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# CHAPTER AND AFA HELPING OTHERS!

# Chapter Brings STEM to the Classroom!

by Todd Freece, Executive Vice President

Fifth graders at Orlando's Avalon Elementary School have never known a world without the Global Positioning System. Using a cell phone or checking the car's navigation unit, they can answer the age old questions themselves, "Are we there yet?," or "How much longer?" (but probably still ask anyway).

Information from the Global Positioning System (GPS) is ubiquitous. Cell phones and other mobile electronic devices contain GPS receivers to provide highly accurate timing and geo-coordinates anywhere in the world. The theory and tech-

See AFA STEM page 9

# Chapter Officers Ready to Lead!

Congratulations to our 2017/2018 chapter officers. We all wish them the best as we join them in a new year. They all have exemplary experience and abilities to continue the success of our chapter.

President
Todd Freece
Executive Vice President
Sharon Branch
Secretary
Christina English
Treasurer
Tim Brock

Awards and Installation Luncheon - Make it a Date! Saturday, September 30th 11:30 Social, 12:00 Lunch

AFA Members and Guests Welcome!

Reserve Your Spot Now!

(See the Info and Reservation Form, page 9)

### Martin H. Harris Chapter Mission

Our mission is to promote a dominant United States Air Force and a strong national defense and to honor Airmen and our Air Force heritage. To accomplish this, we:

- *EDUCATE* the public on the critical need for unmatched aerospace power and a technically superior workforce to ensure U.S. national security
- *ADVOCATE* for aerospace power and STEM education
- **SUPPORT** the total Air Force family and promote aerospace education

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To All!

It's official! The Central Florida Chapter is now the Martin H. Harris Chapter. At the June General Membership Meeting, the members present voted unanimously in favor of the name change to honor a great friend and leader, "Mr. AFA" Marty Harris.



My tenure as Chapter President is winding down and as this is my final FlightLiner, I am eternally grateful to the Chapter program leaders and loyal chapter members for their extremely hard work and dedication to our AFA mission. The Chapter's many accomplishments only happen because of you. Keep up the great work!

I would like to take a moment to thank the other Chapter officers for their devotion to their leadership duties and their support during my time as your President. **Todd Freece** is a great leader with highly professional and personal skills. He is so dedicated to the AFA and had his hands and mind in all of our events. His time as Executive Vice President definitely prepared him to be your next President. I am confident the Chapter is in great hands.

**Tim Brock** has been unbelievable to work with as our Chapter Treasurer. There is an amazing amount of work that goes into ensuring the books are accurate, especially with a chapter of our size and financial involvement. Additionally, he serves as the AFA National Secretary and StellarXplorer Program Director. **Tim** brings a wealth of AFA experience and I am forever thankful for his guidance and wisdom.

**Jim DeRose** has served as the Chapter Secretary for the past 24 years... true dedication! He has meticulously documented the Chapter meeting minutes preserving the chapter's history and ensuring that the meetings operated smoothly. Jim's leadership and guidance was instrumental in keeping the Chapter on track.

I also want to say a special thanks to the members of the EXCOM. These folks work tirelessly to make our Chapter run. They have provided great advice to me for the past two years. I truly appreciate their leadership guidance.

I am looking forward to working with our 2017/2018 seasoned Chapter officers: **President - Todd Freece**, **Executive Vice President - Sharon Branch**, **Secretary - Christina English**, and **Treasurer - Tim Brock!** The Chapter will install our new Officers and recognize our award recipients in September at the Awards & Installation Dinner.

Thank you again!

Gary Lehmann

## Orlando VA Hospital Needs Volunteers!

Volunteer Today! Get more information at <a href="https://www.orlando.va.gov">www.orlando.va.gov</a> Click the "Volunteer" link (on left) or call the Voluntary Service Office 407-631-0135

The FlightLiner is published at least quarterly by members of the Air Force Association, Martin H. Harris Chapter, P.O. Box 533086, Orlando, FL 32853. The Chapter is a non-profit, 501(c)3, civilian organization, not associated with the Department of Defense. The views expressed do not necessarily reflect the views of the Martin H. Harris Chapter, the Air Force Association or the Dept. of Defense.

# AFA MARTIN H. HARRIS CHAPTER HALL OF FAME

Many Martin H. Harris Chapter members have accomplished exemplary service for our Chapter, our State and our Nation throughout this and past years. We want to recognize them for their service to AFA!

Chapter Awards

Thanks again for the many members who helped!

### AFA Florida State/Region

Exceptional Service Award for Aerospace Education Exceptional Service Award for Best Single Program Exceptional Service Award for Communications Exceptional Service Award for Overall Programming

> Individual Awards Congratulations to each of you!

#### AFA National

Christina English - Exceptional Service Award AFA Florida State/Region

Sharon Branch - Florida Member of the Year Christina English - Exceptional Service Citation Gary Lehmann - Sustained Service Citation AFA Martin H. Harris Chapter

Todd Freece - Chapter Member of the Year Eric Yuhasz - Chapter Teacher of the Year

### **YOUR Chapter Council Meetings**

The Chapter Council holds an informative meeting on the second **Thursday** of each month at 7pm at **Atlantic Aviation** (old Showalter) building at the Orlando Executive Airport.

All members are welcome.

Please check the calendar (to the right) for specific date 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 November 9, 2017

### Events alendar

#### September 2017

4 Labor Day

14 \*Chapter Council Meeting

15 National POW/MIA **Recognition Day** 

16-17 AFA National Convention in DC

18-20 Air, Space & Cyber Conference in DC

30 Chapter Awards Luncheon Hilton Hotel, Altamonte Springs

#### October

9 Columbus Day

12 \*Chapter Council Meeting

#### November

9 \*Chapter Council Meeting 10 Veterans Day

11 Veterans Day Parade

(Downtown Orlando) 23 Thanksgiving Day

December

2 Chapter Holiday Dinner
Hilton Hotel, Altamonte Springs
14\*NO Chapter Council Meeting
25 Christmas Day

# January 2018 1 \*New Years Day

11 \*Chapter Council Meeting 15 Martin Luther King Holiday

February

8 \*Chapter Council Meeting

19 President's Day

21-23 AFA Air Warfare
Symposium(Shingle Creek)

21 CFC Golf supporting AWS

22 CFC Gala

23-24 AFA FL State Meeting
in Orlando in Orlando

\* See details in this newsletter

### Teacher of the Year

by Sharon Branch, VP, Aerospace Education

**Mr. Eric Yuhasz** is the Martin: H. Harris Chapter 2017 Teacher of the Year. Eric teaches 6-8th grades at Howard Middle School in Orange: County where his students learn about :

engineering and aviation in a new Science, Technology, Math, and Engineering (STEM) lab that he created at the school.

**Eric's** trip to the US Space and Rocket Center in 2008 was a defining moment in his career. As a result, he uses curriculum and methods adapted from Project Lead the Way to craft his classroom activities.

Because of Mr. Yuhasz's desire: Additionally, through to build an army of problem solvers, the content of his classes is based: around the engineering design pro-: his master's degree, he cess. Stepping into his classroom: teaches his students

on any given day, the students will be building and programming robots, designing parts on a 3D printer to fix their drone parts, and flying state of the art simulators. Teaching this lab puts him in the ongoing role of STEM ambassador for his school. There is rarely a day that goes by that a new visitor doesn't come to his classroom to observe all that is happening.

Through his community contacts, Mr. Yuhasz was put in touch with a group called the American Radio Relay League (ARRL). This connection led to one of the most exciting events thus far in Mr. Yuhasz's career. In conjunction with the ARRL, **Eric** set up a ham radio station and initiated student contact with an astronaut on the ISS. This event took over two years of coordinating and planning, but in February 2011, twelve of Mr. Yuhasz's students were able to talk live with an astronaut on

wide and community event with over 300 people in attendance.

Due to his insatiable desire to learn, Eric pulls in content from all areas of his life, and uses it to enhance

> his students' learning experience. For example, in 2011, he obtained his pilot's license. Since then. information from his fly-

course. This helps bring to life abstract flight concepts like stalling the plane.

: a college course he took for fun after obtaining

> how to build and pro-: gram robots called Boe Bots. This is the capstone to his 8th grade classes after they have learned another form of robots and circuitry.

Mr. Yuhasz realizes that learning goes well beyond the borders of his classroom and the: limitations of his own:

content k n o w 1 edge. This

: is why community involvement is paramount to him creating a fully immersive STEM classroom.

In the 2016-17 school year. Eric took his students on a weekend field trip to Patriots Pointe (near Charleston, SC). There, his students spent two

nights on an aircraft carrier learning: moment he steps out of the classroom.

Additionally, **Eric** constantly nurtures relationships in the community to further engage his students. One such relationship is with individuals from Lockheed Martin. Multiple engineers associated with Lockheed came and presented to his class. They discussed their roles on a current space craft that launched recently, called OSIRIS REx. He also arranged to bring in some students from Florida Polytech University to ing experience is pulled: showcase their work with drones and into his flight and space: robots. This is an ongoing effort to

inspire students to enter into the STEM career fields.

In addition to his own education and community involvement, Eric continually plugs his students into more authentic opportunities where they get to flex their STEM muscles. In the spring,

his students were part of a competition hosted by the Florida Solar Energy Center. For this contest, the students were to design, build and market a product that was powered from a 75 watt solar panel. The students built the CP-PG or Cerebral Palsy Playground. The CP-PG has multiple interacting parts allowing a child with cerebral palsy to work on fine motor skills including a bubble blower and mechanical track. The

> CP-PG was a big hit at the competition and was repeatedly praised for all the safety measures taken by the design group so the child can have the utmost fun! His students took first place at the Energy Innovations competition.

Fire is contagious! There is no doubt Eric's fire about learning translates to his students being on fire to learn. His desire to inspire does not stop the

about applications of STEM in the : He continually looks for community real world. And this is just one of: involvement and innovative ways to the ISS. It wound up being a school: many field trips he has orchestrated! : fuel his students' passion in STEM.





# Chapter Members Attend AFA State Convention

Todd Freece, Executive Vice President

traveled to MacDill AFB in Tampa to attend the Summer AFA State Convention on 15 July. Chapter officers and representatives from nine of the fourteen chapters were present for the event. Convention meetings were held at the Bay Palms Golf Course Clubhouse on MacDill AFB and most AFA members were able to stay in the MacDill Inn lodging facility.

During the morning sessions, members reviewed and approved the AFA State budget and elected a new set of AFA (Florida) state officers to take charge in October. Sharon **Branch** will serve as the next AFA State President and Gary Lehmann will continue to serve as the State Treasurer. Both **Sharon** and **Gary** are from our own Martin H. Harris Chapter. Mark Chapman from the Hurlburt Chapter will serve as the State Executive Vice President and Ben Langer, Red Tail Memorial Chapter, will serve as Secretary.

The group also determined the dates and hosts for the next several State Conventions and Winter Meet-The Winter State Meetings will continue to be associated with the Air Warfare Symposium and will no longer be associated with the AFJROTC Drill Meet. This will allow members to attend both the Air Warfare Symposium and the State Meeting in a single trip while also providing an opportunity to have representatives from AFA National attend and meet state members. The Martin Harris Chapter will host the next Summer State Convention in Orlando in July 2018. The Red Tail Memorial Chapter will host the 2019 Summer State Convention.

The AFA National Convention will be held in Washington D.C. September 16-17, 2017. The State will host a hospitality suite again during the convention. Larry Belge from :

Several members of our chapter: the Falcon Chapter will operate the: State's hospitality suite this year giving: Tommy and Marty Harrison a much needed reprieve! Mark Tarpley from Oklahoma is running for an At-Large position on the AFA National Board of Directors. Mark travelled to Tampa to meet with the Florida members and describe his vision for the future of AFA. In addition to Mark, the AFA Vice Chairman of the Board for Field Operations, Mac Mac Aloon (Tyndall Chapter) also addressed the state members and provided excellent insight into some proposed changes in governance to be considered at the National Convention.

AFA National Executive Vice



Gary Lehmann (right) receives State Sustained Service Citation

President Denise Hollywood spoke to the attendees over lunch. Denise presented a detailed overview of National operations and discussed plans to address serious budget shortfalls impacting the mission of AFA. Falling membership numbers and steeply declining ad revenue from the AFA Magazine have adversely impacted the ability to fund the administration of AFA programs. **Denise** is looking to grow revenue from exposition halls at AFA Symposiums along with controlling expenses by proposing changes for the magazine, membership rate structure, and Chapter support payments. There are some tough decisions ahead so attend the National Convention if you can!

The State Convention wasn't i makes a difference!

business. Chapter members from across Florida were able to catch-up

and share ideas at the bar in the MacDill Inn. Whoever thought of putting a bar in the lodge lobby was a genius – just a short walk back to your room! On Saturday evening, the members attended dinner at the Surf's Edge Club on MacDill and heard from guest speaker Brigadier General Robert Armfield, the Deputy Chief of Plans for USCENTCOM Headquarters. General Armfield gave us all a deeper understanding of the combat operations directed by USCENTCOM and the furious battle rhythm maintained by the staff. Because of the time zone differences, most of the key staff begin their work well before sunrise and have to juggle simultaneous operations in five different areas of the Middle East every day with little opportunity for time away. He stated their ops tempo is like being deployed but you occupy the same house as your family. It made us all appreciate the efforts of those still serving the nation on active duty.

The State Convention would not be complete without the award presentations. Christina English received the State Exceptional Service Award and Sharon Branch received the State Member of the Year Award. Todd Freece received the Chapter Member of the Year Award, and Gary Lehmann was awarded the State Sustained Service Citation. The Martin H. Harris Chapter earned Exceptional Service Citations for Aerospace Education, Best Single Program, Communications, and Overall Programming. Thank you to all that support the AFA Mission in Central Florida, your participation

#### Largest Class is Commissioned...

Capt Erik Mulkey, Det 159

# May 2017 - Det 159 UCF ROTC (below) commissions largest class - 36 new 2nd Lts!

This is a sign of the times! As the Air Force faces shortages in officers, the AFROTC program is temporarily allowing juniors, seniors, and graduate students to complete an AFROTC curriculum training program designed to complete commissioning in just 1 - 2 years.



#### Vietnam War Documentary - Sep 17+ Bonnie Callahan, AFA National Director Emeritus

**Premiering Sunday, September 17, 2017**, at 8 PM, on PBS, including our local Orlando PBS WUCF TV (Spectrum channel 2). This landmark ten part series, codirected by **Ken Burns** and **Lynn Novick's**, is an 18-hour documentary on THE VIETNAM WAR.

THE VIETNAM WAR tells the epic story of one of the most consequential, divisive, and controversial events in American history as it has never before been told on film. Visceral and immersive, the series explores the human dimensions of the war through revelatory testimony of nearly 80 witnesses from all sides - Americans who fought in the war and others who opposed it, as well as combatants and civilians from North and South Vietnam.

Ten years in the making, the series includes rarely seen and digitally re-mastered archival footage from sources around the globe; photographs taken by some of the most celebrated photojournalists of the 20th Century, historic television broadcasts, evocative home movies, and secret audio recordings from inside the **Kennedy**, **Johnson**, and **Nixon** administrations. THE VIETNAM WAR features more than 100 iconic musical recordings from the greatest artists of the era and haunting original music from **Trent Reznor** and **Atticus Ross**, as well as the Silk Road ensemble featuring Yo-Yo Ma.

The Vietnam war remains a historical event in history, yet it remains unfinished business. Although much has been written about the war, this series offers a conversation we've never had about the Vietnam War before, and will hopefully help our understanding of those events.

For more information, "Google" the keywords Vietnam War PBS

AFA APPLICATION	<b>AFA</b>	<b>APPLICATION</b>
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☐ Check here if renewal.

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PHONE	EN	MAIL ADDRESS		
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	\$75 3 years e-Membership (no print copy of Air Force Magazine)			
	\$45 for 1 year			
	\$110 for 3 years			
	\$22.50 for 1 year for: (please check one)  Current E-4 & below  Current GS-4 & below  Current WG-4 & below  Cadets (please check one)  Current E-4 & below  ROTC JROTC CAP Silver Wings  Other Students			
Life Membership  □ \$300 single payment for age 70+				
	\$400 single payment for e-Life (no print copy of Air Force Magazine)			
	\$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			
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<u>Tgharrison@aol.com</u>
or call 407-886-1922

Air Force Association 501 Lee Hwy Arlington, VA 22209-9963

# CAP Wing Conference - A Winner! Lt. Col. Jeffery P. Carlson, Florida Wing, CAP

The 2017 Florida Wing Con-: Activities. ference and Awards Banquet was recently held in Lake Buena Vista. : Over 300 Civil Air Patrol members attended senior member training, the cadet conference, awards banquet, change of command ceremony and enjoyed social opportunities with: fellow members.

of pre-conference training including in-resident courses for CAP Chaplain Corps and character development instructors, unit commanders, cadets leaders, inspector general, and mission radio operators. Additionally, 22 conference breakout sessions provided information covering a wide

range of support and opera-

tion functions.

The schedule included 75 hours : Major General Joseph Vazquez, as-

Major Christina English, the

project officer, explained that, "The

Cadet Conference is one of the pre-

mier events each year where cadets

have the opportunity to assume

leadership roles from planning the

conference to presenting the sessions."

CAP national commander,

Major General Vazquez, CAP National Commander (left) brings congratulations to all.

The Cadet Conference is also: held during the Florida Wing Conference with the training sessions presented by cadets covering topics such as public speaking, military etiquette, leadership through history, basic officership, and mentorship opportunities. There was a even a session

including CAP's most prestigious award, the Gill Robb Wilson Award to both Lt Col Ryan Livergood and Maj Joyce Lampasona. The General Carl A. Spaatz Award was presented to C/Col Viviana Angelini.

According to the Florida Wing reviewing the National Cadet Special: Director of Personnel, Capt Art:

**Stoutenburg**, the number of awards was more than double the normal number of awards. A lot of hard work by all members in the Florida Wing!

CAP Southeast Region Commander, Col Barry Melton, presided over the Change of Command ceremony. Leadership of Florida Wing's more than 3400 members transferred from Col Henry Irizarry to incom-

> ing Commander, Col Luis Garcia. Col Melton praised the leadership and membership of "the Nation's largest wing" as a "leader in operation tempo."

Col Michael D. Tyynismaa, Commander CAP-USAF, attended the event and thanked the "volunteer airmen" of Florida Wing for the service provided to the Air Force with an active tempo of diverse missions. Col Tyynis-

sisted with presenting some 85 awards: maa also recognized the nearly two decades of service by CAP-USAF liaison, Col. Jerry Angley, who retired earlier this year.

> Other distinguished guests at the event included Puerto Rico Wing Commander, Col Carlos Fernandez, and former Georgia Wing Commander, Col Richard Greenwood.

# Seminole AFJROTC Present Colors at AFA FL Meeting

by Seminole HS Color Guard Commander

Seminole High School AF-JROTC, Sanford, Florida, recently had the honor of presenting the colors at the annual AFA (FL) State Winter Meeting. In return, Cadets enjoyed a special benefit! All were seated at different tables with AFA and USAF leaders who shared many great stories and provided inspiring words of wisdom that were extremely motivational.

We learned more about the



Thanks to Seminole AFJROTC for presenting the Colors

programs they support.

Some were extremely fortunate: organization charter and various: to have been seated at the table with: presenting the colors of our Nation.

former Secretary of the Air Force, Whit Peters, who is now the Chairman of the Board for AFA, and the AFA President, General Larry Spencer, former Vice Chief of Staff of the Air Force, and many more outstanding people.

These leaders are great examples of not giving up! They are great mentors. We hope in future years our corps continues to have the honor of attending events like these and

### Veterans Business Initiative

Todd Freece, Executive Vice President

The Central Florida Disability Chamber of Commerce will kick-off their Veterans Business Initiative program in September 2017. The program is for veterans of any age looking to develop and refine their business acumen. Participants will receive the tools, knowledge and personal contacts needed to further their mission of establishing a meaningful career while advancing their education, and developing their entrepreneurial



skills. The 10-week program is held once a week at the National Entrepreneur Center at 3201 East Colonial Drive, Suite A-120 in Orlando, FL 32803. Participants receive job leads throughout Central Florida to assist with outcomes of placement, a veteran's job matching program, entrepreneurship education and training, financial training, personalized resume assistance, self-paced computer training, grant information, salary and job market information, and continuing education. For more information or to sign-up visit: www.cfdisabilitychamber.org/vbi/

# Next Step for RPAs (or UAVs)?

by Sharon Branch, VP, Aerospace Education

Just to clarify, the Air Force calls them remote piloted aircraft (RPAs) while the Army calls them unmanned aerial vehicles (UAVs).

# SO, what is the next step for these RPAs (or UAVs)?

Perhaps they will be used as a radar-evading vehicles that get into the enemies' air space and then relay back information regarding the threats to friendly air power. Since the USAF is hamstrung by budgeting, development of piloted jet aircraft is only a part of the Air Force strategy as sited in the "Air Superiority 2030 Flight Plan."

First, a look at how RPAs/UAVs have evolved. An article from the 432nd Air Expeditionary Public Affairs Office by **SrA A.K.** sites **Dr. Samuel P. Langley** as early as 1896 using the RPA to test whether sustained heavier-than-air flight was possible. In May 1896, **Dr. Langley** proved that mechanical flight was possible with his Aerodrome No. 5. (www.creech.af.mil, 7 Nov 13)

"It would seem that USAF RPAs suddenly appeared ex nihilo, but actually the history of USAF RPAs starts with World War II-era radio-controlled target drones. By the 1950s, unmanned research vehicles in the X-plane series were in use. The 1960s and early 1970s saw the intensive use of reconnaissance drones over North Vietnam and China, but by the late 1970s there were no operational RPAs remaining in the USAF inventory... yet in hindsight, during this period of inactivity, the seeds were planted for the USAF RPAs of today

Just to clarify, the Air Force calls: and the future." (**Kenneth P. Katz**, Katz remote piloted aircraft (RPAs) while: Aerospace Systems)

And then there's the name thing. Why do we have so many names for these aircraft? Colonel Martha McSally, USAF Retired, currently representing Arizona in the U.S. Congress, testified to a Senate Subcommittee in April 2013. Her take is that there is an information campaign against the U.S. forces that paints the RPAs as killing machines that have no human interface. She points out that there are many people who are responsible for making an RPA flight happen from the operators, maintainers, and logisticians, to the support personnel...just like with a manned aircraft. (www.shadowproof. com, 11 Oct 13)

In 1994, the General Atomics Aeronautical Systems, Inc., produced a medium altitude endurance "unmanned" aerial vehicle. "This new system was called the RQ-1 Predator and ... was used for long-endurance tactical surveillance." The RQ-1 was used in Hungary from 1995 to 1998 primarily for reconnaissance.

By 2001, RPAs were deployed in Afghanistan in support of Operation Enduring Freedom and Operation Iraqi Freedom. The RQ-1 was armed with Hellfire missiles and other munitions and became the MQ-1 Predator.

By 2011, the MQ-1, and its successor, the MQ-9, reached over 1 million total flight hours; by 2013, 2 million hours. The RQ-4 (called Global Hawk) is the current version of the Predator (which can be armed, if needed). And ALL these aircraft fly over 8,000 miles away from their pilots in the current conflicts.

#### Today, there are new challenges...

The demand for RPAs has increased but the people to operate them hasn't been able to keep pace. According to General Hawk Carlisle, Commander, Air Combat Command, "The surge that our RPA enterprise has experienced in recent history is now no longer a surge, but the new normal. It has become routine, and is taxing our airmen and our RPA enterprise beyond their limits. Sustained high operations tempo and the corresponding high levels of stress is negatively impacting the RPA enterprise. It is robbing our airmen of the quality of life necessary to withstand grueling schedules and maintain a healthy force." Now, many are leaving the force. (www. tyndall.af.mil/news; TSgt Steve Stanley, 17 Mar 16)

One way this problem is being solved is training the first enlisted RPA pilots. The first three enlisted pilots are expected to complete their initial training this month and soon begin operational missions operating the RQ-4.. The Air Force is taking a deliberate approach and slowly integrating the concept of an enlisted pilot cadre. (www.nellis.af.mil; A1C Tristan Viglianco, 30 Jun 17, and www.AFTimes, Stephen Losey, 6 Jul 16)

As with acquisition of any aircraft or weapon system, there are many variables that have an effect on the outcome of the use of the aircraft or system in the field.

Our Air Force is working to ensure the systems and people are in place to provide the most effective tools for the war fighter.

#### AFA STEM (continued from page 1)

nology supporting GPS is fascinating.

Todd Freece, our Chapter Executive Vice President, shares how GPS works to inspire the students to pursue careers in Science, Technology, Engineering and Math (STEM).

Science is cool...and loud! The presentation starts with the roar of rocket engines pushing a GPS satellite into orbit. Next, the class learns that compose the space segment of GPS – 18 satellites are required for global coverage. These satellites broadcast their position and the time from their onboard atomic clocks.

Finally, trilateration is introduced to explain how GPS receivers use this information to solve for their latitude, longitude and altitude on the earth by calculating the distance from other satellites. Classroom activities demonstrate how trilateration works about the constellation of satellites: so students can understand without having to perform complex math computations.

Inspiring students to join the technology workforce is a core AFA mission. By explaining the concepts of GPS in a simple and exciting manner, careers in STEM feel accessible and possible for a broad demographic of students.

If you would like to add a topic to the STEM in the Classroom series. please contact Todd Freece at

todd.freece@gmail.com

# Awards and Installation Luncheon - Make it a Date!

by Gary Lehmann, Chapter President

# Come join us!

Make your reservation today to join us for the Chapter Awards and Installation Luncheon on Saturday, September 30th, at the Altamonte Hilton.

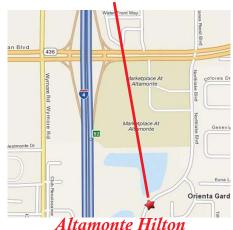
In addition to honoring the chapter and several individuals for their well deserved awards, you will have the opportunity to meet your AFA friends and incoming chapter officers.

The Hilton is in Altamonte Springs off 436 (just East of I-4) take North Lake Blvd south...

Social time is at 11:30am with a great lunch served at 12 **noon**. The Awards program will follow.

Please send in your reservation form (below) today and get ready for a great time!

**NOTE** Reservations are due no later than September 24th



350 North Lake Blvd.

Altamonte Springs, FL 32701

- Cut Here

#### Reservations for Awards and Installation Luncheon

Saturday, September 30th at 11:30 social, 12:00 lunch A great lunch is planned!

(Members and Guests are Welcome)

Please make your reservations today!

Reservations for the Awards & Installation at the Hilton Hotel, Altamonte Springs

Adults:	x \$ 15.00 = \$
Enclosed is my check for \$	made out to: AFA-CFC
	Vest Palm Valley Drive, Oviedo, FL 32765 : Todd Freece (719) 659-8326
Name	Ph:

To Be Received No Later Than September 24, 2017



# Awards and Installation Luncheon September 30th at the Hilton Make Your Reservations Today!





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# Our Community Partners Are Special! The Martin H. Harris Chapter proudly associates with our community through the

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



#### **Atlantic Aviation Services**

Orlando, FL AtlanticAviation.com/location/ORL

### **BAE Systems**

Orlando, FL BAESystems.com

#### **Cole Engineering Services, Inc**

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#### **The Contact Point**

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