



The Society of Broadcast Engineers

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

May 2018

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Our next SBE Chapter 80 meeting will be on Tuesday May 15th at the Out O Town Club at noon. Our program will be Antenna and RF System design for the FCC Repack by Eddy Vanderkerken of RFS World. This presentation will give insight into how antenna design influences radiation patterns, how the design and manufacturing of antennas and RF filters has evolved, and the software tools that can be used to select the optimum solutions for the TV broadcaster during the FCC repack and beyond.

Hello members and friends of Chapter 80!

Lots of news in the last month. A great Chapter 80 meeting in April featuring Bob Orban talking about television audio processing and the CALM act. (and thanks to Orban Associates for the meal !!!) A test of the local EAS systems during Tornado Awareness Week. And a heads up from National SBE, NAB and WBA about the need to register and license your C Band satellite receive antennas.

There are many opinions out there about this latter topic. And certainly everyone must decide for themselves based on their own circumstances. But my take on it is that all these organizations have all our best interests at heart by encouraging C Band owners to register and license their earth stations (satellite dishes).

It is a fact of the modern broadcast engineering world that more and more users and potential users are competing for more spectrum. And we in the broadcast engineering world have enjoyed exclusive or near exclusive use of some bands. Looks to me like this is ending quickly, and we must do whatever we can to protect ourselves. In this case, that involves spending a little money to license our existing facilities to try and protect them from future (interfering) users. I know the \$500 - \$1500 expense per location is unwelcome and usually not in the budget. But it could cost you much more to solve a future interference problem should it occur. And many of us depend on these receive antennas for a big part of our daily programming.

If you are not sure about what you should do about this, talk it over with your trusted engineering resources and make your choice quickly. The favorable window granted to us by the FCC will end quickly so you need to pay attention.

Looking forward to seeing you at the May meeting! Thanks for your support of SBE and Chapter 80.
Steve Brown

Upcoming meetings

May 15th Antenna and RF System design for the FCC Repack by Eddy Vanderkerken of RFS World

May 15th Camera Corner Tech expo. <https://www.cccp.com/tech-expo-2018/>

CHAPTER 80 ELECTED AND APPOINTED OFFICERS

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Register Your C-Band Receive-Only Earth Station Now

On April 19, 2018, the FCC issued a public notice of a temporary freeze on applications for new or modified fixed satellite service earth stations and fixed microwave stations operating in the 3.7-4.2 GHz band. This is the C-Band downlink. The notice also established, as a limited exception to the freeze, a 90-day window allowing existing entities that now own Fixed Satellite Service earth stations to register or license them if not currently licensed or registered. During this 90-day window, earth station users of this band can also modify currently licensed or registered earth stations.

More >

Look ahead at upcoming opportunities to take a [certification exam](#) 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 sbe.org/certification.

Below is the upcoming certification exam schedule

Exam Dates	Location	Application Deadline (to SBE National Office)
June 1-11, 2018	Local Chapters	April 20, 2018
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

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Phase zero channel repack date set for Green Bay market. On July 1 the first two stations WGBA [41 to 14] and WPNE [42 to 25] will be moving to their new channels. You will need to rescan your tv on Sunday to continue to receive these two stations.


Easing Siting Rules For 5G In order to speed up the roll-out of 5G broadband service, the FCC is issuing rules (https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0330/FCC-18-30A1.pdf) to ease tower sitings. Currently, extensive environmental and historical surveys along with aeronautical study must be undertaken and submitted as part of the application process. In the new rules, the FCC also addresses the placement of towers in floodplains. For the roll-out of 5G systems, the new rules exempt towers of 50 feet or less with antennas under 3 cubic feet and a support structure of 28 cubic feet or less from environmental and historical studies and some RF exposure studies. Since 5G systems will be using very high frequencies such as 28 GHz or higher, there are going to be many transmitter sites, as the area served by the signal will be much smaller than traditional cell sites. Many of the 5G transmitter sites could be located on the corner street light post or the power pole behind the yard. Because these sites will be located on short towers, tops of buildings and existing infrastructure, the FCC decided that there would be little impact from their facilities. As far as locating in a flood plain, if the facility is located one foot above the base flood elevation it will be exempt from additional environmental studies. (*Tom Smith SBE24*)

Picture of the month: Inside of a high power UHF mask filter. I believe the small oval slot between the cavities may be called an iris. The [analog] transmitter TPO was 133kW.




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SBE Sustaining Members would like your business! Please consider them first when making purchasing decisions.





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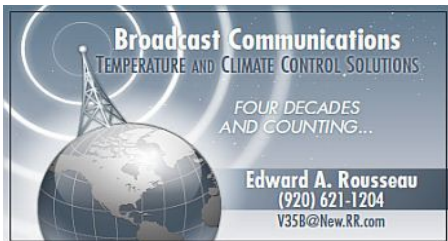
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