



The SpaceTEC® National Resource Center continuously strives for a "Legacy of Excellence" by working through industry and educational partnerships to provide valid, relevant, error-free performance-based certifications for America's technical workforce.



## SpaceTEC® Talk

## June 2013

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A Message from the SpaceTEC® PI...

by Dr. Al Koller

As we move into summer, there are a ton of things happening, and you can read about many of them in this edition of SpaceTEC® Talk. I'd like to cover just a few very briefly, to wit:

- On April 5 the NSF ATE program awarded SpaceTEC® a four-year renewal grant for the National Resource Center. We are VERY fortunate to win a renewal during these difficult times, and we intend to do our best to meet and/or exceed every goal and expectation.
- In January, Stu Harris retired from NASA Langley, and in June, Pat Harris (Stu's wife) took retirement from Thomas Nelson CC. They were champions for our programs in Virginia, and we will miss them greatly, but they've left a rich legacy that will live on.
- To assure that, Dr. Michael Reynolds, interim Dean at Thomas Nelson, has joined our group and pledged to maintain the focus and the momentum of their program. We welcome him and encourage everyone there to retain the only 100% pass rate for SpaceTEC® certifications!
- Over the spring we gained two new partner

Mark McDougal,  
Tennessee  
Technology Center-  
Hohenwald

Dr. Michael Reynolds,  
Thomas Nelson C.C.

Brad Hanselman,  
Tulsa Technology  
Center

Vince Thomas,  
Dona Ana C.C.

Eddie Ellegood,  
Embry Riddle A.U.

Lee Brewster,  
NCATT

colleges - Tennessee Technology Center at Hohenwald and Eastern Shore Community College. Both now host CertTEC pilot programs.

- Two of our colleges are changing names and focus. Brevard Community College is adding four-year degree programs and becomes Eastern Florida State College on July 1st. Tennessee Technology Centers become Tennessee Colleges of Applied Technology starting July 8th.
- We have also added a new partner in commercial space - Mid Atlantic Regional Spaceport (MARS) in Virginia. Contrary to rumor, the space business continues to grow in size and activities. You can read more about that in the articles in this and future editions.

As you can see, we've been very busy and pretty successful as a host of changes take place. This is only the beginning folks, and we are certain that many new initiatives will unfold over the next few months. Please check our websites at [www.spacetec.org](http://www.spacetec.org) and [www.certtec.com](http://www.certtec.com). Enjoy!

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## Quick Links



**CERTTEC**



[ICAC Press Release](#)

[Best-In-Us Website](#)

[FAA Safety Approval](#)

[FLORIDA SPACErePORT](#)

[Nida Corp.](#)

[Mid-Atlantic Regional Spaceport](#)

[NCATT](#)

[ETA-I](#)

[NCATC](#)

## Program Activities of Note

### Interns at SpaceTEC HQ

SpaceTEC® HQ has been the fortunate recipient of interns from the Eastern Florida State College (formerly BCC) Aerospace Technology program who participated in a program designed to apply knowledge and skill acquired in the classroom to a real-world production environment. Upon recommendation of the instructor, SpaceTEC® Co-PI Bill Fletcher, two students from the 4<sup>th</sup> semester Structural Fabrication 2 course spent six weeks utilizing skills acquired in vacuum bagging basics, composites machining, drilling, and repair to create test specimens for Composites Examiner Test Kits. In addition to classroom skills in composites fabrication, upon completion of the semester interns were evaluated by SPI staff for core skills such as promptness, timekeeping procedures, and shop etiquette.

BEE Test Card Sets

V Ae

CSS-Dynamac

Lockheed Martin Space Systems

Bionetics

Space Coast Energy Consortium  
CCTS

CCID

Space Florida

SpaceX

Abaris

STC

ATK

HRSS

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SpaceTEC partners Inc. (SPI) took a significant step forward developing infrastructure to support a projected increase in Basic Electricity and Electronics (BEE) testing activity in the second half of this year. To learn about possible future Certification opportunities, click [here](#).

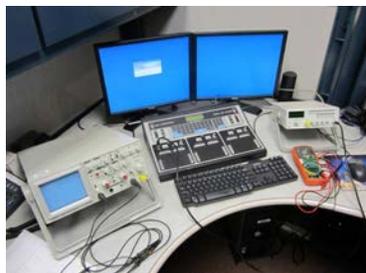
An additional improvement underway is development of test modules to certify the test cards prior to release for certification at the partner sites. Upon completion of the process, over 1300 cards with multiple test points will have been tested for proper operation following delivery from Nida. One testing module is being developed for each type of card in the set (DC, AC, Analog, and Digital). The development effort is the brainchild of SpaceTEC BEE consultant Mr. Robert (Jerome) Folmar, EFSC Melbourne campus Basic Math instructor (and retired electrical/electronic design engineer). Pictured below.



### CertTEC® Basic Electricity and Electronics (BEE) Certification

The CertTEC® Basic Electricity and Electronics (BEE) Certification became fully operational in the first quarter of 2013 with testing conducted for Veterans Assembled Electronics (VAe) students in Cape Canaveral, FL and Tennessee Technology Center-Hohenwald students in Hohenwald, TN.

[Read](#) more about the BEE Certification.



BEE Pilot Programs

Noble Drilling completed a BEE pilot program and CertTEC has submitted a formal proposal for certification of their Electronics technicians. Under the proposal, Noble Drilling will certify all technicians going through their training program before they go out to the oil rigs.



Pilots underway at Tennessee Technology Centers at Crossville, McKenzie, and Whiteville.



Eastern Shore Community College will begin a pilot program of the BEE Certification.



#### EFSC BEE Initiative

CertTEC® is underway with a Basic Electricity and Electronics (BEE) initiative at all four Eastern Florida State College (formerly [Brevard Community College](#)) Campuses. Equipment in place proctor identified at Palm Bay campus. Mark Gaedcke, SpaceTEC® Quality Specialist attended a meeting with Career Center Coordinators at the Melbourne campus where he briefed the attendees on the process for administering BEE Industry Aptitude Surveys (IASs). This baseline student/industry survey, which assesses a student or local area candidate's electronics aptitude, will be rolling out at all Eastern Florida State College Career Center locations soon.

#### Composite Kits

SPI recently assembled and shipped two Composites Examiner testing kits to the Washington Aerospace Training and Research ([WATR](#)) Center located at Paine Field in Everett, WA this past April. Funded through [Edmonds Community College](#) and the Dept. of Labor Trade Adjustment Assistance Community College and Career Training ([TAACCCT](#)) grant program, the kits will support testing and certification activities for students pursuing a career in aerospace by undergoing training in the WATR center 12 week program.



Calhoun Community College Prepares Boeing Employees for SpaceTEC® Core Certification  
A group of Boeing-Decatur employees have begun preparations for the SpaceTEC® Core Certification. Led by Calhoun Community College Aerospace instructor, Mr. Keith Davis, the group is attending a 6 week classroom readiness course. To read more about the Boeing students, click [here](#).



Examiner Update  
Keith Davis, an instructor at Calhoun Community College in the Aerospace Technology program has become SpaceTEC® Core certified. Keith also completed all the requirements to be a SpaceTEC® Core Examiner.



CNC Practical Exam Development Effort Underway  
Joe Williams, CNC instructor in the [Machine Tool](#)

[Technology program at Calhoun Community College](#), Decatur, AL has signed on to help create CNC practical exams for both the current SpaceTEC® Manufacturing Concentration CNC Machining endorsement and CertTEC standalone CNC Machining Certification presently under development. With his many years of experience in the machine tool industry, the addition of Mr. Williams as a subject matter expert is a positive step in strengthening this important credential.



#### Commercial Aviation Composites Repair Committee (CACRC)

Steve Kane participated in the Commercial Aviation Composite Repair Committee education subcommittee meeting at the Boeing Training Facility in Miami, FL in February.

[Read](#) more about the CACRC meeting.

AMRDEC PIF @ Redstone Arsenal, AL  
Greg Mellema, Project Lead (and CertTEC Composites Examiner) at the U.S. Army Aviation & Missile Research, Development and Engineering ([AMRDEC](#)) Prototype Integration Facility (PIF) at Redstone Arsenal, AL has been working with SpaceTEC® HQ on a professional development initiative to baseline civil service and contractor employees using the CertTEC Basic Composites certification. Following successful completion of the initial certification, Greg will now oversee contractor and civil service technicians, supervisors and instructors as they prepare for the Basic Composites certification exam. The Redstone PIF designs, prepares and deploys rapid response solutions for composite damages to war fighters in the field.



## Major Changes/Developments of Interest

### Recertification Requirement

In order to establish expiration dates and a process for renewal to meet a cornerstone requirement of ISO17024 Standard for Accreditation of Certifying Bodies all certifications now carry a 3 year expiration. [Read](#) more about recertification.

## Special Events/Achievements

### Grant Renewal

SpaceTEC<sup>®</sup> recently received word of the renewal of the continuing grant from NSF to continue support for the National Resource Center. The award is effective April 1, 2013 and expires March 31, 2017. In its Award Letter, NSF stated "Congratulations on receiving an Advanced Technological Education (ATE) award." NSF cited DUE-130395, a grant proposal submitted in October 2012 to continue support of the SpaceTEC<sup>®</sup> National Resource Center on scientific/technical merit" as the reason for the award and further stated "we have confidence that your project will bring significant improvements to technician education."

Of approximately \$181 million requested for projects, centers, and targeted research only \$64 million was available in FY 2013 and of that, only approximately \$31 to \$36 million was available to begin new awards.



### 2013 HI-TEC Conference

SpaceTEC<sup>®</sup> staff will be traveling to Austin, TX next month for the HI-TEC Conference.

HI-TEC is a national conference on advanced technological education where secondary and postsecondary educators, counselors, industry professionals, trade organizations, and technicians can update their knowledge and skills. Charged with Educating America's Technical Workforce, the event focuses on the preparation needed by the existing and future workforce for companies in the high-tech sectors that drive our nation's economy.



### 2013 TTC In-Service and ATEA Conference

Steve Kane and Dave Fricton traveled to Chattanooga, TN in March to present the CertTEC BEE program to Tennessee Technology Center faculty in an Electronics/Mechatronics/Industrial Electronics in-service session held concurrently with the 50th American Technical Education Association ([ATEA](#)) national conference. This year's conference was co-sponsored by the TCC technical education system and at the keynote address during the awards ceremony Wed. evening the TTC's (soon to be Tennessee Colleges of Applied Technology) were described as a national model for post secondary retention and completion of technology students. Following the session, several faculty members representing the majority of the TTC education system campuses visited the joint CertTEC<sup>®</sup>/ETA-I booths for additional information in the exhibit hall. The BEE certification is fully operational at TTC-Hohenwald. Pilot programs are presently underway at TTC-Crossville, McKenzie, and Whiteville.



### Career Planning at BCC

SpaceTEC<sup>®</sup> participated in the Brevard Community College Career Planning and Development Center Spring Job Fair in April. Students were able to meet with SpaceTEC<sup>®</sup> staff who shared information about SpaceTEC<sup>®</sup> and its certifications and programs.



### Technician Recognition Awards

Calhoun Community College, in conjunction with several local aerospace industry partners honored outstanding aerospace technicians during the 5th Annual Aerospace Technician Recognition Awards dinner held April at the [U.S. Space and Rocket Center's Davidson Center for Space Exploration](#). The event is one of the premier activities in that region designed to recognize and honor the many significant contributions of the local aerospace technician workforce. Guest speaker for the event was author and former NASA engineer [Homer Hickman](#).

The highlight of the evening was the recognition of each sponsoring company's Aerospace Technician of the Year and the presentation of the [2013 Regional Aerospace Technician of the Year](#) honoree, selected by representatives from each sponsoring company. In addition to Calhoun, sponsoring organizations for the event were: AI Signal Research Inc., ATK, The Boeing Company, ERC, Inc., INFOPRO Corp., SpaceTEC, and United Launch Alliance.



## Space Coast Energy Symposium

SpaceTEC® participated in the [Space Coast Energy Symposium](#) in June at the Florida Solar Energy Center in Cocoa, Florida. It was the largest state-supported clean energy research center in the southeastern United States. The Symposium was a forum for accelerating the growth of commercial clean energy companies and jobs in Florida's Space Coast and throughout the state by linking new and expanding enterprises with the area's advanced industry and workforce, new clean energy programs and emerging global markets.



## New Developments/Future Plans

National Association of Manufacturers  
Manufacturing Institute (NAM MI)

Dr. Al Koller and Steve Kane traveled to Indianapolis, IN in May for a meeting with Jennifer McNelly of the Manufacturing Institute ([MI](#)), the leading research, education, workforce and services group supporting U.S. manufacturers. MI, recipient of a DoL grant, created the National Aviation Consortium ([NAC](#)), which aims to enable community and technical

colleges in five regions across the country to train 2051 students by Dec. 2015 to meet aerospace manufacturers workforce needs and close the growing skills gap. The meeting was held at the [180 Skills](#) facility in the Purdue Research Park, adjacent to the Indianapolis airport. 180 Skills is an NAC partner presently underway with curriculum development for the regional centers created as part of the effort. SPI is proposing development of an Aerospace Manufacturing Technician Assembly certification for the Washington Aerospace Training and Research (WATR) Center in Everett, WA, also a member of the NAC. For more information, visit <http://naccareers.com/>



Mid-Atlantic Regional Spaceport Agreement  
[Mid-Atlantic Regional Spaceport](#) and SPI signed a Letter of Understanding (LOU) on 5/28/2013 establishing a joint relationship between the Virginia Commercial Space Flight Authority and SpaceTEC Partners, Inc. for educational activities of mutual benefit. Both organizations will work to foster interest and participation in technical education, sharing resources such as curriculum and subject matter expertise, and providing mutual support for professional development activities and national credentialing/hands-on certification of the relevant technical workforce.



## Awards and Recognitions

## Graduates Mark Seven Decades of Langley's Apprentice Program

In 1943, NASA Langley's first apprentice class graduated. In 2007, the NASA Langley Engineering Technician Apprentice Program was rejuvenated. This year, the Center recognized it's first apprentice graduates since 1998. This class marks the 70th Anniversary of NASA Langley's Apprentice Program. The honorees were recently converted to permanent employees who work in Langley's Engineering Directorate. Their apprenticeship included 8,000 hours of on-the-job training, an Associate of Science Degree and SpaceTec certification. At a recent ceremony, Steve Jurczyk, Langley's deputy director, and Stewart Harris, retired deputy director of technical services at Langley, presented them with certificates. Since 1943, there have been 1,450 apprentice graduates at the Center.

To read more about the apprenticeship program, click [here](#).



## Stewart Harris Retires from NASA

Recently, the LaRC Deputy Director for Engineering, Mr. S. Stewart Harris, Jr, retired after 40 years of service to NASA. Prior to his retirement, Mr. Harris was also Chair of the NASA LaRC Apprentice Board. [Read](#) about how he was honored by the students in the apprenticeship program.



## Apprenticeship Participant

For the past four and a half years, Christopher Savage has made a considerable impact on the work and public image of NASA Langley through high profile projects, as well as a variety of outreach activities. Mr. Savage started his career in the Metals Applications Technology Branch, where he quickly learned how to effectively

use milling machines and lathes to produce high-quality, accurate parts for researchers and engineers across multiple Directorates. These projects include PA-1, ARES-1X, and SAGE III on ISS; as well as many other, smaller projects. During this time, he also worked a detail in NTF to help modify portions of the test section for a new camera system.

[Read](#) more about Christopher Savage's accomplishments and also about his exemplary scores on the SpaceTEC® Core Certification exam.



### Eastern Florida State College Advertising Campaign

Steve Kane, SpaceTEC® Deputy Director and Program Manager, in his role as BCC faculty, participated in an advertising campaign introducing the new name for Brevard Community College which was officially unveiled Wednesday night in a special [premiere](#) at the Simpkins Fine Arts Center on the Cocoa Campus. The campaign, featuring TV commercials branding the college's new identity with an all-student, faculty and alumni cast - will air on cable channels throughout Brevard County and Central Florida starting July 1. They also will appear at movie theaters, on websites and the college's TV station, YouTube channel and Facebook page.



To learn more about SpaceTEC® activities or to begin your certification work, contact us:

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Funded in part by a grant from the National Science Foundation

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