

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<sup>®</sup> Talk

April 2014

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Bill Fletcher, <u>Eastern Florida State</u> <u>College</u>

Saundra Castillo, <u>Dona Ana C.C.</u>

## A Message from the SpaceTEC® PI... by Steve Kane

## Colleagues,

It's hard to believe it's been nearly three months since the National Visiting Committee meeting in Virginia! These are certainly busy times. As we continue to pursue opportunities we see developing, we've come to realize just how significant the contributions of the two knowledgeable, capable individuals we said goodbye to recently were. Dr. Al Koller and Ms. Barbara Fuller were key members of the SpaceTEC® team for many years. Please join us in wishing them the best in this next evolution of their life journey. As we turn the pages to a new chapter at the Center their contributions are sorely missed and we've now come to rely on many more of you as we explore, design and develop the products and services to support our constituents. For all of your contributions we are deeply grateful.

At the same time interest in the consortium continues to grow and we've added new partners with key capabilities over the past few months: <u>San Jacinto College</u>, Houston, TX, which offers more than 80 programs and 200 degree and certificate options at three campuses in the greater Houston area joined late last year as did <u>South Seattle Community</u> <u>College</u>, which delivers educational programs in many technology areas in the Seattle area; <u>Abaris Training</u> <u>Resources</u>, the world leader in advanced composites training for the past 30 years with locations in Reno, NV, Griffin, GA, Bicester, UK and Brasilia, Brazil, has just become our newest regional examining center for CertTEC® Composites; <u>180 Skills</u>, an online, technical education content development company located at the Mel Cossette, Edmonds C.C.

John Floyd, <u>Eastern Shore C.C.</u>

Eddie Ellegood, Embry-Riddle A.U.

Clark Jermain, <u>Francis Tuttle</u> <u>Technology Center</u>

Tim Kissel, <u>MIAT</u>

Lee Brewster, <u>NCATT</u>

Angie Hughes, <u>San Jacinto College</u>

Mark McDougal, <u>Tennessee College of</u> <u>Applied Technology-</u> <u>Hohenwald</u>

Dr. Michael Reynolds, <u>Thomas Nelson C.C.</u>

Brad Hanselman, <u>Tulsa Technology</u> <u>Center</u> Purdue Technology Center in Indianapolis, Indiana and with whom we are consulting with in the area of nondestructive testing; the Aviation Institute of Maintenance, who currently delivers a range of aviation maintenance training programs at eleven locations nationwide; the Michigan Institute of Aviation and Technology (MIAT) with locations in Canton, MI and Houston, TX who emphasizes hands-on learning for preparing students for in-demand jobs through focused programs. We are extremely pleased to welcome these new partners as they bring their unique individual talents to the consortium as well as sharing in the rich history all our industry, civil and military educational and industry partners have cultivated through the years. You'll read more about new certifications coming on line and recent activities which increase our reach and relevance in this issue of SpaceTEC® Talk as well.

Many thanks to all who responded to our surveys this past year, the information we gathered was both valuable and encouraging and we appreciate everyone who took the time to provide perspectives on technical education, the technicians and industry needs. It provides focus for us and just as importantly, data for our annual reporting to NSF. Many thanks to the dedicated staff here at the Center who pulled this issue of the newsletter together even with all the other work they have going! It's a testament to teamwork and perseverance and we look forward to the upcoming year with great anticipation and excitement! It's a good time to be in STEM! Sincerely,

At Kan

Steve Kane, SpaceTEC® PI and Managing Director



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FAA Safety Approval

# Program Activities of Note

Annual NVC Meeting

SpaceTEC® held its annual National Visiting Committee (NVC) briefing and Co-Principal Investigator's conference at Eastern Shore Community College (ESCC) Feb. 11 and 12. ESCC is located in Melfa, VA, situated on the Virginia Eastern Shore adjacent to the Wallops Flight Facility (WFF), home of the Mid-Atlantic Regional Spaceport (MARS), one of the nation's eight licensed commercial launch facilities.

<u>Read</u> more about the meeting and the tour at Wallops Flight

#### FLORIDA SPACE rePORT

<u>Nida Corp.</u>

<u>Mid-Atlantic Regional</u> <u>Spaceport</u>

<u>Abaris</u>

<u>180 Skills</u>

<u>AAR Corp.</u>

<u>STC</u>

<u>NCATT</u>

<u>ETA-I</u>

NCATC

QinetiQ

Sierra Nevada Corp.

<u>Titusville-Cocoa Airport</u> <u>Authority</u>

URS

Air Washington

Army-Redstone Arsenal

<u>ATK</u>

NASA

Orbital Sciences Corp.

<u>Embraer</u>

American Airlines

Spirit AeroSystems

VAe

CSS-Dynamac

<u>Lockheed Martin Space</u> <u>Systems</u>

**Bionetics** 

Space Coast Energy

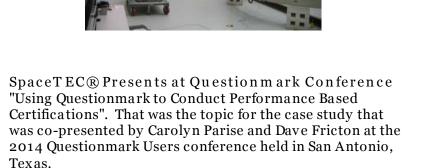
Facility. Also <u>read</u> the press release from Eastern Shore Community College.

Keynote by Zig Leszczynski, Deputy Executive Director of Virginia Commercial Space Authority



Wallops Flight Facility Tour





**Consortium** 

<u>CCTS</u>

<u>CCID</u>

Space Florida

<u>SpaceX</u>



The presentation was conducted to show how SpaceTEC®/CertTEC® is able to use the Questionmark assessment software to deliver its Basic Electricity and Electronics certification on-line. The software allows us to insert HTML coding into the exam questions that creates interactive buttons that communicate with an external trainer. This allows automated faults to be inserted into circuit cards and requires the participant to take measurements and troubleshoot the fault. The presentation was very well received by Questionmark leadership as SpaceTEC®/CertTEC® is the first to use their software in this manner.

Attendees at the Conference



A follow-up <u>blog</u> was written by Questionmark's Chairman and founder John Kleeman highlighting this use.

2014 Aerospace Maintenance Competition Steve Kane, SpaceTEC® PI, was invited by Kevin Gulliver, President of industry partner the <u>Nida</u> Corporation to assist with the <u>2014 Aerospace Maintenance Competition</u> held March 25 and 26 at the Sands Convention Center in Las Vegas, Nevada. <u>Read</u> more about this event.





### Abaris Training

Steve Kane was on the road April 13 through the 18 attending a "Mold Fabrication for Production and Repair" training class at <u>Abaris Training</u>, Reno, NV. The five-day course is designed for the tooling engineer, tool designer, tool fabricator, or anyone else that has a desire to learn about designing and building molds and fixtures using advanced composite materials.

Click <u>here</u> to read more about the trip and our new CertTEC<sup>®</sup> Basic Composites certified technicians.





## Major Changes/Developments of Interest

#### Recertification Requirement

SpaceTEC® and CertTEC® certifications are a mark of career excellence that affirms one's commitment and demonstrates their expertise and knowledge of state of the practice. To maintain the integrity of their certification, SpaceTEC® and CertTEC® requires that personnel holding our Concentration Certifications recertify every three years either by work verification, alternate method or by examination. Click <u>here</u> to learn more about this requirement.

#### Avionics DACUM

An Avionics DACUM facilitated by the Community College Consulting Group, Inc. was held January 28-29, 2014, at the Nida Corporation, Melbourne, Florida. Panel members included representation from the following organizations, China-USA ABDT, Embraer Executive Aircraft, Northrup Grumman Aircraft, SpaceTEC/CertTEC, Aviation Institute of Maintenance, Nida Corporation, Embry-Riddle Aeronautical University and American Airlines. Identification of the "Duties" of an Avionics Technician was completed along with identification of the tasks and the knowledge and skills, traits and attitudes, and tools and equipment associated with each duty necessary for success on the job as an avionics technician. Learning outcomes were identified and listed under a class name where that particular skill would logically be taught to assist the

educational institutes. Further information will be released about this new certification once it becomes available.

## Certification Updates

#### **Basic Electricity and Electronics**

Based on the results of the Basic Electricity and Electronics (BEE) Certification conducted at the Army's - Fort Gordon Ordnance Electronic Maintenance Training Department (OEMTD), CertTEC® was able to provide customized feedback to aid in identifying possible gaps in the current curriculum.

Analyzing results from over 200 soldiers using Questionmark® assessment software, a Question Statistics report was run showing a collective grouping of all results over a four month period.



Feedback was provided showing the passing percentages in the DC & AC certifications. In addition to the overall results, detailed feedback on the types of questions missed was also provided. These results were also shared with their curriculum developer to assist in possible future curriculum upgrades.

Overall, the results have been very favorable on the BEE certification. Utilizing a hybrid approach, we are able to conduct a performance based certification over the internet. This has allowed us to scale this certification to the point where it has become our most active certification.



# Certified Technicians

Listings of Technicians <u>SpaceTEC</u><sup>®</sup> Certified Aerospace Technicians<sup>®</sup>. <u>CertTEC</u><sup>®</sup> Certified Technicians.

Recent Certified Technicians SpaceTEC<sup>®</sup> Certified Aerospace Technicians<sup>®</sup> from Calhoun Community College and Eastern Florida State College.

Alan Marchan Charles Schenkbecher The following soldiers from Fort Gordon, GA received CertTEC<sup>®</sup> certifications in Basic Electricity and Electronics during the month of April:

DVT	DVo	00.11	DVT
PVT	PV 2	GS-11	PVT
Landers	Rowan	Stone	Hollingsworth
SPC	CW3	PFC	SPC Law
Clasberry	Arroyo	Jackson	
PVT	PVT	PFC	SPC
Reynolds	Dixon	Grosswiler	McClanahan
PVT Dery	CW2	PFC Oh	SSG Rivera
	Hizer		
PFC	CW2	PV 2	PV2 Sharp
Serna	Hoobler	Wassman	
PVT	CW2	SFC	PVT
Long	Huggins	Ferguson	Whitehead
PVT	CW2	PV2 Gaiter	PV2 Weaver
Aguilar	Pettus		
PV 2	CW2	PVT	CT R Johnson
Bishop	Silva	Nunez	
CW2	CW2	PVT White	PVT Yanes
Snow	Wood,		
	Jr.		
CTR	PV 2		
Woods	Неар		

The following have received CertTEC<sup>®</sup> Basic Composites certifications:

Joe Wassell	
Earl Thom as	
Dave Castellar	
Lou Dorworth	

Mike Hoke Mike Meringolo Corrie Volinkaty

Congratulations to all, you are now part of an elite group of technicians that have been awarded nationally recognized, performance-based certifications from SpaceTEC or CertTEC.

Certified Aerospace Technician ® Spotlight

Gregory N. Cecil M.A.S., a former Eastern Florida State College Aerospace Technology graduate, is the only State Certified Educator and SpaceTEC® Certified Aerospace Technician® in the nation. Currently, Greg provides Aerospace STEM consulting as the CEO of AeroSTEM Consulting LLC for schools and companies. Building off his experience and education in the space industry, Greg is able to draw connections between industry and academia. To read more about Greg Cecil, click <u>here</u>.



# Special Events/Achievements

ATE Center Impact Book

The 2014 ATE Center Impact Book summarizes the accomplishments and activities of 40 Advanced Technological Education Centers (<u>ATE</u>) and two large ATE projects. To read more about this project, click <u>here</u>. <u>Here</u> is SpaceTEC's section of the book.

SpaceTEC® Supports International Space Study The following <u>link</u> is a write up from Chloe Billing, a Doctoral Researcher at the University of Birmingham, U.K. about her research of Space in both the UK and USA.

FAA Commercial Space Conference To keep informed on the Commercial Space effort SpaceTEC® attended the FAA Commercial Space Conference (COMSTAC) February 5 and 6, 2014 in Washington DC. COMSTAC's charter is to provide information, advice and recommendations to the FAA AST on matters relating to the US commercial space transportation industry. COMSTAC working groups are in the following areas, Business/Legal, International Space Policies, Systems, and Operations. Each group presents their updates and summaries including recommendation to the FAA Associate Administrator for consideration. The next meeting of the full COMSTAC will be May 7 and 8, 2014.

Partner College Updates

ESCC Creating Internship Pathways SpaceTEC affiliate Eastern Shore Community College received a <u>grant</u> to support the college's "Linking Employers and Academic Needs" (LEAN) Internship Project. NASA officially calls the ESCC STEM internships, "workbased learning opportunities", as NASA internships are fulltime and paid.

These photos show ESCC students participating in these opportunities at the NASA Wallops Flight Facility on Virginia's Eastern Shore.





Community Service Learning Program with Eastern Florida State College

SpaceTEC® continues to support the program this semester with student interns from Eastern Florida State College. The interns volunteer 3 hours per week and get credit through the Community Service Learning Program at the college. Michael Tang, James Francisco and Charles Schenkbecher are all students in the EFSC Aerospace program. Activities involved kitting of composites materials to support Embraer training, fabrication of composite test panels, referencing of composites certification test questions from the book "Essential of Advanced Composite Fabrication & Repair", co-authored by Lou Dorworth, Ginger Gardner & Greg Mellema. Additional tasks were auditing of the SpaceTEC® certification test kits and inventory of the new composite test kits being readied for deployment. The program is a win/win situation for both the students and SpaceTEC® because the students are able to gain experience relating to their course work and SpaceTEC® is able to have assistance in building certification test kits.



To learn more about SpaceTEC® activities or to begin your certification work, contact us: By Email: <u>Information@SpaceTEC.org</u> By Telephone: (321)730-1020 By Mail: SpaceTEC® Headquarters, 7099 N. Atlantic Ave., Suite 300, Cape Canaveral, FL. 32920



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