This Issue of EsPRSSo is Particularly Newsworthy

This month's edition of EsPRSSo has numerous important articles that should be read by station and producer staff alike. Several of them address subjects that require the active involvement and participation of the PRSS community, so please be sure to read through this issue carefully. The following issues will be addressed:

- The deadline for satellite stations to register with the FCC is in May. This article explains what stations need to do.
- We are quickly approaching an election for The PRSS Charitable Trust, and it is critically important that station managers vote.
- The PRSS NOC has worked with FEMA to develop new, accurate language around the weekly IPAWS tests.
- NPR Distribution has developed a new engineering training and certification course designed to attract more people to the RF industry.
- NPR Distribution has created several emergency broadcast and antenna kits for stations that suffer a disastrous event that knocks them off-air or that are planning construction, maintenance or Repack work and need back-up capabilities.
- The announcement of two upcoming NPR Distribution webinars to share details of the Future Systems initiative.
- A notice that NPR Distribution is adding IP technology systems to its NOC and Back-up NOC and encourages producers to do the same.
FCC Deadline for C-Band Licensees This Month

The FCC has announced that by May 28, 2019, all C-band earth station licensees and registrants operating in the 3.7-4.2GHz downlink band should certify the accuracy of their information in the FCC's filing system. The FCC has said that it will not give interference protection to stations that do not certify by this deadline. Stations that filed new or updated license or registration information between April 19 and October 31, 2018 are exempt from the certification requirement.

The certification process is fairly simple, as it only requires uploading a written statement from the station that confirms the accuracy of information that should already be on file. This includes the station's call sign, file number, and applicant or registrant name, along with the following statement, which should be printed, signed by an authorized representative, and uploaded as a scanned document:

The undersigned, individually and for the applicant, licensee, or registrant, hereby certifies that all information reflected in his or her licenses or registrations in IBFS, including any attached exhibits, are true, complete and correct to the best of his or her knowledge and belief, and have been made in good faith.

The certification should be filed through the FCC's IBFS filing system, which is linked here: [http://licensing.fcc.gov/myibfs/](http://licensing.fcc.gov/myibfs/)

In order to log into IBFS to review the information on file and certify its accuracy, you will need your FCC Registration Number (FRN) and password. Once logged in, click on the "Pleadings and Comments" link on the left-hand navigation bar. From there, select the pleading type "C-band certification" from the drop-down menu. You will then fill in contact information, call sign or file number, and attach the signed certification statement.

If you have any questions or comments, please contact the PRSS Help Desk at prsshelp@npr.org, or 800.971.7677.

PRSS Trust Election Begins on May 14, 2019

NPR Distribution is asking public radio station leaders to participate in an important upcoming election for The PRSS Interconnection System Charitable Trust that begins on May 14, 2019, and ends one month later. Trustee Philip Rubin has announced his desire to retire from service as a trustee, and Terry Clifford, co-CEO of the Station Resource Group, has indicated she is willing to stand for election to succeed Philip Ruben as a trustee.

** To approve this appointment of Terry Clifford as a trustee, more than 50 percent of all PRSS "participating" interconnected stations must vote in favor. If fewer than 50 percent of stations vote for the appointment, the trust will need to appoint a different candidate and hold another election at a later date. **

In mid-May, all authorized representatives of interconnected stations will receive an email from Michael Beach, NPR Vice President of Distribution, outlining the election details and providing instructions on how to vote. The window for voting will open at 9:00 am ET on Tuesday, May 14, 2019, and will end at 5:00 pm ET on Friday, June 14, 2019.
Due to the high level of participation that this election requires, NPR Distribution plans to send out multiple communications throughout the voting period to urge station managers to vote. Those who vote early will be spared these constant email reminders, so please take a few moments when you receive Michael Beach's email and cast your vote.

Terry Clifford has a long history in public broadcasting. She co-founded the Station Resource Group, an alliance of public media organizations that operate leading public radio stations across America. She also was a founding executive of the National Federation of Community Broadcasters, and she has co-authored several pioneering studies on public broadcasting audiences.

If you have any questions about the voting process, please contact Twanna Clark, NPR Board Liaison, at 202.513.2058 or tclark1@npr.org.

The News

IPAWS Architecture and the Role of NPR Distribution

NPR is a Primary Entry Point (PEP) for the Integrated Public Alert and Warning System (IPAWS). In our role as a PEP, we are obligated to conduct a weekly test which, as of this notification, will be referred to as the NPR Required Weekly Test, or NPR RWT for short.

All correspondence from NPR Distribution will refer to the NPR RWT when communicating system-wide messaging as it pertains to this test.

The weekly tests commence each Tuesday at 1:15 pm ET, or at other times as necessitated to test equipment. The following FEMA-approved script will be executed during each test. This script is slightly modified from the current language, and it will go into effect on June 4th, 2019.

INTRO:

Attention stations:

The following is a Required Weekly Test of the National Public Warning System via the system's Primary Entry Point at NPR.

[Test tones]

EXTRO:

Stations:

This has been a required weekly test of the National Public Warning System via the system's Primary Entry Point at NPR. Questions about this test can be directed to the PRSS Help Desk by calling 800-971-7677 or by email at prsshelp@npr.org.

If you have questions or concerns, please direct these to the PRSS Help Desk at prsshelp@npr.org, or 800.971.7677.

For more information on the IPAWS Architecture, and the IPAWS Architecture Diagram, please visit the FEMA website at https://www.fema.gov/informational-materials
NPR Distribution Creates Engineering Certification

NPR Distribution has launched the Public Radio Engineering Training Program (PRETP), a technical certification initiative designed to create, preserve, and update mission-critical professional skills essential to the broadcast radio industry. The PRETP offers individuals interested in a career in RF (radio frequency) engineering an educational path to skills accreditation, with the hopeful result that a new generation of technical leaders and innovators will be developed to keep pushing public radio forward.

Three different levels of certification are available in the PRETP, with offerings dedicated to entry level, mid-level, and advance-level certifications.

The entry level certification, known as Certified Public Radio Operator, is focused on those who are new to the industry and want to develop technical skills specifically around RF. These could be recently graduated engineers considering different disciplines, or it could be seasoned technical professionals working in other disciplines that wish to join the radio industry.

The mid-range program, Certified Public Radio Technologist, and the advanced-range program, Certified Public Radio Engineer, are more geared toward those already in the radio industry but looking to supplement their current engineering or IT experience with an RF focus. Participants in these two programs can look forward to a deeper dive in RF engineering, and they will also be immersed in antenna systems course work.

Each level of certification will have required reading and course material and will climax with an exam by the Society of Broadcast Engineers (SBE), a professional organization for engineers in broadcast radio and television that offers certification in various radio frequency (and video and audio technology) areas for its members. Throughout the process, NPR Distribution will track the progress of each participant and issue the appropriate certifications upon completion of the courses.

Details on Each Training Level

The Certified Public Radio Operator certification is considered the entry-level starting point for participants and has no prerequisites required. The course material will be drawn from the SBE Certification Handbook for Radio Operators and will also feature a basic satellite skills training course supplied by the Global VSAT Forum (GVF). Participants must pass the SBE Radio Operator Certification Exam and obtain GVF Satcom Professional Certification before they’re able to take the more advanced PRETP course. Upon completion, participants will be confirmed as knowing basic knowledge to operate radio station equipment and systems and will understand FCC rules and regulations.

The Certified Public Radio Technologist is the mid-level program for those in IT or engineering disciplines and requires that they have obtained the entry-level Operator certification. This course will focus on FM and AM antenna systems and will require the passing of the SBE Broadcast Technologist Certification Exam, which includes questions on electronic fundamentals and FCC rules and regulations. Upon completion, participants will know how to set up, operate, and maintain station equipment, and they will also have a working knowledge of FCC regulations.

The Certified Public Radio Engineer is the advance-level program and requires participants either have the 'Technologist' certification or have five years of RF engineering experience. This certification will also focus on AM and FM antenna systems and will require the passing of the SBE Broadcast Radio Engineer Certification Exam, which will include questions on electronic theory,
safety, and FCC rules and regulations. Upon completion, participants will be certified as being able to set up, operate, and maintain station equipment including transmitters and terrestrial and satellite antenna systems. Successful graduates will also have specialized knowledge of FCC rules and regulations.

The curriculum for each of the three courses is based on current SBE and GVF materials, requirements and testing and was designed to be laser-focused on the RF industry, providing training in areas and on subjects commonly experienced by public radio engineers. The actual exams will be administered to participants via local SBE chapters, and NPR Distribution will process test results and then issue the appropriate certificates.

More information about the program, including fees for each certification level and an application document, is available at [http://prss.org/certification](http://prss.org/certification).

---

**NPR Distribution Develops Station Emergency Kits**

NPR Distribution has created a new program to make available emergency backup transmitter kits and portable studio systems that can be used by public radio stations in the event their on-air operations are disrupted by natural disasters, equipment failures, construction activities, and other potential broadcast threats. This program is the product of a series of collaborations between the PRSS and the Corporation for Public Broadcasting (CPB), which provided the necessary funding.

The kits have been created, assembled, and tested by NPR Distribution to allow stations to continue operations on a temporary basis until their broadcast infrastructure is restored. NPR Distribution, which is kicking off the project by initially developing three emergency transmitter and antenna kits and two emergency studio kits, will also be in charge of shipping the kits out to stations that submit a request and to maintaining them when they have been sent back.

"It's only been in the last few years that we've seen public radio stations in California, New Jersey and Puerto Rico disrupted due to disastrous events, and we've seen plenty of other stations challenged by tornadoes, wildfires, heavy snow and flooding. We also know that the FCC-mandated 'repack' has the potential to affect a great number of stations" said Michael Beach, Vice President of NPR Distribution. "One of our mandates is to deliver best-in-class technologies, business practices and support to help public radio stations reach their audiences, and these emergency kits are a unique and important way to provide assistance when it's needed most."

**Emergency Transmitter Kit**
Three emergency transmitter kits will be available. Each transmitter is air-cooled and runs on 120-volt, 60 Hz AC power using local power or a generator and will consist of the following:

- One 300-watt FM transmitter with internal frequency agile exciter, which supports 87.5 to 108 MHz and integrated audio processor
- One FM receiver for "off-air" monitoring with level meters
- One power conditioner
- One 12' N-N jumper cable
- Two 25' Ethernet cables
- Three 30' XLR cables
- One heavy-duty rack case.

In addition, by request NPR Distribution can also provide a 1-5/8" to N adaptor or a 3-1/8" to N adaptor for connecting into an existing line and antenna.

**TRANSMITTER KIT (NAUTEL VS-300)**

Emergency Antenna Kit
Three antenna kits will be available to the system that consist of:

- One Broadband FM antenna
- One 75 foot RFC-400-UF cable with N connectors
- One 30’ portable mast with guy ropes with anchors and an antenna and transmission line in a road case, if needed.

Emergency Studio Kit
Two emergency studio kits have also been developed, with each containing the following:

- One audio mixer and recorder
- Three dynamic microphones
- Three desktop microphone stands
- Three pairs of headphones
- All necessary cables and adaptors
- Road case with foam insert.

**Kit Pricing Structure**

According to NPR Distribution's policies on the kits, stations desiring to use one must contact the PRSS Help Desk with their requested dates of having them. They will have the option to use the kits for up to 90 days. Stations will be required to contact NPR Distribution - before the date when they originally agreed to return the kits - if they wish to extend the duration of their contract for the kits.

The kits will be available to stations for a modest fee:

- Transmitter Kit $275 for first month / $550 for each subsequent month
- Antenna Kit: $100 for first month / $200 for each subsequent month
- Studio Kit: $200 for first month / $400 for each subsequent month

When requesting an emergency kit, stations will be asked to provide an end date for when they intend to ship the kits back to NPR Distribution. In order to ensure that the kits are available for those stations that reserve it for specific dates, NPR Distribution will apply late fees if they are not returned on the agreed-upon date (following a 10-day grace period). Shipping costs will be paid by the station.

NPR Distribution staff has begun communicating the availability and functionality of the kits to station decision-makers and plans to hold a webinar for station staff in the late spring or early summer to demonstrate use of the emergency kits.

The procedure for a station requesting an emergency kit will be to contact the PRSS Help Desk, which is available 24/7/365, at 800.971.7677 or prsshelp@npr.org. Upon doing so, NPR Distribution will determine availability of the kits and contact the station to follow up.

**Future Systems Update**

**Two Webinars on Future Systems Scheduled in May**

NPR Distribution is planning to hold two webinars, scheduled for Thursday, May 16, 2019, and Thursday, May 23, 2019, to discuss the Future Systems project in detail and to let stations and
producers know what to expect in the coming months and years.

The presentation will largely provide the information that was shared at this year's PREC show. Distribution VP Mike Beach will be joined by members of his team to go through the different pieces of the Future Systems initiative as well as to share upcoming milestone dates.

Look for a system message sent via ContentDepot and through our social media channels within a few days with the specific details and a link to sign up.

Other activities accomplished in the past 30 days for the Future Systems project include:

- Completed Site Acceptance Testing on remaining NOC and Backup NOC environments
- Communicated expected schedule for build of Interconnection Hardware & Software
- Finalized Beta system participants for new receiver testing

---

**Producers Urged to Consider IP Tech for Delivery**

NPR Distribution is advising content producers that they should not rely exclusively on ISDN lines and T1 circuits to transmit their programming to the PRSS NOC in Washington, D.C., and the Backup NOC (BuNOC) in St. Paul, Minn. Both of these delivery technologies are reaching end of life in the marketplace and support for them is decreasing. As a result, NPR Distribution is adding the option of IP technology as another means of delivering live streams to both the NOC and BuNOC.

In the event of a loss of power or signal in Washington, D.C., content producers hoping to immediately leverage ISDN or T1 to get their content to the BuNOC may find at the last minute that they are unable to because the presence of these technologies as viable options is quickly dwindling. With the addition of IP technology to the distribution path, producers will have a better solution to ensure they are able to transmit their content quickly and reliably.

NPR Distribution has installed a series of GatesAir IP Codecs at both the NOC and the BuNOC. Producers looking to leverage IP technology might consider reviewing the GatesAir line. Why GatesAir? First, we have more than three years of using their technology and have found it reliable. Second, the producer's content would be sent to both the NOC and the BuNOC simultaneously. In the event that the primary NOC in Washington went down, producers could be confident that their content has also been transmitted to the BuNOC and that it will be delivered to stations per normal. We are not aware of other IP codecs that do this.

Use of an IP technology solution requires the presence of a Codec at both the originating source (the producer's facility) and the destination (the NOC and the BuNOC). Due to the presence of GatesAir units at both PRSS NOCs, producers choosing this brand would only be required to purchase the one unit for use at their own facility; NPR Distribution would provide the two GatesAir units to receive the content at the NOC and BuNOC. There are other IP Codec options available on the market, including Comrex and Tieline. However, in the event a producer went with one of these other brands, they would be required to purchase a unit for their location as well as two additional units to be placed in the NOC and BuNOC.

Apart from the unit itself, producers are strongly recommended to have two diverse business ISP
services to transmit content out of their facility. Having two ISPs is not a hard requirement, but it allows for the recovery of any lost packets due to internet traffic. NPR Distribution currently has in place redundant inbound circuit providers into the primary NOC in Washington and is in the process of placing redundant inbound circuit providers at the BuNOC.

Making use of IP technology provides producers a way of ensuring their content will reach its intended destination using a technology that is more economical to maintain and operate. If there were an emergency situation where the primary NOC in Washington became unavailable, producers scrambling to make use of ISDN or T1 may be unsuccessful. IP technology provides a reliable, secure and robust alternative for delivering content.

Stay in Touch

We'd Like to Hear From You!

EsPRSS-O welcomes and encourages your questions, comments, suggestions and ideas.

- Have you or your team developed a particularly unique and/or nifty technique in operating ContentDepot?

- Are you facing any new challenges and want to get the perspective of others who might be in a similar situation?

- Are you seeing any technology or business developments on the horizon that your pubradio colleagues ought to know about?

- Got a notion on your mind that you want to share with the PRSS?

If so, don't hesitate, write in today!

Send any and all correspondence to PRSSCommunications@npr.org along with info on the best way to get in touch with you.

Stay in touch! Send your questions, comments and ideas to PRSSCommunications@npr.org. As always, the PRSS Help Desk is also available 24/7 at 800.971.7677 or email PRSSHelp@npr.org.