Transcript of FCC LPTV LEARN Webinar, Feb 24, 2015

>> Hello, everyone. This is Bill Lake. Thanks for joining us for this webinar on Low Power Television and television translators and issues relating to the upcoming Spectrum Incentive Auction. Among other things today, we'll discuss the impact of the auction on these services, and things that the commission might do to mitigate any adverse impacts. A couple of housekeeping details at the beginning. We will go through a presentation about the status of the issues raised in our recent proposed rule making on LPTV issues. You may submit your questions at any time during the presentation by email and we'll take them up at the close of the presentation. The email address to send them to is livequestions@FCC.gov.

Starting with the first slide, this is just to tell everyone that ex-parte filings are not required for participation in this webinar. On slide 2, just want to start by stressing that we recognize the *importance* of, we know in some places, these stations are the source of local news and public affairs, and many are *dependent* on for network and PBS programming. Some of these stations provide programming directed for minority and foreign born and other niche populations who may be enabled by this to enjoy programming in their own language. Other stations are able to devote resources to local sporting and community events. Some stations are located in very rural communities, where they may provide the only viable over the air TV programming alternative.

I'd like to it start by summarizing the existing landscape for these services. As to the digital transition, as you'll see, both LPTV and TV translator stations are well on their way to converting to *the* digital platform, with 80% of TV translators having completed their transition. Just as an aside, we have set May 29, 2015 as the pre-auction licensing deadline. This deadline is relevant only to Class A and full power TV stations. What it means for a Class A station is that if the station wants its digital facility protected in the repack, it must finish construction and file for the license by May 29, 2015, the same date that applies to full power stations.

To illustrate the diversity of the service, this map reflects where LPTV stations are located. There are a number of stations in the top 50 markets, and we expect that these will *have* the most auction-impacted stations. Also note that a number of stations are located in the populous mountainous regions and in many cases may serve as gap fillers for full power TV signals. This map reflects the heavy location of translators in the western part of the country, in more rural locations. Turning to the next slide, we thought it might be helpful to picture a couple of examples of what we're dealing with. The photos on slides 6 and 7 illustrate the often rural nature of what's out there. The first is a translator antenna atop Cove Mountain in Utah. The second is the main studio of a rural LPTV station, KTTA-LD, in Monroe, Utah, in a re purposed barn. Turning to the next slide, we expect that the reorganization of the broadcast band will have a significant impact on these services, especially in urban areas. The impact on any station will depend, of course, on the auction results, which cannot be predicted, but station owners are encouraged to examine the incentive option channel repacking simulations that we've placed on our website for their particular market, as indicators of the potential that their station will be displaced.

To be clear, the spectrum act does not mandate the protection of LPTV and TV translator stations in repacking, and the commission has declined to extend discretionary protection. However, stations displaced by the repacking process will have the opportunity to identify a new channel, possibly share with others, or take advantage of other program distribution options. Some of the issues we'll be discussing today are about how the commission might help in that process.

On October 10 of last year, the commission started a proceeding to explore issues about the impact of the auction on LPTV and translator stations. Among other issues, the notice brought comments on

specific proposals to mitigate displacements and also ideas to help relocate displaced stations. The comment cycle has now run, and we received a large number of useful comments. We have received comments from 59 entities and reply comments from 30. The notice proposed to extend the September 1, 2015 deadline for LPTV and TV translator stations to transition to digital. The purpose of this proposal was to avoid requiring stations to double-build. If the deadline is extended, stations will be required to build their digital facilities only after the impact of the incentive auction is clear and the spectrum reorganization is complete. I note that we did not propose to extend the transition date for Class A stations, and it remains September 1. Also as I mentioned a moment ago, if a Class A station has not yet converted to digital and wants to have its digital facility protected in the repack, it must finish construction and have a license to cover on file by the May 29, 2015 pre-auction licensing deadline. In the comments in response to our notice, there was overwhelming support for postponement of the digital transition date. Most commenters recommended that we wait until after the auction is over to decide on a new transition date. Many of them went on to say that if we do choose a date now, we should set a date one year after completion of the 39-month post-auction transition period. On the issue of construction permit deadlines for new digital LPTV and translator stations, commenters overwhelmingly supported continuing to suspend those deadlines until after completion of the 39-month post incentive auction transition period. Commenters also supported harmonizing the deadlines for new digital construction permits to match the new LPTV digital transition date so that there would be one uniform deadline for all digital construction permits. Some urged that we allow an additional three-year construction period.

Now turning to another important proposal raised in the NPRM, channel sharing. The notice pointed out the substantial benefits of channel sharing. It helps to solve the limited channel availability issue post spectrum reorganization. The arrangement can provide financial benefit by allowing licensees to share operating costs. And channel sharing encourages the dynamic use of spectrum and *improves* spectrum efficiency, making it possible to add broadcast hours and broaden the user base. The commenters on the NPRM overwhelmingly support voluntary channel sharing. These supporters also urge that we allow more than two partners to share a single channel, as we have with respect to full power stations in connection with the auction. They also argue that channel sharing may strengthen stations by providing additional sources of revenue. And they note that it expands the opportunity for stations to relocate. Commenters support allowing LPTV and translator stations to channel share with Class A or full service stations. They *emphasize* that a full power station sharing with an LPTV or translator should retain its must-carry rights. And finally, commenters recommend that LPTV or translator stations that share a full power station's channel be permitted to operate with the technical pa silt of the full power station.

Another proposal in the notice is to create digital-to-digital Replacement Translators. This proposal would enable full power stations to replace digital service areas lost as a result of repacking. As proposed, digital-to-digital Replacement Translators will receive the same processing priority as analog-to-digital Replacement Translator displacement applications. Commenters generally agree that digital-to-digital Replacement Translators are an important means of *replicating existing* coverage area and population served. However, many commenters urge that the technical footprint of these stations be limited to the area requiring replacement service, noting that to allow an expanded coverage area would adversely impact other stations and require them to relocate. A number of commenters objected to the [commenting?] process and some commenters argued that the filing opportunity should not extend beyond the 39 month post auction transition period. The notice asked if there are ways in which the commission could help displaced LPTV or translator stations to identify displacement channels to which they could relocate. In particular, it asked whether the commission should use the incentive auction optimization model to *identify* the most efficient set of displacement channels in order to accommodate as many stations as possible. In response, commenters favored

using optimization software to help to identify displacement channels. In addition, some proposed that we release the repacking software for use by broadcasters and their consultants. One commenter proposed that the commission repack LPTV and translator stations, choosing their channel assignments and grouping them into neighborhoods to free vacant channels. And one commenter suggested that similar assistance be provided to construction permit holders in addition to licensed stations.

We received a number of responses to our request for suggestions of additional things that we could do to ease the auction's impact on LPTV and translator stations. A number of commenters proposed that we allow stations to use different technical standards or network architectures such as single frequency networks to use spectrum more efficiently. A variety of commenters recommended that we give priority in the post auction displacement process to particular types of applications, such as noncommercial educational, local, or network stations. Some commenters urged us to revise certain interference rules to permit slightly greater amounts of interference for stations proposing new or modified facilities. Others urged us to streamline the international coordination process so that clearances can be attained more quickly. At least one commenter urged the commission to conduct a study of the future of LPTV. And a number of them advocated creating a process to allow LPTV and translator stations to become primary, possibly by creating a new type of Class A-like station. We want to call your attention to two other proceedings that will be conducted this coming spring and that are likely to be of interest to the LPTV and TV translator communities. First, what we think of as the commencing operations proceeding, follows up on the statement in the incentive auction order last year that LPTV and translator station and other secondary or unlicensed users operating on channels that are repurposed for wireless use may continue to operate until the wireless company that bought the spectrum commences operations in the area. The chairman has circulated a notice of proposed rule making that if adopted by the commission, will seek comments on how to define commencing operations for this purpose. Second, also in the incentive auction order, the commission proposed to take steps to preserve at least one vacant channel in all or most markets for use by unlicensed white space devices and wireless microphones. A notice of proposed rule making has been circulated that if adopted by the commission will seek comment on how to achieve this.

We're now happy to take your questions. Any questions you have on these issues, and outlined in this webinar. As I mentioned, you can continue to email your questions to livequestions@fcc.gov First couple of questions, the first is, will the slides be available online? Yes, they will be placed online on our learn website. That's FCC.gov/learn. That's where we have a large collection of information about the incentive auction and this webinar, the slides for this webinar will be placed on the website. We've also been asked where the simulations are that I mentioned and what that could show an individual LPTV licensee. We posted on the same website, the FCC.gov/learn website, a collection of simulations that have been done. They are only simulations, we don't know exactly how the bidding will go in the real auction, but if you look at a number of these simulations, you can see the likelihood of substantial displacements in the market in which your station exists.

We've been asked the following question: Will the impact of the incentive auction and repacking on LPTV be felt in all markets? Are there any markets that will not be affected? Should LPTVs that are not Class A expect to be displaced or shut down? And a suggestion that all existing LPTVs should be treated equally in the auction process that the Class A definition and privileges should not be used in this instance because it is in everybody's best interest to preserve its license. I think the short answer to all those questions is that low power and TV translators will not be afforded protection in the incentive auction repacking. Class A stations and full power stations by contrast are entitled to protection under the spectrum act and will be protected, so we're not in a position to disregard the Class A status in that regard. It is likely that stations will be affected in all or most markets, regardless of the it degree of congestion in a particular market, if a station is

on, say, channel 48, the highest channels in the TV band are likely to be repurposed for wireless spectrum use, so even if you're not in a congested area, if you're on one of the higher channels, there's a likelihood that you will be displaced and will need to find a displacement channel at a lower frequency. Whether it will be difficult to find a displacement channel obviously will depend on the degree of congestion in a particular market.

We have a further question, how quickly can digital channel 6 stations start to also broadcast an FM carrier on 87.7-megahertz? As many of you probably know, we did ask in the low power notice of proposed rule making how we should treat licensees that have -- some of them have begun to transmit analog *radio* signals on TV channel 6. These are analog signals, and the question we've posed is what should be the disposition of those stations when the digital transition has occurred and it would take a change in our rules to it allow analog transmission. That's an issue on which we've received comments in the proceeding, and of course we'll consider those comments but we haven't decided it yet.

Further question, will displaced Class A stations or Class A stations that participate in the auction to change the channel become primary over LPTV stations? Currently Class A and LPTV must both protect each other. However, if a Class A moves channels and receives, for instance, 10% interference from an existing LPTV station, how is the interference issue resolved between the two stations? That's a good question, we're happy to answer it. If by displaced Class A stations you mean out of core Class A eligible LPTV stations that did not file initial Class A license applications until after February 22nd of 2012, the enactment date, then those stations will be allowed to file displacement applications in a post incentive auction priority window like other LPTV stations. In the incentive auction order, the commission concluded that the communications act which requires Class A stations to protect LPTV did not apply to the commission during repacking. Therefore, a Class A station that is repacked when filing for its initial CP could displace an LPTV station. But the LPTV protection provisions of section [336F7V] of the act would apply to applications filed by displaced out of core, Class A eligible LPTV stations following a displacement application and repacked Class A stations that apply for alternate channels or expanded facilities.

When an LPTV or translator station is displaced by a forward auction winning wireless licensee and the LPTV or translator receives a construction permit for its new channel, will it receive a three-year construction period beginning from the date of the grant of the CP? Will the construction period be affected by the fact that wireless licensee has or has not given the 120-day termination notice? The answer to this question depends on whether the station is in one of three categories. First, an analog station that has completed its transition to digital. Second, an analog station that has not transitioned. Or third, an unbuilt permittee for a digital-only station. First I would just remind folks that with respect to the termination notification from the wireless licensee, a station that is operating on a channel that is reallocated for new wireless use may stay on its channel until it receives its 120-day notice. That could be years in more rural areas, since the wireless licensee has several years to complete its construction and begin serving those areas. Also note that an LPTV or translator that finds itself on a channel reallocated for wireless use can go ahead and file a displacement application in the post auction window. It does not need to wait until it receives a 120-day notice. They qualify as displaced simply by the fact that they are on a channel that has been reallocated. Now to answer your question, a displaced station that has already completed its transition to digital and is licensed digital, would receive a standard three-year construction period. The digital transition date to be determined in the rule making would not apply to them since they already finished their transition. They could move to the new channel any time in the three years. When the three years is up, if they haven't actually received the 120day notice and have not actually been displaced, they could ask for an extension. If the displaced station is an analog station that has not transitioned, they would receive a digital CP with the new transition date that is to be decided in the rule making. The same would be true if there were an unbuilt digital construction permit. They would receive a new construction permit for the new channel and receive the new transition date but they would have to finish building and begin operating by the transition date even if they haven't been actually displaced.

>> Sorry for the delay. We've been collecting and have another supply of questions which we're happy to answer. This first question is, I may have missed this but did you say we could get a copy of the slides and the text to the right of the slides? The slides themselves will be on our FCC.gov/learn website as will be the recording of this webinar.

Next question is, rural translator systems require a sometimes complex combination of input and output channels at any of several interrelated sites. Will the FCC take special care to deal with these, and if so, how? We will process these as we have in the past and consistent with our rules, and we do know that in some states, such as Montana and Utah, there have been complex systems of translators and we will try to process those in the same way that we have in the past.

Is there any expectation that new LPTV station licenses will be issued after the conclusion of the incentive auctions? Yes, we have some backlog of new station applications from the last window, and we will process them and grant them if they're grantable after the close of the displacement window at the close of the auction.

Will all provisions for full power apply to Class A? Class A stations will be treated the same as full power in connection with the auction and the repack. On a going-forward basis, of course, the rules that apply to Class A stations differ in some regards from those relating to full power stations.

Why didn't the commission protect LPTV and translators in repacking? I'd first note that this question is the subject of pending petitions for reconsideration of our incentive auction order, and the commission, of course, will consider those petitions. The commission explained in the order that Congress limited repacking protection to broadcast television licensees. The commission found that the definition in the statute of broadcast television licensee is unambiguous and includes only full power and Class A Television licensees, therefore, it was not under a legal obligation to take steps to preserve the coverage area and populations served of LPTV and translator stations. As far as extending discretionary protection, the commission concluded that protecting LPTV and translator stations, of which almost 4500 are licensed on UHF channels, would increase the number of constraints on the repacking process significantly, and severely limit its recovery of spectrum to carry out the forward options, thereby frustrating the purposes of the spectrum act.

What is the status of the GAO study requested by congressman Barton and Eshoo? When the commission receives the request for information from GAO which we have not yet received, we will cooperate with their staff fully in the completion of their study.

Thank you. I should say that we have been moving the microphone briefly in order to collect your questions so please don't think that things have gone dead and I'll try to tell you when we're muting again, but I do have another group of questions that you've sent in. I'll go through them.

Can you expound on the FCC declining to provide some protection or auction funds to reimburse stations required to move, or is this not much of an issue? As to protection, as I've explained, the commission concluded in its order that it's required only to protect full power and Class A stations and that extending protection to low power and translator stations would be inconsistent with the purposes the of the auction. As to reimbursement of moves, Congress did consider providing funds for -- helping displaced LPTV stations to move and as we read the statute, declined to do so. With we do have a fund of \$1.75 billion, which we're allowed to use to pay -- to reimburse the expenses of full power stations that are repacked in the auction, but Congress did not *authorize* us to extend auction funds to assist low power *stations or* translators.

When the FCC does repacking -- will they be displaced and where in relation to new D-to-D filers? Replacement translators will not be protected in the repacking, but they will have a priority in the post auction displacement window. The commission proposed in the notice that the new digital-to-digital Replacement Translators will have a co-equal priority with the previous replacement -- Digital Replacement Translator applications.

Next question, when do you expect the report and order for this NPRM to be issued? We'll certainly do it before the auction so that everyone will know the answers to these questions in advance of the auction.

How much spectrum will be taken in the United States? For example, from channels 38 to 51, will only the top 30 DMAs be affected by the repack or the whole United States? The answer to the first question depends entirely on the bidding in the auction. We will hold a voluntary reverse auction to collect offers from broadcasters, and then a forward auction to see how much the wireless companies are willing to spend for the available spectrum, and the amount of spectrum that gets repurposed will depend on the results of both halves of the auction. So we're not in a position at this point to say, we will almost certainly as we've proposed repurpose channels from channel 51 on down, but we don't know how far that will go, that will depend on the results of the auction. As to the top 30 DMAs, I'm happy to dispel a myth that still persists that the auction itself and the repack will only affect something like the top 30 DMAs. As to the auction itself, we certainly expect that we will need more spectrum in many of the larger markets, but the auction will, we think, provide attractive opportunities for full power stations in many of the smaller markets, in part because of the daisy chain nature of interference. And the repack will potentially affect stations in every DMA, because as I said, we expect to repurpose channels 51 on down to an indeterminate point. Any station that is on one of the highest existing channels, in the high 40s, can expect to be repacked if they're subject to protection or displaced, and a displaced LPTV from one of those higher channels will have to find a displacement channel in a lower channel that remains in TV broadcasting.

Can you tell us more about this preserving vacant channels proceeding? In the incentive auction order last June, the commission recognized that following the incentive auction and repacking of the TV bands, there would likely be fewer unused TV channels available for use by unlicensed white space devices or wireless microphones. However, the commission anticipated that there would be at least one channel in the UHF band in all areas in the United States that is not assigned to a TV station in the repacking process. This is largely because of the interference need to space the channels in order to avoid interference. Given the importance of white space devices, and wireless microphones to businesses and consumers, the commission stated its intent, after additional notice and an opportunity for comment, to preserve one TV channel in each area of the United States for shared use by these unlicensed devices. In this upcoming proceeding, and as I've said the notice has been circulated by the chairman, the commission will follow through on this commitment and seek comment on various rules and policies to preserve vacant channels.

Question, under whose authority did the FCC lower LPTV status below white space and unlicensed devices? This issue, I think, raises a question that will be treated in the notice that's been circulated. The commission there will lay out what it believes to be its authority for preserving one vacant channel for unlicensed use, and as I've said, we will seek comment on those issues.

Do you think that by this summer, the FCC will give further guidance on its decision to allow digital channel 6 stations to broadcast on 87.7-megahertz? That is an issue that's teed up in our notice, and as I've said, we hope to have a notice -- we will do that as soon as practicable, but we will certainly answer that question before the auction along with the other questions in the notice.

Question, I didn't know there were analog replacement translators other than just plain translators. The replacement translator service came into effect as full power stations transitioned to digital, so how is it that future Digital Replacement Translators will be treated the same as analog replacement translators? The first generation of replacement translators were analog-to-digital Replacement Translators, as the questioner notes, they were issued in connection -- we refer to them sometimes as analog translators but they were to replace coverage that was lost if the transition from analog to digital that ended in 2009. I'll now mute and we'll be back shortly.

Well, folks, we're back with some more questions. I'll delve right into them. Bill, do you have an estimate as to when the pending petitions for reconsideration of the incentive auction order *will be decided*? We're working very diligently on those reconsideration petitions and they will certainly be decided in advance of the auction as

far in advance as we can, because we know that everyone wants to know what the ground rules are as far in advance of the auction as possible.

Question, is the ATSC 3.0 candidate standard is most likely to come out within the time period of the 39-month repack, when that happens, could LPTV then repack using that new standard? We have been watching the development of the ATSC 3.0 standard with great interest, and what we require is that the standard be settled on and brought to the commission, as you know, our rules currently require both full power and low power stations use the ATSC 1 standard. When that new standard is presented to the commission, the commission will, of course, fully consider any proposal to change the standard. In the meantime, we have granted a limited number of educational authorizations to use new standards, but if the standard is available and has been considered by the commission during the 39-month period, certainly it would be a possibility that that standard could be used in the repack of full power stations and/or by low power stations as they're being displaced.

Question, can you comment on the timetable for the related analog tuner NPRM? That actually is an issue in the same notice that we've been discussing, we have proposed -- asked whether we should abolish the analog tuner requirement, and it will be decided along with the other issues in this proceeding.

Question, will there be consideration for those LPTV stations who have only one or a couple of licenses versus others who have many in an area? No, but we do encourage applicants to find engineering students solutions and to work with one another in order to avoid any possible auction in an MX situation. This is something we've provided and we certainly hope that LPTV stations will take advantage of.

Question. Some LPTVs are primary EAS facilities. Will they be given any priority in the repack? This is an issue that is the subject of petitions for reconsideration as well as comments in this proceeding, and the commission will decide it in one or both of those contexts.

Question, many licensed LPTV stations have never really been built but are on paper only. Why does the FCC allow this practice? If it's brought to our attention that an LPTV station is no longer operating, we will investigate and cancel the license. If it's been silent for more than 12 months.

Question: In the past, there has been a pecking order, full power, LPTV, UHF relays, and each being able to displace. More importantly, the level of interference when setting a new or displaced channel, with that change in the post auction, and where will new users fit in this pecking order? This mainly applies to adjacent users. Will we be required to accept interference from new users and the reverse also true? We did not specifically propose in the LPTV rule making to change our technical interference rules, but we have received comments suggesting a number of changes of those rules, which we will, of course, consider.

Question: Will the commission entertain waiver applications, allowing the UHF LPTV stations to move to VHF channels prior to the auction? Answer, only if they're displaced and obtain a waiver of our freeze on displacements. As you know, we have frozen displacements and it would require a waiver of that freeze to allow such a move in advance of the auction. We'll mute again.

We're back. Next question is: For those LPTV stations around the country that are serving their communities, what will be the requirements or incentive for the new owners of the spectrum after the auction to serve those same communities? The commission -- answer, the commission adopted performance requirements for new wireless licensees in the incentive auction order. This is paragraph 763-782. And I hope it's clear from the LPTV notice that we do recognize and value the important contributions made by LPTV stations and translators. This is why we're attempting, through this notice, to find ways to ease and mitigate the impact on those stations and, in particular, on the viewers who depend on them. So we hope the LPTV community will continue to work with us to ease those impacts, including considering alternate program delivery methods in order to ensure that their communities don't lose important services.

Question. What is the use of the TV study software? Answer: The TV study software is software that has been proposed as part of the application of the OET69 methodology in order to do the repacking of the full power and Class A stations in connection with the auction.

Question: Some of the LPTV facilities already participated in an auction for their channel. What is the FCC's position on those of us that purchase their channel through that process? Will we be given any compensation or priority for the -- move and if so, what formula will the FCC use to make such compensation, or is this a taking without compensation? The answer is that those frequencies, where they were auctioned, were auctioned as a secondary service, and the commission, in connection with the auction, proposed to follow through with the secondary nature of those services and treat them as secondary in connection with the auction. I will briefly mute and we'll welcome any it further questions. I think we may have received just one or more, but if you have any further questions, send them in in the next few minutes.

>> We're back with a few more questions. Question: After the repacking of LPTV and translators are allowed to apply for new channels, how will the FCC decide or prioritize competing applications for a channel? We have teed had issue up in the notice and received a number of comments, some advocating various types of priorities, and we will obviously consider those comments carefully, and this issue will be decided when we issue our order in the LPTV proceeding.

Question: Since the FCC canceled the nationwide LPTV filing window several years ago, do you foresee that the FCC will ever open a new filing window after the auction and repacking is completed? Yes. We anticipate that we will open a window for new stations after the repacking process is completed and after the displacement window for it displaced LPTV and translator stations.

Question: Is there any possibility that those LPTV stations that survive in the larger markets will be given must carry on cable systems if they meet certain criteria? There are suggestions in the comments on this notice relating to Must Carry. That's an issue we will consider, but I will note that Must Carry is a statutory matter and we would have to consider whether the statute allows us to extend must carry to systems that don't currently have it.

Question. Often LPTVs enter long term contracts with land owners. Many do not have language in the contract to allow them out of it. Will the FCC provide league documentation for LPTVs to give to landlords explaining the license is canceled? Answer: There certainly will be documentation of the fact that a station has been displaced. The commission, of course, will not involve itself in private contractual disputes with land owners or other private entities.

Question: Many LPTV and TV translators use UHF channels as relays which are licensed as microwaves. How will these channels be affected in the repack? The answer is, they will be treated just like LPTV or TV translators. We'll mute one more time.

>> We're back with a few more questions. **One question is, could you elaborate on alternative program delivery methods?** What we're thinking of basically is everything that human ingenuity can think of to try to mitigate the impact of the auction on viewers who depend today on low power TV and translator stations. One obviously would be multi-casting on digital stations to fully exploit the capability of digital transmission to multi-cast. Another would be as we move to an ATSC 3.0 world, to take advantage of single frequency networks or other possibilities for using spectrum more efficiently with a new standard, or other delivery methods such as online delivery or whatever, I think we share with all of the licensees a desire to make sure that their viewers don't lose valuable programming and we're happy to work with licensees and encourage them to consider all the possibilities for making sure that the auction doesn't have any more serious impact than it needs to.

Question: Help us understand the FCC's desire to help preserve our service to local communities. Will this auction actually result in a fewer number of voices and ideas being exchanged in the United

States, will alternate delivery systems actually reach the heartland where many of our viewers live? I think that's the same question I just tried to answer. We hope very much that viewers in the heartland and elsewhere continue to receive the programming they need and want, and we will work with the low power community to try to ensure that that happens. And many of them may not be affected by the auction. In some areas where there may not be a shortage of spectrum, we hope the displacement process will enable stations to find new frequencies.

Question: In a crowded LPTV market during repacking, will any consideration be afforded to a channel that has been on the air for years versus a new station or CP, or to a channel running programming versus color bars? As to new stations and CPs, I think I've indicated that we will hold a displacement window before we open a window for new stations. So in that sense, the displacement -- displaced channels will be given priority. As to stations running -- programming, there are a number of proposals in the comments that we give priority on various bases, some of which are programming-related. The commission in the past has been very reluctant to make decisions based on the programming that a station is running, in part for First Amendment reasons, but of course we'll consider all the suggestions that we receive in the comments.

One last question on the same page I see here, how does Verizon's, the largest carrier, statement that they have all the spectrum they need affect the auction? We think that the demand in the forward auction is likely to be very substantial based on the AWS 3 auction that just closed, the prices that have prevailed in recent transactions. We watch with interest the statements that the various carriers and others may make and broadcasters as to their participation in the auction, but because this 600-megahertz auction is a commodity that will never come along again, we fully expect that the bidding in the auction will be substantial.

Question, what is the latest timetable on the auction? We expect to issue a decision on what we call the comment PN, comment public notice, within the next few months. That will establish the next layer of detailed rules for the auction. As I've indicated, we anticipate deciding the issues in the LPTV notice well in advance of the auction, and we are currently on schedule, we think, to hold the auction in early 2016.

Question: Will LPTV stations which are it displaced in a given urban area be able to move outside of that area? Will they be allowed to move to adjacent DMAs if they can be accommodated -- if they cannot be accommodated in the current DMA? The answer is yes, as long as they comply with the commission's displacement rules. Our rules do not prohibit moves from one DMA to another, however, we do limit moves to the not greater than 30 miles, and there must be contour overlap.

Question: How will low power broadcast TV stations who are multiplex be affected? The answer is, the same as others. There will be no priority for multiplex stations and they may be displaced, but as I've indicated, we very much encourage LPTV stations to fully exploit the capabilities of multi-casting in order to preserve their service after the auction.

Question. To follow up on the previously answered question, is the use of the TV study software now over with the completion of the constraint files, or is it worthwhile to become proficient with this software even now? Answer: No, it's not over. It will be used during the auction, and in connection with the repacking immediately after the auction and possibly beyond that, to process applications. It's an updated software for application of part of the OET 69 methodology. So it may be used to help to find new channel assignments in connection with LPTV displacements.

Question: Will any consideration or protection be provided for LPTV stations with big four network affiliation, in markets where high powered stations are limited to three. It if we lose this channel, this market will lose its CBS affiliate? The answer is, no, we will not give priority in that connection, we realize there are communities in willow powered stations are relied on today for major -- one of the four major network affiliations, and we hope that in one manner or another, those stations will preserve their capability to receive all of the major networks, but we do not plan to give priority to such stations in the displacement process.

Question: Does the FCC have both the budget and technical capabilities for running the promised optimization model now, before the auction, so we can see what the possible new channel assignments could be, or not. This is an issue that's raised in the comments, and we'll resolve that as we go forward. As to whether we'll use the optimization model, it's still being perfected. It will certainly be perfected, we hope, in time for the auction, but whether we would have the technical capability or we decide as a policy matter to release it before the auction is a question we haven't decided at this point.

>> Okay. We're back with the last couple of questions, and we've just put another slide on the screen reminding folks that after this webinar, which we're about to conclude, we welcome your questions and we've listed a number of individuals and their telephone numbers to whom you can send your questions after this webinar, and as the months go forward. The last couple of questions, one is just an FYI that multiple viewers are watching at the NRB convention. We want to thank those, give those a shout out, thank you. We're sorry for the overlap of this webinar with your convention, and we very much appreciate your taking time to sign on with us. And the last one looks more like a comment than a question. This has helped me understand the auction a little more. I understand that there are still many unknowns, but it helps to dispel some of the fallacies floating around out there. Well, we hope that this has been informative. This is not the last opportunity that anyone will have to ask questions, and we very much appreciate all of your signing on with us today. I look forward to being able to speak further with many of you at the NAB convention in Las Vegas, and as I've said, we welcome further interchange with you, your comments and your questions as we go forward. So thank you very much, and we will sign off. Thank you.