Newcomers expected to enhance Byrd Institute training programs

HUNTINGTON, W.Va.—The Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is strengthening its training programs with the addition of a manufacturing specialist/technical trainer and a technical program recruiter, RCBI Director and CEO Charlotte Weber announced.

“We are placing particular emphasis on expanding the Machinist Technology Program,” Ms. Weber said. “There is a serious shortage of qualified machinists throughout the county, including our region. The RCBI Machinist Technology Program enables us to seek out young people, acquaint them with the career opportunities available to them as machinists, provide the training they need and assist them in finding manufacturing jobs. At the same time, we are assisting manufacturers in meeting some of their pressing needs.”

RCBI currently provides services from four technology centers located in Huntington, South Charleston, Bridgeport and Rocket Center (near Keyser in the Eastern Panhandle). Joining the RCBI staff, effective Nov. 26, as technical program recruiter was veteran Cabell County educator Lawrence V. Cartmill Jr., who has assumed responsibility for developing a plan to enlist new students in the RCBI machinist programs statewide. His other duties include maintaining contact with school counselors, helping out-of-town students locate housing options and assist program graduates with internship and job opportunities.

Cartmill is a 1971 graduate of Marshall University and earned his Master’s degree in counseling and guidance from the College of Graduate Studies in 1979. He has done additional graduate work at Marshall in counseling, psychology, biology and computers. He was a teacher and counselor in Cabell County schools from 1971 until his

Karimi is named Employee of the Month

Mushabbar Karimi has been selected as November Employee of the Month at RCBI. Announcement of his selection was made Nov. 27 by Charlotte Weber, RCBI Director and CEO. Karimi, a 10-year RCBI employee, is a senior manufacturing engineer at the RCBI Composites Technology and Training Center, Bridgeport, W.Va. “Mr. Karimi brings to RCBI a level of competence and dedication on a daily basis which is difficult to match,” Ms. Weber said. “We are very pleased to have this opportunity to recognize his outstanding contributions.”

Karimi received his Bachelor of Science degree in mechanical engineering from South Gujarat University in Surat, India in 1983. He earned the Master of Science degree in manufacturing engineering from Northwestern University in Illinois in 1989.

He was an All-India Merit Scholar and received the Dr. Qazi Gold Medal and F.D. Rehman Gold Medal for his undergraduate work. At Northwestern University, he received a M.S. tuition award based on his undergraduate studies.

He worked as a development engineer for Ralli Machines Ltd. in Surat from 1983 to 1985 and as an engineering officer for Bharat Petroleum Corp., Ltd., in Bombay, India from 1985 to 1987.

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Ready for a ride on the Dreamliner?

The 787 Dreamliner is the newest passenger aircraft developed by Boeing. Although it isn’t expected to make its first flight until sometime next spring, the company has already received firm orders for 738 of the planes from 51 customers worldwide at a cost of more than $110 billion dollars. Why the big demand?

The builders say the plane will burn 20 percent less fuel per passenger than similarly-sized aircraft and it will be 30 percent less expensive to maintain. It will be able to carry up to 330 passengers over ranges up to 8,500 miles. And those passengers will be more comfortable because humidity of the cabin air can be increased over that of similar planes. So, what makes the 787 so different?

The answer is composites. By volume, 80 percent of the 787 will be made of carbon composite, rather than the traditional aluminum. Thus the Dreamliner will be much lighter, easier to maintain, farther ranging and more resistant to the effects of moisture. This means huge savings to the airlines. And they’ve been rushing to get their orders placed.

Composites are materials, usually man-made, that are a three-dimensional combination of at least two chemically distinct materials with a distinct interface separating the components, created to obtain properties that cannot be achieved by any of the components acting alone. Increasingly, composites are affecting the lives of all of us. Our golf clubs, parts of our cars, kayaks, canoes and paddles, fishing rods, competition bicycles and helmets are made, all or in part, of composites. The list is almost endless and growing — and includes even our computer keyboards.

That’s because composites are strong, lightweight, cost effective, aesthetically pleasing and resistant to weather. Their future seems limitless.

West Virginia’s U.S. Senator Robert C. Byrd foresaw the coming of the composites revolution. That’s why he secured funding to establish a Composites Technology and Training Center as part of the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI). The composites center is an adjunct of the RCBI Bridgeport Manufacturing Technology Center in the Benedum Industrial Park, adjacent to the Harrison-Marion Regional Airport.

That location is fortuitous because of the blossoming aerospace and composite industries being developed at Bridgeport. At the same time, the services of the Composites Technology and Training Center are available through RCBI’s other centers in Huntington, South Charleston and Rocket Center (near Keyser in the Eastern Panhandle).

One of the firms with which RCBI works at Bridgeport, Aurora Flight Sciences, was awarded a $47 million contract last spring to develop a concept demonstrator for the U.S. Air Force’s Advanced Composite Cargo Aircraft program (ACCA). The ACCA will be built in Aurora’s facility in Columbus, Mississippi, with other Aurora facilities in West Virginia, Virginia and Massachusetts supporting the project. RCBI has assisted Aurora in various ways including providing technical assistance and reverse engineering equipment for the ACCA project.

Another Bridgeport manufacturer with which RCBI is associated, FMW Composite Systems, Inc., is a subcontractor for the Air Force’s F-22 fighter, which uses composites for at least a third of its structure. Titanium matrix composite parts are used in the F-15, F-16 and F-22 fighters, as well as the Global Hawk unmanned aerial surveillance vehicle which has proved so valuable in the skies over Iraq and Afghanistan.

Our mission at RCBI is to provide statewide and regional access to advanced technology and technical training to small- and medium-sized manufacturers and to develop a quality, just-in-time supplier base for the Department of Defense, NASA and the commercial sector. We’re very pleased that, through Senator Byrd’s leadership, we’ve been able to add composites technology and training to our programs.

If you think RCBI might be able to assist you, or simply have questions, please call our Huntington office, (304) 781-1625 or check out our web site, www.rcbi.org.

Charlotte Weber is Director & CEO of the Robert C. Byrd Institute for Advanced Flexible Manufacturing.
Harrison schools officials tour RCBI Bridgeport site

Representatives of the Harrison County schools system got a close-up look at RCBI Bridgeport facilities during a visit Nov. 7. RCBI's Rick Martin and Ed Black led a tour of the operations and emphasized the benefits offered by the Machinist Technology Program for Harrison County students in their conversations with the schools superintendent, Dr. Carl Friebel, who was accompanied by Assistant Superintendent Susan Collins and Administrative Assistant Lindy Bennett. The visit was arranged by Dave Reep, site manager for GrafTech International Holdings, Inc. and a 10-year member of the program Advisory Board. Pictured, from left, are Reep, Black, Friebel and Martin. RCBI Director and CEO Charlotte Weber praised Reep for his long involvement with and support of the program, which prepares individuals for technical careers, provides certification from the National Institute for Metalworking Skills and offers opportunity to earn an associate degree.

Firms address their needs with RCBI officials

More than 40 individuals, representing several manufacturing firms, discussed their companies’ future needs at a meeting with RCBI officials Oct. 12 at RCBI's Bridgeport facility.

The two-hour working luncheon was designed to give RCBI an opportunity to refine plans for bringing new production equipment, technology and training opportunities to the region.

"Your input into specifically what will assist your company’s growth is needed," RCBI Director and CEO Charlotte Weber told the group. “Your insight into investments that will have the greatest possibility of assisting economic growth for your business is essential to our planning process.”

Among the areas discussed were possible purchase of a laser cutter, additional lathe capabilities and training for composites technicians.

Rick Martin, RCBI Director of Engineering, and other staff members also briefly outlined services and programs available at the Bridgeport site as well as RCBI locations in Huntington, South Charleston and Rocket Center.

"The information we obtained from this session is invaluable as we move RCBI forward in our efforts to help build the region’s economy," Ms. Weber said afterward. “We'll be making investments for the future.”

Immediately following the gathering, RCBI added additional lathe capabilities and will continue to add still more as the industry demands. RCBI also is continuing to diversify its composite offerings by adding during the first quarter of 2008 waterjet capabilities at the Bridgeport facility.

Karimi is named Employee of the Month

In the United States, he developed shop floor simulation software while working toward his M.S. degree from 1987 to 1989. The following year he taught computer-integrated manufacturing at Pennsylvania College of Technology in Williamsport.

He moved to Joplin, Mo. where he worked as an instructor/trainer and consultant from 1990 through December, 1996, then joined the Byrd Institute in February 1997.

He is a member of the Society of Manufacturing Engineers as well as the Society of Automotive Engineers and served as education chairman for the American Society of Quality Control.

His wife, Nazema, is an expert in sewing and embroidery, both her hobby and part-time profession. He has three sons, ranging in age from 6 to 12.

Karimi has played an essential role in RCBI’s development of its Composites Technology and Training Center, Ms. Weber said.

In addition to its Bridgeport site, RCBI operates Manufacturing Technology Centers in Huntington, South Charleston and Rocket Center (near Keyser in the Eastern Panhandle).
Tracy McDowell and Rebekah Duke display the banner awarded RCBI Huntington for having the most creative entry in Marshall University’s Homecoming Office Decorating competition. Behind them are, from left, Tom Minnich, Martin Spears, Eddie Fisher, Erica Cheetham, Esther Sharp and Jim Casto. The award was presented by Marshall’s Alumni Association. It marked the third year RCBI Huntington has won a major award in the Homecoming competition.
RCBI scores again in Marshall Homecoming competition

For a third year, RCBI Huntington has garnered honors in the Homecoming Office Decorating competition sponsored by the Marshall University Alumni Association.

Judges awarded RCBI the Most Creative Decorations banner for its interpretation of the 2007 Homecoming theme of “Whoooo’s Bringing the Thunder!!” The awards were presented October 26 at the annual Coaches Breakfast at the Erickson Alumni Center, aired on radio by The DAWG (93.7 FM).

Under the direction of Operations Supervisor Tracy McDowell, a team of RCBI volunteers staged a Homecoming-themed parody of the popular television quiz show “Jeopardy” and a TV weathercast that predicted “stormy weather” ahead for the Rice Owls football team on game day. In a Halloween twist, a conference room was transformed into a witches’ den, complete with a nasty-looking boiling cauldron. A tailgate area, decorated with giant-sized printouts of charging bison, offered pizza and soft drinks.

Banners are awarded in three categories in the annual competition – Most Creative Decorations, Best Fits Homecoming Theme and Most Attractive. One of the three banner winners is then judged the top overall winner and awarded one-year custody of a traveling trophy.

RCBI won top honors in the 2006 Homecoming competition and a Most Creative Decorations banner in 2004, the first year it entered the contest.

WRCBI-TV predicts ‘STORMY WEATHER’

Erica Cheetham predicts thunder on WRCBI-TV’s weather forecast as Tom Minnich operates the camera.
RCBI’s unique training programs and unique delivery aid region’s manufacturing community

Training courses are an important and growing part of the services offered by the RCBI for Advanced Flexible Manufacturing, according to Director of Manufacturing Services Arley Carpenter.

“RCBI provides manufacturers access to affordable work force development and technical training programs designed and customized to meet the needs and demands of manufacturers,” Carpenter said. “Course offerings are available in a general or a customized format, depending on a company’s training needs.”

General courses allow several companies and/or individuals to participate in the same session in an effort to enhance the skill sets of the region’s work force. Customized courses are designed to meet a specific company’s requirements and are performed at RCBI or at the company’s facility.

The availability of training classes, national certifications and associate degree opportunities through RCBI helps area manufacturers enhance skill sets of existing employees and/or attract individuals prepared to enter a corporate culture of manufacturing. Advanced training of West Virginia’s work force opens doors to potential new markets.

RCBI is furthering technology in the region and continuing to assist manufacturers’ adoption and usage of the new technologies. RCBI has been the catalyst for the placement of more than $17.5 million in new technology into West Virginia’s manufacturing sector.

A Closer Look

Here is a closer look at a member of the RCBI family

NAME: Sheila Harmon
ADDRESS: Proctorville, Ohio
NATIVE OF: Catlettsburg, Ky.
FAMILY: Married to Roger, 25 years
HOBBIES: Walking and reading
SCHOOLING: Boyd County (Ky.) High School; Ashland (Ky.) Community College
LENGTH OF SERVICE AT RCBI: Since May 1999
JOB TITLE: Finance Director
FIRST CAR: 1976 Camaro
FAVORITE SPORT: Football
LEAST FAVORITE SPORT: Soccer
SOMETHING THAT’S ALWAYS IN MY REFRIGERATOR: Diet Pepsi
FIRST JOB: Server at Burger Chef
FAVORITE RESTAURANT: Red Lobster
I WILL NOT EAT: Lima beans
BEDTIME HOUR: 10:30 p.m.
FAVORITE CANDY BAR: Snickers
FAVORITE VACATION SPOT: Daytona Beach, Fla.
IF I WON THE LOTTERY, I WOULD: Invest
Manufacturers say plenty of jobs open for machinists

By Mark Carter

Machinists make up a significant element of the front-line troops carrying America’s colors in the global manufacturing wars. The troops need reinforcements. Much has been made of the loss of millions of manufacturing jobs in this country in recent years. But across America, manufacturers are reporting they have jobs to be filled; they face a serious shortage of skilled workers such as machinists, welders or electricians.

According to a recent article in USA Today, that shortage of skilled workers is threatening the ability of U.S. manufacturers of all sizes to meet current demand, let alone expand their businesses. This gap, the article declares, could threaten the viability of the American manufacturing sector at a time when it is facing heavy competition from abroad.

In September, the web site Careerbuilder.com published an article, “America’s 10 Most Wanted Workers,” based on a survey by Manpower, Inc. Listed as 10th in the survey of fields suffering from shortages of workers was “machinists/operators.”

One of the most comprehensive studies in recent years, 2005 Skills Gap Report — A Survey of the American Manufacturing Workforce, was provided by the National Association of Manufacturers, the Manufacturing Institute and Deloitte Consultants, LLC. The report noted:

“The details behind the talent shortage reveal a stark reality. More than 80 percent of respondents indicated that they are experiencing a shortage of qualified workers overall – with 13 percent reporting severe shortages and 68 percent indicating moderate shortages. Also worrisome is the finding that 90 percent of respondents indicated a moderate to severe shortage of qualified skilled production employees, including front-line workers such as machinists, operators, craft workers, distributors and technicians.”

An Industry Week article about the survey found particularly worrisome the fact that 83 percent of the respondents indicated they were experiencing difficulty in meeting customer demands because of a lack of skilled workers.

“The pain is most acute on the front line, where 90 percent report a moderate to severe shortage of qualified skilled production employees including machinists, operators, craft workers, distributors and technicians,” said Richard Kleinert of Deloitte Consulting.

The bottom line: America’s manufacturers have a major problem. Consequently, all of us have a problem. What are we going to do about it?

One West Virginia organization, the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI), nearly 10 years ago recognized the need for additional machinists to serve industries in this region and initiated a Machinist Technology Program. Offering courses across the state – Huntington, South Charleston, Bridgeport and Rocket Center (near Keyser in the Eastern Panhandle) – RCBI has introduced scores of new machinists, with nationally-accredited credentials, into the work force. More than 90 percent of the graduates have moved directly into manufacturing jobs offering good pay and benefits.

At our own company (Swanson Industries), focused machinist training by RCBI has greatly increased our capacity and the skill sets of our workers.

The bottom line: America’s Manufacturers have a problem.

Instruction in RCBI’s Machinist Technology Program covers highly focused manual machine operation and technical support, introductory computer-numerical-control (CNC) machining, mathematics for machinists, computer training, safety issues and communications and organizational skills. The program adheres to standards set by the National Institute for Metalworking Skills (NIMS) and provides individuals the technical skills they need to enter a shop-floor setting and begin work immediately upon graduation.

The program is open to individuals age 18 to 50 or more. High school graduates, dislocated workers, or individuals in state or privately funded education and training programs are encouraged to apply.

In association with the Marshall Community & Technical College and Potomac State College of West Virginia University, RCBI also provides the program’s participants opportunities to earn Associate of Applied Science in Technical Studies degrees.

Plans are in the works not only to maintain but to strengthen and expand the Machinist Technology Program to meet today’s challenges and those of tomorrow.

Interested manufacturers and potential students may learn more by visiting the RCBI web site, www.rcbi.org, or by calling Senior Machinist Instructor Ed Black at (304) 781-1690.

Mark Carter is vice president of business development for Swanson Industries in Morgantown, W.Va. He serves as chairman of the RCBI Machinist Technology Program Advisory Board.
Aerospace Industry Expo attracts students

RCBI was among 18 business firms and organizations participating in the 2007 Aerospace Industry Expo conducted in early October in downtown Clarksburg. Here, Mike Gray, program manager for the RCBI Composites Technology & Training Center, talks with some of the more than 400 eighth and ninth grade students attending from schools in north central West Virginia. Gray emphasized career opportunities that result from RCBI’s acclaimed Machinist Technology Program in his discussions with the students.

Newcomers expected to enhance RCBI training programs

Continued from cover

retirement in 2006. From 1999 to 2006 he served as coordinator of student services at the Cabell County Career Center. He also has been an adjunct professor at Mountain State University in Beckley and at Ohio University Southern, Ironton, as well as counselor for the West Virginia Governor’s Honors Academy.

Joining RCBI on Jan. 3, 2008 as a manufacturing specialist/technical trainer will be Christopher H. Figgatt of Hurricane, W.Va., a mechanical engineer with Toyota Motor Manufacturing West Virginia. He also has been a diagnostic equipment consultant with Snap-on Tools, Inc., Charleston; an automotive technology instructor at Garnet Career Center, Charleston, and a customer sales and service associate with AT&T Corp. in Charleston.

Figgatt earned Bachelor’s degree in business administration from West Virginia State University and is pursing a Bachelor’s degree in mechanical engineering technology at West Virginia University Institute of Technology.

Figgatt will be stationed at the Huntington Manufacturing Technology Center but will work closely with the other three centers. He will provide outreach and information about RCBI service programs and will assess, identify and conduct customized technical training based on manufacturers’ needs.

“Each of these individuals brings outstanding credentials and experience to our programs,” Ms. Weber said. “We look forward to working with them in maintaining RCBI as the region’s leader in manufacturing technology and in enhancing RCBI’s position as a key player in economic development in the state and region.”

RCBI

Robert C. Byrd Institute

ADVANCING MANUFACTURING TECHNOLOGIES

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Huntington, WV 25701

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