.

Even more critical in today's budget constrained environment, this 3-pronged R&D attack by **academia**, **industry** and the **USAF** continues to ensure the maximum early 1950s, the Air Force Office of Scien- on technologies such as supersonic aircraft, efficiency and effectiveness of our Air Force.



Lessons from Libya

Adapted from an interview with John Michael Loh, General, USAF Retired



Because NATO planners wisely focused on our areas · lites. of greatest strength — like air strikes and reconnais-: at a fraction the cost of the Afghanistan and Iraqi: investment we need to extend our advantage in the skies. conflicts. Most important, the fighters who captured • their long-term stability.

The lesson for future conflicts is clear — U.S. • with a problem like Libya might regret.

The end of Moammar Gadhafi's reign is a great · military action abroad should be conducted from the air victory for the people of Libya and everyone who loves: whenever possible, where we have an overwhelming freedom. It is also a proud moment for NATO and the • advantage — one that has grown even larger in recent West — it wasn't an easy decision to launch this effort. : years with the growth of modern fighters, precision-One aspect of the campaign bears special notice. * strike, reconnaissance drones, and high-resolution satel-

Unfortunately, experts are warning that the defense sance — and left the ground war to local forces, we have · cuts being considered in Congress would put these adreached this milestone without any U.S. casualties and : vanced capabilities at risk, and threaten the research and

As a former Air Force vice chief of staff and former Gadhafi in the end were Libyans. That bodes well for : commander of Air Combat Command, I think that would be a mistake — and one the next president faced

Mike Dunn, President and CEO of AFA, was also interviewed back in late August on NPR about Operation Unified Protector (OUP) [Libya]. Here were his main points, plus some later comments:

- Airpower played a significant role in any suc-. cess the rebels may have had
- In modern warfare, no Army has ever won it is and other comparable operations. without control of the skies
- advance into Tripoli without Airpower
- Things that went well: political resolve, sustained operation, small loss of life
- Things that could have been done better: sortie rate (150 per day) was too low to have a more devastating effect; costly effort by using TLAMs in the opening: days
- long and bloody occupations.

The question of the length of a US-led operation caused me to pause ... and then to do some analysis of

There are some very important points to make: • The rebels would never have been able to • Mass and numbers matter in an Air Campaign. The more aircraft in an operation, the more likely it is to finish quickly ... and the less loss of life.

> Most air campaigns conduct attacks against 15,000+ aim points. In OAF, 23,000 bombs and missiles were launched.

So, as the Pentagon looks to cut its budget, it should remember our experience with the past. A former boss • Airpower has the potential to keep us out of: of mine liked to quote George Santayana: "Those who cannot remember the past are condemned to repeat it."

----- Cut Here



To be Received by February 13, 2012

AIR FORCE GALA - FEB 24, 2012

Rosen Shingle Creek Hotel 9939 Universal Blvd, Orlando, FL A special AFA member (non-business) rate has been established for this prestigious black-tie dinner celebrating

	Please reserve	tickets	ω	$$150.00 \text{ each} = $ ___$
Name:		Email o	r Pho	one:

Make check payable to: AFA-CFC Gala

Mail to: Bryan B. Paul, CFC Treasurer, 1214 Swan Street, Winter Springs, FL 32708-4108

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2012-1



Our Community Partners Are Special!



The Central Florida Chapter proudly associates with our community through the Community Partner Program. We encourage all our members to support these businesses that support us.

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