AWA and RCA: Preserving The Past and Creating A Vision For The Future¹
(Part I)
David and Julia Bart²

By-Line

During the past year, the Radio Club of America (RCA) has cemented its new relationship with the Antique Wireless Association (AWA). In this issue of the Proceedings of the Radio Club of America, we introduce the AWA, outlining its new partnership with RCA. This is the first installment of two articles about RCA and the AWA.

Introduction

For over a century, RCA has helped to bridge the fields of amateur and scientific inquiry in the science of radio communication. For more than 50 years, AWA has dedicated itself to studying and documenting the history of electronic communications. Over the past few years, the relationship between AWA and RCA has blossomed into a new partnership.

In 2010, RCA’s archives were relocated to the new AWA Museum complex in East Bloomington, New York to ensure their preservation. AWA is now playing an important role at RCA; serving on its Board of Directors, coordinating programs, leading RCA’s Historical Committee and participating with RCA at conferences and conventions. RCA has made important contributions to AWA as well; providing its archives to AWA, introducing AWA to the current leaders in telecommunications, and serving as a resource for further development of AWA’s mission to identify and preserve key milestones in electronic communication history.

This article introduces the AWA to RCA’s current membership as both organizations look forward to the development of electronic communications in the 21st century. A second article will introduce RCA members to their new home at the AWA Museum and describe its library resources.

Some Highlights From RCA’s History

RCA has a rich and compelling history going back to 1909. RCA’s members include many legends that provided key innovations in electronics and communications for over a century. Their contributions led the development of

¹ This article is the first of two installments based on a presentation given by the author at the Radio Club of America’s Annual Banquet and Technical Symposium on November 19, 2010 held in New York City.
² David Bart is the new Chairman of the RCA Historical Committee, succeeding Ken Hoagland, and is a member of the AWA Board of Directors. Julia Bart is an advisor to AWA and co-author of numerous articles for AWA.
Over the past century, RCA has sought to share ideas through presentations, written communication and education; creating an impressive archive that documents the origins and development of radio and wireless communication. The Proceedings of the Radio Club of America was first published in 1913 during the radio industry’s infancy. Later, the Aerogram joined RCA’s offerings which included historical books, conferences and meetings.

**Edwin H. Armstrong’s Presentation At RCA About The Regenerative Circuit In 1919.**

### Historical Ties Between AWA and RCA

RCA and its members have maintained close contact with AWA, and many of AWA’s members have been honored by RCA. Harry Houck received RCA’s Armstrong Medal (1941) for his independent work and his collaboration with Edwin Armstrong. Louise Ramsey Moreau received RCA’s Lee de Forest Award (1992). RCA’s Ralph Batcher Memorial Award went to Bruce L. Kelley (1978), Louise Ramsey Moreau (1982), Ralph W. Muchow, D.D.S. (1988), Ralph O. Williams (1991) and Ronald E. Frisbie (2006). All made contributions in the science of radio or the preservation of that technology.

Current RCA leaders who are also AWA members include: Vivian Carr (current RCA President), Stan Rubenstein (past RCA President), June Poppele (RCA Board), Carole Perry (RCA Board), Bill Endres (RCA Board) and Ken Hoagland (past Chairman RCA Historical Committee).

In 2009, AWA proudly celebrated RCA’s centennial by coordinating with the Franklin Institution to bring a large special exhibit to RCA’s annual conference in Georgetown. The exhibit included a number of historic artifacts from the AWA Museum. AWA also presented at the RCA Technical Symposium. Among the artifacts on display were Edwin Armstrong’s first AM and FM laboratory models, a Lee de Forest patent model, the first transistor radio and first Motorola cellular radio, the original documents which established the IEEE Edison Medal, and Edwin Armstrong’s certificates awarding him the Edison Medal and RCA’s Armstrong Medal. AWA returned in 2010 with another exhibit on Oliver Lodge and a presentation at the Technical Symposium. Today, the AWA is actively working to preserve RCA’s history.

**AWA’s Origins**

In the late 1940s, as demand increased for an independent club dedicated to radio’s early history, Bruce Kelley (W2ICE), Linc Cundall (W2LC) and George Batterson (W2GB) established themselves as collectors of vintage equipment. They soon began presenting slide shows and artifacts at the Rochester Amateur Radio Association (RARA) and its affiliated clubs.

Kelley, Cundall and Batterson founded the AWA in 1952. The club grew rapidly and quickly achieved national recognition. AWA was featured by the Amateur Radio Relay League (ARRL) in *QST*, and AWA produced several historical movies and slide shows for amateur meetings. These included the AWA’s *The First 30 Years of Amateur Radio* and *The Story of DX* that were shown at ARRL conventions in 1956-1958. AWA received several awards at ARRL National Conventions beginning in 1958. Today, ARRL continues to recognize and support AWA.
The AWA operated out of Bruce Kelly’s barn until 1958 when it relocated to a barn in Holcomb, New York. In 1975, AWA moved into the historic 1837 Academy Building in East Bloomfield, New York (20 miles south of Rochester, NY). Throughout its history, AWA’s museum has and continues to receive hundreds of donations of rare artifacts and equipment which it featured exhibits that were open to the public.

AWA’s offerings grew with its membership. The AWA Journal (f/k/a The Old Timers Bulletin) has been published quarterly since 1960. The annual AWA Conference was first held in 1963. AWA established awards and recognitions beginning in 1971. The AWA Review commenced publication in 1985 in conjunction with the annual Conference that year. Several AWA members participated in PBS’ production Empire of the Air by Ken Burns in 1991. In 1995, the AWA merged with Antique Radio Club of America. Four years later, the combined organization launched an award winning internet site. CD-ROMs of past AWA publications became available in 2000.

**AWA Restructured for the 21st Century**

Beginning in 2007, AWA undertook a significant reorganization to redefine itself for the 21st century. In particular, AWA appointed a New Executive Director, Tom Peterson. The museum and membership service divisions have been combined for more efficiency. The Board of Directors was developed and reconstituted to
bring new participation in the field. AWA re-emphasized its relationships with the Town of East Bloomfield and invested in a new campus that is comprised of a museum, a media center and library, and a restorations building. The AWA Conference expanded into the AWA Convention. The AWA Review expanded and now includes color printing. The AWA Review also became a member benefit rather than a purchased publication. In the past few years, AWA has posted 70 AWA videos onto YouTube.

AWA has also reestablished its ties to ARRL. In 2007, AWA Curator Edward Gable (an RCA Fellow) delivered Hiram Percy Maxim’s personal telegraph key to the ARRL Library and Museum (Maxim founded ARRL in 1914). AWA remains an ARRL Affiliate. AWA also increased its outreach to other organizations, including renewed ties to RCA that led directly to the increased joint activities of the two organizations in recent years.

AWA Team At The RCA Centennial (LtoR): Bruce Roloson, Jim Kreuzer, Felicia Kreuzer, Julia Bart, David Bart, Bob Hobday, Barny Wooters, Richard Neidich.

Today, AWA remains the primary organization dedicated to the preservation of historic electronics communication history. Its mission includes the collection, research, restoration and preservation of objects of historical significance to communications. It seeks to publish facts on the history of communications and to document, index and organize its collection in order to facilitate research and public access to its information and archives. The AWA Museum, and its staff, encourages visitors to learn more about communications and technology; developing educational programs and opportunities for all ages.

AWA’s main outlets for communication with its members are its quarterly bulletin, The AWA Journal, and its website www.antiquewireless.org. In addition to serving as an outlet for administrative information and news about our organization, the Journal serves as a venue for the publishing of articles by members who wish to share technical and historical information. In the latter role, the Journal works hand in hand with its sister publication, The AWA Review, which annually publishes longer, peer-reviewed articles of a more scholarly nature. Each issue of the Journal includes about a dozen regular columns covering various aspects of communications history and technology as well as several feature articles on various subjects reflecting the special interests of the members who submit them. In recent years, the Review has averaged more than 250 pages of carefully researched scholarly material about a variety of topics on the history of electronic communications.

The AWA Gateway is a brand-new publication intended as outreach to newcomers, or potential newcomers, to the AWA ranks. Downloadable from the AWA’s website, www.antiquewireless.org, it is provided free of charge to all. The information in it is generally much more basic and introductory than that published in the Journal. And since the Gateway is released alternately with the Journal, this new publication doubles the AWA’s opportunities to provide organizational news.

The AWA remains the oldest organization of its kind dedicated to providing the world with access to the history of
radio and other forms of electronic communications; favoring organizational decisions that take a long term perspective on the preservation of communication history; sharing knowledge and experience and encouraging others to share in the AWA’s vision.

**AWA Convention**

AWA’s Convention (f/k/a the AWA Conference) is the major international venue for sharing information and resources on the history of communications. It is the largest international gathering of people dedicated to presenting papers and programs on these topics. The first Conference was held in 1963 in Bloomfield, New York. The Conference was later moved to Canandaigua, New York where it remained until 1993 when it relocated to the Rochester Institute of Technology Conference Center.

Beginning in 2007, the Conference was redesigned as the AWA Convention with expanded offerings. The Convention is renowned for its world class educational programs on topics such as telegraph, radio, television, publishing, restoration and current resources for research. The Convention includes a swap meet, book fare and auction. (For information about the AWA Convention, please see www.awamuseum.org.)

In 2010, RCA’s Carole Perry was the keynote speaker at the AWA Convention where she described RCA’s development of its educational programs. The Convention also offered an opportunity for RCA members to tour the AWA Museum.

*RCA’s Carole Perry as the Keynote Speaker at the AWA Convention 2010.*

**AWA’s Contributions To Scholarly Research**

AWA’s membership is known for its dedicated research and scholarly publications. Some recent books published by AWA members include: *Radiola: The Golden Age of RCA* by Eric P. Wenaas; *The Early Development of Radio in Canada* by Robert P. Murray; *Before We Went Wireless: David Edward Hughes, His Life, Inventions and Discoveries* by Ivor Hughes, David Ellis Hughes and Chet Van Duzer; and, *Loud Talker: The Early History of Loudspeakers* by John D. Jenkins.

AWA’s membership operates many highly regarded online resources, such as: *W1TP Telegraph and Scientific Instrument Museums; The Sparks Telegraph Key Review; History of the Atlantic Cable and Undersea Communications*; and, *A Tribute to Morse Telegraphy and Resource For Wire and Wireless Telegraph Key Collectors and Historians*. AWA has also authored the primary web pages for the IEEE about the histories of the IEEE Medal of Honor and the IEEE Edison Medal.
AWA Amateur Radio Activities

AWA offers many annual activities for the amateur operator. Scores for all events are published in *The AWA Journal*. The Kelly and AM competition are simply based on the number of contacts made. Scores for the Rollins and Cundall contests depend on distance, power and the age of the equipment. Modern equipment is allowed, but penalized in scoring. Watch the AWA website at www.antiquewireless.org for details on all upcoming amateur activities, including:

- **January** – Linc Cundall Memorial Old Time CW Contest  
  (featuring equipment made through 1946 using the 160, 80, 40 and 20 meter bands)
- **February** - Annual AWA AM QSO Party  
  (use your favorite AM rigs from any era on the 80 through 20 meter bands)
- **April** - John Rollins Memorial DX Contest  
  (using pre-1960 equipment on the 20 and 40 meter bands, i.e., Collins, Heathkits, Elmacs and other period ham transmitters)
- **May** - Annual AWA & RCA participation in Dayton Hamfest (largest in world)
- **December** - Bruce Kelley Memorial 1929 QSO Party  
  (featuring pre-1929 transmitters on 40 and 80 meters, i.e., Hartley, Colpitts and TNT)

RCA and AWA: Common Ideals and Goals

AWA and RCA are both venerable organizations dedicated to sharing in the future of radio and electronics. AWA and RCA are both committed to preservation. AWA hosts the largest international gathering of people dedicated to presenting papers, programs and demonstrations about the history of radio and electronic communications with members on 6 of the 7 continents. RCA is the oldest organization in the world dedicated to radio communication with many historically important members responsible for the development of electronic wireless communications.

From AWA’s perspective, RCA’s archive is significant and needs to be preserved. It includes documents from the original Junior Wireless Club and its Minute Books starting in 1909. RCA records also include the *Proceedings of the Institute of Radio Engineers* and annual files of radio research commencing in 1913. Records of the *Proceedings of the RCA* start in 1913. There are also copies of RCA *Aerograms* and hundreds of archival photographs. So far, AWA has unpacked 56 file drawers of documents and records.
RCA and AWA: A Bold New Partnership

Beginning 2009, AWA and RCA formally entered into a bold new partnership. Liaisons were established. The Boards of Directors of AWA and RCA established protocols and formal direct ties. The RCA Historical Committee first included, and is now chaired, by an AWA Board Member, David Bart. The Editor of the *AWA Journal*, Marc Ellis, has shared resources with RCA for its *Proceedings* and *Aerogram* publications. RCA’s Jerry Minter Library and Collection were relocated in 2010 to the AWA Max Bodmer Library and Media Center. AWA is now digitally archiving the RCA Library with completion expected by late 2011. The two organizations are also sharing articles and author resources.

In 2010, AWA recognized the RCA individuals most responsible for preserving RCA’s valuable archives. AWA’s Harry Houck Award for Historical Preservation is given to an AWA member who, through personal accomplishment, has acquired, and preserved by documenting, an outstanding collection of radio artifacts. The 2010 recipients of the AWA Houck Award For Preservation included RCA’s Ken Hoagland, June Poppele and William Endres.

![RCA Recipients of the AWA Houck Award For Preservation, Aug. 2010](image)

Ken Hoagland, June Poppele, William Endres with AWA’s Barney Wooters.

RCA and AWA: A Shared Future

Together, AWA and RCA share a vision for the future and are planning for the 21st century under their new partnership. Stated goals include the preservation of milestones in electronics history, increased access to AWA and RCA collections by the public, increased development of publication activity, increased common membership and mutual support, and a desire to recognize future trends in technology. Both organizations have targeted those who are interested in communications - engineers, scientists, marketers, businesspeople, lawyers, regulators, professionals, amateurs, lobbyists, educators, military people and administrators.

AWA and RCA’s vision for the future is a joint one -- ongoing dedication to preserving and fostering the spirit of good fellowship and the free interchange of ideas among all radio enthusiasts.
AWA and RCA: An Introduction To RCA’s New Home At The AWA Museum³
(Part II)
David and Julia Bart⁴

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Introduction

For over a century, RCA has helped to bridge the fields of amateur and scientific inquiry in the science of radio communication. For the past 50 years, AWA has dedicated itself to studying and documenting the history of electronic communications. In this second installment of two articles about AWA and RCA, we introduce RCA’s current membership to the AWA Museum and Library.

RCA Archives Relocated to the AWA Library

In 2010, AWA and RCA formally entered into a new strategic partnership. AWA relocated RCA’s historical archives and document collection from Jerry Minter’s house and storage facility in New Jersey to the AWA Library and began the process of preparing the collection for archival storage. The collection is now located in temperature and humidity controlled environment and archival document storage and acid free filing methods are being used.

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Radio Engineers and annual files of radio research beginning in 1913. Records of the Proceedings of the RCA start in 1913. There are also copies of RCA Aerograms and hundreds of archival photographs. So far, there are 56 file drawers of documents and records.

AWA is digitally archiving the RCA files with completion expected by late 2011. A second cache of RCA archival materials is scheduled for relocation to the AWA Library in late 2011 or early 2012. An inventory of those materials is currently being prepared.

**The New AWA Museum Complex**

The AWA operated out of its founder Bruce Kelly’s barn from 1952-1958 when it relocated to a barn in Holcomb, New York. In 1975, AWA moved into the historic 1837 Academy Building in East Bloomfield, New York (20 miles south of Rochester, NY). The AWA also maintained an “Annex” in East Bloomfield that housed a significant portion of its expanding collection. Throughout its history, AWA’s museum has and continues to receive hundreds of donations of rare artifacts and equipment which it featured exhibits that were open to the public.

**New Signage For The AWA Museum.**

Beginning in 2007, as part of AWA’s expansion and restructuring, plans were laid to acquire land and build a new museum complex in East Bloomington. The Annex was sold to East Bloomington, and AWA moved into two of the three new buildings in 2009-2010. The main museum is currently under construction. AWA hopes to open its new museum in the summer of 2013. The other two buildings housing the library and workshops are now open and in full operation.

AWA’s museum complex is comprised of three buildings. Building 1, the main museum, will feature the best of its collections including many RCA artifacts. Building 2 houses the AWA’s Max Bodmer Library & Media Center holding one of the foremost resources for research into radio and wireless history. The storage, maintenance, restoration and repair shops are housed in Building 3.

**AWA Museum Campus in East Bloomington, New York.**
**AWA Museum**

The AWA’s new museum is a member of the Regional Conference of Historical Agencies and the American Association of Museums. It is the only museum in New York State with a 100% volunteer staff. Exhibit space in the main museum is targeted for completion in the summer of 2013.

The AWA museum holds one of the foremost collections of rare and historic communications equipment in the world. It has over 25,000 artifacts and over 150,000 tubes. Almost 2,000 people visit the museum annually, and approximately 100 people receive research assistance each year.

The oldest artifacts date from 1840s. Holdings include: Edison items, Marconi shipboard and early wireless displays, a replica 1925 radio store, the Louise Moreau telegraph collection, broadcast radio collections, ham radio equipment, wire recorders, televisions, World War II radio, metrology, meters, x-ray equipment, early telephones, military equipment and one of the largest tube displays in the world.

![Entrance to Building 1 Main Museum.](image)

The main museum located in Building 1 will feature the best of AWA’s collections. The museum will house permanent and special exhibits, a theater, a projection room, mechanical rooms and a gift shop. All of this will reside behind a unique entrance designed to look like a blue-mirrored Sparton radio.
The Museum will feature many hands-on displays for the amateur radio operator. The restoration of the AWA’s James Millen 1930 station has recently been completed. The Museum’s dedicated amateur radio call signs include W2ICE and W2AN. The new museum will showcase the history of amateur operations with operating stations from each decade after 1912. All types of equipment will be shown (depression era breadboards to high end retail equipment). Amateurs may show a license and operate on CW, AM, SSB on HF, VHF, slow scan, RTTY and packet.

The Eastman Kodak Company recently donated its amateur radio equipment. Other major collectors continue to donate as well, including the late Larry Babcock whose collection of World War I airplane radio equipment was received in 2010.

**Resources of the AWA Library**

AWA has become an important repository of documents relating to the history of electronic communications. The AWA’s comprehensive document collection includes items from 1840 to present, and, AWA’s collection has many items directly related to RCA’s milestones. The new Library and Media Center in Building 2 was occupied in 2007, and it was dedicated by Max Bodmer in 2009. The contents of AWA’s Annex were relocated into the new facilities in summer and fall 2010.

AWA is currently undertaking a massive effort to modernize and professionalize its museum archival storage including cataloguing, environmentally controlled storage and digital archiving. AWA’s Library and Media Center offers one of the foremost resources for research into radio and wireless history. The facility occupies 3,200 square feet of space plus storage. More than 60 linear feet of display space house rotating special exhibits.
A permanent display donated by Max Bodmer highlights the Telstar Communications Satellite with the original Telstar model and radio broadcast tubes. The library’s inventory currently holds more than 18,000 books, catalogues and magazines; 700 files of rare documents, slides and photographs; and, 95 boxes from the Radio Corporation of America’s reference library at the former Harrison, New Jersey tube factory. Rare original recordings of Marconi, Armstrong, de Forest, Sarnoff, Gernsback and a slide/tape show prepared by Clarence Tuska on the founding of the ARRL are available. New digital archives of documents and images - over 8,000 images scanned and catalogued to date – are also available. The digital archives are estimated to be completed in 2012 and will number over 25,000 catalogued images.
In 2009 the AWA Library hosted a temporary display relating to Lord Kelvin and the 1858 Atlantic Cable. In 2010, the AWA Library featured a special display of Oliver Lodge items and rare documents. A portion of this display was brought to the RCA Annual Banquet in New York in October 2010 to introduce the AWA Library and to share its collection with RCA’s members.

Two Views Of The AWA Museum’s Oliver Lodge Display At The RCA 2010 Banquet. Note the exceptionally rare 1903 Lodge wireless telegraph receiver in the corner.
Conclusion

Together, AWA and RCA share a vision for the future. AWA looks forward to hosting RCA’s members and invites them to use its resources. Through common membership and mutual support, AWA and RCA hope to recognize and document past and future trends in technology and to preserve them for posterity. We invite you to get involved and to share AWA and RCA’s joint vision for the future – dedicating, preserving and fostering the spirit of good fellowship and the free interchange of ideas among all radio enthusiasts.