## The Society of Broadcast Engineers



# Fox Valley Wisconsin SBE Chapter 80 PO Box 1519 Appleton, WI 54912-1519

<u>July 2018</u>

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Our website <a href="mailto:sbe80.org">sbe80.org</a>
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Our next SBE Chapter 80 meeting will be at noon at the Out-O-Town Club on July 10<sup>th</sup> one week earlier than usual. Our program by Scott Hewett of T Mobile will be a discussion of T-Mobile's testing and rollout of their systems in the Chicago DMA prior to the first repack phase. This should be a general industry meeting beyond SBE.

Chairman's Corner

#### Hello Chapter 80!

I am sure you are all busy doing station maintenance and projects, taking advantage of the couple of months of summer we get in Wisconsin. As I write this, air conditioners are straining to keep people and equipment cool enough to operate well. Hope you all can set aside a little time to vacation and recharge a little.

In June I had an opportunity to attend the SBE future planning session at the National Office in Indianapolis. About 40 Chapter Chairmen from all areas of the country, SBE Board and SBE staff members spent a long Saturday asking questions about where the organization has been in the past few

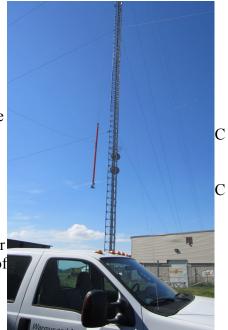
years and where it should be going in the next few years. It was a very interesting experience and thanks to those of you who gave me some topics and concerns to bring up at that meeting.

Remember if you are in the Green Bay television market to rescan your TVs as soon after July 1<sup>st</sup> as you can – to accommodate the Phase 0 repack stations!

Also remember to register and license your C Band earth station satellite antennas as soon as you can. The FCC seems determined to "share" the Band with the pending deployment of 5G wireless services. I think we are all in favor of a 5G deployment but why does all of the spectrum have to come from the broadcasters? It is pretty clear that the use of the band by broadcasters is being underestimated.

Mark your calendars for the SBE Chapter 80 picnic in August – before you know it, we'll be back to school and back to fall sports. The summer seems to go quickly so please try to enjoy it. Thanks for your support of Chapter 80!

Steve Brown



Installing channel 14 antenna at WGBA for repack

#### **CHAPTER 80 ELECTED AND APPOINTED OFFICERS**

#### FCC Extends C-Band Earth Station Filing Window

In a public notice, the International Bureau of the FCC announced a 90-day extension, to October 17, 2018, to the filing window for fixed-satellite service (FSS) earth stations currently operating in the 3.7-4.2 GHz frequency band as announced in public notice DA 18-398 on April 19, 2018. The earlier notice announced a temporary freeze on new or modification applications, and established a 90-day filing window for existing entities to voluntarily register or license their FSS earth-station facilities. The FCC also waived the coordination report requirement for the duration of the freeze. That filing windows was due to expire on July 18, 2018.

Since the beginning of the freeze, many parties have submitted to the record their concerns about the volume of unregistered earth stations and the difficulties that many of these operators have faced in preparing the information for filing. These parties indicate that without some relief many operators will be unable to satisfy the filing deadline and the Commission will be without accurate information for its deliberations in the Mid-band Proceeding. To address these concerns, the International Bureau now extends the 90-day filing date for an additional 90 days, until October 17, 2018, in order to provide operators with more time to file applications, should they choose to do so. Only earth stations constructed and operational as of April 19, 2018 are eligible for filing during this window.

The FCC also clarified that applications to register multiple FSS antennas operating in this band that are located at the same address or geographic location may be filed in the International Bureau Filing System (IBFS) by using a single registration form and paying a single fee (fee code CMO, currently \$435). Finally, the FCC announced the availability of an additional option to facilitate the registration of large numbers of geographically diverse earth stations by filing an application for a single "network" license and paying a single fee in IBFS (fee code BGV, currently \$10,620).

On May 22, SBE President Jim Leifer, CPBE, and SBE General Counsel Chris Imlay called on representatives from the FCC International Bureau and the Office of Engineering and Technology with specific requests to ease the registration burden to broadcasters. The SBE is pleased that the FCC implemented most of what the SBE requested.

The SBE's requests were to extend the filing window, which it did, and to eliminate the filing fee. If the filing fee could not be waived, the SBE suggested a method of bulk filing for multiple stations or locations, which the FCC granted. (sbe.org)

Read the FCC public notice

# Look ahead at upcoming opportunities to take a <u>certification exam</u> in your area with the local chapter.

If you would like to take an exam but are not able to make it during these sessions, please contact Megan Clappe to ask about special proctoring.

**Certification Exams** The deadline to apply to take the SBE certification exam at your local chapter in June is April 21. Register today at <a href="mailto:sbe.org/certification">sbe.org/certification</a>.

Below is the upcoming certification exam schedule

Exam Dates Location Application Deadline (to SBE National Office)

August 3-13, 2018 Local Chapters June 5, 2018

November 2-12, 2018 Local Chapters September 24, 2018

When you are ready to take an SBE exam, please fill out the appropriate application and send it into the SBE National office (see address below). You will be notified once your application has been approved. Approximately 3 weeks before the exam time, your local certification chairman will receive a list of applicants in his/her area. He/she will then contact those applicants to schedule a date, time and place for the exams. The exams will be mailed back to the National office for grading. The pass/fail grades will then be mailed directly to the applicants.

You may mail, email or fax your applications to: Megan E. Clappe, Certification Director 9102 N. Meridian St. Suite 150 Indianapolis, IN 46260 317-846-9120 Fax

mclappe@sbe.org

#### **Advanced RF Webinar Series**

Advanced RF Series: RF 201: Module 2 - FM Antenna Systems, presented by Tom Silliman, PE, President ERI

Thursday, July 26 from 2 p.m. - 3:30 p.m. ET

This webinar covers a host of topics related to side-mounted FM antennas, FM multiuser panel antennas, and the filter networks needed to combine the individual FM stations onto these custom antennas. Topics include; antenna input power and transmitter output power; how to calculate the transmission line loss of the feed line running up your tower; antenna gain and antenna radiation pattern considerations; calculation of the FM station's ERP; and theory of operation of side mounted FM antenna arrays.

The cost is \$59 for SBE members and \$89 for non-members. SBE MemberPlus members participate in the webinar for *FREE*. Click here to register.

Advanced RF Series: RF 201: Module 3 - AM Directional Antenna Systems, presented by Tom King, President and CEO, Kintronic Labs

Thursday, August 30, 2 p.m. - 3:30 p.m. ET

This webinar will include a variety of topics as they relate to AM directional antenna systems. Topics will include: basics of non-directional antenna system design; optional methods of feeding an AM tower; basic theory of directional pattern development; two-tower directional antenna system design; power divider, phase shift network and antenna tuning unit (ATU) design; sample system design; low power tower design considerations; proper trouble shooting of typical directional antenna system problems; and HD Radio design considerations.

The cost is \$59 for SBE members and \$89 for non-members. SBE MemberPlus member participate in the webinar for *FREE*. Click here to register.

Watch for announcements about additional SBE Advanced RF Series webinars and a new series beginning in September: ATSC 3.0/Next Gen TV!

The archive of the **SBE Transmitter Site Safety** webinar, presented by Jeff Welton, CBRE, of Nautel on June 14, is now available at the SBE website. SBE MemberPlus members can access it for free. The fee for SBE members with traditional membership is just \$59. The fee for non-members is \$89. Click here to register.



#### SBE Board of Directors Election Opens July 20



The annual election of SBE officers and directors will begin July 20 and end August 22. On July 20, SBE voting members will receive an email with a link to their unique ballot. Members who have opted out of electronic balloting, or who have not provided their email address to the SBE, will receive their ballots through the mail. On June 29, voting members will receive a special email reminder about the upcoming election. The email also serves to confirm that a member's email is valid.

Our own Steve Brown of Appleton is running for a position on the SBE Board of Directors, so you SBE members please watch for that ballot between July 6 and

August 22 and put a checkmark next to "Stephen J. Brown, CPBE, CBNT".

Eligible members may still be added to the ballot if nominated by at least ten other voting members no later than Friday, July 6 at 12 p.m. ET. Nominations should be emailed or mailed to SBE Secretary Wayne Pecena; Director of Engineering, Texas A&M University; 4244 TAMU, 111 Moore Communications Center; College Station, TX 77843-4244. Questions about candidacy may be directed to Justin Tucker, chair of the SBE Nominations Committee, or SBE Executive Director John Poray.

#### Web site of the Month

At the University of Wisconsin in Madison they are using a Platinum analog TV transmitter as a superconducting electron gun power amplifier.

https://accelconf.web.cern.ch/accelconf/IPAC2012/papers/thppc071.pdf

#### Inspecting your tower with a drone

An excerpt from 'Clays Corner' by Clay Freinwald SBE Chapter 48

As mentioned flying both my company issued drone for work and my personal Phantom 3 Advanced for practice and fun has been a source of real enjoyment for me. Getting to fly up and around towers in my zone are going to be quite informative and money saving for our company. It gets you up and close the antennas on the towers of course without having to have a tower crew and the expense. This past month I put up a video on my "ke0vhjacktv" YouTube channel flying one of our sites. It was a bit of a windy day and I got QUITE close to the antenna and guy wires on the tower. WHEW! But I kept a close watch and am learning how to fly the drone (a Phantom



PRO) to get some great footage and detail on the upper reaches of the structure. If you didn't already take a look at: <a href="https://www.youtube.com/watch?v=B7v2ceKfgyY">https://www.youtube.com/watch?v=B7v2ceKfgyY</a>

Due to the current rules of flying near airports with controlled airspace you must now use a system that can take up to 90 days or so to get FAA permission if your tower is located within that space. I have a tower that is in just that position that I really need to do an inspection at. SO, at this time I have applied for the permission to do so but am waiting, and so I expect that it will be May before I get the OK to do so. Details on how to apply are at: <a href="https://www.faa.gov/uas/request\_waiver/">https://www.faa.gov/uas/request\_waiver/</a> This web site shows a list of waivers granted, so I keep a look on it for mine to come thru: <a href="https://www.faa.gov/uas/request\_waiver/waivers">https://www.faa.gov/uas/request\_waiver/waivers\_granted/</a>

However the FAA is beginning a program to make this process almost instantaneous. That will certainly make things quicker and easier especially when you need to inspect a tower in controlled airspace quickly. Take a look here:

http://aopa.org/news-and-media/all-news/2018/march/08/faa-expands-drone-authorization-program?utm\_source=drone&utm\_medium=email&utm\_campaign=180320drone

The FAA UAS data delivery system website is absolutely outstanding at showing permitted flight levels and areas of the whole country. This includes an amazing map that is movable and you can zoom into the area you are interested in. Take a look at it at: <a href="http://uas-faa.opendata.arcgis.com/">http://uas-faa.opendata.arcgis.com/</a>

Another discussion says Part 107 operations do not require that you contact nearby airports in Class G airspace. That is a Section 336 (recreational) requirement. Please follow up with any further inquiries at <a href="https://www.faa.gov/uas/"><u>UASHelp@faa.gov</u></a>. Additional information is also available at <a href="https://www.faa.gov/uas/">https://www.faa.gov/uas/</a>. Please select: UAS Safety and Integration Division AUS-400. <a href="https://www.smpte-sbe48.org/wp/">https://www.smpte-sbe48.org/wp/</a>

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