

**ARRL Historical Committee**  
**Report to the ARRL Board of Directors**  
**July 2023, Rev. A – Dave Propper, K2DP – Chair**

1. Committee Meetings – The committee met in person at the January 2023 Board Meeting and has met monthly via ZOOM since that time. The committee will meet again in person on Thursday, July 20<sup>th</sup>, prior to the July ARRL Board of Directors meeting.
2. Committee Membership and Adjunct Volunteers
  - a. Harold Kramer, WJ1B, has joined the committee as a volunteer
  - b. Bob Naumann has reached a “handshake agreement” with the staff volunteers of the Vintage Radio and Communications Museum of Connecticut to work “hand-in-hand” with ARRL volunteers to assist in the further organization and display of the ARRL Historical Collection.
3. Committee Tasks – the committee remains committed to its objectives as previously noted:
  - a. Document and preserve the history of the ARRL
  - b. Document and preserve the history of Amateur Radio
  - c. Document and preserve the history of radio communications through Amateur Radio and the technological developments attributed to Amateur Radio
  - d. Document and preserve the history of Amateur Radio equipment manufacturers and their contributions to the development of radio communications technology
  - e. **Make as much of this information available to all ARRL members through an “on-line” Virtual Museum**
4. ARRL Historical Collection Status
  - a. Documentation Inventory – George Papp has been working with the library and located an inventory of the documentation considered part of the ARRL Historical Collection. Tom Kerr has converted this inventory to a pdf file for preservation. There may also be an Excel version of the file, but it has not been located yet. No effort to date to verify the accuracy of the overall listing or check against the actual library inventory. Both tasks will require significant resources.
  - b. HQ Lobby Display – The lobby display area has been changed over to highlight a display of Heath Company equipment in the ARRL collection. This display will be in place throughout the summer months.
  - c. Harvey Wells Collection – The Harvey Wells equipment donated last year by Hamilton Agnew will be placed on display in the HQ lobby later this summer, along with other Harvey Wells equipment already in the ARRL Collection. Mr. Agnew will be visiting ARRL HQ on August 24<sup>th</sup> to give a presentation on the history of the Harvey Wells Company. Joining Mr. Agnew for the visit, will be surviving members of both the Harvey and Wells

families. The presentation will be recorded and available through the ARRL Historical Collection Virtual Museum.

5. ARRL Virtual Museum Software and Web URL's – ***the museum is now a reality !***
  - a. Software Acquisition – The license for the “CatalogIt” software was purchased earlier this year and the software is now in use, forming the foundation for the ARRL Historical Collection Virtual Museum.
  - b. Virtual Museum – The “data base” for the virtual museum resides in the “CatalogIt” cloud and is currently being loaded with data by committee member, Chuck Penson, WA7ZZE. Chuck has given the ARRL his complete data base of Heathkit Amateur Radio Equipment and has completed the upload of all Heathkit Amateur Radio Products into the CatalogIt data base. Chuck has also begun uploading data on Hallicrafters equipment. A live demonstration of the Virtual Museum will be given to the Board on Thursday evening, July 20<sup>th</sup>. ***A very special thank you to Chuck for all of the hard work he has done in loading the CatalogIt data base with the complete Heathkit collection and data !!!!!!!***
  - c. Web Based Access to the Virtual Museum – Working with Steve Berry, ARRL Director, Information Technology, a web link to the Virtual Museum will be placed on the ARRL web site for all ARRL members to access.
6. Historical Collection – Accession Process and Status
  - a. AEA Corporation Artifacts – The wife of the President (sk) of AEA (Advanced Electronic Applications) , manufacturers of the famous line of AEA Memory Keyers, etc) contacted Bob Naumann about the possibility of donating the remaining artifacts (engineering models, samples, etc) of the company to ARRL. The donation has been received and photographed and are presently stored for future display.
7. Progress on the projects planned for the 1<sup>st</sup> half of 2023
  - a. Select and purchase Virtual Museum Software (CatalogIt) – ***Completed***
  - b. Complete inventory reconciliation of ARRL historical collection including, equipment, historical artifacts, books and other documentation – ***Work continues on these projects with the inventory of the “documentation” portion of the collection recently identified.***
  - c. Begin creation of the ARRL Historical Collection Virtual Museum :
    - i. ***The Virtual Museum is now a reality. It currently contains a complete Heathkit data base with photos and data regarding each piece of equipment. Creation of the Hallicrafters section of the museum is in process.***
    - ii. Photograph the pertinent equipment, artifacts and documentation to be displayed on the Virtual Museum website
    - iii. Convert relevant books and documentation to pdf format for access through the Virtual Museum website
    - iv. Populate the Virtual Museum software data base with the graphic, text and pdf files created in items “ii” and “iii” above
    - v. Curate the museum collection and select equipment and artifacts for display in the HQ lobby museum area and the rotation of those items – ***First rotational display is in place in the ARRL HQ lobby. A collection of Heathkit equipment is currently on display, with older display material returned to storage. The Harvey Wells collection will be placed on display later this August.***

8. Alternative Path to development of Digital data for the “ARRL Historical Collection Virtual Museum”
  - a. Due to the lack of resources, the committee has sought an alternative path to creating the “digital” data files (photographs, etc) required for the Virtual Museum project
  - b. As previously mentioned, Chuck Penson, WA7ZZE, has generously authorized the use of his “data set” for the Heathkit Amateur Radio product line. - **Completed**
  - c. Numerous previous ARRL Publications have contained excellent photographs of vintage equipment, leading the committee to determine whether this “data set” could be used to support the ARRL Virtual Museum.
    - i. Many of the publications produced by ARRL used the photographs of Joe Veras, K9OCO. The committee has been in conversation with Joe, who has offered his collection of photographs for use in creating the ARRL Virtual Museum. At this time, Joe has taken ill and discussions are on hold pending his recovery.
9. Legacy Amateur Radio Software
  - a. The Committee is presently looking at the maintenance of “legacy” software in a similar fashion to how we look to preserving information regarding vintage equipment. Please see the addendum to this report for additional details provided by Committee Member, Carl Luetzelschwab, K9LA, Director, Central Division.

## 10. Current Committee Roster

| ARRL Historical Committee Membership - 07/11/23 |               |        |  |  |
|---|---------------|--------|--|--|
| first name                                      | last name     | call   | ARRL position                          | e-mail   |
| Rod   | Blocksome     | KØDAS  | former Chair                           | rod.blocksome@gmail.com  |
| Tom   | Brooks        | KE1R   | volunteer                              | <a href="mailto:tbrooks.ct@gmail.com">tbrooks.ct@gmail.com</a> |
| Harold  | Kramer        | WJ1B   | volunteer                              | <a href="mailto:wj1b@arrl.net">wj1b@arrl.net</a>               |
| Carl  | Luetzelschwab | K9LA   | Director Central Div                   | <a href="mailto:k9la@arrl.org">k9la@arrl.org</a>               |
| Bob   | Naumann       | W5OV   | Director of Operations - Staff Liaison | w5ov@arrl.org  |
| Lynn  | Nelson        | WØND   | Vice Director Dakota Div               | <a href="mailto:w0nd@arrl.org">w0nd@arrl.org</a>               |
| Dick  | Norton        | N6AA   | Director Southwestern Div              | richardjnorton@yahoo.com                                       |
| George  | Papp          | K1YBO  | volunteer                              | <a href="mailto:gpapp@snet.net">gpapp@snet.net</a>             |
| Chuck   | Penson        | WA7ZZE | volunteer                              | <a href="mailto:wa7zze@gmail.com">wa7zze@gmail.com</a>         |
| Dave  | Propper       | K2DP   | Chair - Vice Director Midwest Div      | k2dp@arrl.org  |

Addendum  
Provided by Director Luetzelschwab, K9LA

### **Managing Software**

Last year Bill Liles NQ6Z and Steve Stearns K6OIK recommended that the ARRL form a sub-committee of volunteer software experts to preserve or modernize legacy software. This issue has been discussed in earlier Board Meetings.

Here are some examples of recent issues with legacy software.

- 1) Production source code for HFTA (High Frequency Terrain Analysis) was lost when N6BV retired from the ARRL. K6TU is working on resurrecting it, including updates.
- 2) When Martin Minow, K6MAM, became an SK in 2000, his MorsePractice software stopped working after a Java update. HZ1JW modernized the software to keep it running.
- 3) When Sheldon (Shel) Shallon, W6EL, became an SK in 2015, any updates to his W6ELProp propagation prediction software ceased. W6ELProp was developed for Windows® 95, 98, ME, XP, 2000, or NT. A year before he became an SK, K9LA asked Shel if he could have the source code – no response. NQ6Z has begun an effort to write code replicating W6ELProp.

There are many other software packages that might be inconvenient to lose. The packages include circuit design, filter design, antenna modeling/design/computational electromagnetics, other electromagnetic applications, transmission line analysis, CW training, propagation software and other general categories.

Legacy software packages fall into two categories: those with source code and those without source code. For packages without source code, there is no way to uniquely recover source code from executable code or compiled object code. The best that can be done is to use a disassembler program to convert executable code to assembly code. From this, an expert software programmer may be able to reconstruct source code (labor intensive – perhaps only for relatively simple, short programs).

### **Draft Path Forward**

Here is a first-pass plan to address legacy software.

- 1) Put together a volunteer list including other organizations (RSGB, for example)
- 2) Determine which software packages are worth saving
- 3) Software with source code

Put source code in escrow

When developer becomes an SK (or for whatever reason), have volunteers modernize the software to keep up with updated (or new) operating systems

4) Software without source code

Put the program in escrow

When developer becomes an SK (or for whatever reason), have volunteers develop a modern version

5) Maintain machines with 'old' operating systems to know what the old software baseline is

6) Try to convince developers to implement recommended programming practices to make it easier to carry their software into the future