



2016-2017 Annual Report
of the
ASSOCIATION OF
FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

Annual Meeting held June 22–24, 2017
at One World Trade Center
New York, New York



69th AFCCE Annual Meeting Sign-in Sheet (2017)

No.	Last Name	First Name	Member Status	Attended Day 1 6/23 (signature)	Attended Day 2 6/24 (signature)
1	Arnold	Harvey	A	<i>Hy Arnold</i>	<i>Hy Arnold</i>
2	Breslin	Eileen	L		
3	Butcher	Matthew	F	<i>Matthew Butcher</i>	
4	Chase	Ron	A	<i>Ron Chase</i>	<i>Ron Chase</i>
5	Clark	Roswell	A	<i>Roswell Clark</i>	<i>Roswell Clark</i>
6	Claudy	Lynn	A	<i>L. Claudy</i>	<i>L. Claudy</i>
7	Collinson	John	A	<i>John Collinson</i>	<i>John Collinson</i>
8	Cooper	Charles	F (G)	<i>Charles Cooper</i>	<i>Charles Cooper</i>
9	Cross	Marshall	F	<i>Marshall Cross</i>	<i>Marshall Cross</i>
10	Crowley	Steve	F	<i>Steve Crowley</i>	<i>Steve Crowley</i>
11	Davis	Sterling	A	<i>Sterling Davis</i>	<i>Sterling Davis</i>
12	Davis	Joe	F		
13	Doczkat	Martin	F (G)	<i>Martin Doczkat</i>	<i>Martin Doczkat</i>
14	Edwards	Jon	F	<i>Jon Edwards</i>	<i>Jon Edwards</i>
15	Fehlig	Mark	F	<i>Mark Fehlig</i>	<i>Mark Fehlig</i>
16	Garziglia	John	A		
17	George	John	A	<i>John George</i>	<i>John George</i>
18	Glenn	Dave	A	<i>Dave Glenn</i>	
19	Heard	James	A	<i>James Heard</i>	
20	Heymans	Dennis	A		
21	Horne	Chris	F	<i>Chris Horne</i>	<i>Chris Horne</i>
22	Ladner	Dale	A	<i>Dale Ladner</i>	<i>Dale Ladner</i>
23	Layer	David	A	<i>David Layer</i>	<i>David Layer</i>
24	Lockwood	Stephen	F	<i>Stephen Lockwood</i>	<i>Stephen Lockwood</i>
25	Lundin	John	L	<i>John Lundin</i>	<i>John Lundin</i>
26	Lyons	John	A	<i>John Lyons</i>	<i>John Lyons</i>
27	Martin	Jay	A	<i>Jay Martin</i>	<i>Jay Martin</i>
28	McDonald	James	A	<i>James McDonald</i>	<i>James McDonald</i>
29	Mullaney	Jack	A	<i>Jack Mullaney</i>	<i>Jack Mullaney</i>
30	Pelletier	Keith	F	<i>Keith Pelletier</i>	<i>Keith Pelletier</i>
31	Pumple	Stephen	A	<i>Stephen Pumple</i>	<i>Stephen Pumple</i>
32	Rhodes	Michael	F	<i>Michael Rhodes</i>	<i>Michael Rhodes</i>
33	Ruck	Jeremy	F		
34	Silliman	Tom	F	<i>Tom Silliman</i>	<i>Tom Silliman</i>
35	Sockett	Pete	A		
36	St. Clair	Byron	A	<i>Byron St. Clair</i>	<i>Byron St. Clair</i>

REFERENCE COPY - KEEP

69th AFCCE Annual Meeting Sign-in Sheet (2017)

6/23

6/24

37	Wallace	Dennis	A	<i>[Signature]</i>	
38	Weiss	Merrill	A	<i>A. Merrill Weiss</i>	<i>A. Merrill Weiss</i>
38	Weller	Robert	F	<i>R. Weller</i>	<i>R. Weller</i>
39	Will	Larry	F	<i>L. Will</i>	<i>L. Will</i>
40	Zuba	Christine	A	<i>Christine M Zuba</i>	<i>Christine M Zuba</i>
41	JONES	TOM	F	<i>Tom J. Jones</i>	<i>Tom J. Jones</i>
42	Wandel	Erik	F	<i>Erik Wandel</i>	<i>Erik Wandel</i>
4	BYRNE	JOHN	A	<i>John Byrne</i>	<i>John Byrne Jr</i>



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Annual Meeting Agenda
 One World Trade Center
 New York, New York

June 23-24, 2017
 Call to Order at 9 am Eastern Time

Item No.	Agenda Item Description	Presenter
1	Call to order, welcome, and introductions	Weller
2	Quorum determination for Board Meeting Items	Horne
Plenary Meeting I		
3	Approval of Agenda	Weller
4	President's Report	Weller
5	Vice-President's Report	Lyons
6	Secretary's Report	Horne
7	Treasurer's Report	Chase
Committee Reports		
8a	Professional Ethics and Grievances*	Fehlig
8b	Rules and Standards [†]	Crowley
8c	Permanent Arrangements (Suggestions for 2018 meeting) [†]	Lyons
8d	Nominations (Results of election) [†]	Evans
8e	Historian	Lyons
8f	FCC Liaison	Edwards
8g	Luncheon coordinator	Reiser
8h	Program coordinator	Doczkat
8i	Social Media	Butcher
Board of Directors Meeting		
8j	Admissions (new member vote)*	Sanderford
8k	Membership fees (no change)	Weller
8l	Sustainability (amendments to By-laws)	Fehlig

9	Scholarship Committee Report	Cross
10	Vote on Scholarship Awards	Weller
	Plenary Meeting II	
11	Old Business	Weller
12	New Business	Weller
13	Schedule for 2017–2018	Lyons
14	Adjournment	Weller

The meeting will recess about noon on June 23 and reconvene at 9 am on June 24.

* indicates committee named in Constitution; † indicates committee named in bylaws.

Minutes of 2017 AFCCE Annual Meeting

Friday, June 23, 2017

1. **Call to order.** Meeting called to order at 0900 by President Bob Weller

Vice President John Lyons presented information on the Annual Meeting schedule including the technical tours. Those present introduced themselves.

Weller thanked Jon Edwards and Secretary Horne for producing the Membership Directory and draft Annual Report publications for the meeting.

A minute of Silence was observed in memory of Brad Carey and Carl T. Jones, Sr. who passed away in 2017.

2. **Quorum call.** Secretary Horne called a quorum of Board of Directors.
3. **Approval of Agenda.** Ron Chase moved to approve the agenda, seconded by Lyons. No objections.

4. **President's Report.** Bob Weller reviewed the accomplishments of the past year including the achievements of the Scholarship Fund. A new membership directory was produced and technical programs at the monthly meetings were well-received. Bob solicited help to identify more institutions associated with scholarships, including curriculum development of broadcast engineering courses/programs. Board Member Fehlig comments that SBE has advocated broadcast engineering education programs

5. **Vice President's Report.** John Lyons mentioned the need to fine-tune the By-Laws in efforts to enhance membership.

6. **Secretary's Report.** Chris Horne reported the election results for the new board member (Associate Member slot). 46 votes were cast with Anne Crump receiving the majority. Horne will notify Mrs. Crump of her election. Mr. John Lundin commented on the low participation of the election.

7. **Treasurer's Report.** Ron Chase summarized his report, which was distributed to the attendees. Page 22 of the Annual Report displays opening and closing balances and other pertinent financial data. The role of the bookkeeper was discussed. Membership renewals were discussed including the issue with credit card fees and the number of members who double-paid their dues. An outside accounting firm will be retained to perform an audit of the AFCCE books in the Spring of 2018.

A discussion ensued about the balance sheet concerning the donations shown on Page 26 of the Annual Report. Chase explained that some Operating Account entries were transferred to the Scholarship Fund. The \$9,173 figure includes the AFCCE matching funds. A member asked about the \$9,905.64 loss shown at the bottom of page 26. Chase

explained these included credit card processing fees of \$3,635.58 and bookkeeper fees of \$35 per hour. Member non-renewals also contributed to the loss.

There was further discussion about the use of credit cards for membership renewals and opinions expressed on the types of credit cards as well as e-commerce practices to use credit cards for event/registration orders. One member stated that the monthly meeting cost could be increased to offset credit card fees.

The Treasurers' Report was accepted by the Board.

The Scholarship Fund Treasurer's Report was also presented by Ron Chase. Two noteworthy items were mentioned: The IEEE electronic transfer of funds had not yet occurred, and scholarship awards have been distributed to the recipient's schools.

The meeting broke from 9:40 am until 10:47 am so that members could attend the collocated Ribbon Cutting Ceremony and inaugural transmission of TV Station WNJU at One World Trade Center. When the meeting resumed, all Board members were again present except for John Lyons, who returned at 11:30 am.

8. Committee Reports

8a. Ethics and Grievances. Mark Fehlig reported on the Ethics Committee. He stated that he responded to one court summons in 2016-2017 concerning a former AFCCE member.

8b. Rules and Standards. Steve Crowley reported on the Standards Committee. Comments were field concerning AM Synchronous Boosters, and several members will be participating in an AM Ground System Petition for Rule-making. Crowley and the committee are gathering references for this activity.

President Weller remarked that as a matter of general policy, only technical matters should be presented in AFCCE comments.

Other technical activities that might be appropriate for AFCCE comment in the coming year include:

1. FCC proceeding to eliminate technical rules that are 'unnecessary'
2. Simplified AM Ground Systems. Lockwood, Dawson, Rackley and Horne on the committee to investigate and generate comments.
3. Technical Advisory Council – Martin Doczkat mentioned that they need technical comments only, not regulatory matters/issues.
4. FM IF Restrictions – Member Lockwood suggested filing comments
5. Part 15/18 devices and spurious emissions as part of comments on RF noise issues.

6. Low Power Translator Rules – Member Byron St. Clair mentions there is a footnote about Bluetooth devices in the Rules. His working group will ask AFCCE for support.

8f. **FCC Liaison.** Jon Edwards reported on comments that were filed with the FCC: ATSC3; AM Synchronous Boosters, and RF Noise.

8c. **Permanent Arrangements.** President Weller summarized the written report of the committee on permanent arrangements in the temporary absence of VP Lyons.

8d. **Nominations** – see Secretary’s Report and Annual Report.

8e. **Historian** – See Annual Report.

8g. **Luncheon coordinator** – no report

8h. **Programs.** Martin Doczkat reviewed his report on Programs. Future topics and speakers are being sought. President Weller reminded the attendees of future meeting dates.

8i. **Social Media.** President Weller summarized the written report for Matt Butcher on Social Media. Facebook and Twitter should be sustained but Linked-in was questioned for effectiveness/usefulness to AFCCE.

8j. **Admissions.** Bob Weller summarized the written report on new members referring to Page 37 of the Annual Report. **(Board Action)** Nick Wymant’s application was circulated to membership on June 2 and was returned to the the Board for review. Motion made by Crowley and seconded by David Layer to approve his membership application. No objections.

AFCCE Web Site. Mike Rhodes reported no major changes to the web site. It can theoretically hold an unlimited amount of information; however, using it to store historical data for AFCCE (being scanned by John Lyons) may become unwieldy. The present DropBox capacity would not allow all of this data to be stored but David Layer commented that increased storage capacity is available with a yearly DropBox fee.

Updated governance documents are to be placed on the website for member reference.

Discussion ensued on differences in web data membership (MailPoet) compared with the official membership spreadsheet (Chase, Rhodes, Horne commented). Brief discussion on why non-renewals (life members, etc.) did not renew. Automatic renewals with credit cards could keep more members (Chase comment)

8k. **Membership. (Board Action)** Membership Fees. Motion made by D. Layer to maintain the same fees for coming year, seconded by S. Crowley. No objections.

8l. **Sustainability.** Mark Fehlig introduced the By-Law Changes. **(By-law Amendments 1–5 pass.)**

Briefly, the Board proposes to allow associate members access to leadership positions including President. Bob Weller summarized the process for this proposal/change. Bob shows by overhead screen the number of full members (2013-2016) with a 40% drop since 2005 (100 full to 63 full members), which suggests need for the change. The March Board meeting explored possible changes to the membership structure and the path to full membership without the PE requirement. Bob then reviewed the 13 member comments received in response to the proposal.

Other comments here were the use of title Consulting Engineer (requires PE) and the general use of AFCCE name. One member commented an alternate path to full membership should require sponsorship of two PE members, and also stated that only full members can vote on this amendment.

Bob Weller stated that there are 9 proposed amendments to the By-Laws. Weller asks the attendees how shall we discuss these changes? Motion made by Eric Wandel, seconded by S. Crowley to accept amendments 1, 2, 3 (page 74-75 of the Annual Report).

All members present voted 'yes' (38) with none opposed to accept these changes.

Amendment 4: Motion by Fehlig, seconded by Lockwood. 37 in favor and none opposed in a vote.

Amendment 5: (page 76). Weller provides a careful explanation on this amendment. Motion by Lyons, seconded by J Edwards to discuss. A discussion follows with Tom Silliman who proposes an addition to the language...."PE full member endorsement from TWO PEs" This motion was seconded by S. Crowley.

Weller states this is a proposed change to amend item 5: "two PEs as sponsors required for full membership." Discussion ensues by Arnold, Silliman, Fehlig with one assuring there are 62 PEs in AFCCE now. Weller adds the text in the proposal and all members are shown the new narrative on the overhead projector/screen.

Full members then vote on the amended proposal. All Full Members vote 'yes' on the amended proposal. Weller then asks for a vote on the overall proposal as an organization matter – All members were in favor of the proposal. The amendment passes.

The meeting recessed at 13:09 for lunch and the afternoon tech tour of OneWTC.

Saturday, June 24, 2017

1. **Call to order.** Meeting called to order at 0900 by President Bob Weller.

8l. **Sustainability.** Continuation from Friday. By-Law Changes. (**By-law Amendments 6, 8, and 9 pass. Amendment 7 fails.**)

Regarding Amendment 7 (limiting the requirement to abide by the NSPE Code of Ethics), Eric Wandel suggested that the NSPE Code of Ethics should be agreed upon by any new member. Merrill Weiss provided a copy of the Code for review. Following some discussion, the proposal (Amendment 7) to change the bylaws failed by vote of the members present.

9. **Scholarship Report.** Marshall Cross summarized the highlights of the past year's scholarship activities and read the awardees names. He also emphasized that advertising for the scholarship needs to be more aggressive. How to get the word out? M. Weiss says advertising in social media. Cross recognized the IWCE Event and awardee attendance.

10. **Scholarship Awards. (Board Action).** The awards recommended by the Scholarship Committee for Fall 2017 were reviewed. Layer asked whether \$10K is maximum award funding and IEEE TABR approved this funding amount. Motion by Cross to agree to the 7 awardees, seconded by Ron Chase. Bob Weller to send notice to BTS/IEEE for press release. Dale Ladner to offer ad/flyers at his company's booth/event(s). Awards were as follows:

Md Tajul Islam	U Missouri KC	\$1,500 (AFCCE scholarship)
Tram Le	U Washington	\$1,000 (AFCCE Scholarship)
Abdullah Njie	GA Tech	\$1,500 (AFCCE Scholarship)
Prosanta Paul	Old Dominion	\$1,500 (AFCCE Scholarship)
William Shifflett	Oklahoma State	\$10,000 (Jules Cohen Memorial Sch.)
Alex Wilcox	Illinois State	\$1,000 (AFCCE Scholarship)
Rafida Zaman	U Missouri KC	\$2,500 (E Noel Luddy Scholarship)

Total Awards: \$6,500 (AFCCE); \$2,500 (E Noel Luddy); \$10,000 (Jules Cohen)

11. **Old Business.** Discussion of travel reimbursement for Board members. No Board members utilized the reimbursement as of the May Board meeting, but some may use it for Annual Meeting). Reimbursement option will continue for coming year.

12. **New Business.** Discussion on location of 2018 Annual Meeting. Locations mentioned were Cuba, Pacific NW, Atlanta, Seattle, Portland, Australia, Victoria BC, and St Johns NS.

Election of Officers. (Board Action). Bob Weller indicated he will be stepping down as President but will remain on the Board. All existing officers agreed to remain in their present roles until the application of John Lyons for elevation to Full Membership is voted.

13. **Schedule for 2017-2018.** See below.

9/15/2017 (Fri) – Luncheon Meeting (Holiday Inn, Rosslyn, Dogwood Room)

10/12 (Thu) – Joint AFCCE/BTS Luncheon (Marriott Key Bridge)

10/12 (Thu) – AFCCE Fall Social (Evening event, Holiday Inn Vantage Point Restaurant)

11/30 (Thu) – Luncheon Meeting (Holiday Inn, Shenandoah AB)

11/30 (Thu) -- FCC Reception (Evening Event, National Press Club)

1/19/2018 (Fri) – Luncheon Meeting (Holiday Inn, Dogwood)

2/23 (Fri) – Luncheon Meeting (Holiday Inn, Dogwood)

3/16 (Fri) – Luncheon Meeting (Holiday Inn, Dogwood)

5/18 (Fri) – Luncheon Meeting (Holiday Inn, Dogwood)

June (dates TBD) – 70th Annual Meeting

14. **Adjournment.** Motion to adjourn by Stephen Lockwood, seconded by Mike Rhodes at 9:58 AM. Afternoon tech tour of 4 Times Square will commence at 1 pm.

Minutes taken by Chris Horne and Steve Crowley. Approved by the AFCCE Board of Directors on 6 October 2017.



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

AFCCE PRESIDENT'S REPORT 2016–17 AFCCE Annual Meeting

To the AFCCE Board of Directors and AFCCE Membership:

Welcome to the 69th Annual Meeting of the Association of Federal Communications Consulting Engineers. I wish to express my thanks to Vice President John Lyons for the planning and executing of the arrangements of this event. I would also like to recognize The Durst Organization for facilitating our “tech tours” and for sponsoring and subsidizing many of the events this Annual Meeting.

This past year has been a busy and exciting one for AFCCE. We co-hosted a “Repack Summit,” submitted comments in several different FCC dockets, increased the funding level of our scholarship program to more than \$62,000, met with the FCC Chairman, and held many well-attended social and technical events. None of these things would have been possible without the help and support of AFCCE’s active members, especially those serving on AFCCE’s Board of Directors and its committees.

While AFCCE remains healthy and vibrant, I believe there remains a need to update the Association’s membership requirements, which no longer reflect the current makeup of engineers practicing before the FCC. Our very name includes the words “Consulting Engineers,” so we must continue to respect and represent those of us who are registered as Professional Engineers. However, while the total number of AFCCE members has remained relatively constant over the past decade the number of P.E. members has dropped by almost 40 percent over that same period. We have addressed this issue in a number of ways through the efforts of the Sustainability Committee through incremental changes to our By-Laws and other measures, and at this Annual Meeting we will consider a proposal that allows an alternative path to Full Membership for qualified long-term members who are not P.E.s.

While each Committee has submitted a detailed report of its activities over the past year, I would particularly like to thank those responsible for our regular monthly luncheons and technical programs. Thanks to Vice-President John Lyons for obtaining and organizing our meeting venues, to Martin Doczkat for obtaining outstanding presenters, and to John Reiser for managing the abundant details, including A/V equipment, badges, meal selections, luncheon fees, and more. Average attendance at this past year’s luncheon meetings was 40 people, which is a 10% increase over last year. This increase reflects the hard work of John, Martin, and John.

This past year, AFCCE co-hosted a highly successful “Repack Summit” event with the Wiley-Rein law firm and that would not have happened without the hard work of Don Everist

and Eric Wandel. This event included substantial FCC participation and was attended by about 160 people. I was proud to see many AFCCE members participate as presenters and discussants during the event. Our annual FCC Staff Reception was also well-attended, with the FCC's Chief Engineer, Julius Knapp, receiving our prestigious E. Noel Luddy Award for outstanding service to the telecommunications industry. A highlight of the reception was a video tribute to Julie from FCC Chairman Tom Wheeler.

Consistent with AFCCE's commitment to file comments that provide clarity to technical issues while avoiding taking sides in controversial issues, FCC Liaison Jon Edwards prepared comments concerning the relative interference potential of ATSC 3.0, problems associated with the increasing RF noise floor, and the potential use of synchronous boosters as part of revitalization of the AM broadcast service. Those comments were realized by the hard work of Don Everist, Tom King, Ron Rackley, and others. The AFCCE Board of Directors recognizes the need for oversight through increased participation in FCC rulemaking and invites members to suggest topics where we could meaningfully comment. As a professional organization, AFCCE can aggregate information from its members to file comments that cannot be attributed to particular members or their clients. While the need to maintain a balanced viewpoint can limit the scope of AFCCE's comments, increased input and involvement from membership in the process is welcomed and appreciated.

I'd like to recognize and thank the firm of Cavell, Mertz & Associates, which has supported AFCCE through providing computing resources for our CDBS e-mail reflector and for sharing the considerable talents of Michael Rhodes with us. Anyone who has tried to maintain a website knows that keeping the content current and organized is key, and I offer my special thanks to Mike, also a past President of AFCCE, and his firm for maintaining and curating the AFCCE website. Our website is the portal for members to stay update on and register for the many AFCCE events held throughout the year. It is a time consuming task that Mike makes effortless for us.

The firm of Fletcher, Heald & Hildreth, PLC graciously continues to let us hold our monthly Board meetings in its conference room, and I would like to personally express my gratitude to the firm for being exceptional hosts. AFCCE is in the debt of long-time member Anne Crump of FHH, who has graciously continued to volunteer her time to provide expert legal advice on a number of controversial issues. Thank you, Anne.

A thank you to each of the AFCCE members who served as Committee Chairs for 2016–2017:

Committees called out in the Constitution

- Admissions Committee: Matthew A. Sanderford, Jr.
- Professional Ethics and Grievances Committee: Mark Fehlig
- Rules & Standards Committee: Steve Crowley

Committees named in Bylaws

- Permanent Arrangements Committee: John Lyons
- Nominations Committee: B. Benjamin Evans

Ad Hoc Committees and Appointments

- FCC Liaison Committee: Jonathan Edwards
- Historian: John Lyons
- Luncheon Coordinator: John W. Reiser
- Program Coordinator: Martin Doczkat
- Scholarship Committee: Marshall Cross
- Webmaster: Michael D. Rhodes
- Social Media Director: Matthew Butcher

Two of our members, John Kean and John Lyons, were recognized at this year's NABShow in Las Vegas with NAB's Engineering Achievement Awards for Radio and Television, respectively. It's difficult for me to express the sense of pride I have to be associated with these gentlemen.

Lastly, many thanks to past President Eric Wandel, who has always made himself available to me as a confidant, advisor, and guide.

It has been an honor to serve as AFCCE President for the second time this past year. It is a privilege to represent and support the role of engineering at the FCC. I thank all of you for your support of AFCCE's mission.

Very truly yours,



Robert D. Weller, P.E.
AFCCE President

June 9, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

AFCCE SCHOLARSHIP FUND, INC. PRESIDENT'S REPORT 2016–17 AFCCE Scholarship Fund Annual Meeting

To the AFCCE Scholarship Fund Board of Directors and AFCCE Membership:

AFCCE's scholarship program is, to me, the most important contribution that we make to the telecommunications industry. The AFCCE Scholarship Fund raises awareness of the consulting engineering profession among college students and encourages students to pursue a career in telecommunications engineering.

Last year, the AFCCE Scholarship Fund entered into a memorandum of understanding with the IEEE Broadcast Technology Society to administer the IEEE Broadcast Technology Society/AFCCE Jules Cohen Memorial Scholarship. The funding level of this joint scholarship program, up to \$40,000 annually, nearly triples the amounts available for award. The first awards were made in the Spring (2017) semester, and the Fund's Board of Directors will vote during this Annual Meeting on the Fall awards.

Dielectric continues generously supporting its E. Noel Luddy Scholarship for which we remain grateful. Funding for AFCCE's own scholarships comes from individual member donations, which are matched up to \$200 from the AFCCE treasury, and from corporate and individual sponsorships of the Fall Social. With the return this year of the IEEE Broadcast Symposium to the Washington, DC area, the Fall Social will again be held immediately following the close of the Symposium. I hope that this harmonious schedule will result in record attendance at and record scholarship income from the Fall Social. The 2017 Fall Social benefitting the AFCCE Scholarship Fund will be held Thursday evening, October 12.

I'd like to recognize and thank Marshall Cross, who has again served as Chair of the Scholarship Committee. Thanks also to Committee members Anne Crump and Tom Silliman, as well as the help of David Layer and David Snavely.

Despite the increased funding of AFCCE's scholarship program, we continue to be challenged by a dearth of qualified applicants. Through Marshall's efforts, our program is now listed in national scholarship guides, and Jon Edwards has contributed some excellent promotional posters, yet we are failing to achieve the reach that we must to have a truly vibrant program. I urge each AFCCE member to consider helping with scholarship outreach. This could be through participation in the Scholarship Committee, by being a liaison to your alma mater, by identifying and working with potential partner organizations, by reaching out to campus radio stations and amateur radio clubs, or by some other means. We need your help to improve this program.

I offer my thanks to AFCCE members and sponsoring organizations for their contributions and support of our scholarship program. It has been an honor to represent and lead the AFCCE Scholarship Fund this past year.

Very truly yours,



Robert D. Weller, P.E.
AFCCE Scholarship Fund, Inc. President

June 9, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Vice President's Report for the AFCCE Annual Meeting June 22-24, 2017, World Trade Center, New York

To the President and Members of the Board and members of the Association:

I want to thank the members of AFCCE for the opportunity to serve as the first non-Member in the capacity of Vice President. Through the change in the by-laws voted at the Annual Meeting held at Estes Park, Colorado, the Association has initiated a program of sustainability for the continuation of the Association for the future.

The complexion of the Association has changed even during my twelve years of membership from one of mostly PE Members to a much larger presence of non-PE Associate Members from TV and Radio Stations, Consulting Firms, Law Firms, manufacturers, etc. as the eminent long term Members are both retiring from active practice and membership as well as passing from us.

To continue the Association's growth, we need to seriously address the sustainability issues we are facing and fully realize that there are many Associate Members who have been members long term, who will never attain the position of Professional Engineer, either due to age or time to attain the designation.

With a minor change to the by-laws, we can achieve a more sustainable Association into the future as our core business changes with the changes to the telecommunications industry in general. We would still fully recognize the achievements of the Professional Engineers, while also qualifying Associate Members who meet certain qualifications for Full Membership, with the rights that come with that level. In this way we will certainly grow our base with younger members who will one day fill our shoes as we retire or pass on.



ASSOCIATION OF

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WASHINGTON, D.C.

Membership has shown a decline in recent years and we need a concerted effort to grow our membership and opening up opportunities for the long term Associate Members is one of the ways to make it happen.

Respectfully submitted,

John M Lyons (sig)

Vice President

June 1, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Annual Report of the Secretary June 22-24, 2017, World Trade Center, New York, NY

To the Board and members of the Association:

According to the AFCCE Constitution, the Secretary is responsible for preparing records of AFCCE meetings, essential the minutes, transmitting notices and keeping the official documents of the Association, excluding financial ones. In the absence of both the President and the Vice-President, the Secretary performs the duties of President. The prior Secretary David Layer was helpful in my transition as was the President as well as significant help from other Board members. Their assistance in my absence and learning curve is appreciated.

Board of Directors

For 2016-2017, the Association's Board of Directors and Officers consisted of the following individuals:

Name, Position (term expiration)	E-Mail
M Robert Weller, President (2019)	bob@weller.org
AM John Lyons, Vice President (2018)	jlyons@durst.org
M Chris Horne, Secretary (2020)	ChrisHorne111@gmail.com
AM Ron Chase, Treasurer (2018)	ronchase@verizon.net
M Steve Crowley, Director (2018)	steve@stevecrowley.com
M Marshall Cross, Director (2018)	mcross@megawave.com
M Mark Fehlig, Director (2019)	mfehlig@ieee.org
AM David Layer, Director (2017)	dlayer@nab.org
M Jon Edwards, Director (2020)	jedwardspe@gmail.com

There were seven regular Board meetings during the period between July 1, 2016 and June 30, 2017: September 16, October 21, and November 16, 2016, and on January 13, February 10, March 17, and May 19, 2017.

The Board is thankful for the meeting venue provided by Fletcher Heald & Hildreth



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WASHINGTON, D.C.

Membership

As of June 15, 2017, there are 221 active AFCCE members, based upon the Association's active email listing maintained on the Association web page (hosted by WordPress). The Admissions Committee manages membership actions during the year.

During this term, I worked with David Layer and our web master, Mike Rhodes, to navigate and practice the use of WordPress for email correspondence after some members were not receiving emails. I began sending out all emails to membership using the "Mail Poet" interface of the WordPress web page. WordPress allows a member preferences to be modified and the Secretary is tasked to maintain this record.

Annual Report

The AFCCE Annual Report for 2016-2017 will be published electronically following the Annual Meeting. Individual reports presented during the Annual Meeting may be corrected for the Annual Report. Minutes from the 2016-2017 Annual Meeting will be included in the 2016-2017 AFCCE Annual Report.

AFCCE Schedule of Meetings and Events, 2017-2018

6/22-24 (Thurs-Sat) Annual Meeting, New York City

9/15 (Fri) Luncheon Meeting (Holiday Inn, Rosslyn, Dogwood Room)

10/12 (Thu) Joint AFCCE/BTS Luncheon (Marriott Key Bridge)

10/12 (Thu) AFCCE Fall Social (Holiday Inn Vantage Point Restaurant)

11/30 (Thu) Luncheon Meeting (Holiday Inn, Shenandoah AB)

11/30 (Thu) -- FCC Reception (National Press Club)

1/19 (Fri) Luncheon Meeting (Holiday Inn, Dogwood)

2/23 (Fri) Luncheon Meeting (Holiday Inn, Dogwood)



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

3/15 (Fri) Luncheon Meeting (Holiday Inn, Dogwood)

5/18 (Fri) Luncheon Meeting (Holiday Inn, Dogwood)

June (TBD) 70th Annual Meeting

Respectfully submitted,

Christopher K. Horne

Christopher K. Horne, P.E.

Secretary

June 15, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

AFCCE Board Election Ballot – May 2017

The AFCCE Board of Directors consists of nine members (six Full Members and three Associate Members) in accordance with Article V, Section 1 of the AFCCE Constitution. This year, one Associate Member position (three-year term) will be open and must be filled by election.

This ballot is being distributed by email as permitted in the AFCCE Bylaws, Article V, Section 5. Please vote on this electronic form (or on a printed copy if you prefer) and return this ballot to Chris Horne at ChrisHorne111@gmail.com or by USPS to the address shown below.

Please return this ballot as soon as possible, but no later than May 23, 2017.

The AFCCE Nominations Committee has recommended the persons listed below to be placed on the ballot for the upcoming vacant position of the AFCCE Board of Directors for the term beginning July 1, 2017.

Please note that both Full and Associate Members can vote for an Associate Member Director position.

Vote for the **one** Associate Member Director position (check or write-in only one name):

- Anne Goodwin Crump
- John George
- Stephen Pumple
- Write-in Candidate _____

Please return ballot no later than May 23, 2017

to:

ChrisHorne111@gmail.com

or:

Christopher Horne, P.E.

P.O. Box 5102

High Point, NC 27262

(Please put your name and return address on envelope.)



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Candidate Biographies AFCCE Board Election – May 2017

Anne Goodwin Crump – Nominee for Associate Member Board Vacancy

“I graduated magna cum laude with a Bachelor of Arts in English literature from Davidson College in Davidson, North Carolina. I received my law degree from the University of Virginia School of Law. While at the University of Virginia, I was producer of the law school's annual Libel Show.

“Following my law school graduation, my first job was with Fletcher, Heald & Hildreth, P.L.C., and I have been there ever since. As an attorney, I have represented primarily broadcast clients, including both commercial and non-commercial clients, in a variety of transactional and regulatory matters. These projects have included working closely with clients' engineers to assist them in gaining authorization for the best possible technical facilities or in seeking modification of technical rules for their own and the industry's advantage, as well as guiding clients through more typical legal matters such as the purchase and sale of broadcast stations, the license renewal process, non-routine changes in community of license and many aspects of the DTV transition process. I also have assisted clients with day-to-day regulatory matters, including political broadcasting, children's television matters, and EEO reports and audits. I have filed comments on behalf of clients in a variety of FCC rulemaking proceedings, which have included both broad policy issues and station-specific matters.

“I have previously served one term on the AFCCE board of directors, and I very much enjoyed doing so. Since my term expired, I have continued to be a member of the Scholarship Committee, and I have also provided informal advice and assistance with revisions to AFCCE and AFCCE Scholarship Fund governing documents and filing of an amendment to the AFCCE Scholarship Fund articles of incorporation with the D.C. government. If I were again elected to the board, I would anticipate continuing and expanding upon these activities. I also would be pleased to offer my writing and editing skills in connection with AFCCE comments and other documents submitted to the FCC. In addition, I would provide a somewhat different perspective to the board, along with a sensitivity to legal issues, in light of my legal training. I thank you for your consideration.”



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Candidate Biographies AFCCE Board Election - May 2017

John George - Nominee for Associate Member Board Vacancy

John is a senior executive with over 40 years' experience in the broadcast industry. His career has spanned many disciplines of broadcasting, including on-air as a disc jockey, advertising sales, technical-serving as the Chief Engineer of several radio stations, and broadcast equipment and systems sales.

He has been at the forefront of the ever-changing technical landscape of broadcasting, from his time with Harris Corporation as a District Sales Manager, introducing broadcasters to the world of digital storage, and HD Radio, to the improvement in antenna technologies as District Sales Manager for Dielectric Communications and VP of Sales for LBA Group, Inc.

He has maintained a presence in the real world of broadcast station construction and reconstruction through his technical consulting practice, Broadtech Services, Inc.

John formed RF Specialties-South in 2012, and is the managing partner. A major equipment supplier, he also provides expert guidance to his clients at RF Specialties-South.

John spearheaded the development of the nationally recognized South Carolina Broadcasters Association's Alternative Broadcast Inspection Program. SCBA's ABIP is being used as the model for other state associations. John currently serves as the SCBA's Technical Consultant and Board member. In 2013, John's lifelong commitment and contributions to the improvement of broadcasting in the state of South Carolina was recognized with the presentation of the SCBA's prestigious Lifetime Membership Award.

John is an Associate Member of the AFCCE, where he has previously been a Board Member and served two years as Secretary. He is also a member of the IEEE and Society of Broadcast Engineers.

John's technical and business experience, coupled with his contacts in the industry, makes him an ideal choice to serve on the Board of Directors and would help propel AFCCE forward in this time of unprecedented technical advancement. One of his goals, if elected, is to increase the membership of the Association. It is critical for any organization to have a growing membership in order to meet the needs of the industry it serves.



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Candidate Biographies AFCCE Board Election – May 2017

Stephen Pumple – Nominee for Associate Member Board Vacancy

Stephen Pumple is president of AZTECH-Eng, a consulting and project management company working on TV repacking and the implementation of ATSC 3.0.

“We are on the cusp of dramatic changes with the implementation of the repack program and the ATSC 3.0 transmission format. Just as viewing habits are changing, so too these changes and accompanying regulations will have a significant impact on the OTA broadcaster, satellite, streaming and OTT operations. Experience tells us changes bring many challenges and unseen obstacles to navigate through, over and around as these programs are implemented. It is critical that AFCCE monitor and audit the regulatory environment governing these changes and work to ensure the regulations coincide as closely as possible with sound engineering principles and societal values. With over 30 years of working with government agencies, I have developed a keen appreciation of the processes required to address and hold the system to account.

“As an RF engineer, my work includes RF facilities planning, project management and the design and consolidation/sharing of master control and planning for the implementation of ATSC 3.0. As a Distinguished Visiting Professor in the Faculty of Engineering Ryerson University I mentor and provide guidance to entrepreneurially motivated engineering students. I am a SMPTE Engineering Fellow, an active member of the NATS EMMY-Tech committee, the ESCH Engineering Award Committee, AFCCE and SMPTE. I have presented papers at NAB and authored the Project Management and Systems Integration chapter of the 2017 NAB Engineering Handbook.

“I founded AZCAR Technologies, one of the larger international systems integration companies that provided engineering, design and systems integration for television, Olympic, satellite, new media and internet facilities domestically and internationally. I have strong business, analytical, engineering and technical skills with a proven ability to lead teams and resolve complex issues. I have sat on the boards of public and private broadcast companies domestically and internationally and chaired board committees including strategic planning, compliance and HR. I am a public speaker, presenter and astute negotiator able to build collaborative relationships with strategic partners and key stakeholders. I am a volunteer at a local rehab hospital.”



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Report on Board Election June 15, 2017

On Tuesday, March 7, 2016, an email notification was sent to the AFCCE membership regarding the Ballot for election of one full member Board position. Members were requested to cast a vote for one of the following candidates:

- Anne Crump
- John George
- Stephen Pumple

Of the 46 ballots submitted, Anne Crump received the largest number of votes. I have confirmed that those voting are full members of the Association by inspecting their entries in the membership listing on the AFCCE web

Respectfully submitted,

Christopher K. Horne, P.E.

Secretary

June 15, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

EMAIL NOTIFICATION OF MAY 12, 2017:

Dear AFCCE Full and Associate Members,

Balloting remains open for AFCCE's 2017 Board of Directors election until May 24th. You are voting for ONE Associate Member Director from a list of THREE candidates. Only Full and Associate Members are permitted to vote in an Associate Member Director election.

The ballot, with return instructions, including biographical profiles of the candidates, can be downloaded as a PDF file here ([link to ballot](#)). Please return the completed ballots no later than May 24th. Please read carefully the following instructions for filling out and sending the ballot:

After clicking the link above to the ballot, you must download the file (upper right button in Dropbox), which then provides a fillable PDF on which you can register your vote using your Adobe Reader by clicking the box next to the candidate of your choice (a check mark will appear) or typing the name of a "write-in" candidate. If you feel more comfortable filing out the ballot by hand, or if the fillable PDF for some reason doesn't work for you, you can print the blank ballot on a printer and mark your vote on the paper ballot.

You have the choice of 1) printing your completed ballot and regular-mailing it to the Secretary at the mailing address on the ballot, 2) scanning your paper ballot and emailing it to the Secretary at the email address shown on the ballot, or 3) emailing the electronic ballot directly from your computer.

CAUTION: If you opt for Option 3, when you save your completed ballot to a file to attach to the email, you are strongly encouraged to do so by using the "File ---> Print ---> Adobe PDF" function from Adobe Reader, if your operating system supports that function. If you instead use the "File ---> Save as.." function, the PDF will still be in the fillable form mode which will leave the ballot vulnerable to accidental changes. Using the "File ---> Print ---> Adobe PDF" function will lock down your ballot and prevent it from being changed.

Please feel free to contact me anytime if you have any questions about the voting process as I've described.

Best regards,

Ben Evans
AFCCE Nominations Chairman



ASSOCIATION OF
FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

ANNUAL REPORT OF THE TREASURER
2016-2017 TERM

This report covers the financial status and transactions of the Association from May 1, 2016 through April 30, 2017. The commencement date follows the ending date of the 2015-2016 Treasurer's Annual Report.

The attached AFCCE Treasurer's Annual Report dated 5/1/16 – 4/30/17 shows a balance¹ of \$43,527 in the Association checking account and \$77,508 in a Wachovia Bank Money Market Account opened on 5/27/2010. The Association operates on a cash basis. The total income for the reported period was \$56,912. The attached Gain and Loss and Balance Sheets provide current as well as historical detailed information.

The following events occurred during this period that departed from the usual year-to-year procedures that the Treasurer normally encounters.

Bookkeeper (Denise Branson) Contract Renewal: The bookkeeper's original one-year contract was to end in Dec 2016. The board extended that original contract, and its existing terms and conditions, continuously into the future on 11/14/16. That is, we consider the starting and ending dates of the contract to be updated and current, for each year that Denise works for our organization. Denise has been our bookkeeper for about a year and a half. The final documents from Anne (checks, corporate documents, etc.) were received by Denise in Sept 2016.

Membership Renewals: This year membership renewal began with an announcement in Dec. In Feb, a renewal reminder notice was sent to all members. This resulted in 10 duplicate membership payments that had to be refunded. Reminder notices are now only sent to members that have not renewed at that time.

The board increased the AFCCE matching scholarship donation provided with the membership renewal payments from \$100.00 to \$200.00.

Yearly Financial Audit: The requirement in the by-laws, for a yearly audit of the organization's financial information, was completed by having the previous Treasurer review the current financial information in the annual report and provide his comments in a letter to the board. This year, the board has agreed to bring in a professional firm to

¹ All amounts rounded to whole dollars.

perform an audit of our financial data and practices. That's expected to take place this fall or in the spring of the coming year, before the Treasurer's term ends.

Treasurer's Handbook: Treasurer proposes to provide a "handbook" containing all of the financial activities, timelines and account information (properly obscured) to the board. That should obviate a lot of time and effort needed to get familiar with normal activities and many obscure AFCCE incorporation issues, such as our relationship with the DC government. That will help obviate the type of expenses incurred in the past.

Attachments herein include:

AFCCE Treasurer's Annual Report 5/1/16 - 4/30/17

AFCCE Gain and Loss Sheet as of 4/30/17

AFCCE 4 year Gain and Loss Balance Sheet 5/1/13 - 4/30/17

AFCCE 4 year Balance Sheet 4/14 - 4/17

Respectfully submitted,

A handwritten signature in black ink that reads "Ronald J Chase". The signature is written in a cursive style with a long horizontal line extending to the right.

Ronald J Chase
AFCCE Treasurer
9 June, 2017

Association of Federal Communications Consulting Engineers
Treasurer's Annual Report
05/01/16 – 04/30/17

Opening Balance, Checking			\$ 53,625.96
Opening Balance, Wells Fargo Bus. Savings			\$ 77,463.19
<i>Income for the period from all sources:</i>			\$ 56,911.90
Annual Meeting 2017		\$ 8,340.00	
Dues Income		\$ 24,135.00	
2016	1,185.00		
2017	22,950.00		
Fa Socia Income (2016)		\$ 8,000.00	
FCC Reception Income (2016)		\$ 2,850.00	
Interest on Bus. Savings		\$ 61.90	
Luncheon Income		\$ 9,425.00	
Scholarship Income		\$ 4,100.00	
<i>Expenditures for the period totaled:</i>			\$ 66,966.65
Accounting		5,377.05	
Annual Meeting 2015		16,271.36	
Awards Supplies		194.00	
Credit card processing fees		3,635.58	
Fa Socia 2015		4,395.08	
FCC Reception 2016		9,102.96	
Grant		200.00	
Insurance (D&O, Liability)		1,024.00	
Luncheons		11,152.00	
Office supplies		112.86	
Postage		139.22	
Post Office Box		169.00	
Professional Services		97.00	
Scholarship Fund AFCCE Match		5,215.00	
Scholarship Fund General donation		9,173.00	
Tax - Federal Withholding		17.21	
Web site		691.33	
Cash in Bank Checking Savings 4/30/17:			\$ 121,034.40
(Checking \$43,526.52; Savings \$77,507.88)			
Respectfully submitted:			
Ronald Chase			
Treasurer			
5/15/2017			

Association of Federal Communications Consulting Engineers

Gain and Loss

As of April 2017

	Income	
	Symposium Income	
	4000 Annual Meeting Income	8 340 00
	4001 FCC Reception Income	2 850 00
	4002 Luncheon Income	9 425 00
	Dues Income	24 280 00
	Fall Social Income	
	F.S. Sponsorship	3 790 00
	Fall Social Income - Other	4 2 0 00
	Total Fall Social Income	8 000 00
	Income Scholarship	4 00 00
	Interest Income	6 90
	Other Inc	
	Total Income	57 056 90
	Gross Profit	
	Expense	
	Accounting	
	Accountant	
	Bookkeepers	5 377 05
	Quick Books Online	
	Total Accounting	5 377 05
	Annual Meeting	
	Insurance	
	Entertainment	
	Food	6 0 6 39
	Travel	
	Miscellaneous	254 97
	Annual Meeting - Other	
	Total Annual Meeting	6 27 36
	Awards supplies/Expense	94 00
	Bank Charges	
	Credit Card processing fees	3 635 58
	Fall Social	
	Bar	8 5 45
	Miscellaneous	
	Fall Social - Other	
	Income to SF	
	Food	2 579 63
	Total Fall Social	4 395 08
	FCC Reception	9 02 96
	Fees	
	Insurance	024 00
	Luncheon	
	Audio Visual	328 60
	Bar	930 00
	Food	9 838 40
	Refund	55 00
	Total Luncheon	52 00
	Grant/Gift	200 00
	Postage	39 22
	Post Office Box Rental	69 00
	Print/Post	
	Professional Services	97 00
	Scholarship	
	Noel Luddy Scholarship Fund	
	AFCCE Match	5 2 5 00
	Donations	9 73 00
	General	
	Total Scholarship	4 388 00
	Supplies	08 75
	Tax Domestic Nonprofit	
	Tax Federal Withholding	7 2
	Web site	69 33
	Total Expense	66 962 54
	Net Income	(9,905.64)

Association of Federal Communications Consulting Engineers 4-Year Gain/Loss Balance Sheet

	May '13 - Apr 14	May '14 - Apr 15	May '15 - Apr 16	May '16 - Apr 17
Income				
4000 Annual Meeting Income	11,998.00	7,625.00	18,750.00	6,790.00
4001 FCC Reception Income	2,650.00	2,040.00	1,720.00	2,850.00
4002 Luncheon Income	9,185.00	8,720.00	7,475.00	9,425.00
4003 Annual Meeting Sponsorship	0.00	0.00	0.00	1,550.00
Dues Income	21,320.00	22,320.00	26,151.26	24,280.00
Income Scholarship	2,791.21	3,130.00	3,065.00	4,100.00
Fall Social Income	3,300.00	400.00	6,950.00	8,000.00
Symposium Income	1,934.00	2,116.00	2,570.00	
Interest Income	77.14	61.91	62.13	61.90
Noel Luddy Scholarship	2,500.00	0.00		
Jules Cohen Mem. Scholarship				
Other income	0.00	140.00		
Total Income	55,755.35	46,552.91	66,743.39	57,056.90
Expense				
Accounting	2,733.95	3,515.15	4,785.68	5,377.05
Annual Meeting				
Banquet	8,341.18	3,533.44	14,462.83	16,016.39
Transportation	975.00	0.00	748.50	
Other	1,142.80	8,595.38	1,469.65	254.97
Total Annual Meeting	10,458.98	12,128.82	16,680.98	16,271.36
Awards Supplies	707.44	168.51	515.00	194.00
Bank Charges	0.00	3.00		0.00
Board Meeting Dinner	2,294.38	0.00		
Credit card processing fees	1,046.61	1,203.00	1,878.84	3,635.58
Fall Social	4,880.00	3,385.85	12,447.28	4,395.08
FCC Reception	8,866.26	10,628.48	11,655.95	9,102.96
Fee DC Registered Agent Service	97.00	97.00		
Grant			253.16	200.00
Insurance	0.00	1,274.00	1,299.00	1,024.00
Luncheons				
Audio Visual	367.50	159.60	159.00	328.60
Bar				930.00
Food	8,288.05	9,221.37	7,673.02	9,838.40
Refund				55.00
Total Luncheon	8,655.55	9,380.97	7,832.02	11,152.00
Office Supplies				108.75
Postage	265.05	26.87	98.49	139.22
Post Office Box Rental	148.00	154.00	156.00	169.00
Printing	875.44	290.72	1,538.59	
Professional Services	500.00	0.00	497.00	97.00
Scholarship Fund				
AFCCE Match	2,691.21	420.00	3,025.00	5,215.00
Donations	2,791.21	420.00	3,025.00	9,173.00
Transfer to S.F.	0.00	90.00	8,905.00	
Transfer to S.F. Noel Luddy Schl.	2,500.00	2,400.00		
Transfer to S.F. Fall Social income	3,300.00	0.00		
Total Scholarship	11,182.42	3,330.00	14,955.00	14,388.00
Supplies	358.06	26.49	233.27	
Symposium expenses	5,999.72	0.00		
Tax DC Domestic Nonprofit	0.00	130.00		
Tax, Federal Withholding	21.51	17.30	17.34	17.21
Trademark renewal	0.00	0.00		
Web site	1,419.99	2,073.15	162.38	691.33
Total Expense	60,610.36	47,833.31	75,005.98	66,962.54
Net Gain/Loss	(4,855.01)	(1,280.40)	(8,262.59)	(9,905.64)

**Association of Federal Communications Consulting Engineers
4-Year Balance Sheet**

			Apr 30, 14	Apr 30, 15	Apr 30, 16	April 30, 2017
ASSETS						
	Current Assets					
	Checking/Savings					
		CHECKING	63,258.35	61,933.34	49,945.69	43,526.52
		Business Savings (Wells Fargo)	77,373.79	77,418.40	77,463.19	77,507.88
		Total Checking/Savings	140,632.14	139,351.74	127,408.88	121,034.40
		TOTAL ASSETS	140,632.14	139,351.74	127,408.88	121,034.40
LIABILITIES & EQUITY						
	Equity					
		Opening Balance Equity	0.00	0.00	0	0
		Retained Earnings	141,470.59	147,960.05	149,210.17	131,158.27
		Net Gain/Loss	-838.45	(8,608.31)	(21,801.29)	(10,123.87)
		Total Equity	140,632.14	139,351.74	127,408.88	121,034.40
		TOTAL LIABILITIES & EQUITY	140,632.14	139,351.74	127,408.88	121,034.40



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

SCHOLARSHIP FUND: ANNUAL REPORT OF THE TREASURER 2016 17 TERM

This report covers the financial status and transactions of the Association from May 1, 2016 through April 30, 2017. The commencement date follows the ending date of the 2015-2016 Treasurer's Annual Report.

The attached AFCCE Scholarship Fund Annual Report dated 5/1/16 – 4/30/17 shows a balance¹ of \$31,157 in the Scholarship Fund checking account. The Fund operates on a cash basis. As reflected in the attached Annual Report financial sheet, the total income from all sources for the period was \$63,663. All expenditures for the period went toward 18 awards. The attached four-year Net Gain and Loss Balance Sheets provide historical detailed information from May 1, 2013 through April 30, 2017.

BTS Scholarship account: IEEE funding for the BTS scholarship is tracked as a separate section in the AFCCE Scholarship Fund. The IEEE funding is used only for the BTS scholarship awards, with AFCCE funding supporting all other associated costs. IEEE set-up a vehicle for electronic transfer of their funds directly to the AFCCE scholarship fund bank account using a third party access method to provide a high security level for electronic fund transfers.

Attachments herein include:

- AFCCE Scholarship Fund Treasurer's Annual Report 5/1/16 - 4/30/17
- AFCCE Scholarship Fund Gain and Loss Sheet as of 5/1/16 - 4/30/17
- AFCCE Scholarship Fund 4-year Balance Sheet 4/14 - 4/17
- AFCCE Scholarship Fund 4-year Gain and Loss Sheet 5/13 - 4/17
- Scholarship Contributions provided with the Membership Renewals

Respectfully submitted,

Ronald J Chase, Treasurer
June 9, 2017

¹ All amounts shown in whole dollars

AFCCE Scholarship Fund Treasurer's Annual Report
5/1/16 – 4/30/17

	Opening Balance		\$ 11,152.91
	<i>Income for the period from all sources:</i>		\$ 63,663.01
	Contributions - Other		
	General	750.00	
	Renewals	5,590.00	
	Memorials		
	Matching Scholarship Donations	5,215.00	
1	2016 Fall Social donations	4,200.00	
	2016 Annual Meeting sponsorships	2,908.00	
	Jules Cohen Memorial Scholarship	40,000.01	
2	Noel Luddy Scholarship	5,000.00	
	<i>Expenditures for the period totaled:</i>		\$ 43,659.00
	Bank Fee	49.00	
	Transfer to Op Acct -- Luncheon	110.00	
	Scholarships paid:		
	\$43,500--Jules Cohen Sch. \$20,000, Noel Luddy Sch. \$		
	Alexander Cheu (Fall 2016)	2,000.00	
	Dhantha Abeydeera Gunarathna (Fall 2016)	750.00	
	Elaine Khuu (Fall 2016)	2,000.00	
	Abdoulie Njie (Fall 2016)	750.00	
	Bryan Davis (Fall 2016)	750.00	
	Tyler Turcotte (Fall 2016)	2,000.00	
	Prosanta Paul (Fall 2016)	1,000.00	
	Rafida Zaman (Fall 2016)	1,500.00	
	William Shifflett (Spring 2017 - IEEE)	10,000.00	
	Martin Doczkat (Spring 2017 - IEEE)	10,000.00	
	Dhantha Abeydeera Gunarathna (Spring 2017)	750.00	
	Abdoulie Njie (Spring 2017)	1,000.00	
	Tyler Turcotte (Spring 2017)	2,000.00	
	Prosanta Paul (Spring 2017)	1,000.00	
	Rafida Zaman (Spring 2017)	2,000.00	
	Shane Cyr (Spring 2017)	2,500.00	
	Elaine Khuu (Spring 2017)	2,500.00	
	Md Tajul Islam (Spring 2017)	1,000.00	
	Cash in Bank 4/30/17:		\$ 31,156.92
	Respectfully submitted:		
	Ronald Chase		
	Treasurer		
	6/2/2017		
1	2016 Fall Social: Income \$8,000; Expenses \$4,395.08 (paid by Op. Acct.); Net \$3,604.92		
2	E. Noel Luddy Scholarships balance \$5,000		
	Opening balance \$0, contribution \$2,500, returned award \$2,500		

AFCCE Scholarship Fund Treasurer's Annual Report
Gain and Loss
5/1/16 – 4/30/17

				May '16 - Apr 17
			Income	
			Annual Meeting Sponsorship (2016	2,908.00
			Contribution	
			General	750.00
			Renewal	3,035.00
			Jules Cohen Mem. Scholarship	40,000.01
			Noel Luddy	2,500.00
			Total Contribution	46,285.01
			Dues	2,555.00
			Fall Social	
			Donations	2,090.00
			Sponsorship	2,000.00
			Total Fall Social	4,090.00
			Luncheon Income	
			Matching Scholarship Donations	5,215.00
			Symposium Income	
			Total Income	61,053.01
			Expense	
			Bank Charges	49.00
1			Scholarship Pd	43,500.00
			Total Expense	43,549.00
			Net Gain/Loss	17,504.01

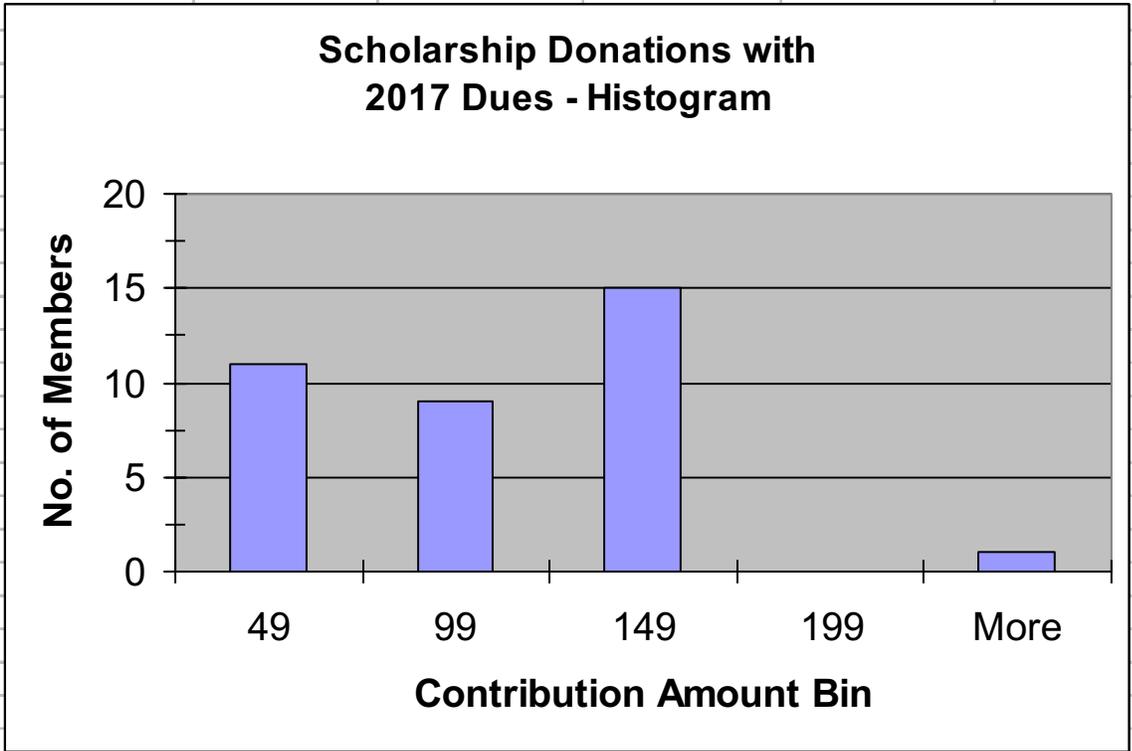
AFCCE Scholarship Fund Treasurer's Annual Report 4-Year Gain/Loss Balance Sheet

			May '13 - Apr 14	May '14 - Apr 15	May '15 - Apr 16	May '16 - Apr 17
		Income				
		Annual Meeting Income				2,908.00
		Contribution				
		General	200.00	488.00	155.00	750.00
		Memorial	50.00	0.00	1,100.00	
		Renewal	2,691.21	420.00	3,025.00	3,035.00
		Jules Cohen Mem. Scholarship				40,000.01
		Noel Luddy				2,500.00
		- Other (from Op Acct)			8,750.00	2,555.00
		Total Contribution	2,941.21	908.00	13,030.00	48,840.01
		Fall Social				
		Sponsorship	3,000.00	7,500.00	7,900.00	2,090.00
		Fall Social - Other	0.00	0.00	0.00	2,000.00
		Donations	4,500.00	3,850.00	4,290.00	
		Total Fall Social	7,500.00	11,350.00	12,190.00	4,090.00
		Matching Scholarship Donations	2,691.21	420.00	3,025.00	5,215.00
		Total Income	13,132.42	12,678.00	28,245.00	61,053.01
		Expense				
		Accounting	0.00	0.00	0.00	
		Bank Fees	0.00	0.00	14.00	49.00
		DC Annual Report	0.00	0.00	0.00	
		DC Reinstatement Fee	0.00	0.00	0.00	
		Incorporation service to 3/2013	0.00	0.00	0.00	
		Scholarships paid	13,500.00	20,000.00	19,000.00	
		IEEE BTS				20,000.00
		Luddy				2,500.00
		Other				21,000.00
		Total Scholarships paid				43,500.00
		Total Expense				43,549.00
		Net Gain/Loss	(367.58)	(7,322.00)	9,231.00	17,504.01

Scholarship Contributions provided with Membership Renewals: Each year a significant amount of funds are contributed to the Scholarship fund along with the membership renewal dues. Those contributions are well leveraged, since all individual contribution amounts (\$200.00 or less) are matched with funds from the operating account. Other “significant” contributions to the Scholarship fund are generally recognized – amounts of \$250.00 or above must be acknowledged with a “tax” letter (IRS rule) – such as donations from Fall Social sponsors. Information is provided here on the membership renewal donations for this year (2017 only), hoping that this will encourage more members to consider this opportunity.

**Scholarship Contributions provided with Membership Renewals
(2017)**

	Amounts	# of contributors
	Below \$50	11
	\$50 to \$99	9
	\$100 to \$149	15
	\$150 to \$199	0
	\$200 and above	1



The largest scholarship contribution received with the member renewals was from Dr. Robert Hoover (for the second year in a row). The Officers extend their thanks to Bob and all the members who contributed with their membership dues.



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

FALL SOCIAL SPONSOR DONOR RECOGNITIONS 2016-17 TERM

The AFCCE Board expresses its gratitude to this year's Fall Social Sponsors:

Platinum Sponsor (\$1500)

The Durst Organization

Gold Level (\$500)

Dr. Robert Hoover Consulting
Hatfield & Dawson Consulting Engineers
Cavell Mertz & Associates, Inc.
Mullaney Engineering, Inc.
Fletcher, Heald & Hildreth, P.L.C.
Kintronic Laboratories, Inc.
Broadtech Services, Inc.

Silver Level (\$250)

Eric Wandel
Tom Jones
Christine Zuba
Dale Ladner
Steven Crowley
Larry Will
Ronald Chase



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WASHINGTON, D.C.

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WASHINGTON, D.C.

SCHOLARSHIP FUND DONATION RECOGNITIONS 2016-17 Term

36 members made tax-deductible donations to the AFCCE Scholarship Fund as part of their 2017 membership renewal. Donations up to \$200 are matched by AFCCE. The AFCCE Board would like to recognize those members for their contributions:

Junior Level Contributors (\$200-\$499)	Sophomore Level Contributors (\$100-\$199)	Freshman Level Contributors (\$0-\$99)
Robert Hoover	John Byrne	Morgan Burrow
	Ronald Chase	William Cordell
	Mark Colombo	Russell Harbaugh
	Robert Culver	Christopher Home
	Dave Doherty	Geoffrey Mendenhall
	Jonathan Edwards	Milford Smith
	Clifford Hall	Eric Stoll
	Thomas Hankinson	Glynn Walden
	Carl Jones Jr.	Lewis Wetzel
	John Mullaney	Louis Williams
	Marissa Repp	Dale Ladner
	Byron St. Clair	Louis du Treil
	D. Turpie	John Lundin
	Thomas Van Wazer	Jerome Manarchuck
	Merrill Weiss	William Reynolds
		Matthew Sanderford
		Larry Will
		Bruce Franca
		David Glenn
		John Lyons



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

Board of Directors 2016–2017

WASHINGTON, D.C.

President
Robert Weller

2016-2017 Annual Admissions Committee Report

Vice-President
John Lyons

Since August of 2016, the following individual applications were processed and recommended to the Board for membership as indicated:

Secretary
Christopher Horne

For Associate Membership:

Treasurer
Ronald Chase

Stephen F. Pumple, President, Exptek
Jack G. McAnulty, Comark Communications LLC, Director of Sales
James Edward Leifer, Vice President Engineering/ IT South Florida Region,
Iheart Media, Miami, Florida
Bruce Alan Franca, Senior VP, Spectrum Policy, NAB

Directors
Marshall Cross
Steven Crowley
Jonathan Edwards
Mark Fehlig
David Layer

For Student Membership:

William Michael Shifflett, Student, Oklahoma State University

Respectfully submitted,

Matthew A. Sanderford, Jr., P.E.
Committee Chairman
AFCCE Admissions Committee

Cc: Joseph M. Davis, P.E.
William R. Meintel



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Annual Report of the Nominations Committee

For the June 23-24, 2017 AFCCE Annual Business Meeting

An election was recently held to fill the upcoming vacant Associate seat of the Board for the term beginning July 1, 2017. We were fortunate to have three individuals with formidable backgrounds step forward to run for the seat. They are: Anne Goodwin Crump, John George, and Stephen Pumple.

The balloting opened on May 4, 2017, when electronic ballots were emailed to the Full and Associate Members. The balloting closed on May 24, 2017. Forty-six ballots were received, representing about 21% of the Full and Associate Members.

The Nominations Committee wishes to express its thanks to the above members for running for the vacant Board position and being willing to serve on the Board.

Respectfully submitted,

B. Benjamin Evans
Nominations Committee Chairman

June 5, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

ANNUAL REPORT OF THE ETHICS/GRIEVEANCES COMMITTEE 2016-17 TERM

This was a quiet year – this is good!

The AFCCE was subpoenaed by a Florida court to provide information on a former member and we responded with the information in our membership records. He had not been a member of AFCCE for over six years.

The committee has not been asked to investigate any allegations of unethical behavior by any current member of AFCCE.

Respectfully Submitted,

Mark G. Fehlig, P.E., CPBE
Walnut Creek, CA



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

ANNUAL REPORT OF THE ENGINEERING RULES AND STANDARDS COMMITTEE 2016 17 TERM

The scope of work for the Engineering Rules and Standard Committee is specified in the AFCCE Bylaws, Article V, Section 4:

Engineering Rules and Standards Committee. This committee shall consider and report any changes which should be made in the existing engineering rules and standards of the Federal Communications Commission or other pertinent Federal Agency. It may also consider other engineering matters of interest to the Association.

The committee is now considering the FCC's rules for AM ground systems with an eye toward recommending to the board that AFCCE file a petition for rulemaking requesting their relaxation.

In considering whether to file comments with the FCC, the AFCCE board takes into account the following guidelines it adopted on May 22, 2015:

1. If there is little interest among AFCCE members in an FCC matter, or if an FCC matter is especially contentious among AFCCE members, AFCCE should not participate in that matter.
2. Members should be sent the text of proposed AFCCE filings a minimum of seven days in advance of filing.
3. AFCCE should strive for consensus, but unanimity of the members is not necessary to make an FCC filing.

Respectfully submitted,

Steve Crowley

Chairperson, Engineering Rules and Standards Committee

June 7, 2017



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

ANNUAL REPORT OF THE FCC LIAISON COMMITTEE 2016-17 TERM

During the 2016-17 year, the FCC Liaison Committee filed comments on behalf of AFCCE in three FCC filings. After discussions at the 2016 Annual Meeting, Ex Parte comments in support of ATSC 3 (Next Generation Television) were filed on July 19, 2016. These comments addressed the competitive disadvantage broadcast television has compared to wireless providers and also commented that ATSC 3 will not adversely impact such wireless operations.

On October 4, 2016 AFCCE filed comments asking the Media Bureau to reschedule its Post-Auction Transition Plan webinar to a date other than October 13. October 13 was problematic in that it was the same date as the IEEE Symposium, where many consulting engineers will be present. The FCC did reschedule the webinar for October 17.

On December 29, 2016 AFCCE filed supporting comments in RM-11779 regarding the licensing of AM synchronous booster stations. The Rulemaking was filed by AM broadcaster Wifredo G. Blanco-Pi, who operates station WAPA, San Juan, PR and associated boosters about the island. The Rulemaking requested that the FCC allow such boosters to be licensed instead of remaining experimental. Unfortunately, the Rulemaking was later denied.

On April 11, 2017, four AFCCE members (President Weller, Liaison Chairman Edwards, Mr. Tom King and Mr. Don Everist) were successful in obtaining a meeting with recently appointed Chairman Pai to discuss the above mentioned RM-11779 and to urge Staff to consider addressing the RF Noise issue. Updating emission limits, promoting online interference portals, re-establishing random inspections and updating its Interference Handbook were some of the suggestions made. Ex Parte comments summarizing the meeting were filed two days later.

Copies of each set of filed comments is attached to this report.

Respectfully Submitted,

Jonathan N. Edwards, P.E.



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Media Bureau Seeks Comment on Joint)
Petition for Rulemaking of America's)
Public Television Stations, The AWARN)
Alliance, The Consumer Technology) GN Docket No. 16-142
Association, and The National Association)
of Broadcasters Seeking To Authorize)
Permissive Use of The "Next Generation)
TV" Broadcast Television Standard)

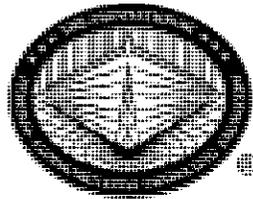
Ex Parte Comments of AFCCE

Established in 1948, the Association of Federal Communications Consulting Engineers ("AFCCE") is an organization that includes approximately 60 full members who are Registered Professional Engineers engaged in the practice of consulting engineering and over 100 members in allied fields of endeavor before the Federal Communications Commission. AFCCE members were involved in the development of the original television transmission system in widespread use in the U.S. (NTSC), the current transmission system (ATSC), and are involved in the development of Next Generation system.

In a recent Petition for Rulemaking,¹ Joint Petitioners asked the Commission to authorize a Next Generation Television broadcast transmission standard and specified certain Rule changes that would be necessary to achieve that result. AFCCE fully supports the proposals set forth in the Petition with regard to authorization of the System Discovery and Signaling Layer of ATSC 3.0 (Standard A/321) as an optional transmission standard that can be utilized by television licensees, and believes that based on known technical data² present interference protection requirements are

¹ America's Public Television Stations, The AWARN Alliance, The Consumer Technology Association, and The National Association of Broadcasters, Joint Petition for Rulemaking, April 13, 2016.

² It is understood that the following experimental special temporary authorities have been issued. Cleveland channels 9 and 31; Baltimore and DC channel 43; Las Vegas channel 45; Raleigh channel 39 and the just announced Sinclair readies upgraded 3.0 testing. AFCCE looks forward to reviewing the technical data associated with these tests.



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

July 19, 2016

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adequate to prevent interference between ATSC 3 systems, between ATSC 1 and ATSC 3 systems, and between ATSC 3 and wireless LTE systems.

AFCCE believes that Next Generation TV offers an opportunity to transform over-the-air broadcast television and finally realize the promise of broadcast/broadband convergence. Without regulatory permission, wireless companies have long been able to periodically upgrade their transmission technologies to realize improved efficiencies and implement new services, but television broadcasters have been locked into a technology that is two-decades old. Authorization by the FCC of ATSC Standard A/321 is a step toward correcting this competitive imbalance, and will allow consumer marketplace forces rather than regulatory mandates to decide the pace of conversion to ATSC 3, or indeed, whether that conversion occurs at all.

In its reply comments,³ CTIA expressed concern about the interference impact that ATSC 3 technology could have on wireless operations in the 600 MHz band. The April 8, 2016, report of Meintel, Sgrignoli, & Wallace⁴ (“MSW Report”) demonstrates that under the conditions tested the interference potential of ATSC 3 is likely to be no greater than that of ATSC 1. Fundamentally, all digital communications systems, including ATSC 1, ATSC 3, and LTE, include signal processing so that the signals transmitted have the properties of random noise. This processing helps maximize the capacity of the transmission channel and thereby the spectral efficiency of the transmission by maximizing the entropy of the source.⁵ Because the systems are all noise-like, the co-channel interference potential of each is very similar under the same conditions and very little variation in interference potential would be expected between ATSC 1 and ATSC 3. The MSW Report addresses specifically co-channel, adjacent-channel, and out-of-band emissions from an ATSC 3 transmitter.

With respect to co-channel interference, three parameters are relevant: occupied bandwidth, in-channel power, and peak-to-average power ratio. As noted in the MSW Report,⁶ because the occupied bandwidth of ATSC3 is slightly greater than that of ATSC 1 but the total power is the same, the power density over the occupied portion of the 6 MHz TV channel is

³ <https://ecfsapi.fcc.gov/file/1062775838804/CTIA%20ATSC%203.0%20Reply%20Comments.%206.27.16.pdf>

⁴ Appendix B of Joint Petition.

⁵ W.H. Tranter, “Coding for Error Detection and Correction,” in K. Feher, *Digital Communications*, Englewood Cliffs, NJ: Prentice-Hall, 1983.

⁶ Appendix B, pages 2 and 13. The occupied bandwidth of ATSC 3 is about 8% greater than ATSC 1.



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

July 19, 2016

Page 3

slightly less than with ATSC 1. This reduction in power density would be expected to slightly reduce the likelihood of interference of ATSC 3 into wireless OFDM systems, such as LTE, at least when the channel overlap between the two systems is less than 100%.

Because OFDM systems inherently have large crest factors,⁷ peak-to-average power ratio (PAPR) and crest factor reduction schemes are essential to realizing practical transmitters. These schemes, which are also incorporated into transmitters used by the wireless industry, will ensure that power excursions in ATSC 3 transmissions are not significantly greater than with ATSC 1. The MSW Report states that the PAPR of ATSC 3 transmissions is about 2.5 dB greater (at 99.9% statistical level) than for ATSC 1 transmissions, making the ATSC 3 interference potential “essentially the same” as Additive White Gaussian Noise (“AWGN”).⁸ AWGN is the type of interfering signal specified in the LTE receiver standard,⁹ which was the basis for the FCC’s interservice interference (ISIX) analysis.¹⁰ Therefore, it appears that the FCC’s ISIX analysis is adequately protective of LTE wireless receivers for ATSC 1 or ATSC 3 operations that are co-channel or partially co-channel.

With regard to adjacent-channel and out-of-band emissions from ATSC transmitters, no change to the existing DTV emission mask¹¹ is requested or contemplated. Since the permitted levels of out-of-band emission from television transmitters are unchanged, the interference potential of ATSC 3 transmissions should be no greater than that of ATSC 1 when the affected wireless receiver is not co-channel.

In view of the foregoing, AFCCE finds no technical reason to delay the continued processing of the authorization of the ATSC 3 transmission standard, and urges the Commission to take the requisite actions necessary for expedited consideration.

⁷ http://en.wikipedia.org/wiki/Crest_factor, retrieved July 6, 2016.

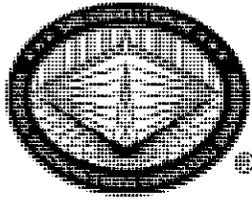
⁸ Appendix B, page 14.

⁹ ETSI, “Evolved Universal Terrestrial Radio Access Base Station Conformance Testing,” 3GPP TS 36.141, version 10.1.0, 2011.

¹⁰ Second Report and Order and FNPRM, GN Docket 12-268, Adopted October 16, 2014, para. 36ff.

¹¹ https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-157A1.pdf

47 CFR §73.622(h)



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FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

July 19, 2016

Page 4

The above was discussed at the AFCCE Annual Meeting held on June 23-26, 2016 at Estes Park, Colorado and consensus was reached to provide comments concerning Docket 16-142. Further, it has been reviewed and received concurrence of the Board of Directors, and was circulated to the membership before these comments became final.

Respectfully Submitted,

Donald G. Everist
Acting FCC Liaison Chairman
AFCCE
P. O. Box 19333
Washington, D.C. 20036

Date: July 19, 2016

CERTIFICATION

This is to certify that copies of these comments were mailed at the M.L. King Post Office to all available commenters with which there was a full postal address (see the attached list).
First-class postage was affixed to these comments.

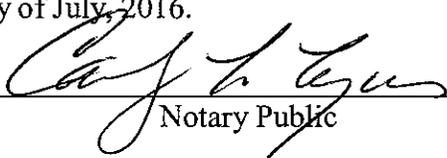
Sincerely,


Donald G. Everist

Date: July 19, 2016

City of Washington)
) ss
District of Columbia)

Subscribed and sworn to before me this 19th day of July, 2016.



Notary Public

My Commission Expires:
2/28/2018



LPTV Spectrum Rights Coalition

MR MICHAEL GRAVINO
DIRECTOR
LPTV SPECTRUM RIGHTS COALITION
600 PENNSYLVANIA AVENUE SE
WASHINGTON DC 20003

RTP Holdings

MR CHARLES E (CHET) DAGIT III
FOUNDER AND MANAGING
DIRECTOR
RTP HOLDINGS
124 GULPH HILLS ROAD
RADNOR PA 19035

DISH Network L.L.C.

MR JEFFREY H BLUM
SENIOR VICE-PRESIDENT
HADASS KOGAN CORPORATE
COUNSEL
DISH NETWORK LLC
1110 VERMONT AVENUE NW
SUITE 750
WASHINGTON DC 20005

MS ALISON MINEA
DIRECTOR REGULATORY AFFAIRS
HADASS KOGAN CORPORATE
COUNSEL
DISH NETWORK LLC
1110 VERMONT AVENUE NW
SUITE 750
WASHINGTON DC 20005

American Cable Association

MR MATTHEW M POLKA
PRESIDENT AND CEO
AMERICAN CABLE ASSOCIATION
875 GREENTREE ROAD
SEVEN PARKWAY CENTER
SUITE 755
PITTSBURGH PA 15220

MR ROSS J LIEBERMAN
SENIOR VICE-PRESIDENT OF
GOVERNMENT AFFAIRS
AMERICAN CABLE ASSOCIATION
2415 39TH PLACE NW
WASHINGTON DC 20007

MR MICHAEL D NILSSON
HARRIS WILTSHIRE & GRANNIS LLP
ATTORNEYS FOR AMERICAN CABLE
ASSOCIATION
1919 M STREET NW
EIGHTH FLOOR
WASHINGTON DC 20037

MR PAUL J CARITJ
HARRIS WILTSHIRE & GRANNIS LLP
ATTORNEYS FOR AMERICAN CABLE
ASSOCIATION
1919 M STREET NW
EIGHTH FLOOR
WASHINGTON DC 20037

Attorneys for

**Public Knowledge. Common Cause and
Open Technology Institute at New
America**

MR HAROLD FELD
SENIOR VICE-PRESIDENT
PUBLIC KNOWLEDGE
1818 N STREET NW
SUITE 410
WASHINGTON DC 20036

MR MICHAEL CALABRESE
DIRECTOR WIRELESS FUTURE
PROJECT
OPEN TECHNOLOGY INSTITUTE AT
NEW AMERICA
740 15TH STREET NW
9TH FLOOR
WASHINGTON DC 20005

MR TODD O'BOYLE
COMMON CAUSE
1133 19TH STREET NW
SUITE 900
WASHINGTON DC 20036

Entravision Communications

Attorneys for

MR BARRY FRIEDMAN
THOMPSON HINE LLP
ATTORNEYS FOR ENTRAVISION
COMMUNICATIONS
SUITE 700
1919 M STREET NW
WASHINGTON DC 20036

**National Cable & Telecommunications
Association**

MR RICK CHESSEN
NATIONAL CABLE &
TELECOMMUNICATIONS
ASSOCIATION
25 MASSACHUSETTS AVENUE NW
SUITE 100
WASHINGTON DC 20001-1431

MS DIANE B BURSTEIN
NATIONAL CABLE &
TELECOMMUNICATIONS
ASSOCIATION
25 MASSACHUSETTS AVENUE NW
SUITE 100
WASHINGTON DC 20001-1431

DR WILLIAM A CHECK
SENIOR VICE-PRESIDENT
NATIONAL CABLE &
TELECOMMUNICATIONS
ASSOCIATION
25 MASSACHUSETTS AVENUE NW
SUITE 100
WASHINGTON DC 20001-1431

MR ANDY SCOTT
VICE-PRESIDENT ENGINEERING,
SCIENCE & TECHNOLOGY
NATIONAL CABLE &
TELECOMMUNICATIONS
ASSOCIATION
25 MASSACHUSETTS AVENUE NW
SUITE 100
WASHINGTON DC 20001-1431

Dolby Laboratories, Inc.

MR CRAIG C TODD
SENIOR VICE-PRESIDENT AND CHIEF
TECHNOLOGY OFFICER
DOLBY LABORATORIES INC
1275 MARKET STREET
SAN FRANCISCO CA 94103

**Public Broadcasting Service and
Corporation for Public Broadcasting**

MR WILLIAM WEBER
VICE-PRESIDENT GOVERNMENT
AFFAIRS
PUBLIC BROADCASTING SERVICE
2100 CRYSTAL DRIVE
ARLINGTON VA 22202

MR ERIC WOLF
VICE-PRESIDENT TECHNOLOGY
PUBLIC BROADCASTING SERVICE
2100 CRYSTAL DRIVE
ARLINGTON VA 22202

MR THOMAS ROSEN
ASSISTANT GENERAL COUNSEL
PUBLIC BROADCASTING SERVICE
2100 CRYSTAL DRIVE
ARLINGTON VA 22202

MR J WESTWOOD SMITHERS
SENIOR VICE-PRESIDENT AND
GENERAL COUNSEL
CORPORATION FOR PUBLIC
BROADCASTING
401 NINTH STREET NW
WASHINGTON DC 20004

Raycom Media, Inc.

TEGNA, Inc.

Graham Media Group

Pearle Mobile DTV Company LLC

MR KURT WIMMER
COVINGTON & BURLING LLP
ATTORNEYS FOR
RAYCOM MEDIA INC / TEGNA INC /
GRAHAM MEDIA GROUP
850 TENTH STREET NW
WASHINGTON DC 20001

MR GERALD J. WALDRON
COVINGTON & BURLING LLP
ATTORNEYS FOR
RAYCOM MEDIA INC / TEGNA INC /
GRAHAM MEDIA GROUP
850 TENTH STREET NW
WASHINGTON DC 20001

MS HANNAH LEPOW
COVINGTON & BURLING LLP
ATTORNEYS FOR
RAYCOM MEDIA INC / TEGNA INC /
GRAHAM MEDIA GROUP
850 TENTH STREET NW
WASHINGTON DC 20001

MS ANNE SCHELLE
MANAGING DIRECTOR
PEARLE MOBILE DTV COMPANY LLC
850 10TH STREET NW
SUITE 312N
WASHINGTON DC 20001

GatesAir Inc.

MR PHIL ARGYRIS CEO
GATESAIR INC
5300 KINGS ISLAND DRIVE
SUITE 101
MASON OH 45040

AT&T Services, Inc.

MS CATHY CARPINO
DAVID LAWSON
ATTORNEYS FOR AT&T SERVICES INC
1120 20TH STREET NW
SUITE 1000
WASHINGTON DC 20036

MS GARY L PHILLIPS
DAVID LAWSON
ATTORNEYS FOR AT&T SERVICES INC
1120 20TH STREET NW
SUITE 1000
WASHINGTON DC 20036

Its attorneys

American Tower Corporation

MR PETER STARKE
VICE-PRESIDENT BROADCASTING
AMERICAN TOWER CORPORATION
10 PRESIDENTIAL WAY
WOBURN MA 01801

MR PAUL ROBERTS
VICE-PRESIDENT COMPLIANCE
AMERICAN TOWER CORPORATION
3500 REGENCY PARKWAY
SUITE 100
CARY NC 27518

**The Advanced Television Systems
Committee, Inc.**

MR MARK S RICHER
PRESIDENT
THE ADVANCED TELEVISION
SYSTEMS COMMITTEE INC
1776 K STREET NW
SUITE 800
WASHINGTON DC 20006

**Advanced Television Broadcasting
Alliance**

MR LOUIS LIBIN
EXECUTIVE DIRECTOR
ADVANCED TELEVISION
BROADCASTING ALLIANCE
382 FOREST AVENUE
WOODMERE NY 11598

MR ROBERT FOLLIARD
CHAIRMAN
ADVANCED TELEVISION
BROADCASTING ALLIANCE
382 FOREST AVENUE
WOODMERE NY 11598

Cox Media Group

MR MICHAEL D BASILE
COOLEY LLP
ATTORNEYS FOR COX MEDIA GROUP
1299 PENNSYLVANIA AVENUE NW
WASHINGTON DC 20004

MR JASON E RADEMACHER
COOLEY LLP
ATTORNEYS FOR COX MEDIA GROUP
1299 PENNSYLVANIA AVENUE NW
WASHINGTON DC 20004
Its Attorneys

Meredith Corporation

MR PAUL KARPOWICZ
PRESIDENT LOCAL MEDIA GROUP
MEREDITH CORPORATION
425 14TH STREET NW
ATLANTA GA 30318

Gray Television, Inc.

MR ROBERT FOLLIARD
VICE-PRESIDENT
GRAY TELEVISION INC
4370 PEACHTREE ROAD NE
ATLANTA GA 30319

Casey Joseph

MR CASEY JOSEPH
VICE-PRESIDENT SALES
LS TELECOM INC
502I HOWERTON WAY
SUITE E
BOWIE MD 20715

JOHN NOTOR

MR JOHN NOTOR
PRESIDENT/CHIEF TECHNOLOGIST
NOTOR RESEARCH
1548 ARATA COURT
SAN JOSE CA 95125

MR PETER MONCURE
RADIOSOFT INC
194 PROFESSIONAL PARK DRIVE
CLARKESVILLE GA 30523

Bill Sanford

MR BILL SANFORD CEO
LAKELAND PUBLIC TELEVISION
TELEVISION STATION KAWB-TV
108 GRANT AVENUE NE
BEMIDJI MN 56601-3620

Ing. Peter Riemann
President
LS telecom Limited
1145 Hunt Club, Suite 100
Ottawa, Ontario, Canada K1V 0Y3
Priemann@LStelcom.com

MR BILL SANFORD CEO
LAKELAND PUBLIC TELEVISION
TELEVISION STATION KAWB-TV
422 NW THIRD STREET
BRAINERD MN 56401-2917

Klaus Huber
International Liaison Manager
LS telecom AG
Im Gewerbegebiet 31-33
D-77839 Lichtenau, Germany

ID	1004810723694	Proceeding	MB 16-306
Name of Filer	Association of Federal Communications Consulting Engineers (AFCCE)		
Type of Filing	COMMENT	Filing Status	DISSEMINATED
Viewing Status	Unrestricted		
Date Received	Oct 4, 2016	Date Posted	Oct 4, 2016
Address	Box 19333	City	Washington
State	DC	ZIP	20036
Brief Comment	<p>I am writing on behalf of the Association of Federal Communications Consulting Engineers (AFCCE) to ask that you postpone the webinar scheduled for October 13 until at least October 17. Last Friday, the IATF released a Public Notice seeking comment on a Post-Auction Transition Plan. At Footnote 3, the PN announced that the Commission's Media Bureau plans to hold a webinar concerning this Plan on October 13. This date is highly problematic for our members as discussed below. The Commission and the IATF have recognized that consulting engineers will play a critical role in the success of the post-Auction transition. Therefore, it is important that the Bureau schedule its webinar in order to maximize the number of consulting engineers who can participate. Unfortunately, the Bureau has scheduled its webinar in the middle of an annual symposium that is the largest gathering of broadcast consulting engineers in the U.S.. [1] This Symposium was scheduled a year ago and the October 13 date, specifically, includes sessions on post-Auction repacking that are expected to be well-attended by consulting engineers. In fact, the October 13 program includes a presentation by one of the Commission's own consultants. I understand that you have already been contacted by the IEEE Broadcast Technology Society, organizer of the Broadcast Symposium, and the National Association of Broadcasters, asking for a date change. AFCCE wishes to add its voice to the chorus of concern about the October 13 date. Should you have questions, please do not hesitate to call or write. Robert D. Weller, P.E., President Association of Federal Communications Consulting Engineers www.afcce.org [1] IEEE Broadcast Symposium, October 12-14, 2016, Hartford, CT. http://bts.ieee.org/broadcastsymposium/ cc: John Lyons, Barbara Kreisman, Sasha Javid, Evan Morris, Erin Griffith, Shaun Maher, MB Docket 16-306</p>		



ASSOCIATION OF

FEDERAL COMMUNICATIONS CONSULTING ENGINEERS

WASHINGTON, D.C.

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
) RM No. 11779
Amendment of Part 73 to permit Permanent Licensing)
of AM Synchronous Booster Stations)

Comments of AFCCE

Established in 1948, the Association of Federal Communications Consulting Engineers (“AFCCE”) is an organization that includes approximately 60 full members who are Registered Professional Engineers engaged in the practice of consulting engineering and over 100 members in allied fields of endeavor before the Federal Communications Commission. AFCCE members were involved in the engineering of many of the Standard Broadcast (“AM”) stations operating in the United States and also designed many of the present and former AM Synchronous operations in the U.S.

In a recent Petition for Rulemaking,¹ the petitioner asked the Commission to routinely authorize AM Synchronous Booster stations as a part of FCC rules and specified certain rules that would be necessary to achieve that result. AFCCE generally supports the proposals set forth in the Petition with regard to authorization of such systems on a permanent basis and believes that based on known technical data^{2,3} the application to such systems of certain of the Part 73 interference protection requirements will be adequate to prevent interference with other stations.

AFCCE notes that in 1987, the Commission adopted a Notice of Inquiry to authorize “multiple synchronous transmitters by AM stations.” AFCCE (among some 22 commenters)

¹ Eng. Wifredo G. Blanco-Pi, Petition for Rulemaking, November 21, 2016.

stated that the technology was promising but noted that there remained challenges and that test data showed inconsistent benefits. So, in a 1989 Memorandum Opinion and Order the FCC declined to proceed to a Notice of Proposed Rulemaking. The FCC indicated it would “revisit this matter when the circumstances appear appropriate.” AFCCE believes that the circumstances are now appropriate for the FCC to revisit this matter.

Background and Summary of Petition

Synchronous AM transmitter systems have been tested in various configurations for decades but they are not currently permitted under Part 73 or Part 74 of the FCC rules. Since 1989, the FCC has issued at least 16 authorizations for Synchronous AM facilities under Part 5 of the FCC’s Rules.² To our knowledge, none of these operations has resulted in objectionable interference to any other station, so-called “self-interference” notwithstanding. A technical description of AM Synchronous operation, references to its historical antecedents, and a summary of some of the challenges and benefits can be found in a paper by King, Smith, *et al.*³ Notably, one of the authors of the paper is the petitioner and the paper includes technical data on his existing AM Synchronous operations.

AFCCE notes that the Petition may be somewhat difficult to follow and so offers the following as a compact summary of the technical proposals it believes are contained therein:

1. Allow AM synchronous boosters without limit within the primary station’s 2 mV/m contour. (*i.e.*, these would be “fill-in” boosters)
2. Allow synchronous boosters to expand coverage beyond the primary station’s contour, so long as there is some overlap of 2 mV/m contours.
3. Each synchronous booster station must afford the same protection of other stations as the primary station.

² A December 15, 2016, search of the FCC’s CDBS for File Number Prefix “BLEX” resulted in 16 records of AM Synchronous operation: KHNU, 620 kHz, Hilo, HI; KK2XDA, 730 kHz, Forest Hill, TX; KR2XVA, 1600 kHz, Fort Worth, TX; KZ2XTU, 660 kHz, Eugene, OR; KCOH, 1230 kHz, Houston, TX; KDTD, 1340 kHz, Kansas City, KS; KKOB, 770 kHz, Santa Fe, NM; KLSQ, 870 kHz, East Las Vegas, NV; KM2XVL, 680 kHz, Arecibo, PR; KM2XVL, 1220 kHz, Crockett, TX; WBZT, 1230 kHz, Pompano Beach, FL; WI2XAC, 740 kHz, Ponce, PR; W12XSO, 1260 kHz, Mayagüez, PR; WI3XSO, 1260 kHz, Aguadillo, PR; and WR2XJR, 670 kHz, Portsmouth, VA. This may not be a complete list.

³ King, T. F., Smith, S. F., Blanco-Pi, W. G., and Blanco-Galdo, J. G., “Field Trial Results of AM Transmitter Carrier Synchronization.” (in Proc. 2015 NAB Broadcast Engineering Conference).
<http://www.kintronic.com/wp-content/uploads/2016/01/NAB-AM-Synchronization-Paper-TK-SFS.pdf>

4. Allow synchronous boosters to operate non-directionally or directionally.
5. Allow synchronous boosters to operate with lesser or greater power than the main station.
6. Require all stations in network to maintain carrier frequency within ± 0.2 Hz.
7. Require all stations in network to rebroadcast the primary station's content including maintaining proper audio phasing.

AFCCE respectfully submits comments on the proposals listed above.

Fill-in Booster Operation

“Fill-in” operation of synchronous boosters can help alleviate interference from RF noise sources, such as power lines, computers, video displays, and LED and fluorescent lighting systems. Such interference has been well documented to the Commission⁴ and, as SBE and others have noted in comments to the Noise Floor Inquiry, the AM service is particularly susceptible to interference from electronic devices of all types.⁵ AM broadcasters should have an expectation of being able to provide interference-free service within their service contour. Ubiquitous and increasing RF noise interference has frustrated this expectation and AM boosters can help restore that service.

Expansion of Coverage

Local synchronous boosters can effectively increase the coverage of a primary station in much the same way as a complex directional array can, but without the costly requirements of additional acreage and the complex matching and antenna systems that are associated with multi-tower AM arrays. With proper engineering design, increased coverage afforded by synchronous boosters need not come at the expense of increased interference to other stations. The question of whether to allow AM licensees to use synchronous boosters to increase coverage beyond the service contour of the primary station is largely a non-technical policy matter, to which AFCCE takes no position but urges the FCC to seek comment. AFCCE believes that in an AM synchronous network that has been properly designed to protect other stations there should be no technical reason why additional interference should result.

⁴ See generally comments to ET Docket No. 16-191, the FCC TAC Noise Floor Technical Inquiry, released June 15, 2016.

⁵ Comments of the Society of Broadcast Engineers to ET Docket No. 16-191, August 11, 2016.

Protection of Other Stations

Increased interference in the AM band is not limited to RF noise sources. Interference also results from co-channel and adjacent-channel emissions from other stations, which can travel great distances especially at night. A key provision in allowing AM synchronous booster operation must be to require all stations in the network to comply with the Commission's existing allocation rules, including not increasing the RSS interference level to any other station.

Non-Directional or Directional Operation

While AFCCE believes that many Synchronous boosters will be simple non-directional operations, interference protection of other stations may necessitate directional operation. AFCCE supports this option and believes that AM booster stations will construct the minimal design that their economical situation permits.

Power Levels

As with the question of expanded coverage, there appears to be no technical reason why booster power levels should be limited so long as full protection is afforded to other stations. As a domestic and international regulatory matter, however, AFCCE recommends that booster power levels should be limited to the maximum power level for the class of operation of the primary station.

Carrier Frequency Tolerance

Operation of two proximate stations with a difference of 0.2 Hertz – the Petitioner's proposed carrier frequency tolerance – is likely to result in a very low-frequency beat that would make the station annoying to listen to. With GPS frequency locking as proposed by the petitioner, AFCCE sees no reason why a much more precise tolerance cannot be achieved that would reduce or eliminate the objectionable beat. AFCCE suggests a frequency tolerance not to exceed 0.01 Hz between stations in a synchronous network. Practical GPS-based synchronization systems can typically achieve 0.001 Hz frequency accuracies using standard commercial hardware.

However, it is also AFCCE's understanding that intentional frequency offsetting by stations in the network may be desired to avoid a standing wave pattern and, instead, have

cancellation outphasing occur at a given location every few seconds instead of all the time. AFCCE therefore suggests that intentional frequency offsetting be permitted on a case-by-case basis.

Modulation Synchrony

The whole point of synchronous operation is for the stations in the network to provide seamless coverage over some area. Precise control of modulation index and audio phase parameters is key to maintaining seamless coverage without objectionable artifacts. However, AFCCE believes that the licensee should be responsible for deciding how to maintain synchrony. Only the quality of the station's program will be affected by improper modulation alignment, not the interference potential (except for self-interference). Accordingly, AFCCE does not believe that the Commission needs to specify technical parameters for maintaining program synchrony beyond a requirement that all stations in the network must carry the same (identical) programming.

Other Issues – Boosters should be secondary

In keeping with current booster requirements for FM and TV, AFCCE recommends that AM Synchronous Boosters be authorized as a secondary service under Part 74 of the rules. Doing so would help ensure that licensees have no expectation that their booster operations would be protected by new or changed operations by primary stations authorized under Part 73 and helps assure that ongoing operation will be on an unprotected, non-interference basis.

Other Issues – IBOC and AM Stereo should not be routinely authorized at this time

AFCCE is not aware of any field testing of digital (IBOC) or AM stereo operations in an synchronous AM network. Such operations may have different and unexpected requirements than those proposed by the petitioner and may require further study before they can be routinely authorized. As such, experimental or special temporary authorizations are suggested for those seeking to incorporate digital or stereo operations.

Other Issues – Relaxed minimum antenna efficiency and ground radial requirements

Because AM Synchronous booster stations would be secondary and generally have limited coverage goals, AFCCE believes that there would be some benefit to not applying Part

73 requirements that only tend to increase the cost of such facilities. These include the minimum antenna efficiency requirement and the general license requirement to use 120 ground radials. AFCCE believes that short radiators should be permitted with lesser ground systems as long as the radiation efficiency can be determined and the vertical radiation characteristics can each be established with reasonable accuracy.

The current standard ground system, consisting of 120, equally-spaced quarter-wavelength, buried radials was derived from testing conducted at 3,000 kilohertz and is in fact conservative for frequencies in the AM broadcast band (530 kHz to 1710 kHz). Studies conducted reveal that the ground system for frequencies in the AM band, unlike higher frequencies, can be significantly reduced without being detrimental to the facility's performance.⁶ AFCCE urges the Commission to permit non-standard antennas so long as their radiation characteristics can be reasonably established.

Summary

The Commission recently sought comment on a number of proposals to help revitalize the AM service. A specific proposal to authorized AM synchronous booster operations was not part of the AM revitalization docket,⁷ but several commenters⁸ noted that AM boosters could also benefit AM stations. Unlike the AM revitalization proposal, this petition to authorize AM synchronous boosters does not propose to change interference protections, nor does it change the protected service contour. Neither does it propose to shift AM listeners to frequencies in the FM band. In fact, the proposal seeks to make more efficient use of the AM radio spectrum.

The petitioner's AM booster operations in Puerto Rico have been operating successfully and apparently without interference for well over 10 years. Over a dozen other AM booster operations have been authorized by the FCC and to AFCCE's knowledge have not resulted in objectionable interference. A number of those operations are currently in operation.

⁶ Benjamin F. Dawson III and Stephen S. Lockwood, "Revisiting Medium-Wave Ground-System Requirements", *IEEE Antennas and Propagation Magazine*, Vol. 50, No. 4, (August 2008)

⁷ MB Docket No. 13-249, "Revitalization of the AM Radio Service," First Report and Order, Further Notice of Proposed Rulemaking and Notice of Inquiry, released October 23, 2015

⁸ Reply comments in support of authorizations for AM synchronous boosters were noted from at least 10 commenters in MB Docket No. 13-249..

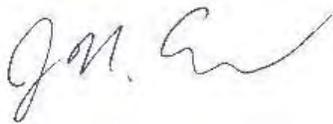
Synchronous AM operation can reinforce coverage without raising the primary station's transmitter power and thereby avoids further increasing interference to other stations

AM Synchronous networks can offer coverage equivalent to complex directional antenna arrays, but without the drawbacks of such arrays. Such drawbacks include reduced bandwidth, increased acreage requirements, and cost. AM synchronous boosters can help provide high quality AM service to locations where low local ground conductivity prevents service or where high local noise levels make service difficult. The use of synchronous boosters can also restore or augment nighttime service in areas where daytime service is provided by adding simple non-directional facilities. Finally, synchronous boosters can economically restore or augment service in the "null zones" of the primary station that otherwise would require station relocation or a highly complex directional array of considerable acreage.

Accordingly, AFCCE finds no technical reason not to routinely authorize AM Synchronous booster stations and urges the Commission to take the requisite actions necessary to move this petition forward to the rule-making stage.

Respectfully submitted,

The Association of Federal Communications Consulting Engineers
by



Jonathan N. Edwards, P.E.
Chairman, FCC Liaison Committee



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April 13, 2017

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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Secretary

Christopher Horne, P.E.
Comspec Corporation
High Point, NC

Re: Ex Parte Presentations in
ET 16-191 and RM-11779

Treasurer

Ronald Chase

Dear Ms. Dortch:

Directors

Marshall Cross, P.E.
Steven Crowley, P.E.
Jonathan Edwards, P.E.
Mark Fehlig, P.E.
David Layer

On April 11, 2017, Jonathan Edwards, Donald Everist, Thomas King, and Robert Weller of the Association of Federal Communications Consulting Engineers (“AFCCE”) met with Chairman Ajit Pai and Alison Nemeth concerning the above-reference proceedings. The attached presentation was distributed at the meeting.

AFCCE expressed its concern that radio communications services, both licensed and unlicensed, were entering a “world of pain” due to increasing levels of radiofrequency noise and urged Chairman Pai to direct the FCC’s Technological Advisory Council (“TAC”) to prioritize development of actionable recommendations to address this issue. AFCCE summarized the comments submitted to the TAC’s inquiry on RF Noise (ET Docket 16-191), explaining that commenters identified a small number of noise sources as culprits and that those same sources were similarly identified by independent research at the ITU. Two solutions to the noise problem are (1) to increase power to overcome noise and (2) to reduce the level of the noise itself. AFCCE explained that increasing power actually increases noise levels, and devices comprising the so-called “Internet of Things” (“IoT”) will likely have little or no ability to increase power. In short, if the noise situation is not addressed the highly-anticipated IoT may fall well short of expectations. The FCC last examined its Part 15 and 18 emission limits in 1985 and the underlying limits date from years earlier.

AFCCE also expressed concern that lack of adequate technical rule enforcement is leading to both increased unlicensed operations and increasingly non-compliant operations, both of which frustrate rule-abiding operators and challenge the ability to share spectrum. As Lawrence Strickling, former head of NTIA, said in 2015, “without adequate enforcement, it won’t matter how much spectrum we make available for sharing.” AFCCE urged the Commission to expedite its promised online interference complaint portals and re-establish programs of random inspections and post-marketing sampling and measurements to assess and monitor the state of



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WASHINGTON, D.C.

April 13, 2017

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compliance. The FCC's Sampling and Measurement Branch (in OET) became Auditing and Compliance Branch about 2004 and was eliminated about 2011. In the past, the FCC provided a handbook on troubleshooting interference. However, this handbook has not been updated in more than 20 years and does not include the noise contributors discussed herein. AFCCE also urges the FCC to update this book. A link to the FCC's last version of their Interference Handbook can be found at: <https://www.fcc.gov/document/fcc-interference-handbook-1993-edition>

Turning to AM Synchronous Boosters, AFCCE urged the Chairman to direct the FCC's Media Bureau to advance the extant Petition for Rulemaking (RM-11779, mis-labeled as "RM-1177" in the attached presentation) to a Notice of Proposed Rule-making to establish AM Synchronous Boosters as an authorized, secondary service under Part 74. During the pendency of that rule-making, AFCCE urged that existing AM Synchronous Booster operations should be allowed to continue.

In addressing the question presented by Chairman Pai as to how many stations are currently operating AM synchronous boosters Tom King agreed to provide a copy of their paper published in the Proceedings of the 2015 NAB Engineering Conference. Table 1 in this paper provides the answer to Chairman Pai's question. A copy of the paper has been provided as an addendum to this letter.

Finally, AFCCE presented new information concerning the potential impact of precise frequency operation of all AM stations in the U.S. Such "nationwide synchronous" operations can typically be enabled at very low cost (a few hundred dollars) and can substantially improve coverage areas of existing AM stations by eliminating annoying sources of interference.

AFCCE appreciates the opportunity to present its views directly to Chairman Pai and submits a copy of its presentation into the record of the relevant proceedings.

Respectfully submitted,

Jonathan Edwards, P.E.
AFCCE-FCC Liaison



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WASHINGTON, D.C.

Annual Report of the Sustainability Committee Chair: Mark G. Fehlig, P.E., CPBE

July 2016 – June 2017

With a sincere interest in the sustainability of the AFCCE itself, I again cheerfully approached this much discussed subject.

Historically our membership in general has declined, specifically the “Full” *i.e.*, Registered P.E. ranks.

The early founders desire to require that all FCC reports and submissions be by a Registered P.E. never came to be. We have enjoyed much respect in the FCC Consulting Engineering marketplace and endeavor to keep and maintain if not increase our membership base.

Non-P.E. “Associate Member” ranks have shown strength in numbers and have been substantial contributors to the AFCCE. Without diluting the stature of the “P.E.” Full members, this committee focused on two potential changes to enact in the year before: a) allow Associate Member to hold the office of VP and b) reconcile the membership dues to encourage advancement to the P.E. Full membership level, perhaps by flipping the \$180/\$140 dues levels.

A committee of 8 AFCCE members was recruited to formulate an action plan:

Tom Silliman, Robert Weller, Chris Horne, Jack Mullaney, Ben Evans, Ann Crump and Eric Wandell held numerous telephone bridge discussions. Ann Crump was solicited to frame our conclusions within AFCCE by-laws and constitution.

The results, now adopted, include that the VP slot is open to Associate Members and that the board has the ability to adopt new dues levels routinely without requiring changes to governance documents.

This year President Bob Weller progressed this subject fully down the field and we are now poised to vote on amended by-laws to allow Associate Member to become Full



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Members with various qualifying service credentials. Bob will present and nominate these details at the 2017 annual meeting in New York City.

IWCE Participation.

This year we again participated with the IWCE (International Wireless Communications Expo), a Penton Event. Several AFCCE members and clients attend this annual show, and this invitation was a beneficial, no cost way for AFCCE to explore participation. They invited us to be a exhibitor with a booth presence but we chose to against this additional cost again in 2017. We look forward to participating with this same offer in 2018.

IWCE also offered to cover the costs of travel and accommodations for an AFCCE scholarship recipient to attend the event. The AFCCE board voted to provide a stipend to help cover meals and incidental expenses. Scholarship recipients were polled as to interest and one was selected at random. The AFCCE-IWCE scholarship this year was awarded to:

Dhantha Gunarathna, a senior at Drexel University in Philadelphia, PA, was awarded the **Association for Federal Communications Consulting Engineers (AFCCE) Student Scholarship**. Gunarathna says, “Winning the AFCCE scholarship has motivated me to do well in college and I’m planning to go to graduate school and continue my studies in Electrical Engineering.”

Next year:

International Wireless Communications Expo (IWCE) 2018

March 5-9, **2018**.

Orange County Convention Center Orlando



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AFCCE Scholarship Committee Annual Report: June, 2016 to June, 2017

1. I thank committee members: Bob Weller, Anne Crump and Tom Silliman for their contributions to the committee's success during the past year. Also thank you David Layer and David Snavelly for your counsel, to all of the AFCCE members who acted as student sponsors or school liaisons, to Jon Edwards for making the scholarship poster and to Mark Fehlig for his continued work with IWCE and promoting the scholarship program.
2. During the summer of 2016 the memorandum of understanding between AFCCE and the IEEE BTS for establishing the Jules Cohen Memorial Scholarship Fund was signed, followed by a joint press release from the IEEE BTS and AFCCE on 16 August, 2016. This joint AFCCE IEEE program resulted from the multi year efforts of our president, Bob Weller. Tom Silliman, an IEEE BTS Fellow, has graciously agreed to serve on our Scholarship Board as the IEEE BTS representative.
3. Advertising the AFCCE and IEEE scholarships was accomplished by: contacting 14 colleges and universities, an advertising page in the IEEE BTS Newsletter, soliciting current/past awardees and via the Peterson Scholarship Internet Site. In the coming year, I plan to work with the ARRL to obtain a list of their affiliated clubs and subsequently send the clubs the AFCCE and IEEE information. I am looking for any additional suggestions for "getting the word out" about our programs to candidates who have interest in RF engineering careers, either in telecommunications or broadcasting.
4. The Fall, 2016 semester awards were from AFCCE only, since the agreement with the IEEE occurred past the application cutoff date. The two graduate students were awarded \$1,000 and \$1,500 Luddy scholarships and the six undergraduates a total of \$8,250 from the AFCCE fund.
5. The Spring, 2017 awards included one undergraduate and one graduate student each receiving \$10,000 from the Jules Cohen IEEE BTS fund. One \$2,500 Luddy award was made but



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subsequently cancelled at the student's request. \$10,250 from the AFCCE fund was distributed to two graduate and five undergraduate students.

6. As of the Fall, 2017 application cutoff date of 31 May, 2017, we have received five graduate and two undergraduate applications. The committee will make its award recommendations to the Scholarship Board at the 24 scheduled June meeting in New York City.

7. Mr. Dhantha Gunarathna, a Drexel University EE senior and IEEE student member won the lottery drawing and attended the IWCE exposition in Las Vegas.

Respectively Submitted, Marshall Cross, P.E., Chair, AFCCE and IEEE BTS Scholarship Committee



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**Memorandum of Understanding
Between
IEEE Broadcast Technology Society
and
Association of Federal Communications Consulting Engineers Scholarship Fund, Inc.**

The IEEE Broadcast Technology Society (BTS) is a scientific and educational organization whose purpose is to advance the theory and practice of electrical and electronic engineering as it relates to the technology of broadcasting. The AFCCE Scholarship Fund, Inc. (AFCCE-SF) is a non-profit 501(c)(3) entity whose purpose is to issue scholarship awards to college students undertaking a full-time undergraduate course majoring in engineering or sciences related to the telecommunications field at an accredited college or university. AFCCE-SF and BTS wish to collaborate on a memorial scholarship award for undergraduate or graduate engineering students interested in a career in broadcast engineering honoring the memory of a long-time member of both organizations, Jules Cohen.

In recognition of the similarity of purpose of the two organizations, it is agreed that BTS will fund and AFCCE-SF will administer the IEEE Broadcast Technology Society/AFCCE Jules Cohen Memorial Scholarship (JCMS). Under this partnership, the principal contribution of BTS is the funding of this award and the principal contribution of AFCCE-SF is its administration. The scholarship may consist of one or more semi-annual cash awards, subject to the limitations described herein.

1. The name of the scholarship to be used in all applications, publicity, and official correspondence shall be the "IEEE Broadcast Technology Society/AFCCE Jules Cohen Memorial Scholarship" and shall not be abbreviated in those documents.
2. AFCCE-SF will have primary responsibility for publicity of the JCMS among the various universities and other student-oriented organizations with which AFCCE-SF maintains relationships; the creation, dissemination and collection of application forms for the JCMS on a semi-annual basis; review, discussion, evaluation and awarding of the JCMS on a semi-annual basis; bookkeeping and maintaining accounts to hold and disperse funds for the JCMS; and goodwill and other intangibles designed to maintain contact with and mentor those students receiving the JCMS.
3. BTS generally supports and agrees with the criteria AFCCE-SF uses to select and score applicants for its scholarships as stated in the document, "AFCCE scholarship award guidelines," adopted by AFCCE-SF on March 22, 2013 [copy attached]. There are two primary differences between those guidelines and those to be applied to the JCMS: 1) that scholarship will be available to both upper division (junior and senior undergraduate) and graduate students, and 2) the JCMS will be awarded only to students with an expressed interest in broadcast engineering.



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AFCCE-SF and IEEE BTS Memorandum of Understanding · June 17, 2016

4. AFCCE-SF will amend its articles of incorporation and/or bylaws, as necessary, to add one member to its board of directors who shall be free to participate in all discussions related to the awarding of the JCMS but whose voting privileges at AFCCE-SF board meetings will be limited to the approval or denial of individual prospective JCMS recipients. That individual will also serve on the AFCCE-SF Scholarship Committee. The individual will be designated as the “BTS-designated Director.” The necessary amendments shall be completed not later than October 31, 2016.
5. BTS will name the AFCCE-SF BTS-designated board member who will serve on the AFCCE-SF board and will also serve on the AFCCE-SF Scholarship Committee.
6. The JCMS will be publicized as one of the AFCCE-SF administered scholarships and will use application forms and other materials in common with other AFCCE-SF administered scholarships. BTS will have the opportunity to review and edit any JCMS-related materials prior to their use by the AFCCE-SF and may delegate that authority to the AFCCE-SF BTS-designated board member. One or more awards may be made for the fall and spring semesters, of amounts to be recommended by the AFCCE-SF Scholarship Committee and approved by the AFCCE-SF Board.
7. Scholarship amounts shall be either \$5,000 or \$10,000 for both undergraduate and graduate students, based on qualifications, financial need, number of qualified applicants, and availability of funds. A minimum of one undergraduate and one graduate award will be given each semester, subject to availability of qualified applicants and funds. A maximum of eight undergraduate and five graduate scholarships will be given each semester, subject to the same restrictions. In accordance with IEEE policy, individual awards are subject to the following limits:
 - a. Undergraduate Scholarship \$500 to \$15,000 per semester
 - b. Graduate Award \$1,000 to \$15,000 per semester, not to exceed \$15,000 annually

Prior applicants who were previously awarded a scholarship may re-apply one time subject to the award limits specified above. Prior applicants who were not previously awarded a scholarship may re-apply without limit. Awards will be given only if a suitable awardee is identified.

8. It is understood that AFCCE-SF seeks assurance that scholarship funding is available for disbursement as advertised. Therefore, the scholarship will only be advertised and awarded based on a “cash on hand” basis. Once BTS approves the disbursement of funds for awards, and sends a check or electronic transfer to AFCCE-SF, AFCCE-SF will begin to advertise the JCMS. An appropriation shall be made by the IEEE BTS Administrative Committee on an annual basis based on anticipated available resources for the forthcoming year. The total amount appropriated for scholarship awards may vary from year to year because the society's income and expenses vary. The maximum total amount available for



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AFCCE-SF and IEEE BTS Memorandum of Understanding · June 17, 2016

9. It is understood that the BTS disbursement to AFCCE-SF is solely for the award of the JCMS, and is to be completely disbursed for that purpose, or for approved administrative expenses to AFCCE-SF.
10. Any remaining amount of BTS-dispersed funds shall be returned to BTS by the end of the calendar year. BTS funds dispersed to AFCCE-SF may not be carried over to subsequent years without the prior approval of the BTS Administrative Committee.
11. In any instance where there is a conflict between a provision of this Memorandum of Understanding and a provision contained in the "Template for Establishing A New Society Award – IEEE Broadcast Technology Society/AFCCE Jules Cohen Memorial Scholarship (JCMS)," approved by the IEEE Technical Activities Board on June 17, 2016, the language in the Template shall have precedence.
12. AFCCE-SF and BTS agree that this arrangement may be suspended or eliminated by either party with a one-year notice.

Entered into this 11th day of July 2016 by:

Robert D. Weller, President,
AFCCE Scholarship Fund, Inc.

William T. Hayes, President,
IEEE Broadcast Technology Society



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AFCCE Scholarship Award Guidelines

(as adopted by the AFCCE Scholarship Fund Board of Directors on March 22, 2013 and amended on January 13, 2017*)

- 1) AFCCE Scholarship Fund Articles of Incorporation, Section 3 states that one of the purposes for which the scholarship fund corporation is organized is:

To issue scholarship awards to college students who are undertaking a full-time undergraduate course majoring in engineering or sciences related to the telecommunications field at an accredited college or university.

- 2) Scholarships are awarded on a semi-annual basis.
- 3) The Scholarship Fund Board will each year establish deadlines for submission of scholarship applications (Spring and Fall) and communicate these deadlines to schools and to the AFCCE membership as early as possible.
- 4) Applicants (new or renewal) need to submit a completed scholarship application to be considered for a scholarship award.
- 5) Students must satisfy the following requirements to be considered for a scholarship:
 - a) Major area of study in a technical field related to telecommunications at an accredited college or university;
 - b) Junior or Senior standing with good academic record or Graduate standing with good academic record;
 - c) Full-time status for the term the scholarship is being applied for;
 - d) The IEEE Broadcast Technology Society/AFCCE Jules Cohen Memorial Scholarship will be awarded only to students with an expressed interest in broadcast engineering or technology.
- 6) The AFCCE Scholarship Board will review and act on all submitted applications. Applications must be distributed to the Scholarship Board no less than one week prior to review and subsequent action.
- 7) Students with active scholarships are eligible to attend AFCCE events (including but not limited to luncheon meetings, FCC reception, and Fall social) with the fee waived, as a guest of a member or associate member.



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Attention Students:
SCHOLARSHIPS AVAILABLE

The IEEE Broadcast Technology Society / AFCCE Jules Cohen Memorial Scholarship

The IEEE Broadcast Technology Society and the Association of Federal Communications Consulting Engineers will award scholarships of **up to \$10,000** to promising undergraduate and graduate students at accredited U.S. universities interested in a career in **broadcast engineering**.

APPLICATION DEADLINE

Applications for the **Fall 2017**
semester will be accepted
until May 31, 2017.

APPLICATION CHECKLIST

- Completed Application
- Academic Transcripts
- Personal Statement

MORE INFORMATION



Information and applications
are available at:

<https://afcce.org/scholarships>



BTS

IEEE Broadcast
Technology
Society



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WASHINGTON, D.C.



For Immediate Release

AFCCE and IEEE BTS Announce Spring 2017 Scholarship Recipients

Ten Students at Nine U.S. Universities Receive Awards Totaling Over \$32,000

December 1, 2016 — The Association of Federal Communications Consulting Engineers (AFCCE) and the IEEE Broadcast Technology Society (BTS) announced the award of ten scholarships to students interested in telecommunications. Scholarship amounts ranged from \$750 to \$10,000. The Spring 2017 scholarship recipients were:

Shane Cyr	University of Maine
Martin Doczkat	The George Washington University
Dhantha Gunarathna	Drexel University
Mohammad Islam	University of Missouri
Elaine Khuu	Virginia Tech
Abdullah Njie	Georgia Tech
Prosanta Paul	Old Dominion University
William Shifflett	Oklahoma State University
Tyler Turcotte	University of Massachusetts
Rafida Zaman	University of Missouri

Martin Doczkat and William Shifflett were the first recipients of the IEEE Broadcast Technology Society/AFCCE Jules Cohen Memorial Scholarships, a new program that awards scholarships of up to \$10,000 to promising undergraduate or graduate students studying at accredited U.S. universities, who are planning to pursue a career in broadcast engineering. Shane Cyr was the recipient of the E. Noel Luddy Scholarship, sponsored by Dielectric Communications (Raymond, Maine).

“The Broadcast Technology Society is thrilled that the inaugural Jules Cohen scholarships are being awarded to two such deserving students. We look forward to honoring the memory and work of Jules Cohen by helping develop the students that will lead the evolution of broadcasting into the future.” said Bill Hayes, president, IEEE BTS.

More...



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“AFCCE is committed to helping develop engineering talent in radio frequency technologies, including antennas, propagation, transmission, and spectrum management. These scholarships represent our largest ever award to promising students whom we hope will help shape the future of telecommunications,” said Bob Weller, president of AFCCE.

AFCCE has awarded scholarships for over 30 years to both undergraduate and graduate students, based on qualifications, financial need, and number of qualified applicants. Applicants must be enrolled in an engineering or related technical curriculum at an accredited U.S. university and demonstrate a good academic record, and undergraduates must have junior or senior standing.

Evaluated by an AFCCE scholarship committee including IEEE BTS members, Jules Cohen Memorial Scholarship applicants are ranked based on their explicit interest in broadcast engineering as expressed in a personal statement, their academic record, financial need, and relevant extracurricular activities. Applicants for other AFCCE scholarships have slightly different requirements. Applications for Fall 2017 semester will be accepted beginning March 1, 2017 until April 30, 2017.

More information about the AFCCE Scholarships (including the Jules Cohen Memorial Scholarship) is available at <https://afcce.org/scholarships> . Additional information about the IEEE BTS is available at <http://bts.ieee.org/awards> .

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About IEEE BTS

The IEEE Broadcast Technology Society (BTS) is a technical society and council dedicated toward advancing electrical and electronic engineering by maintaining scientific and technical standards as well as educating its members through various meetings, presentations, events, conferences, and training programs. IEEE BTS has more than 2,000 members and chapters worldwide and has its own business office located in Piscataway, New Jersey. Connect with BTS on Twitter @IEEEBTSociety, Facebook and Linked-In.

About Association of Federal Communications Consulting Engineers (AFCCE)

AFCCE was founded in 1948 as a professional association of communications engineers practicing before the FCC. The purpose of the Association is to aid and promote the proper federal administration and regulation of those engineering and technical phases of communications, which are regulated by the FCC. In its primary function, the AFCCE monitors the technical policy of the FCC to ensure that the agency's regulations coincide as closely as possible with sound engineering principles. Connect with AFCCE on Twitter @AFCCE, Facebook, and Linked-In.

AFCCE SCHOLARSHIP CONTACT

Marshall Cross, P.E., AFCCE Scholarship Chair
Email: mcross@megawave.com , Tel: + 1 978 615 7200

IEEE BTS PR Contact:

Margaux Toral, Society Promotions & Marketing Manager
Email: m.toral@ieee.com, Tel: +1 732 562 5407

Proposed Amendments to the By-Laws of AFCCE

For consideration at the Annual Meeting, June 23–24, 2017, New York City.

1. At its March 17, 2017 meeting, the AFCCE Board of Directors discussed certain recommendations by its Sustainability Committee with regard to changing AFCCE's membership structure to allow persons who are not Registered Professional Engineers to become Full Members of the Association. The Board approved draft language that could be used to amend the By-laws and directed that it be circulated to members for comment.
2. An informal announcement including the proposed changes to AFCCE's membership structure (as well as certain other changes to the By-laws) was sent by President Robert Weller by e-mail to all members of record on April 3, 2017. 13 comments were received in response.
3. At its May 19 meeting, the AFCCE Board of Directors considered the comments that had been received and decided to modify its earlier proposal in order to ensure that at least one member of the Board of Directors is a Registered Professional Engineer. The Board approved the modified draft proposal for 21-day notice to members in anticipation of a vote by Full Members at the June Annual Meeting.
4. On May 25, Secretary Chris Horne sent a formal announcement proposing changes to AFCCE's By-laws by e-mail to all members of record. A follow-up e-mail message was sent by Secretary Horne on May 30 that clarified that a two-thirds vote of the Full Members present at the Annual Meeting will be required to amend the By-laws.
5. Each of the proposed amendments to the AFCCE By-laws are shown on the pages following.

Amendment 1: In Article 5, Section 4, change “which” to “that”.

Explanation: “which” is used to introduce a nonrestrictive clause and “that” is used to introduce a restrictive one. A non-restrictive clause is one where the information contained is merely incidental and could be omitted without changing the meaning of the sentence. In this case, omission of the clause would make the sentence meaningless.

Proposal in redline:

Engineering Rules and Standards Committee. This committee shall consider and report any changes ~~which~~ that should be made in the existing engineering rules and standards of the Federal Communications Commission or other pertinent Federal Agency. It may also consider other engineering matters of interest to the Association.

Amendment 2: In Article 6, Section 2, Subsection C, change “which” to “that”.

Explanation: “which” is used to introduce a nonrestrictive clause and “that” is used to introduce a restrictive one. A non-restrictive clause is one where the information contained is merely incidental and could be omitted without changing the meaning of the sentence. In this case, omission of the clause would make the sentence meaningless.

Proposal in redline:

(c) Any person who has a professional position in the communications industry or a field allied or related thereto shall be eligible to apply for Associate membership in the Association. A "professional position" is one ~~which~~ that involves technical leadership or a supervisory or management role in industry (including representatives of manufacturers), education, or government, or practice in an allied professional field such as communications law.

Amendment 3: In Article 6, Section 4, change “which” to “that”.

Explanation: “which” is used to introduce a nonrestrictive clause and “that” is used to introduce a restrictive one. A non-restrictive clause is one where the information contained is merely incidental and could be omitted without changing the meaning of the sentence. In this case, omission of the clause would make the sentence meaningless.

Proposal in redline:

An applicant for membership shall have observed in professional matters a conduct ~~which~~ that reflects the highest ethical standards. Members of the Association shall abide by the Code of Ethics of the National Society of Professional Engineers, which has been adopted by the Association; other members shall be guided by its provisions as applicable and appropriate.

Amendment 4: In Article 6, Section 3, delete the sentence, “Full members shall provide their current professional seal and license registration jurisdiction and number on the renewal form.”

Explanation: AFCCE has been encouraging on-line membership renewal for a number of years. It is impractical to include on-line functionality that allows all types of seals (for example, embossed seals) to be uploaded. As a result, AFCCE has not required submission of this information at renewal for a number of years. Additionally, it is believed that registration status can now be checked online in all jurisdictions. The requirement for submitting license number(s) and jurisdiction(s) of registration will remain for initial applicants who apply for Full Membership based on registration as a P.E.

Proposal in redline:

Each member of any grade except Member Emeritus shall be required to certify his/her status for the particular grade of membership once each year in order to renew his/her membership. ~~Full members shall provide their current professional seal and license registration jurisdiction and number on the renewal form.~~

Amendment 5: In Article 6, Section 2, Sub-section B, add the phrase “or an Associate Member with a four-year degree in a technical field related to telecommunications from an accredited college or university, or equivalent, as determined by the Nominations Committee and the Board of Directors, who has maintained membership in the Association for five consecutive years and applies for elevation to full membership in accordance with Article IV of the AFCCE Constitution”

Explanation: Presently, Full Members of AFCCE must be registered Professional Engineers. Because P.E. registration is increasingly less common in the telecommunications field, and particularly so for engineers practicing before the FCC, the number of Full Members of AFCCE has been declining. This amendment would allow certain Associate Members of AFCCE who have been in that status for at least five consecutive years to apply for elevation to Full Membership. Because AFCCE is foremost an organization of technical professionals, however, membership elevation by this process is generally being limited to Associate Members with a four-year technical degree from an accredited college or university. However, the Nominations Committee together with the Board of Directors may also recommend and approve elevation of other Associate Members (*i.e.*, those without a four-year technical degree) based on consideration of the totality of circumstances of that member.

Proposal in redline:

(b) A Member, also designated herein as a full member, shall be a registered professional engineer or an Associate Member with a four-year degree in a technical field related to telecommunications from an accredited college or university, or equivalent, as determined by the Nominations Committee and the Board of Directors, who has maintained membership in the Association for five consecutive years and applies for elevation to full membership in accordance with Article IV of the AFCCE Constitution. Consideration of special circumstances of local/national customs shall be given to applicants who are not citizens of the United States.

Amendment 6: In Article 5, Section 5, add the sentence, “Under the direction of the Board of Directors, the Nominations Committee shall ensure that at least one Member of the Board of Directors is a Registered Professional Engineer.”

Explanation: If Amendment 5 passes (allowing non-P.E.s to become Full Members of AFCCE), the possibility will then exist that the entire Board of Directors could consist of persons who are not registered as Professional Engineers. Because AFCCE is named as an association of Consulting Engineers, the Board felt that at least one member of its governing board must be a P.E. Discretion is left to the Nominations Committee and Board of Directors on how to ensure that there is always one P.E. on the Board. For example, this might be ensured by allowing only P.E.s on a ballot if there would otherwise be no Full Member P.E. members on the Board and there is only one Full Member Board position open, or by counting the number of votes between P.E. and non-P.E. candidates appropriately when there is more than one position open.

Proposal in redline:

Under the direction of the Board of Directors, the Nominations Committee shall ensure that at least one Member of the Board of Directors is a Registered Professional Engineer.

Amendment 7: In Article 6, Section 4, insert the words “who are Registered Professional Engineers” before the words “shall abide by ...”

Explanation: If Amendment 5 passes, there will be Full Members of AFCCE who are not P.E.s. The requirement to abide by the NSPE Code of Ethics should be limited only to those members who are Registered Professional Engineers.

Proposal in redline:

An applicant for membership shall have observed in professional matters a conduct [that/which] reflects the highest ethical standards. Members of the Association who are Registered Professional Engineers shall abide by the Code of Ethics of the National Society of Professional Engineers, which has been adopted by the Association; other members shall be guided by its provisions as applicable and appropriate.

Amendment 8: In Article 1, Section 1, change the word “thirty” to the number “21”.

Explanation: When this section of the By-laws was written, meeting notices and other correspondence were sent to members by postal mail. As a result, it could take a week or more for a notice to be received by a member. Today, notices are being sent to members by electronic mail and are typically received shortly after being transmitted. A reduction in the notice period for the Annual Meeting program reflects contemporary technology and still allows an adequate period for members to comment or otherwise respond. The proposed 21-day period would also be consistent with the 21-day period for notifying members of proposed changes to the By-laws at an Annual Meeting.

Proposal in redline:

The program of the annual meeting of the Association shall be arranged by the Board of Directors and notice thereof shall be given to the membership at least ~~thirty~~ 21 days before the meeting.

Amendment 9: In Article X, change the word “member” to “Member” in the first two instances.

Explanation: The use of the uncapitalized word “member” is confusing and inconsistent with other sections of the By-laws and the Constitution. It could be interpreted to apply to all categories of membership in AFCCE. The use of the capitalized word “Member” indicates that only Full Members of the Association are being addressed.

Proposal in redline:

A ~~member~~ Member may hold any office and enjoy all benefits and privileges of the Association. A ~~member~~ Member may use a reference to membership in the Association by inclusion of "Member - AFCCE" or the AFCCE logo on firm letterheads, business cards and "professional card" or other appropriate listings in industry publications.



ASSOCIATION OF

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WASHINGTON, D.C.

ANNUAL REPORT OF THE PROGRAM COORDINATOR 2016 17 TERM

Overview of Last Year's Meetings

- 2016
 - January 22, 2016 – Luncheon Meeting (CANCELED)
 - February 19, 2016 – Luncheon Meeting
 - Tieg & Cuomo (MITRE) – High Data Rate, Reliable Wideband HF Communications
 - March 18, 2016 – Luncheon Meeting
 - M. Colombo (OET) – TVStudy Version 2.0 for Post Auction Interference Analyses
 - C. Wiczorek (T Mobile) – On Time & On Budget: Completing Repacking 39 Mos.
 - May 20, 2016 – Luncheon Meeting
 - D. Roberson (IIT) – Electronic Noise and Its Impacts On Communications
 - June 23 26, 2016 – Annual Meeting – Estes Park, Colorado
- 2017
 - September 16, 2016 – Luncheon Meeting
 - Commissioner Michael O’Rielly (FCC)
 - October 19, 2016 – Joint Wiley Rein & AFCCE Conference: Destination Repack
 - October 21, 2016 – Luncheon and Annual Symposium
 - Hossein Hashemzadeh (MB) – FCC License Management System (LMS)
 - November 16, 2016 – Luncheon Meeting
 - Manuel Sone (ERI) – Advantages of Aluminum Transmission Line
 - January 13, 2017 – Luncheon Meeting
 - Mark Colombo (OET) – TVStudy Version 2.1 Update Tutorial
 - February 10, 2017 – Luncheon Meeting
 - Andrew Clegg (Google) Big changes coming at 3.5 GHz
 - March 17, 2017 – Luncheon Meeting
 - Ben Crease (Jampro) & Mark Fehlig (Jampro) – SFN Network & Wideband UHF Slot Antennas
 - May 19, 2017 – Luncheon Meeting
 - John Lyons (Durst) – RF Transmission System at One World Trade Center
 - Jean Kiddoo (IATF), Pam Gallant (MB), & Jeff Neumann (MB) – TV Repacking Reimbursement Q&A

Potential Future Meeting Ideas

- Dielectric and Progira's ATSC 3.0 planning tool
- Ben Evans' recommendation of TV interference caused by utility grade wind turbines
 - Robert Miller of Broadcast Wind
- MB – Update on LPFM Application Processing
 - Jim Bradshaw?
- EB – Update on Recent Enforcement Actions
 - Charles Cooper?
- UAS/UAVs?
- WTB – Update on NEPA / HPA / Pole attachments, etc.
- OET – Experimental Licensing System Tutorial
- OET – Equipment Authorization Proceeding
- OET – Wireless Mics & White Spaces Transition Update
- NTIA – 3.5 GHz Propagation Modeling
- NTIA – Arctic Communications (depends on if/when they act on Inquiry)

Looking for more suggestions!

Respectfully Submitted,

Martin Doczkat



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WASHINGTON, D.C.

AFCCE Social Media Committee 2017 Annual Report – November 19, 2017

There are 3 social media platforms that AFCCE is using to communicate:

Linked In Group

<https://www.linkedin.com/groups/3713958>

Members: 310

Facebook

<https://www.facebook.com/afcce/>

Likes: 70

Twitter

<https://twitter.com/afcce>

Followers 95

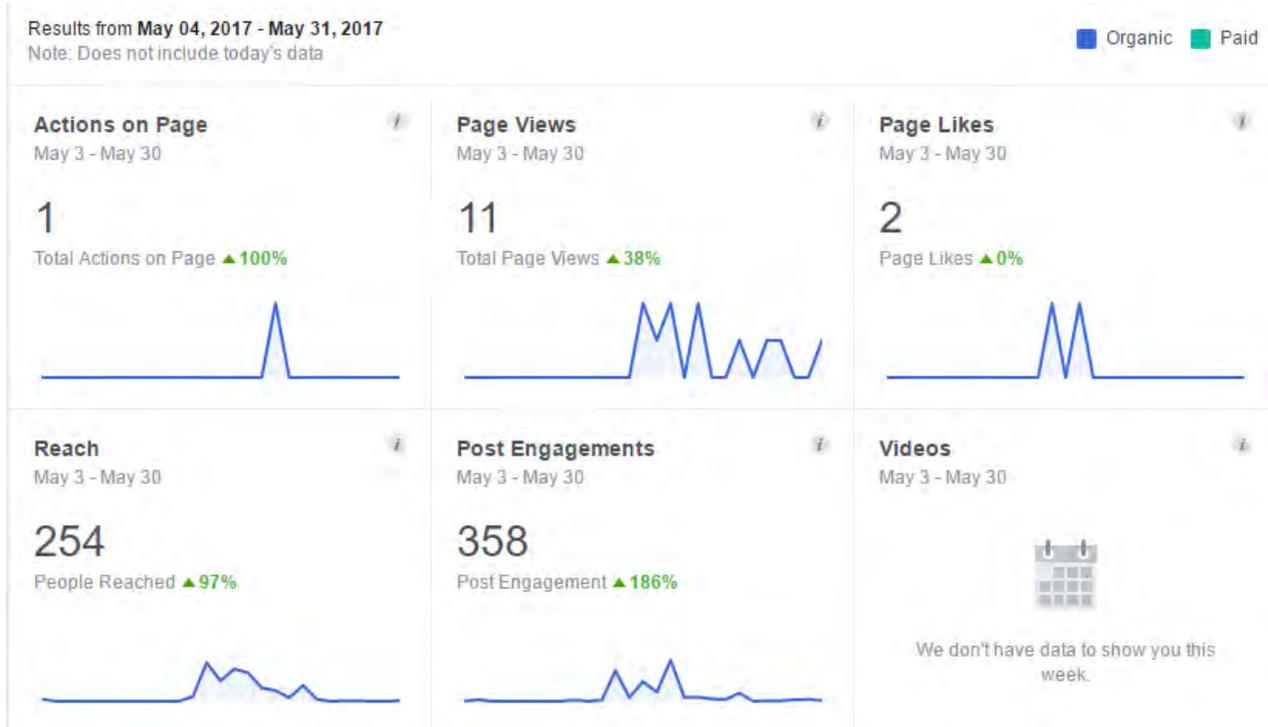
- All meetings have been updated on Facebook and LinkedIn
- LinkedIn seems to have stopped mainline support of their “Groups” and it may have limited value or reach. But as the more business centric social media I believe we should keep it up.
- Facebook Insights are included below for the 28 days ending May 31, 2017.
 - As would be expected the majority of viewers are male, 45-80, from the US and the most are from Washington DC.
 - There was a big uptick after a few postings mid-month with the calendar, scholarship, and a couple of articles posted.
 - I don’t believe that there is any reason to pay for increased attention of our pages, which is an option on Facebook.
- The other services don’t have accessible details.



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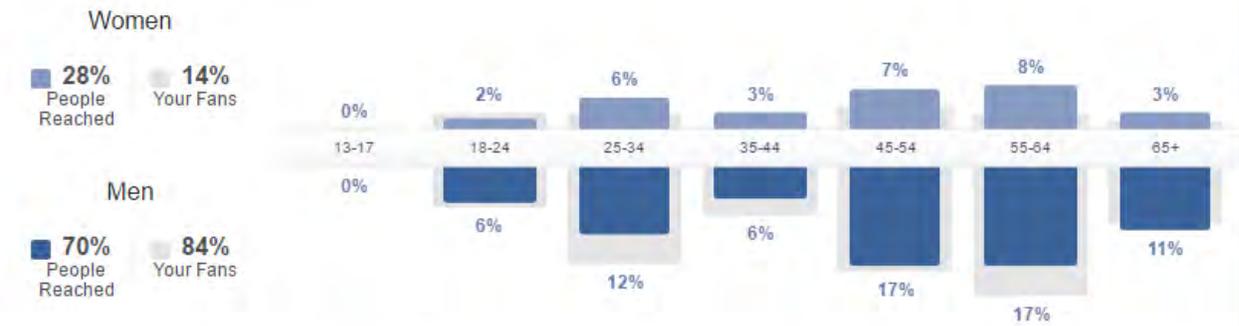


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The number of people your post was served to in the past 28 days.



Country	People Reached	City	People Reached	Language	People Reached
United States of America	250	Washington, DC	16	English (US)	259
India	6	Sonoma, CA	7	English (UK)	7
Canada	4	Los Angeles, CA	5	Spanish	2
Mexico	2	Arlington, VA	5	Japanese	1
Belgium	1	Cincinnati, OH	5		
Palestine	1	Sacramento, CA	4		
United Kingdom	1	Yorktown, VA	4		
Greece	1	Alameda, CA	4		
Japan	1	Eugene, OR	4		

This report submitted by Matthew Butcher, P.E.



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WASHINGTON, D.C.

AFCCE/IEEE-BTS Scholarships: Fall, 2016 and Spring, 2017

Fall, 2016:

Alexander Cheu, GIT, \$2,000

Dhantha Gunarathna, Drexel Univ., \$750

Elaine Khuu, Virginia Tech., \$2,000

Abdoulie Njie, GIT, \$750

Bryan Davis, UConn., \$750

Tyler Turcotte, UMass., \$2,000

Prosanta Paul, Old Dominion Univ., \$1,000 (ENL)

Rafida Zaman, Univ. of Missouri, \$1,500 (ENL)

Spring, 2017

William Shifflett, OK State Univ., \$10,000 (IEEE BTS)

Martin Doczkat, The Geo. Wash. Univ., \$10,000 (IEEE BTS)

Dhantha Gunarathna, Drexel Univ., \$750

Abdoulie Njie, GIT, \$1,000

Tyler Turcotte, UMass., \$2,000



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Prosanta Paul, Old Dominion Univ., \$1,000

Mohammad Islam, Univ. of Missouri, \$1,000

Rafida Zaman, Univ. of Missouri, \$2,000

Elaine Khuu, Virginia Tech., \$2,500

Note: ENL \$2,500 award to Shane Cyr, Univ. of Maine was returned to AFCCCE due to non enrollment.



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WASHINGTON, D.C.

Report of the Association Historical Committee for the AFCCE Annual Meeting June 22-24, 2017, World Trade Center, New York

During the past year, I have served committee chair for the historical committee and have received the historical materials held by Cynthia Jacobson in addition to the material received from Jerry Manarchuk, the former committee chair.

The material is presently being sorted as to date for scanning. There is a wealth of material to peruse and it has been a time consuming undertaking trying to fit in between work and family. This summer, things will finally calm down somewhat and I will be able to devote more time to completing the task.

I understand there is still material from one other individual still to be obtained and it would be appreciated that if any member has material that could be of value to contact me to transfer the material for sorting and scanning.

Respectfully submitted,

John M Lyons (sig)

Chair

June 1, 2017