

AEA Comes of Age with **LEGACY MEMBERS**

BY CHRISTINE KNAUER

The past 50 years has been a coming of age — for avionics businesses, for the Aircraft Electronics Association and for aviation itself.

Many of the industry's pioneering companies, from Arthur Collins' radio business to William Cutter's aircraft service centers, were early AEA members. The organization provided camaraderie and support, and served as their touchstone in a budding new trade.

Today, the technology, the industry and the issues are far more sophisticated. The AEA, like the companies it serves, is growing and adapting to meet those new challenges. Still, according to AEA members, what made the organization such a worthy resource in the early days remains AEA's greatest asset — bringing people together.

"The networking is one of the biggest advantages of being a member. I have come to know so many people. If I need something done in Florida or California, I can grab the (AEA directory) and call someone who's a member," said Kent McIntyre, president and owner of Bevan-Rabell.

"Landmark is pleased to be a legacy AEA member. We've found great value in our membership and view the organization as helping to lead the industry in the right direction."

— Gary Bosemer, avionics marketing director for Landmark Aviation

"I probably either know them or have talked to them in the past. I can get help if I need it," he said.

Bill Forbes, avionics manager at Cutter Aviation's Phoenix Sky Harbor facility, agreed.

"I think the real advantage in being a member of AEA is all the knowledge

"I can say from first-hand knowledge, Narco Avionics has always been at its best when deeply involved with the AEA," said Alan Hanks of Narco Avionics.

Tim Rayl, senior director of BRS marketing for Rockwell Collins, agreed.

"AEA provides us a reference source for keeping current on FAA issues and rulemaking. It provides valuable comments on proposed rulemaking issues that affect the membership at large."

— Robert Baugniet, director of corporate communications for Gulfstream

that you get from the other members," Forbes said. "Plus, there's all the great information on the website. When we're at the conventions or regional meetings, everybody gets together and talks about it."

Whether the AEA is pressing for reform in Washington, D.C., conducting training or launching an instrument exchange program, members look to the organization for leadership and for ways to help their businesses succeed.

"AEA has provided Rockwell Collins with a vital touch-point to the dealer community. The input we receive enables us to develop better solutions for our customers.

"AEA gives us a forum to discuss the latest advancements in avionics technology with our industry peers," Rayl said. "Our membership has enabled us to build the relationships that are an important part of our company's success."

In honor of the AEA's 50th anniversary, *Avionics News* is taking a nostalgic look at 10 legacy AEA member companies. Each company's rise from humble beginnings to tremendous success is a stunning reminder of just how far the industry has come in 50 years.

BEVAN-RABELL

Location:

1880 Airport Road
Wichita, Kan. 67209

Contact Information:

Phone: 316-946-4870
www.bevanrabell.com

What They Do: Bevan-Rabell is an FAA-certified repair station that provides bench repair, avionics installations, and airframe and engine maintenance.

Personnel: 19 employees

Facilities: 20,000-square-foot hangar and 2,000 square feet of bench and office space

Year Founded: 1953

Founded By: Ralph and Isabell Bevan

AEA Member Since: December 1958



In 2001, Bevan-Rabell added airframe and engine maintenance service to its avionics and bench repair capabilities.

Bevan-Rabell repairs and services equipment shipped in from other avionics shops around the world.



BEVAN-RABELL

Capabilities Spur Growth



In recent years, avionics installations rather than bench repair has become Bevan-Rabell's top source of income.

An AEA member since the organization's earliest days, Bevan-Rabell began as two separate companies started by Ralph Bevan and his wife, Isabell. Fifty-three years later, the FAA-certified repair station is still at Mid-Continent Airport in Wichita, Kan.

"Bevan Radio Company was started in 1953 or 54, depending on who you talk to," said Kent McIntyre, president and owner of Bevan-Rabell. "Initially, Ralph Bevan worked out of the back of his car, and eventually, he moved to the airport. For a time, he was the avionics shop for the FBO Yingling, which is another old company down the street here."

In the 1960s, Bevan started a second avionics shop, which focused on repairing military avionics spares and warranty repairs on ARC avionics for Cessna Aircraft. He called it Rabell Electronics, with "ra" from Ralph and "bell" from Isabell.

"They operated as two companies for a number of years — Rabell Electronics and Bevan Radio. Sometime in the late 1970s, they combined the two companies and called it Bevan-Rabell. In 1982,

Ralph Bevan sold the company to two long-time employees, Bob Patterson and Gib Mitchell," said McIntyre, who worked for Bevan-Rabell for nearly two decades.

Four years ago, McIntyre bought the company.

"Until recently, we were strictly avionics," McIntyre said. "For a number of years, the biggest part of our business was bench repair; avionics installations was second. Six years ago, we opened an airframe and engine maintenance shop, and since then, the bench repair has declined a little bit.

"Now, our avionics installation is the top income. Bench repair is second, and the airframe and engine maintenance, third. We still do radio repair for companies all over the U.S."

McIntyre said the company also does work for other avionics shops that don't have Bevan-Rabell's bench capability. Many times, the company has been the last resort for repairing boxes and sometimes autopilots, he said. "When it can't be fixed someplace else, it ends up here."

"In the past, we've had people who were here 20 and 30 years. Constantly working with and troubleshooting challenging issues has given us a lot of depth in experience," McIntyre said.

"We're very busy. We've always been busy. We operate mostly on word of mouth. We've enjoyed a good reputation throughout the industry and the flying community, and it has served us well."

Cutter Aviation

Location:

2802 East Old Tower Road
Phoenix, Ariz. 85034

Contact Information:

Phone: 800-234-5382; 602-273-1237
www.cutteraviation.com

What They Do: Cutter Aviation is a family-owned FBO offering line service, aircraft maintenance, avionics installations and modifications, aircraft sales, aircraft management services, and travel agency services.

Personnel: 318 employees

Facilities: Headquartered in Phoenix, Ariz., Cutter Aviation operates eight facilities in Arizona, Colorado, New Mexico and Texas.

Year Founded: 1928

Founded By: William P. Cutter

AEA Member Since: May 1964



Long-time friends and business partners William P. Cutter and Walter Beech shared a love of aviation and were known for their frequent hunting and fishing trips together. Photo circa 1947.

CUTTER AVIATION Celebrating 80 Years



The lobby of Cutter Aviation's Albuquerque, N.M., facility, circa 1940.



At Cutter Aviation's Phoenix Sky Harbor facility, customers enjoy a comfortable lobby.

Next year, Cutter Aviation celebrates 80 years of business and nearly 45 years as a member of the AEA.

In 1928, William P. Cutter started Cutter Flying Service in Albuquerque, N.M., to serve a young aviation industry. Over the years, this third-generation, family-owned company has expanded its services and facilities.

Today, headquartered in Phoenix, Ariz., Cutter Aviation operates eight facilities in Arizona, Colorado, New Mexico and Texas. The latest acquisition came in August 2006, when the company acquired Colorado Aviation Inc., a full-service business aviation FBO at Colorado Springs Airport (COS).

"Colorado Springs is a strategic acquisition for Cutter Aviation in a key market," said William Cutter, president and CEO of Cutter Aviation. "It offers tremendous potential for growth, and continues to expand our FBO network throughout western United States."

In June 2006, Cutter Aviation unveiled its brand-new, state-of-the-art facility at its El Paso, Texas, location. It includes a two-story, 13,000-square-foot building and a 20,000-square-foot hangar.

Depending on the facility, Cutter Aviation's eight locations provide a variety of services, such as avionics installations, maintenance, line service, charter and aircraft management

services, and even full travel agency services.

"Right now, we're in the process of doing a lot of factory training with our technicians and really expanding our engineering capabilities. Coming this spring or summer, we'll be one of the few shops in the country authorized to install the Garmin G1000 on the King Air C90s," said Bill Forbes, avionics manager at Cutter Aviation's Phoenix Sky Harbor facility.

"We're finding there's a lot of interest in full EFIS suites — in full avionics packages, such as the Garmin G1000. But there are not a lot of options out there yet. More and more are being introduced, but it's just not where it should be," Forbes said.

"There's also a lot more interest in traffic systems, XM weather and WAAS. ADS-B is on the horizon; so operators are starting to ask about it," he said.

When it comes to choosing new products, Forbes offered some advice to operators.

"You want to do your research and make sure you're talking to someone who's knowledgeable in what's coming out and knows which systems are compatible," he said. "Otherwise, if you go off in the wrong direction with the wrong product, you could end up getting something that's going to be at the end of its lifespan not too long after you buy it."

GULFSTREAM AEROSPACE

Expanding Facility, Adding Jobs

“Gulfstream” first became part of the aviation industry’s lexicon in 1958 with the introduction of the Gulfstream I turboprop jet by Grumman American in Bethpage, N.Y.

“It was the first large-cabin, twin-jet, purpose-built business aircraft,” said Robert Baugniet, director of corporate communications for Gulfstream.

Grumman introduced the twin-jet Gulfstream II (GII) in 1966. The following year, the company moved GII production to Grumman’s new manufacturing facility in Savannah, Ga., which today is the headquarters of Gulfstream Aerospace Corp.

“In 1978, Grumman sold the Gulfstream aircraft line to businessman Allen Paulson, who renamed the company Gulfstream American,” Baugniet said. “Over the years, its name was changed; it was sold to other owners, including Chrysler; and additional facilities have been opened in the U.S. In 1999, General Dynamics purchased Gulfstream.”

Today, Gulfstream employs more than 8,000 people in 12 locations, including London, England. Gulfstream also operates six company-owned service centers under the name Gulfstream Service Center and manages six additional facilities under the General Dynamics Aviation Services banner. In addition, Gulfstream has a worldwide network of authorized line and warranty facilities.

Last year, Gulfstream announced a \$300 million, seven-year expansion of its Savannah business-jet manufacturing and service site. The company expects to add approximately 1,000 jobs as a result of the expansion, the first substantial one since the GII was produced at the plant in 1967. Plans also include a new, 630,000-square-foot Savannah service and support

building scheduled for completion in 2009.

According to Baugniet, approximately 1,600 Gulfstream aircraft currently are in service.

“Gulfstream puts as much time and energy into the servicing of its aircraft as it does into the designing and building of them. That’s because we work on the philosophy that outstanding service sells airplanes,” Baugniet said. “Additionally, Gulfstream continues to push the envelope on research and development, applying new technologies to create even safer and higher performing aircraft.

“Gulfstream was the first aircraft manufacturer to offer an enhanced vision system certified by the FAA. It was so effective, the FAA validated the safety benefits of the Gulfstream EVS in a Part 91 rule change that allowed pilots to use ‘enhanced flight visibility systems’ to determine flight visibility,” said Baugniet, referring to the system developed in cooperation with Kollsman Inc.

Currently, Gulfstream is developing a synthetic vision system enhancement to its PlaneView cockpit.

“Following FAA certification of Gulfstream’s synthetic vision—primary flight display later this year, we’ll be the first business-jet manufacturer to offer synthetic vision technology for new production and in-service aircraft,” Baugniet said.



The ultra-long-range Gulfstream G550 can fly from Washington, D.C., to Tokyo, Japan, without stopping to refuel.

Gulfstream Aerospace Corp.

Location:

Company Headquarters
500 Gulfstream Road
Savannah, Ga. 31407

Contact Information:

Phone: 912-965-3000
Fax: 912-965-3084
www.gulfstream.com

What They Do: A wholly owned subsidiary of General Dynamics, Gulfstream Aerospace designs, develops, manufactures, markets, services and supports the company’s line of business-jet aircraft.

Personnel: More than 8,000 employees

Facilities: Gulfstream operates 12 facilities throughout the United States and Europe.

Year Founded: 1958

Founded By: Gulfstream began as an aircraft line produced by Grumman American in Bethpage, N.Y. Grumman sold the Gulfstream aircraft line to businessman Allen Paulson, who established the company Gulfstream American.

AEA Member Since: March 1969
(Gulfstream, Appleton, Wis.)



Built on Honeywell’s Primus Epic avionics suite, Gulfstream’s PlaneView Cockpit offers new features and functions, such as enhanced vision.



In 1959, Ed King Jr. started King Radio in a farmhouse in Olathe, Kan.

HONEYWELL

Location:

Aerospace Electronics Systems
23500 W. 105th St.
Olathe, Kan. 66061

Contact Information:

Phone: 913-782-0400
www.honeywell.com
www.bendixking.com

What They Do: Honeywell is a diversified technology and manufacturing company, specializing in aerospace/ aircraft products and services, control technologies, automotive products, turbochargers, and specialty materials.

Personnel: 40,000 employees worldwide, 1,275 of whom are in Kansas involved in avionics manufacturing, sales and service.

Facilities: 36 manufacturing locations and 61 service sites

Year Founded: 1959

Founded By: Edward King Jr.

AEA Member Since: May 1964
(Bendix King)



HONEYWELL

Focusing on Systems Integration

Just a few years out of college, Edward King Jr. launched Communications Accessories Corp., which manufactured transformers, electrical filters and magnetic amplifiers. In 1955, he sold the company to Collins Radio, which was operated by Arthur Collins.

Four years later, in an old dairy farmhouse near Olathe, Kan., King hand-produced the KY 90, the first low-cost, 90-channel, crystal-controlled VHF communication transceiver for light aircraft. In that first year, he earned less than \$5,000, but it signaled the launch of King Radio. From its beginnings, King Radio was a strong supporter of the AEA.

In the 1970s, King introduced the Silver Crown and Gold Crown navigation product lines, which are still popular today. In 1984, he sold his company to the Bendix Aerospace sector of Allied Corp. for \$164 million in cash. Now, more than 50 years later, King's vision has evolved and merged its way into Honeywell, the global multi-technology giant that posted 2006 sales of \$31.4 billion.

Today, Honeywell's avionics division is focused strongly on safety technology, such as the company's new integrated hazard avoidance system (IHAS). Originally developed in the mid- to late-1990s while under the AlliedSignal name, IHAS integrates traffic, terrain, positioning and weather.

IHAS 8000 offers a complete safety and situational awareness solution for

aircraft equipped with radar and is capable of interfacing with a number of digital weather radar units. IHAS 5000 is designed for non-radar-equipped aircraft.

IHAS's multi-function display allows operators to selectively view flight plan, weather, lightning, traffic and radar information in a variety of display combinations for an up-to-the-second picture of the flight situation.

To ensure growth capability, engineers utilized an open-ended architecture and a distributed processor design in which each modular card in the system is driven by its own processing power. In addition to redundancy, this approach also speeds the presentation of information, eliminating lag time.



Honeywell's IHAS 5000 provides operators with terrain, traffic and weather for non-radar-equipped aircraft.

Another system at the top of Honeywell's product line-up is the Bendix/King KDR 610 data-link weather satellite receiver, which offers real-time, high-speed textual and graphical weather in the cockpit. Introduced in July 2006, the KDR 610 supplies signal data to Bendix/King's KMD 550, KMD 850 and KMD 250 multi-function displays.

Honeywell is displaying both IHAS and the KDR 610 at the 2007 AEA International Convention & Trade Show.

Honeywell's 600,000-square-foot Olathe facility manufactures general aviation avionics.



Landmark Aviation at Washington-Dulles International provides traditional FBO services to business aircraft operators.

Landmark Aviation / Associated Air Center

Location:

Love Field
8321 Lemmon Ave.
Dallas, Texas 75209

Contact Information:

Phone: 214-350-4111
Fax: 214-358-7620
www.landmarkaviation.com

What They Do: Landmark Aviation, a result of the merger of Associated Air Center, Piedmont-Hawthorne and Garrett, provides comprehensive business aviation services, including FBO services; maintenance, repair and overhaul; aircraft charter, sales and management; and large aircraft completions.

Personnel: 2,500 employees

Facilities: Associated Air Center's Dallas Love Field facility includes three large hangars, an administration building and terminal, and more than 1 million square feet of hangar and shop space. Landmark Aviation operates 43 locations in total.

Year Founded: Associated Air Center began operating in 1948. The former Piedmont Hawthorne organization was founded in 1932. Garrett originated in 1944.

AEA Member Since: January 1965
(Associated Air)

LANDMARK AVIATION

Adding New STCs to Portfolio

Associated Air Center (AAC) began operating in 1948, at Dallas Love Field under the name Associated Radio Co. The shop's three-man team installed surplus radio equipment in retired military aircraft operated by individuals and corporations.

Today, Associated Air Center is a Landmark Aviation company. Headquartered in Tempe, Ariz., Landmark Aviation is the result of a massive merger between legacy aviation businesses Garrett, Piedmont-Hawthorne and Associated Air Center. Only Associated Air Center retained its former name.

Technicians at Associated Air Center provide maintenance and modifications for air transport aircraft. The facility is an authorized Boeing Business Jet (BBJ) and Airbus Corporate Jet (ACJ) completion center. Customers include internationally known individuals, corporations and heads of state.

"AAC also provides completions for the Airbus 340 and other Airbus aircraft," said Gary Bosemer, avionics marketing director for Landmark Aviation.

"One of the major trends right now in aircraft completions is technology and cabin management systems. AAC outfits aircraft with these systems, including satellite TV, Internet and game systems. AAC currently has seven aircraft in-house for completions — four ACJ aircraft and three BBJ aircraft."

In addition to Associated Air Center's transport aircraft completion center, Landmark Aviation operates three other divisions: maintenance, repair and overhaul (MRO); fixed-based operations (FBO); and aircraft sales, charter and management.

"Landmark's MRO offers tip-to-tail maintenance and repair for all corporate aircraft, from a Beechcraft King Air to a Bombardier Global Express, at 11 facilities in the U.S., including avi-

onics service and support," Bosemer said.

"Our Springfield location is Landmark's avionics center of excellence. It also offers paint, airframe, mods and other work," he said.

Other Landmark MRO sites, including Roanoke, Va., and Scottsdale, Ariz., also provide avionics work and have engineering staff.

"In recent months, we've announced several new avionics capabilities, including STCs for the installation of the Rockwell Collins dual ADC-87A air-data computers for Dassault Falcon 50 aircraft," Bosemer said. "We also announced an STC for the installation of the Rockwell Collins Pro Line 21 IDS integrated display system on the Dassault Falcon 50.

"And, Landmark received FAA approval to increase rudder control authority on the Dassault Falcon 50, an improvement available for airplanes with Collins APS-85 autopilot or Pro Line 21 avionics suite. In February, our Springfield facility completed the installation of a Honeywell Primus Epic CDS/R (control display system/retrofit) avionics system on a Gulfstream III."

According to Bosemer, there's more to come.

"Landmark has other exciting developments under way to provide aircraft operators with additional capabilities."



Gary Bosemer, Landmark Aviation avionics marketing director



A Landmark Aviation technician downloads engine and systems data onto a disk for troubleshooting.



Rudy Garfield, Jim Riddle and Rufus Applegarth (left to right) founded Narco Avionics in 1945.

NARCO AVIONICS

Location:

270 Commerce Drive, Suite 200
Fort Washington, Pa. 19034

Contact Information:

Phone: 800-223-3636
Fax: 215-643-0197
www.narcoavionics.com

What They Do: Narco manufactures general aviation avionics, including transponders, altitude encoders, and navigation and communications systems.

Year Founded: 1945

Founded By: Jim Riddle,
A.R. Applegarth and Rudy Garfield

AEA Member Since: May 1964

NARCO AVIONICS

Rich History Provides Inspiration

Throughout its 61 years, Narco Avionics has experienced successes and failures, innovated new airborne technologies, introduced a dozen “first-of-their-kind” products, and set standards for general aviation avionics still felt today.

Narco has coped with recession, federal regulations and stiff competition — and survived to learn from it all. Today, sales are up substantially. In addition, the company is hiring again and new products are on the drawing board.

“Narco is the oldest general aviation avionics manufacturer in the world — the only one that has survived and continued as a single entity. It’s quite a feat. Lots of companies have come and gone, but Narco has survived,” said Alan Hanks of Narco Avionics.

“There’s no question that it’s not healthy for any industry to have a single, all-powerful player. No competition would mean higher prices. Customers wouldn’t get competitive new products and new ideas. That’s why it’s important that some company out there has survived for 61 years,” Hanks said.

Jim Riddle, A.R. Applegarth and Rudy Garfield started the National Aeronautical Radio Corp. (Narco) in 1945, in the back room of a store in Collingswood, N.J. Later, they moved the company to Wings Field in Pennsylvania. In the mid-1950s, Narco moved again to its current home in Fort Washington, Pa.

Today, transponders, altitude encoders and navigation/communications systems make up the bulk of Narco’s product line. Over the years, the com-



Narco’s NAV 122D is a self-contained 200-channel navigational receiver, 40-channel glideslope receiver, VOR, localizer and glideslope indicator.

pany has paved new territory in instruments and avionics.

According to Hanks, Narco developed DME under contract for the government and was the first to utilize a transistor in an airborne device, doing away with vacuum tubes and dramatically reducing the size of radios. In 1992, Narco introduced the first GPS-based, multi-sensor nav system, which combined multiple data inputs to give pilots one piece of navigational information.

“In 2004, Narco introduced the totally solid-state AT165 digital dual display transponder, the first dual-digital display on the market, and as far as my knowledge, still the only one,” Hanks said.

“These were important not just because they were the first introduction and use of that technology in our industry, but because they were items that helped build the industry,” he said.

“In fact, Narco is one of the reasons that there are radio shops in the first place. They had to figure out a way to market and service their products in the field. Narco was setting up and encouraging the setting up of radio shops to perform that function.”



Narco’s AT165 digital dual display transponder offers plug-and-play capability.

REDBIRD ELECTRONICS

Maintaining a Personal Touch

Ralph Ryan, president and founder of Redbird Electronics, started his FAA-certified repair station 52 years ago. Since then, very little has changed. He still operates the business himself and stays involved in every project and every customer.

“I was in the electronics business before and had taken electronics in high school. I started hanging around the airport and before I knew it, the flying bug bit me. I started as a one-man operation back in 1955. I needed to do something to pay for my flying,” Ryan said.

“Within a couple years, I had two technicians working for me. In 1968, we moved to a larger facility on the airport just 1,000 feet from where we first started. Although we could continue to grow, I’ve kept the operation small — just four employees, so I can focus on better quality control.

Ryan said Redbird Electronics is strictly an avionics shop.

“We do a lot of work for the Piper dealers and different distributors in Texas and all over,” he said. “We do avionics installations and cabin entertainment systems primarily for jet aircraft and higher-end Beechcraft airplanes — anything from the A36 up to the Hawkers.

“Mostly, we’re installing a lot of Garmin these days. Seems like they’re taking over the business from top to bottom. We do a lot of the exotic systems — flat-panel displays, XM satellite weather and such.”

Ryan said his business doesn’t install anything unless he knows for certain it’s a proven product.

“I’m not one to go out and put the first of the newest thing in somebody’s airplane,” he said. “I want someone else to put a few in first. It’s best to let them work out all the bugs first before you try to marry them up with another system and find all kinds of problems.”



In 1968, Redbird Electronics moved across the Dallas Executive Airport to a larger facility, where they still operate today.

Ryan said dealing with the FAA is one of Redbird’s biggest challenges.

“Anything that helps us learn how to work better with the FAA is helpful — AEA is good about that. We just finished rewriting our training manual. AEA provided a good starting point,” Ryan said.

“When I first got involved with AEA, there was Carl Fox and Chuck Peacock. In the early days, there wasn’t a whole lot going on. It seems to me, AEA didn’t start having very much influence on the avionics business until the middle ’70s. Since then, AEA has really stepped up and gotten things moving.”

In particular, Ryan said he appreciates the training offered by the AEA. “You have to stay on top of this stuff. It just changes so fast,” he said.

He also said one of the AEA’s biggest successes is its equipment exchange program.

“That seems to have done more for the industry than anything else,” he said. “It gets all the shops talking, too. We actually do a lot of exchanges, especially of the high-end equipment, like weather radar and TCAS.

“It’s hard for the small guy to survive out here in today’s business climate. The exchange program is an important part of our business. It has kept us alive.”

Redbird Electronics Inc.

Location:
Dallas Executive Airport
5423 Saturn Drive
Dallas, Texas 75237

Contact Information:
Phone: 214-337-8958

What They Do: Redbird Electronics is an FAA-certified repair station specializing in avionics sales and service for corporate aircraft.

Personnel: 4 employees

Facilities: 15,000 square feet of hangar, shop and office space

Year Founded: 1955

Founded By: Ralph Ryan

AEA Member Since: May 1967



Rockwell Collins supports its products with a global network of more than 80 locations that provide repair and overhaul of avionics equipment for commercial, business, corporate and military operations.

Rockwell Collins

Location:

400 Collins Road N.E.
Cedar Rapids, Iowa 52498

Contact Information:

Phone: 319-295-1000
www.rockwellcollins.com

What They Do: Rockwell Collins designs, produces, markets and supports electronic communications, avionics and in-flight entertainment systems for commercial, military and government customers worldwide.

Personnel: 18,000 employees

Facilities: More than 60 locations in 27 countries

Year Founded: 1933

Founded by: Arthur Collins

AEA Member Since: May 1964

ROCKWELL COLLINS

Continuing Legacy of Innovation

As a boy, Arthur Collins was fascinated with the latest technology of the day — radios. While other children played outside, he tinkered with radios in his room.

At age 15, Collins became an overnight legend when he accomplished what the U.S. Navy could not. Using a home-built radio, he communicated with the MacMillan scientific expedition in Greenland.

During the summer of 1925, Collins talked in code with the expedition's explorers, which included Lt. Cmdr. Richard E. Byrd. After the broadcast, he relayed the group's findings to Washington, D.C., via telegraph.

By the end of 1931, at age 22, Collins had started a shop in his basement, designing and producing short-wave radio equipment to order. Soon, his endeavor had a name — Collins Radio Co.

For many years, Collins led the industry in innovation. Collins Radio Co. provided communications systems for the United States space program, including equipment for astronauts to communicate with earth stations and equipment to track and communicate with spacecraft. The Apollo, Gemini, Mercury and U.S. Skylab programs all utilized Collins communications equipment.

In 1973, Rockwell International acquired Collins Radio Co. In 2001, Iowa-based Rockwell Collins Inc. was spun-off from Rockwell International and began trading publicly on the New York Stock Exchange.



Arthur Collins built Collins Radio Company on his love for technology and innovation.

Today, according to the company, the Rockwell Collins brand of aircraft electronics are installed in the cockpits of nearly every airline in the world, and its airborne and ground-based communications systems transmit nearly 70 percent of all U.S. and allied military airborne communication.

True to its legacy, Rockwell Collins Pro Line 21 systems represent a leap forward in innovation with support for terrain awareness, 3-D flight-plan maps, electronic charting and real-time, data-link weather graphics. The integrated flight information system (IFIS) adds such capabilities to the cockpit as electronic charts, graphical weather and enhanced map displays, providing enhanced situational awareness and flight-deck management.

In September 2006, Rockwell Collins introduced the TS-4100 traffic surveillance system for business jets. The integrated system combines the traffic alert and collision avoidance system (TCAS II) and Mode S transponder functions, as well as emerging ADS-B applications, into a single line replaceable unit.

"We believe a major issue (in the industry) involves developing systems to support the FAA's vision for the next-generation air transportation system, as well as global initiatives, including those already under way in Europe and Australia," said Tim Rayl, senior director of BRS marketing for Rockwell Collins.

"We're doing that with systems like our TSS-4100 traffic surveillance system for business jet operators."



Rockwell Collins four-display Pro Line 21 installed on a Falcon 20.

SPRIT AVIONICS

Scooping Military Contracts

Rick Ochs, president and founder of Spirit Avionics, always knew he was going to own his own business. Even as he took a position as installation manager at Columbus, Ohio-based Capital Aircraft Electronics, he planned for the future.

“I told them, ‘My goal is to start my own business and it may not be long before that happens,’” said Ochs, who stayed just six months before striking out on his own.

In 2001, Rick Ochs purchased Capital Aircraft Electronics, which opened in 1966, and merged it with his company, Spirit Avionics.



Ochs stayed at the Port Columbus International Airport and started Spirit Avionics as a one-man operation in the local Million Air FBO in March 2000.

“On my one-year anniversary of being in business, Capital accepted my offer to buy them out,” he said. “In the acquisition, I got all the dealerships — Garmin, Bendix/King, Avidyne — and the repair station certificate, which was very valuable, as well as the facility. I even got the phone number, which is the same one Capital had when it opened in 1966.”

Capital Aircraft Electronics had changed owners a few times after its founder, Bob Pieter, sold off the company in the early 1990s. Pieter had operated it for 30 years.

“Over time, we’ve completely remodeled the hangar. It looks like a brand-new facility now. There’s been a remarkable change in the appearance of the facility as well as our capabilities,” Ochs said.

“Capital was a little airplane avionics facility. While we still do a fair number of those, that’s not really our focus. We’re more geared toward cor-

porate operators and the U.S. government. We recently landed a big contract with the U.S. Air Force — an avionics upgrade program for two (U.S. Air Force) DeHaviland Dash 8 special mission aircraft.”

Ochs said Spirit Avionics has been very successful acquiring corporate and military projects.

“We routinely provide service and avionics upgrades to all models of aircraft as well as larger aircraft, such as the MD 83, 727 and, proudly enough, the Liberty Belle B17 Bomber,” he said. “You have to perform at a higher level to satisfy those clients. We’ve been doing really well at that.

“We won our latest Air Force project because we have a superior technical approach versus just having the lowest bid. The Air Force is very particular about who modifies their airplanes, as you might expect. I was really proud of the fact that we were able to show them that we are the experts.”

Ochs said he thinks one of the reasons Spirit Avionics received the Air Force contract was because “we showed them how some additional pieces of equipment outside their original statement of work would offer more capability. To us, it was such a natural upgrade to enhance the project.”

“Even with the government projects, we’re sticking with our core talent — avionics only — and just expanding the market,” Ochs said. “I absolutely believe that’s been key to our success.”



Located on Port Columbus International Airport in Ohio, Spirit Avionics offers avionics installations and modifications for commercial and military aircraft.

Spirit Avionics Ltd.

Location:

4808 East 5th Ave.
Columbus, Ohio 43219

Contact Information:

Phone: 614-237-4271
Fax: 614-237-6387
www.spiritavionics.com

What They Do: Spirit Avionics specializes in avionics installations and modifications for commercial and military aircraft.

Personnel: 10 employees

Facility: Two facilities provide a total of 10,000 square feet of hangar space and 6,000 square feet of office space

Year Founded: 1966

Founded by: Spirit Avionics was founded by Rick Ochs. One year later, he purchased Capital Aircraft Electronics, which was founded by Bob Pieter in 1966.

AEA Member Since: July 1966
(Capital Aircraft Electronics)



Rick Ochs, president and founder of Spirit Avionics (center), and his son, Corey (left), and company co-owner Steve Wathen enjoy camping at EAA AirVenture in Oshkosh, Wis.



In the 1950s, Stevens Aviation operated a fleet of twin-engine aircraft out of the Greenville Downtown Airport in South Carolina.

STEVENS AVIATION INC.

Location:

600 Delaware St.
Greenville, S.C. 29605

Contact Information:

Phone: 800-359-7838
www.stevensaviation.com

What They Do: Stevens Aviation provides maintenance, avionics installations and modifications, refurbishment and line service, and aircraft sales, management and charter services.

Personnel: 650 employees

Facilities: Stevens Aviation operates five facilities in Colorado, Ohio, South Carolina and Tennessee.

Year Founded: 1950

Founded by: Robert T. Stevens and Ralph Cuthbertson

AEA Member Since:
September 1965

In 1968, Stevens Aviation became a Beechcraft distributor, a move that accelerated the company's growth.



STEVENS AVIATION

Building on Turboprop Experience

Stevens Aviation began in 1950 as a flight department for the textile giant The J.P. Stevens Co. Robert T. Stevens, president of the company, hired Ralph Cuthbertson to oversee the department.

After a slow start, J.P. Stevens' employees discovered the convenience of flying, and the Greenville, S.C.-based flight department began offering its services to the public. By the late 1950s, the company operated a fleet of twin Beech aircraft out of the Greenville Downtown Airport. When growth demanded more space, Stevens Aviation moved to the newly constructed Greenville-Spartanburg Airport in 1962.

"In 1968, Stevens Aviation became a Beechcraft distributor, accelerating the growth of the company. By the end of the decade, Stevens' capabilities went well beyond aircraft charter, line services and maintenance," said Monica Brownlee, marketing manager for Stevens Aviation.

"The company employed more than 100 people and had a fleet of more than two dozen aircraft — from King Airs to Falcons to DC-3s. Stevens

developed a reputation for being one of the best King Air shops in the area," she said.

By the 1980s, Stevens Aviation had become a full-service facility offering maintenance, avionics, completions, sales and FBO services. In the same decade, Stevens expanded, adding FBOs at other airports.

In 1989, NTC Group of Greenwich, Conn., bought the network. Today, there are Stevens Aviation facilities in Denver, Colo. (BJC), Nashville, Tenn. (BNA), Dayton, Ohio (DAY), Greenville, S.C. (GYH), and Greer, S.C. (GSP).

Stevens Aviation is an authorized service center for Beechcraft/Raytheon, Bombardier Learjet, Piaggio Aero and Dassault Falcon. Technicians also are trained and experienced in the Cessna Citation series and the Cessna Turboprop series of aircraft.

"Greenville is our corporate flagship facility but it's also home to our jet center as well as our major military programs. We're doing a lot of avionics modifications for the U.S. Department of Defense — Army, Navy, everybody," Brownlee said.

In January, Stevens Aviation hosted a grand reopening for its GSP facility. Last year, it underwent a multi-million dollar renovation and has emerged as a state-of-the-art turboprop center with an additional 30,000 square feet of hangar space.

"We're also really excited about our Lear 35 program called 'Lear 4ever,'" Brownlee said. "It's a complete and comprehensive refurbishment program for Learjet 30 series aircraft. It includes the high-definition Universal 890R avionics suite with synthetic vision, Raisbeck ZR Lite wing modifications, a complete interior retrofit and exterior paint. We think it's a really great opportunity for Learjet operators."



Located at Donaldson Center Airpark (GYH) in Greenville, S.C., Stevens Aviation GYH is the company's flagship facility.