2022 ANNUAL MEETING ARRL BOARD OF DIRECTORS Windsor, CT January 21-22, 2022

Report of the Chief Financial Officer

We all hoped that 2021 would be the post COVID-19 period with a return to some normalcy. Unfortunately, although some in person events returned and government lockdowns are over, we were and still are far from a pre-COVID-19 state. ARRL has been impacted by supply chain issues, product shortages, significant price increases, and a national employment environment that is unprecedented. In 2020 we adapted to immediate needs and ways to stay functioning. In 2021, we shifted from thinking of things as temporary to how to move forward productively and proactively. This required shift brought several achievements ARRL should be proud of this year.

- The staff has developed a trust in our protocols and dedication to keep headquarters as safe as possible. Through following the protocols, open and honest communications related to exposure and reporting illnesses, we have managed to prevent even a partial shutdown of the organization.
- Beginning in March, each week the ARRL Letter has been posted in an accessible format
 for hams who are blind or have a print-reading impairment. The text-only version is posted
 to the Blind-hams Groups.io email group service which is a group dedicated to
 discussions about amateur radio as it concerns blind hams, and related topics including
 ham radio use of adaptive technology.
- In April, the highly successful End-Fed Half-Wave Antenna Kit was introduced. By year end we sold 2,044 units adding \$134,000 to sales revenue.
- A Volunteer Monitor, from Mission Viejo, CA, received a commendation from the Department of Homeland Security United States Coast Guard for assistance in resolving a Marine Channel-16 interference issue in the Los Angeles area.
- Several active hams were added to our management team that included Bob Naumann, W5OV, Mike Walters, W8ZY, Steve Goodgame, K5ATA, and Josh Johnston, KE5MHV.
- The W1HQ club station was fully renovated and is currently being upgraded into a state of the art extension of the Lab, *The ARRL Radio Lab*.
- In July, under strict masking policies, we reopened W1AW and the ARRL lobby to guests. Utilizing some of the previous tour guides, a new volunteer program was initiated at W1AW to assist visitor operators from 10:00 a.m. to 3:45 p.m., Monday through Friday. As a result of this new program, W1AW is no longer closed in the middle of the day.

- Movement toward our digital transformation included configuration of the media studio with new cameras and equipment that supports live video streaming, 4K video recording, and minimizes post-production editing. ARRL's visibility on our YouTube channel has increased with over 80 videos published to support a variety of our programs and objectives across the organization along with successfully engaging the YouTube community to expand our reach.
- In November, the Education and Learning Department launched the new ARRL Learning Center and has seen rapid growth in users.

Financial Results

The financial reports are included as Attachment #1 to this report. For the most part, this report focuses on the year-end results. As always, at this point in our year-end cycle, they are *preliminary and unaudited*. While we have included all the known transactions to this point, there will be additional invoices, etc. received before the books are finally closed for the year and the year-end audit is completed in May.

Overall

Although unexpected and small, income from operations was positive for the year. While the overall result as measured by income from operations was positive, it was solely due to lower spending. Total revenues from operations were on target with the Plan while expenses were well under the original forecast. Income from operations for the year was a gain of \$75,000 against a planned loss of \$1 million, and \$117,000 lower than 2020. In 2020, product sales were extremely strong with shut in buying.

Net Available Income (NAI) for the year was also greater than forecast due to lower spending primarily in payroll and benefits for vacant positions. Total NAI for the year was \$2.3 million in comparison to the Plan of \$2.15 million, about \$149,000 more than planned and \$136,000 less than 2020.

The value of the ARRL investment portfolio increased during 2021 to a total of \$36.6 million, up from \$33.0 million on December 31, 2020. The portfolio had a year-to-date unrealized gain on investments of \$1,042,000 as of the end of December. Sales from the portfolio also added \$724,000 in realized gains allocated to operations during the year. Further discussion on the portfolio is deferred to the Treasurer and his report.

Balance Sheet

ARRL's balance sheet as of December 31 continues to be healthy. Assets were \$43.8 million at the end of December with \$39.7 million in cash and investments. This was up from \$40.2 million and \$36.7 million, respectively, at the end of 2020.

Income

Total revenues earned through December in the Income segment fell short of Plan by \$185,000. Most revenues streams struggled in 2021. Total revenues in the Income segment for 2021 were \$13.3 million, \$289,000 lower than last year.

Publication sales revenue fell short of target by \$34,000 for the year. Strong sales of *The ARRL Handbook*, training aids, the end-fed half-wave antenna kit, and membership supplies were not enough to offset the large shortfalls in the royalty and other book categories. Publication sales struggled this year due to delayed arrivals from paper shortages and supply chain issues.

Total Dealer sales were just over \$1 million, 37% of total sales for 2021 up from 33% in 2020 but down from 43% in 2019.

		2021	2020	2019
Amazon	Total Sales	\$831,587	\$781,395	\$845,233
	% of Dealer Sales	78%	76%	71%
HRO	Total Sales	\$83,597	\$74,395	\$135,369
	% of Dealer Sales	8%	7%	11%

ARRL's Top 2 Dealer Customers

Amazon orders generally impact most book categories but the largest title by far was the *Ham Radio License Manual*, followed by other training aids. While their purchasing volumes started the year off very strong, in April the volume dropped significantly after Amazon initiated a new Advance Purchase Order process. This process resulted in smaller orders with delivery dates out several months in advance. However, by year-end Amazon purchases were close to the 2019 volume. Year-to-date publication sales totaled \$3.35 million, falling short of Plan by \$34,000 and \$315,000 lower than 2020.

Besides QST advertising continuing to fall short of the Plan, Advertising took a second hit with events continuing being cancelled reducing advertising revenue opportunities. To help offset these losses, additional revenue was generated from Field Day and Contest supplement sponsorships. Web banners and electronic advertising opportunities continue to be popular, exceeding targets for the year and helping to make up for some of the shortfall. Total Advertising sales for the year was \$1.6 million, \$25,000 lower than planned but \$16,000 more than 2020.

Earned dues income fell short of expectations for the year. Year-to-date earned dues was \$6.7 million, \$276,000 less than planned and \$49,000 less than last year. As of the end of December, total membership stood at 158,601 members, 1,846 members behind forecasted. The shortfall was the result of a combination of factors. First, approximately \$65,000 is attributed to the lower amount being amortized in 2021 that was deferred in 2020. The previous year's deferral often impacts current year revenues based on the time of year when the Plan is developed. Second, it was discovered during the year that the Life Member database contained 1,399 silent keys. This data was corrected and resulted in life member dues being \$35,000 lower than planned. And third, in May, it was discovered that a critical mailing to lapsed members was stopped beginning in January and resulted in a severe decline in membership. These mailings typically reinstate about

400 members each month. The Marketing and Communications Team worked diligently to recapture these lost members during the second half of the year with some success. When you subtract the unexpected life members removed from the database, membership fell short by only 447 members (1,846-1,399). Although still missing targets, it does show the results of the efforts made by the team.

The magazine revenue category produced revenues of \$176,000 in 2021, falling short by \$26,000. QEX, NCJ and QST Dealer sales were all lower than Plan. Circulation of QEX and NCJ continue to decline each year. The past few years there has been a steady decline of approximately 10% each year in paid subscriptions. Adding to the lower revenue was lower than planned deferred subscription revenue recognized from the previous year.

	December 2021	December 2020	Variance	Variance
NCJ	1,605	1,807	(202)	-11%
QEX	4,376	4,830	(454)	-9%

Actual Subscriber Numbers

Total program fee revenues for 2021 fell short of target by \$10,000. Awards revenue was over plan by \$29,000 but not enough to offset the \$39,000 shortfall in VEC fees. Although the number of award applications was down from 2020, the revenue generated was slightly ahead of last year. The ARRL VEC has struggled with market share since the pandemic began. The VEC has worked proactively to train VEs on remote testing and electronic submissions in an effort to regain more of the market share. Program fees year-to-date were \$907,000 against the Plan of \$917,000, yet \$44,000 greater than last year.

Investment income allocated to regular operations was \$388,000 in 2021, \$167,000 greater than planned, and \$66,000 more than 2020. The greater than Plan year-to-date results were attributed to actual investment balances being larger than assumed in the Plan combined with actual earnings rates begin greater than planned. Also adding to the revenues for the year was \$724,000 in realized gains on investments allocated to operations.

Voluntary contributions exceeded the Plan in 2021 by \$184,000 with most negative variances being offset by underspending, particularly in Education & Technology and Ham Aid. Also lowering recognized contributions was the decision not to utilize the Ethel Smith Exceptional Fund in 2021, therefore preserving it for future needs. All these lower areas were more than offset by the greater than targeted results in other funds. The earnings on the Capital Campaign and Dave Bell Funds (a function of better than planned realized investment income) exceeded Plan by \$169,000, while Diamond Club and Spectrum Defense exceeded targets by \$60,000 and \$16,000, respectively. Miscellaneous contributions also exceeded the target by \$146,000. Contributions for the year stood at \$1.3 million against the Plan of \$1.1 million.

The year-end total for the other revenue category was \$1.5 million. This was \$359,000 more than planned. Most of the variance (\$330,000) was the Employee Retention Tax Credit ARRL qualified for and filed with the IRS related to the period between the Governor shut down of non-essential buildings and the receipt of the Paycheck Protection Program (PPP) Loan. While we have not

received these funds yet, an accrual is required to go on the books. Also contributing to the greater than planned results was an additional \$16,000 from the annual auction and additional PPP loan forgiveness due to additional unplanned interest.

Spending in the Income segment was under Plan for the year. Year-to-date spending was \$10.9 million, \$334,000 less than planned, and \$152,000 less than last year. Significant variances include:

- Product Sales was over Plan by \$109,000 due to the higher than planned cost of goods sold related to certain unplanned products such as the end-fed half-wave antenna kit.
- QST and magazine expenses were over Plan by \$98,000 due to unexpected increases in the costs of production and forwarding.
- Membership expenses related to cancelled events and travel contributed \$117,000 in lower spending for the year.
- Administration expenses were lower than planned due to the financial impact of turnover in the administrative positions, lower legal expenses related to CT Counsel and reduced travel due to cancelled events.
- Development spending was lower than planned due to the lower printing and postage expenses related to the decision to delay the Legacy mailing that was planned for 2021.
- Controller's expenses were lower than planned due to the delay in beginning depreciation of the Learning Center and Personify 360.
- IT spending was lower than planned by \$456,000 (net of consulting expenses) due to temporarily vacant positions.
- Human Resources expenses were greater than plan by \$171,000 due to a combination of unplanned expenses. The largest expense being consulting expenses related to the salary survey, Employee Retention Tax Credit filing and employment search firms. Other unplanned expenses included employee relocation, legal fees, and the increase in unused PTO that is required to be expensed according to accounting standards.

Spend

Spending on Advocacy, Member Programs, and Governance was substantially under Plan for the year. Total spending on these activities stood at \$3.5 million, about \$743,000 less than planned and \$286,000 less than 2020. Areas of interest include:

- Departments underspent due to temporarily vacant positions or timing of new hires were: The Washington Office, Public Relations, Awards, Emergency Management, Education & Learning and the Lab.
- Areas underspent due to travel restrictions include: The Washington Office, IARU, Outreach, Emergency Management, Education & Technology, Section expenses along with Governance spending.
- VEC was overspent due to the need to develop, produce, and ship new tests and answer key templates.

Cash Flow

Cash flow from operations for the year was a positive inflow of \$513,000. Contributing to the positive flow was a total of \$1 million transferred from the investment portfolio during the year.

As a reminder, operational cash from investment income allocated to operations, uses of endowment fund earnings (fund uses) and the annual cost draw (\$25/ life member) from the Life Member reserve are retained in the portfolio until needed. In 2021, theses earnings totaled \$1.8 million.

Operational Results

Membership, Marketing and Communications

(Includes Membership, Sales, and Advertising)

Publication and Product Sales

The top ten publications and merchandise lines make up 66% of the publication sales.

Top 10 Grossing Publication Titles and Merchandise Lines for 2021

Product Description	QTY	Gross	Net Sales
		Sales	
ARRL Ham Radio License Manual	21,911	\$514,244	\$470,429
ARRL Handbook	9,320	\$413,227	\$266,209
ARRL General Class License Manual	10,399	\$245,456	\$216,715
ARRL Extra Class License Manual	8,026	\$192,220	\$166,700
ARRL Antenna Book	3,886	\$152,152	\$111,420
End-Fed Half-Wave Antenna Kit	2,044	\$133,893	\$40,287
ARRL Field Day 2021 Merchandise	6,225	\$69,892	\$37,856
ARRL Operating Manual	3,784	\$66,487	\$57,252
Grounding and Bonding	2,826	\$51,056	\$44,645
Understand Basic Electronics	2,176	\$47,521	\$39,799
TOTAL – Top 10		\$1,886,148	\$1,451,312
TOTAL – All Products	\$2,854,546 \$2,		\$2,049,073
Top 10 as a percentage of total sales		71%	

Other notables for the department include:

- The partnership with HF Kits that produced the End-Fed Half-Wave Antenna Kit continues to be successful. By year end we sold 2,044 units adding \$134,000 to sales revenue.
- The 2022 ARRL Handbook was introduced several weeks late due to printer and shipping delays. However, with the help of new marketing tactics, including the Monday Night Ham Radio YouTube video series and a successful print campaign offering a custom "2022 Handbook" notebook, the 2022 edition met its forecast.
- The marketing team engaged with members at 4 major events this year. The QSO Today Virtual Ham Exp and three in-person events; Huntsville Hamfest, Northeast HamXposition, and Pacificon.
- The Warehouse fulfilled 48,534 parcels in 2021, compared to 68,647 in 2020. Although that was a significant decrease from 2020 it was about the same number of parcels as 2019. As a point of reference, during 2020 Amazon and other dealers stopped ordering our books and sales shifted to individual sales which resulted in the huge increase in number of parcels.
- Member Service Representatives handled a total of 37,441 phone calls in 2021, compared to 38,855 calls in 2020. 566 of these member calls were during the new extended hours that took effect in September 2021. This team also administers all data-entry, customer service, and related administration for direct sales, membership, and periodical circulation.
- Grew the *On the Air* Monthly Email subscribers to 19,421.
- *Digital Only* memberships were up 19% from the end of the year in 2020, evidence that the digital transformation strategy is beginning to catch on.
- Distributed over 7.9 million emails with 99.6% deliverability via our new Higher Logic email platform.

Membership

As mentioned earlier, the year ended with 158,601 members – putting ARRL 1,846 members behind the original year-end goal. This represents an increase of 107 members for the year. An increase of 1,953 members was originally forecasted. In early 2021, Life Member statistics were discovered to contain hundreds of silent keys still being counted as active members requiring a complete audit of these member records. The clean-up of this data resulted in 1,399 Life Members being marked as Silent Keys in our database.



The overall retention rate for 2021 was 81.8% as compared to 83.1% in 2020. This figure, of course, was impacted by the Life Member Silent Keys that were removed from our database.

The number of Life members as of year-end was 18,961 members, with an additional 91 members participating in the 70+ Life Membership Program.

At the request of the ARRL board, the life membership payment plan was re-established in August. A total of 70 members are currently making payments toward Life Membership.

Advertising

New advertisers this year included Alfa Radio Ltd., BeLoud.US, WA7ZZE, Penta Laboratories, VHQ Hex Antenna Products, WA3RNC and Olah Technologies (previously Air Boss under different owner). Focus is continuing on companies whose products align with Amateur Radio, including European companies, to advertise with us.

The ARRL Letter remains a popular advertising vehicle, especially due to the number of members (114,000) who have opted to receive it and the open rate, which equals about 65% each week. Feedback from advertisers is very positive, particularly those who change their ads on a weekly or monthly basis.

Some other highlights include:

- Sponsorship of the ARRL Auction.
- Although not in the 2021 Plan, the sponsorship of the Field Day and Contest Supplements in *QST*.
- Ad space has been sold in The Current email newsletter.

While the revenue won't actually be earned until 2022 the work was done to secure the following sponsorships for 2022, totaling \$37,500:

- The National Convention Training Tracks Program.
- The ARRL shopping bag.
- The June 2022 Field Day supplement.

Development

The Development Office finished 2021 overall with strong results. There were 1,883 unique donors that contributed \$1.6 million to ARRL.

Gross Contribution Results versus Plan as of December 31, 2021

2021	12 Month	12 Month
	Actual	Plan
Diamond Club	\$439,607	\$380,000
Unrestricted Donations	260,292	93,000
Education & Technology Fund	134,731	145,000
Spectrum Defense Fund	255,798	285,000
Second Century	48,605	45,000
General Endowment	399,951	0
Other Established Funds	65,787	52,000
Total to Date	\$1,604,771	\$1,000,000

Included in the above are 5 estate bequests ranging from \$2,200 to \$250,000 along with \$11,000 in charitable donations through the AmazonSmile giving program. There are 4,602 Amazon customers who have chosen ARRL as their charity. This is an area for substantial participation growth that will be pursued.

ARRL welcomed 34 new Maxim Society members in 2021 including our very own Rod Stafford, W6ROD. As of the end of the year, there are 331 Maxim Society members. Additionally, 8 Maxim Society members achieved Ambassador Level including our very own Arthur Zygielbaum, KØAIZ, and Rick, K5UR, & Holly Roderick. Also reaching higher Maxim Levels were:

Benefactor Level:

- Tim Constable, W1TCC, of the New England Division
- Thomas Hutton, N3ZZ, of the Pacific Division

Founder Level:

- Craig Goldman, K2LZQ, of the Hudson Division
- Craig Thompson, K9CT, of the Central Division

Contributions to ARRL's unrestricted General Fund total \$251,000, exceeding the twelve-month plan of \$93,000 by \$158,000. Contributing to this success was Development set and reached the goal to raise \$20,000 in contributions on Giving Tuesday, up from \$11,000 in 2020. The number of donors increase to 136 donors from 91 donors last year.

Two Diamond Club Premiums were designed for 2021 – a Diamond Club Challenge Coin and a unique First Day of Issue Cover piece to display both the Challenge Coin and the original stamp issued by the U.S. Postal Service in December 1964 honoring the ham radio community's

Emergency Communication efforts during the Alaska earthquake that struck earlier that year. Traditionally the Diamond Club Premium has been sent only to new Diamond Club Members. To encourage Diamond Club member upgrades, the Challenge Coin was given to both new and renewing Diamond Club members at the \$100 level or above, and the First Day of Issue display was given to new and renewing members at the \$375 level or above. A total of 256 Diamond Club members increased their giving levels in 2021 (163 at the \$100-\$349.99 level; 93 at the \$375+level). The Diamond Club contributions of these members totaled \$129,277. Additionally, Diamond Club welcomed 193 new members in 2021. Of those new members, 112 joined at a level to earn one of the Premiums (81 at the \$100-\$349.99 level; 31 at the \$375+ level).

Due to the success of this year's Diamond Club Premiums, we will again be offering two premiums for both new and renewing members at two different contribution levels. Planning has also begun to increase the Diamond Club minimum entry level for term members from \$85 to \$95. Development will be working with the Marketing, Communications, and Membership department on this rollout.

The number of Diamond Club members at year end was 1,580 versus 1,519 at the end of 2020 and exceeded the revenue target by \$60,000 for the year.

Based on recommendations in the development assessment report provided by consulting group Johnson, Grossnickle and Associates, Inc., Development began sending acknowledgement letters to donors on a daily basis in the fall of 2021 versus the weekly batch process previously used. While during peak times, daily may not always be possible, daily is the goal going forward.

Planning has begun for the 2022 Donor Recognition Reception to be held in May in conjunction with 2022 Hamvention. The Schuster Center Wintergarden was secured pre-COVID, and they have honored our prepayment for the 2022 Reception at the same price.

VEC

ARRL VEC's market share of total Amateur Radio exams administered is currently 66%, down from 68% in 2020. Market share declined at the beginning of the pandemic, as teams shifted to the ExamTools online examination system, and efforts continue to recapture the loss. For the remote video sessions, every VEC organization in the country is using the same ExamTools system.

VEC staff solicit VEs about going completely digital and new VE teams are trained in the ExamTools system every week. We achieved 45% organic growth in the system last year and despite our test fee being the most expensive at \$15, we had the largest number of exam applicants served in ExamTools in 2021.

There has been a heightened interest in acquiring a new or upgraded Amateur Radio license while the pandemic restricts movement and activities. The availability of remote video online sessions makes it easy for candidates to take the exams. In the past two years, more than 26,000 applicants have taken online exams.

Total Exam Applicants Served in ExamTools Per VEC By Year						
VEC	2020 Applicants A		Growth %			
ARRL	3,455	5,019	45%			
W5YI	3,988	3,780	-5%			
GLAARG	3,717	3,826	3%			
Laurel	520	1,001	93%			
Anchorage	149	1,123	654%			
SANDARC	0	67	0%			
Total Applicants Served	11,829	14,816	25%			

Total FCC license activity rose by 10% in 2021.

2021 FCC LICENSE RESULTS						
License Action 2020 2021 % Change						
New Licenses	29,911	31,597	6%			
Upgraded Licenses	9,155	11,391	24%			
Total Licenses	39,066	42,988	10%			

At the end of 2021 there were 779,924 Radio Amateurs in the FCC database (year-end totals for 2020, 2019, 2018, and 2017 were 771,688, 763,539, 755,430, and 748,136 respectively).

A review of 2021:

- New Amateur licenses granted by the FCC are up 6% compared to last year.
- Upgraded licenses issued by the FCC are up 24% compared to last year
- 28,411 total license application forms were filed by ARRL, compared to 26,712 in 2020.
- ARRL served 26,806 exam applicants in 2021, compared to 28,490 in 2020.
- 8,478 exam sessions were conducted by ARRL in 2021, outpacing the 7,180 sessions in 2020. Sessions conducted are higher as teams shift to the online examination system. A large number of remote video sessions are one examinee to one team of three VEs (1:1 ratio). The video session numbers will be skewed on the high side because most teams are only examining one candidate per session, while conducting multiple sessions per day. These types of sessions are time consuming and labor intensive for the VEs.
- Exam elements administered by ARRL increased from 34,941 last year to 38,439 this year. At in-person sessions examinees are encouraged to try the next level exam for free. Most do not expect to take the test and are ill-prepared for the exam. Remote video sessions have

a time limit for candidates (approximately 30 minutes per exam) so teams can swiftly move through the list of waiting examinees. As teams become more versed in the online exam system, they are allowing candidates to attempt higher-level exams without prior notice.

- Club license activity dropped in 2021. 1,222 Club license applications were filed to the FCC compared to 1,568 in 2020. 261 new club license requests were filed this year vs. 336 last year.
- Despite the reduced in-person licensing activity, 1,891 new Volunteer Examiners (VEs) have been added to our program. The total number of Accredited ARRL VEs at year-end was 27,406.
- Since April 2020, 1,000's of VEs have been trained to conduct video-supervised online exam sessions using a video platform and the ExamTools online examination system. In the past two years, ARRL teams tested over 8,000 applicants via this web-based platform.
- The ARRL VEC's exam session upload page remains popular. The interactive upload page allows users to submit a variety of electronic documents quickly and easily. Of the 8,478 sessions administered, 5,625 were electronically filed through our secure upload webpage.
- Maria Somma, AB1FM, is our representative to the NCVEC Question Pool Committee (QPC) and serves as the NCVEC Vice Chairman. She participated in the review and production of the new Element 2 Technician class question pool which will take effect July 1, 2022. This past year, she was tasked with document control for the group and worked each week for the past year to improve and modernize the pool.
- For the first time in the history of our program, a VE has achieved participation in over 4,000 sessions. Congratulations to Gary Pike, KA4KBX, from Roanoke, AL for achieving this honor in December. Six ARRL VEs have participated in over 1,000, one has over 2,000, and three have over 3,000.

Field Services

The responsibility of Field Services is to manage and communicate with the volunteer field leadership and with the arrival of Mike Walters, W8ZY, that communication and engagement with the field has grown significantly. Communication has increased through the following programs:

- 1. Monthly Section Manager calls inviting all Section Managers to participate.
- 2. Division level calls to introduce specific topics from each division.
- 3. Use of the All-Section Manager email reflector.
- 4. Introduce the All-Affiliated Club Coordinator (ACC) reflector.
- 5. Held the New Section Manager workshop virtually and invited all Section Managers to attend so they received any updated training.
- 6. Weekly messages from Field Services to the Section Managers with timely information.

ARRL Club News – The ARRL Club News e-newsletter was relaunched in November in an effort to begin to reinvigorate ARRL's relationship with affiliated radio clubs. The newsletter will include spotlights on vibrant clubs, best practices, event calendars, and features covering youth and collegiate clubs. It is targeted at club presidents, club newsletter editors, Section Managers, and Affiliated Club Coordinators as well as the general membership. Marketing is taking place to promote signing up for the newsletter. The second edition in December went to approximately 65,000 members. The newsletter is used to promote club accomplishments as well as recognizing clubs for reaching milestone anniversaries.

Speakers Bureau - Updating the ARRL Speakers Bureau has allowed us to manage and connect speakers when representation at an event is requested. With COVID restrictions in place, the emphasis has been on virtual presentations. An emphasis will continue on virtual presentations to reach more smaller clubs and events that in the past would not have received a presenter. New processes are going in place on the ARRL website to allow event organizers to request a speaker that will include checklists and expectations of ARRL in order to supply a speaker, particularly in person.

Conventions - Mike Walters represented ARRL at the New England Division Convention in Marlboro, MA and spoke on clubs and membership. Mike and Steve Ewald also presented by Zoom at the West Virginia Section Convention and the Central Division Convention.

Radiosport

Radiosport operations for 2021 included:

- ARRL Field Day once again made accommodations as the pandemic lingered. They
 included:
 - o Home stations on commercial power were again allowed to work other home stations on commercial power for scoring credit.
 - o All stations could contribute their individual scores toward an Aggregate Club Score.
 - o Class D and Class E home stations were limited to 150 Watts.
- For the 2021 ARRL DX Contest, accommodations were available to Multioperator Stations where social distancing or local regulation preclude the ability to have multiple operators at one location. ARRL permitted all multioperator stations to use their different band stations located within a radius of up to 100km (within the same DXCC entity/state/province) from their primary station (all band stations must use the same call sign and must report their entry in one common log for the single call sign).
- A DXCC Endorsement was created for DXCC Members who made their 100-country
 awards from one fixed location. The Endorsement can be requested by paper application
 only, to which a round sticker is Awarded declaring "All Contacts Made from A Fixed
 Location" (for affixing on a DXCC Certificate or wherever the requestor may wish) to those
 who self-stipulate by application that they qualify. Staff is also developing a DXCC
 Challenge Certificate for those who are not interested in purchasing the more-costly plaque.

• Awards Application Activity

Award	2020	2021	% Change
DXCC	12,241	11,227	-8%
WAS	2,990	3,302	10%
VUCC	1,290	1,749	36%
WPX	1,099	969	-12%
WAZ	951	873	8%
WAC	167	125	-25%
Mobile DXCC	4	6	50%
QRP DXCC	0	5	500%
Totals	18,742	18,259	-3%

• Outgoing QSL Bureau

	2019	2020	2021	% Change
# of Transactions	2,419	2,247	2,903	29%
Total Weight (oz.)	28,211	33,914	29,834	-12%
Avg Weight/Transaction	11.7	15.1	10.3	-32%

• Contest Log Submissions

	2020	2021	% Change
HF			
DX-CW	4,380	4,820	10.0%
DX-SSB	3,528	3,717	5.4%
SS Phone	2,038	1,686	-17.3%
SS-CW	1,444	1,422	-1.5%
SKN	186	214	15.1%
RTTY	2,087	2,349	12.6%
FD	10,215	5,980	-41.5%
IARU	5,700	5,211	-8.6%
160-M	1,690	1,581	-6.4%
10-M	3,874	3,086	-20.3%
Total HF	35,142	30,066	-14.4%

VHF	2020	2021	% Change	
Jan	942	1,196	27.0%	
June	2,148	1,589	-26.0%	
10-GHz	122	138	13.1%	
222 MHz	171	141	-17.5%	
Sept	832	741	-10.5%	
EME	243	187*	-23.0%	
Total V/UHF	4,458	3,992	-10.4%	

^{*}incomplete submission due by 1/18/2022

Volunteer Monitoring Program

The highlight of 2021 for the Volunteer Monitoring Program was the conversion from the original VMTRAC method of inputting Volunteer Monitor hours and Incident Reports developed by John Loughmiller, KB9AT to the present system developed by Bruce Horn, WA7BNM. The new VMTRAC system saves dozens of hours of data input for the VMs and provides a tremendous tracking system for analysis and allows for faster interaction with the VM's regarding what they report.

From the standpoint of the Volunteer Monitors themselves, we benefitted from the extremely high number of hours of monitoring by the VMs each month, as the monthly and quarterly reports show. The number of hours these volunteers spend monitoring our frequencies exceeded all expectations, despite several VMs becoming silent keys, illnesses related to COVID and loss of other VMs due to age, health, or a change in QTH. The overall turnover has been minimal. Currently there is no need to open requests/applications for more VMs, although next year the need may arise due to the impact of COVID and "burnout."

In the wake of the Haiti earthquake, several Northeastern Amateurs received VM notices for not honoring the Emergency Declaration request for certain frequencies to be kept clear. It was noted that no malicious interference was observed, and also that there was very little HF traffic during the Haiti event.

Volunteer Monitor 2021 Summary Report

Activity	1st QTR	2nd QTR	3rd QTR	4 th QTR	Total YTD
Hours Monitoring HF	4,686	3,326	6,371	5,071	19,454
Hours Monitoring VHF/UHF/Other	4,772	3,769	8,895	6,883	24,319
Incident Reports	75	88	90	101	354
Incident Reports Actionable (some will be actionable only if repeated)	35	40	75	40	190
Discrepancy					
Notices/Outreach/Letters/Email	40	40	32	50	162
Good Operator Letters	1	0	3	8	12
Referrals to FCC	3	3	3	3	12
Referrals from FCC	2	1	1	3	7
FCC Meetings	4	4	1	1	10
Club/Group Meetings (Virtual or In-person)	10	4	2	3	19
Grand total	9,628	7,275	15,473	12,163	44,539

Publications and Editorial

The Publications and Editorial Department welcomed two new employees, Mark Derks as the new Acquisitions Editor, and Bob Lee, KN6PXS, as the new Managing Editor. Along with these new hires, a new contractor has been secured to manage and edit QST Product Review and the editing for the "Contest Update" e-newsletter has been moved in-house to Paul Bourque, N1SFE, as editor. Publications and Editorial continue to produce:

- Monthly issues of *QST*
- Bimonthly issues of On the Air, NCJ and QEX
- Production of three e-newsletters:
 - o *The ARRL Letter* (weekly)
 - o *Contest Update* (biweekly)
 - o *ARES E-Letter* (monthly)
- Production of three podcasts:
 - o ARRL Audio News (weekly)
 - o *Eclectic Tech* (biweekly)
 - o *On the Air* (monthly)
- In addition, Publication Products, new and reprints, during the second half of the year included:
 - o 2022 Repeater Directory
 - o Grounding and Bonding 2nd Edition
 - More Arduino for Ham Radio
 - o 2022 Handbook
 - o 2022 Handbook Volumes
 - o 2022 Handbook Download
 - o 2022 ARRL Calendar
 - o ARRL VE Manual
 - o FCC Rules and Regulations
 - o ARES Field Resources Manual
 - Your Introduction to Morse Code CDs
 - Basic Radio
 - Understanding Basic Electronics
 - o Morse Code Operating for Amateur Radio
 - o Portable Operating

The Publications and Editorial department continued to assist various departments with copyediting, layout, and content. While this may appear to be a small supportive roll, it can be time consuming, yet important, to keep our look and feel consistent and professional throughout the organization.

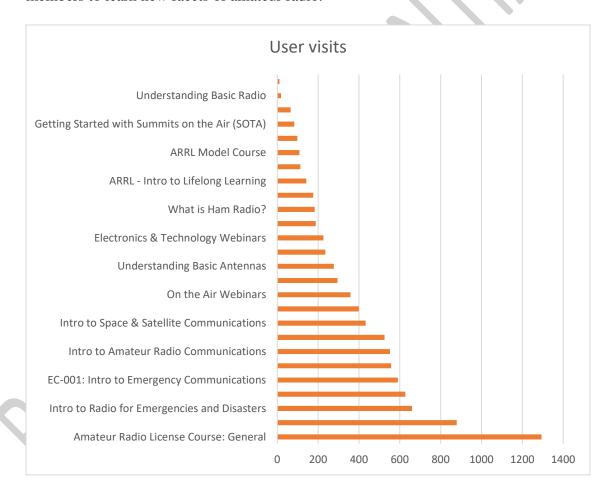
Becky Schoenfeld, W1BXY, also gave several Zoom presentations about ARRL publishing to clubs and appeared on the Temporarily Offline YouTube Channel.

Education and Learning

With the Teacher's Institute classes cancelled for in person learning again in 2021, the Education and Learning Department pivoted and created a virtual experience for educators across the nation. The team came together at HQ and hosted a four-day event for thirty-one teachers across the nation.

In addition to the Virtual Teacher's Institute, the Education and Learning Department had a full year that included:

• The launch of the new ARRL Learning Center. Learning Center users are accessing coursework in increasing numbers, and the Learning Center is becoming a popular way for members to learn new facets of amateur radio.



- A partnership was formed with Dave Casler, KE0OG, to host his licensing videos on the ARRL Learning Center. This has proven to draw in a significant amount of traffic to the site.
- Currently, there are fifty courses and webinars on the Learning Center, with more currently in production or pre-production.

- The ARRL Learning Center also hosts the webinar series from the ARRL Learning Network. The webinars are proving to have a significant number of members access them after the live event. Several members access multiple webinars, staying in the Learning Center ecosystem to continue learning more about the hobby.
- The Education and Learning Department has partnered with several popular amateur radio content creators to create courses for the Learning Center and content for our ARRL YouTube channel. This has increased our exposure to people interested in amateur radio.
 - o The ARRL YouTube channel had over 290,000 views in 2021.
 - o 89.8% of the viewers were NOT already subscribed to the ARRL YouTube channel, meaning that those are generally people who have not watched ARRL YouTube content in the past.
 - O Several YouTubers partnered with ARRL to create a series on the ARRL Handbook. This series was launched as premiers on each channel, starting with a premier on our own channel. With a combined total of views of nearly 70,000, this put not only the ARRL, but the ARRL Handbook in front of numerous new viewers.
 - o The ARRL YouTube channel experienced a growth of 3049 subscribers, with the last quarter proving to be particularly beneficial.
- A new groups.io group was launched late in 2021 with the goal of giving educators a platform to ask questions and get timely answers from ARRL staff as well as other teachers on ways to integrate amateur radio concepts with state/national curriculum standards. The group is growing rapidly. A secondary goal of the group is to create a lesson plan repository to give teachers the ability to search based on keyword, curriculum standard, etc.
- Work is currently underway with state level Departments of Education to create connections between the new ISTE technology standards, Next Generation Science Standards, and amateur radio. We met with a representative of the Illinois Dept. of Education in September to begin the planning process.
- A weekly "Tuesday Tech Tip" is sent out on social media. The goal of this tip is to give a glimpse of what is contained in various ARRL publications and educate people about different facets of the hobby.
- Two Education & Technology Program Station grants were issued this year to schools. Both grants included equipment needed to get a station on the HF bands.

Lab

The Lab continued to provide a broad range of technical support not only to ARRL but also to the industry. This includes technical support for our members and maintain a presence for Amateur Radio in major industry groups such as the IEEE, National Radio Systems Committee AM

Improvement Working Group, and American National Standards Institute's C63® EMC committee by serving as members of various working groups.

Some of the noteworthy items for 2021 were:

- After the FCC rules changes about RF exposure were finalized, the Lab created an ARRL web page to allow amateurs to do RF-exposure calculations to comply with the new rules. Ed Hare also wrote an article for *QST* explaining the new rules along with producing a voice over PowerPoint presentation that first aired on the QSO Today in August of 2021. This presentation is available to clubs and other events.
- The Lab is also participating in ongoing noise studies being conducted by the IARU and the ARRL EMC Committee. Ed Hare's van has been outfitted with a trailed loop antenna that is picking up only a small amount of vehicle noise, making this ideal for doing mobile or portable measurements of noise levels. The results of this testing will be added to the growing body of knowledge of human-generated noise.
- The creation of the 'ARRL Radio Lab' is being accomplished by a cross-functional team to outfit W1HQ as a working extension of the Lab. Once completed, the new 'ARRL Radio Lab' will be a centerpiece of integrated amateur radio technology. A structural engineer was engaged to plan the replacement of a tower atop the building. Town permitting is presently being sought with hopes installation will take place in Spring. Inside the station, new electrical runs were installed with outlet strips behind each of the three operating worktables, and 240v outlets were installed behind two new equipment racks. Monitors and swivel stands were installed for each operating position, and a large flat-screen display has been mounted to the wall. Member-volunteer David De Coons, WO2X, has been assisting staff with configuring Raspberry Pi computers with Node Red workflows for station control. The station has enjoyed a few visitors including Icom America Senior Sales Manager Ray Novak, NJ9A, and has garnered some very positive reaction to this truly innovative lab which challenges the old norms of station form and function.
- ARRL received a generous donation of a Rohde and Schwarz SMVB/100A vector signal generator. This piece of test equipment can be used to do multi-signal testing of conventional analog-mode equipment as well as be expanded to do testing of various digital protocols. Lab staff is working with Dr. Rohde and Adam Farson, AB4OJ, to develop testing which may be integrated into the Lab's Product Review test battery.

W1AW

In addition to participating in numerous operating events, virtual presentations, and processing 271 bulletins this year, other activities at W1AW included:

• While W1AW was closed to the membership, the opportunity was taken to freshen up the station. The walls and lower trim in the main station area were painted and the selection

of wall décor rethought. The station's main area has been reorganized. Most of the active stations – normally not used by visitors – have been moved to short racks and Studio Two was reorganized to allow for easier access by visitors to the operating positions.

- W1AW reopened for visitors in late July. The station had been closed to visitors since March 2020 because of COVID-19 restrictions. Since reopening, W1AW has welcomed approximately 100 visitors who have enjoyed the new volunteer program designed to assist visitors operate W1AW.
- A new thrust bearing was installed on the Satellite tower, and the Yaesu Az/El rotators were moved to accommodate the new bearing. The Tennadyne TD-90 multiband antenna was removed, and a 178' h/b Doublet was installed in its place. A broken 2-meter Yagi used for IRLP was replaced with a new one. W1AW inspections found no issues with either the towers or antennas.
- 160-Meter Beverage receive antennas were installed in preparation for the 100th Transatlantic Centennial. A 585' version was installed to favor the Continental US; an approximately 450' version was installed to favor Europe. The US Beverage is connected to the W1AW Antenna patch panel. The European Beverage is accessible via W1HQ. A temporary 160-Meter Inverted-L was installed on the Rohn 65 (120') tower for the event.
- A HF Winlink 2000 station was setup to allow for W1AW/WL2K access on 80 and 40 meters. This station uses an Icom IC-7300 and a P4dragon modem. This gives users WL2K HF access for Pactor 1, 2, 3, and 4. Pactor 4 is currently disabled, and will be enabled only if necessary and only if a STA from the FCC is authorized).

Product Development

The Product Development Manager, Bob Inderbitzen, NQ1R, continued to be very busy this past year working with multiple cross departmental teams. Besides being involved in co-organizing exhibits for major amateur radio events that included the QSO Today Virtual Ham Expo, the Huntsville Hamfest, the Northeast HamXposition, and Pacificon some additional highlights of Product Development activities consist of:

2022 ARRL National Convention - Many planning milestones were completed in preparation for the 2022 ARRL National Convention at Orlando HamCation.

- A cross functional team is developing our National Convention program and exhibits.
- Finalized a series of day-long ARRL-sponsored Training Tracks that will take place on Thursday, February 10 preceding HamCation's 3-day event.
- In November, registration opened for the convention program. A parallel convention registration process was opened for ODV and Section Managers who would like to volunteer to participate on the "ARRL Team."

ARRL's Intro-to-Radio Kit - In September, the first manufacturing run of ARRL's new Introduction to Radio Kit, designed by student engineers and 2020 ARRL Foundation Scholarship

winners Levi Zima, KN4YHS and his sister Kirsten Zima, KC9RWG went on sale. By year end 500 units were sold. The kit is being promoted as a resource that can be used by anyone to learn about basic radio principles. The Museum Educator at the Experimental Aircraft Association, the organization that hosts the annual AirVenture in Oshkosh, is considering adopting the kit for their educational lab. Ultimately, the kit helps members develop meaningful interactions through their outreach activities to introduce radio communications to others.

ARRL and RSGB Transatlantic Centenary Events 2021-2022 - The ARRL and RSGB Presidents agreed to a collaboration to mark the anniversaries of the 1921/22 Transatlantic Tests. Bob Inderbitzen was designated to work with RSGB HF Contest Committee Chair Nick Totterdell, G4FAL, to advance the planning. In November, ARRL and RSGB revealed matching magazine covers -- a first! – for the December issues of *QST* and *RadCom* magazines.

On December 12, the jointly organized ARRL and RSGB 160-Meter Transatlantic Centenary QSO Party took place. Participating stations operated CW, trying to contact the two official call sign activations, W1AW and GB2ZE. W1AW was readied with new Beverage receiving antennas. Logs from those taking part in the 6-hour event included 496 contacts, 261 from W1AW. A live video stream was broadcast from W1AW on YouTube throughout the event. With help from Bruce Horn, WA7BNM, participants can visit the ARRL Contests website to generate a custom certificate online, produced by ARRL and RSGB. The GMDX Group will award a *quaich* — a traditional Scottish drinking cup representing friendship — to the first stations in North America and the UK to complete contacts with both W1AW and GB2ZE during the QSO Party. The cup winners were Rick Niswander, K7GM, and Bob Barden, MD0CCE.

Other ongoing projects that involved Product Development support and participation included:

- Cycle 25 Content Engagement Strategy We continued to work with subject matter experts, Dr. Nathaniel Frissell Ph.D. and Tamitha Skov, to story-board a future ARRL video production introducing the concept of a solar cycle and the heralding of Solar Cycle 25. Unexpected delays impacted both volunteers. Filming should take place early in 2022.
- Collegiate Amateur Radio Initiative The 2021 Collegiate QSO Party was held September 18-19. Monthly webinars continued to be held to help network college and university radio clubs and their student leaders with new participants joining regularly. Member-volunteers Andy Milluzzi, KK4LWR, and Tony Milluzzi, KD8RTT, run the meetings with staff liaison Bob Inderbitzen, NQ1R. The ARRL Collegiate Amateur Radio Initiative is sponsored in part by the W1YSM Snyder Family Collegiate Amateur Radio Endowment Fund.
- Improving Content Accessibility for the Blind and Visually Impaired With help from the Courage Kenny Handiham Program, a survey has been assembled to send to members seeking their feedback on ways ARRL can increase our support for blind and visually impaired members of our community. In early 2022, a survey invitation will be sent to members (current and previous) annotated as having joined at the "blind member" dues rate. A version of the same survey will also be published via ARRL news outlets.

Public Relations and Outreach

Work is continuing to fill the open positions in the Public Relations and Outreach Department. These positions include the Public Relations and Outreach Manager and the Social Media Strategist positions. In the meantime, Bob Inderbitzen continues to lead monthly meetings of the Public Relations Committee as Chair and meet Public Relations and Outreach needs.

Regular updates to the amateur radio media hits curated at www.arrl.org/media-hits are being made. The most current ones are picked up each week for the ARRL Letter feature, "Amateur Radio in the News."

ARRL Rededication Ceremony – On July 15, ARRL Headquarters hosted a rededication ceremony, recognizing ARRL's commitment to all radio amateurs who enhance the communications capability and security of the nation. The event was attended by staff, the Board of Directors, and representatives from the International Amateur Radio Union (IARU), and Radio Amateurs of Canada. Working with a Hartford-based PR strategist, ARRL secured the participation and attendance of a slate of VIPs for the ceremony, including Connecticut District 1 US Congressman John B. Larson; Connecticut State Senator Matt Lesser; Glenn A. Field, KB1GHX, Warning Coordination Meteorologist for the National Weather Service Boston/Norton office in Massachusetts; and representatives of the American Red Cross, the Connecticut Department of Emergency Services and Public Protection, Connecticut General Assembly, and the Town of Newington. A summary of the rededication ceremony was included in the ARRL Letter and ARRL News the same day, and video posted to ARRL's YouTube channel. The success of the event was due to contributions from many staff members.

Leading up to the rededication ceremony, Bob Inderbitzen supported a handful of media interviews to increase the visibility of ARRL and Amateur Radio, including a 24-minute radio interview on WTIC Face Connecticut Today.

Media Connections - examples of media request include:

- Inquiries about recent amateur reports of 40-meter jamming. The observations of non-amateur signals believed to originate from the direction of Cuba were described as "peer-to-peer information exchange among hams, corroborating observations of interference on our well-monitored Amateur Radio spectrum."
- In the hours following the tragic earthquake in Haiti on Saturday, Aug. 14, ARRL supported a request from the Emergency Coordinator for IARU Region 2 to keep certain frequencies clear for EmComm traffic with a bulletin to members and a posted news item.
- Inquiries about amateur radio's involvement in providing public service and emergency communications in response to weather warnings leading up to, and the devastating damage caused by, tornados in Kentucky, Tennessee, Mississippi, Arkansas, Missouri, and Illinois on December 10. Information was gathered by Ken Bailey from Section Managers and Section Emergency Coordinators. A summary was published in the ARRL Letter.

IT Infrastructure and Operations

A sampling of accomplishments from the Infrastructure team include:

- Identified the need for a new WiFi configuration in the building resulting in two networks being configured ARRL-Guest for mobile devices and a second for staff laptops.
- Identified the need for a new temperature sensor mechanism in the Main Distribution Frame and installed/configured the new hardware.
- Established a new Linux server for the ARES and VM applications. The IT team worked with, Bruce Horn, and Trey Garlough, as well as Rackspace, to get the server set up, tested, and into production.
- Provided a Windows server environment for the new Learn.arrl.org site (the Learning Center). We looked at hosting options (Rackspace, AWS) and decided with the resources already in-house, hosting it in-house was the best option at this time.
- Assisted in the planning and participated in the upgrade of the Starship shipping server and workstations.
- Assessed the current anti-virus utilization. ARRL had two anti-virus software packages running, which were stepping on each other. After a full evaluation of the options, it was decided to switch to BitDefender. The roll out of BitDefender is still in progress.
- Integrated AD security with the firewall VPN. A RADIUS security server was installed, and the VPN access via Active Directory is currently being rolled out.
- Configured and installed a new workstation for video production.
- Reimaged 7 HP mini workstations for W1AW and 4 HP mini workstations for W1HQ.
- Installed wildcard SSL certificates on multiple publicly accessible Linux servers.
- Installed dedicated SSL certificates on multiple publicly accessible systems.
- Made changes to the firewall to protect against attack from a specific IP address.
- Assumed responsibility for the Avaya phone system which includes anything related to the phone system such as phone installs, voicemail setups, and service contracts.

Administrative Operations

The true administrative operations in the organization generally happen behind the scenes and if things are going well, as expected, no one ever hears about them and often forgets the amount of time and effort that goes into their success. These areas include Human Resources, the Controllers Department (which include the Mailroom and Purchasing), and maintenance of the building. Some of the accomplishments of this group for the year include:

Human Resources

- Successfully managed the completion of salary survey questionnaires for the entire ARRL staff within an extremely short period of time to meet the deadline for the first phase of the survey.
- Rolled out the first electronic benefits platform, Employee Navigator, that all employees have successfully enrolled in for 2022. They will now utilize this system to make changes to their personal information and benefits, streamlining several processes and directly linking to our service providers.

Controllers

- Upgraded Great Plains General Ledger software from GP14 to GP18.
- The annual audit was completed with no adjustments made to the financial statements, an unmodified opinion from the auditors.
- The annual filing of IRS Form 990 and Form 990T.
- Delivered various required government filings including the Affordable Care Act Form 1095 and Form 720 (PCORI Fee), Flexible Spending Non-Discriminatory testing, CT & Town business, and Tax filings along with various Census filings as requested (required) by the Federal Government.
- Continued to file over 200 monthly, quarterly, and annual sales tax returns. This manual process will be automated once Personify goes live.
- Completed the 2022-2023 planning cycle.
- Advanced the physical inventory processing to include a shared file which eliminates the
 extra time taken in past years needed to merge individual count files to the master report
 summary.
- Completed an RFP for a new banking relationship which resulted in the selection of a new bank and a reduction in annual bank fees for both the League and the Foundation.

• The Foundation financial closing procedure was revised to now report unrealized gains/losses at the individual fund level throughout the year versus only at year-end. These new quarterly financial reports are now being sent to the Board President and Treasurer.

Building

- A dry well was installed to re-route the output from the sump pump system at W1AW to address the issue of water pooling across the sidewalk along Main Street causing a public safety issue during the winter months when the water freezes.
- The front façade of the W1AW structure was found to have several points of decay and infiltration of moss and other organic matter. This was corrected and repaired following the removal of all large shrubs that were pressing on the buildings' façade. The shrubs were installed during the renovation that occurred in 1989. Over the years, the growth of the shrubs brought them closer to the building, and this year it was decided to remove them, and begin a different landscape design in the spring of 2022.

In Summary

While ARRL has many accomplishments to be proud of this year, our income statement tells a considerably different story than our original Plan. While the challenges of event/travel cancellations and staffing shortages continued this year, those same challenges reduced spending by \$1.1 million. Combined with the Employee Retention Tax Credit and gains in the investment portfolio, ARRL had a financially successful year.

If anyone has any questions about this report, please don't hesitate to contact me prior to the Board meeting.

Respectfully Submitted

Diane Middleton, W2DLM Chief Financial Officer