

General Comments Upon Future LPAM Rule Making:  
Regarding: A more feasible future coming plan idea for a LPAM Service:

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*"What can the FCC do -- and/or refrain from doing  
-- that will promote Broadcast Localism?" page 10*

From:Dannie Jackson  
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Dear FCC,

Hello, I do not wish to take up more than my allowed comment space in this matter though I have commented before. I do however want to show you that there is a much more economical and feasible approach to creating a workable LPAM Service though that has not been demonstrated in the current petition I have read to date.

Such things as letting science itself work to make the service feasible and manageable. And making the LPAM Service one that is self supporting in terms of the needed revenue for the Administration's needs from reasonable license fees, and other reasonable FCC services fees.

So combining the science of radio with the square area of the USA it is possible to define the maximum number of LPAM stations able to operate on a single frequency. And so I wish to make a comment about the number of stations possible, and the saturation point thereof. As well as the potential revenue which will be demonstrated in an example examination of desired number of stations and the resultant summed revenue per year for the Administration. The petition demonstrates a potential of three quarters of a million dollars per year from the LPAM Service ranks as the Commission's revenue if followed as described, or based upon FCC devised ideas similar as that described.

The section of comments made in this text is from a future Rule Making Petition draft in the works now. And so, to demonstrate a more feasible LPAM Service with many of the bugs and logistics worked out in the foundation of it's creation I give you those comments regarding some demographics and statistics for review as you consider Rule Making of any kind at this moment. And it is hoped that FCC rather decides to wait and hear from a better Rule Making Petition we hope to have ready in the coming year. And so here are some comments from the draft of a future petition for consideration at his time.

Regarding this future petition. I am writing this as a member for the LPAM Group at Yahoo on behalf of all. I am not certain who may come to file this, myself or the group owner? However I am writing all of the draft.

Sincerely  
Daniel Jackson

## **A. The Working Potential Demographics:**

**Looking at the theoretical maximum number of 10 watt RMS LPAM Stations possible per channel nationwide:**

*To define the number of broadcasting coverage areas possible, in which since this is a low powered service, the statistics for numbers of possible stations by land area available, are inconceivable and can never be realized. But for examination of the amount of room available we will look at the improbable possibility. Then look at the most likely conceivable number of stations possible. Wherein a desired service revenue will be contained.*

The following statistics are based upon **the LPAM broadcast area of coverage being a 4 mile radius with a marginal area**, the fringe area, extending out to the 6 mile radius point. The radius then for defining the fringe area leads to a minimal distance between LPAM stations operating on the same frequency to be no closer than **12 miles apart**.

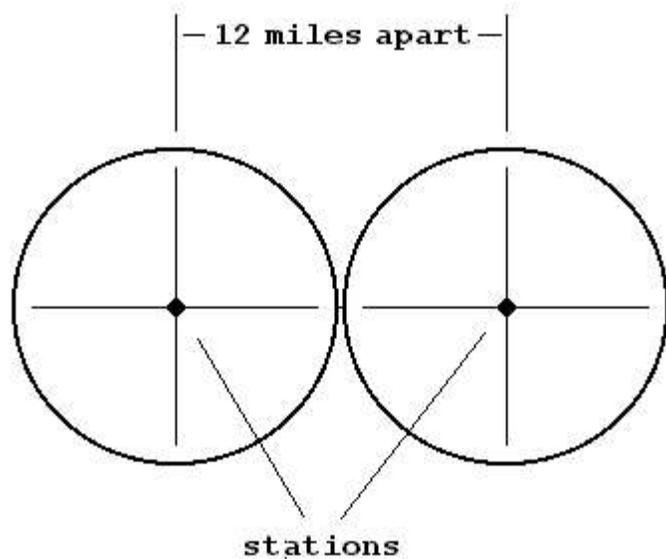
**Note: The USA = 3.79 million square miles (9.83 million km<sup>2</sup>) and with over 300 million people, U.S. Average Population Density 80.7 individuals / square mile more or less in some states.**

These previous square area statistics include areas covered by water and areas not inhabitable. Refinements and adjustments to these statistics can be made based upon removal of areas where people can not live, from the overall land area mass in square miles. Which would be a minor percentage statistical correction.

**The square area of coverage or circular area of the LPAM Stations having a fringe area 6 mile radius (where stations are no closer than 12 miles apart) is 113 square miles per station.**

**3,790,000 square miles USA / 113 square miles = 33,539.823 LPAM stations per channel.**

33,539.823 LPAM stations then is the saturation point per each channel. Now keep in mind we are proposing 9 channels in a future Rule Making petition where each channel is 10 kHz apart. And so the number of possible stations then is approximately 9 times the above single channel figure. 33539.823 LPAM Stations is highly unlikely to ever exist however. So, we will look at something more realistic which is 12,500 stations in time. And this many stations would not constitute a saturation point where radio interference would be unmanageable. We will look at the 12,500 stations herein later and note, that this is for the total number spread out over 9 channels.



The circles define a broadcast area  
of a 6 mile radius to the fringe area

**Now the nine proposed channels are situated from 1620 kHz to 1700 kHz. To be used by 12,500 LPAM stations nationwide. For this study we have not included statistics on the high powered stations in this band segment which the FCC has statistics on.**

Urban and Rural (country) region stations should be set for a station license fee of \$225.00.

Metropolitan areas where the population density is in excess of 2000 per square mile. Should be considered as the region in which a cap or ceiling occurs to control the numbers of applicants, as an inbuilt measure for controlling co channel interference in those denser areas. Along with other inbuilt measures to auto regulate problems before they are created. The licensing fee in these areas is set then to be \$550.00

*A possible recommendation to consider employing to further control the applicants in even more dense populations as suggested below:*

*Where the population density is in excess of 5000 per square mile, the licensing fee is set to be \$750.00*

*This would further aid the revenue income potential to the Administration of the service, above that which is demonstrated in the section "Service Revenue Applications" herein.*

In denser populations the average income level is statistically higher. And the numbers of interest that can contribute to aiding an individual with obtaining a license is more likely. The license fees above of \$550 and \$750 for the respective areas are not unreasonable then for the statistics of the denser regions.

## **Service Revenue Applications**

### **1. LPAM Community Funding Applications:**

*This section provides mathematical examples of revenue figures for consideration in this service. Demonstrating how to grow the service to the point of generating a FCC LPAM Administrative Service Revenue income of three quarters of a million dollars per year from the 8 year licensing cycles. Where the revenue herein is based upon the level of growth to 12,500 stations nationwide, distributed over 9 channels. Where this review herein demonstrates a potential figure in the arena of time of \$5,750,000 per 8 year term at \$718,750 per year revenue income. Which represents the 8 year minimum potential for any 8 year Continued Service term.*

However there are some additional matters for further revenue growth potential herein to make this interesting with even more income than the above figure (\$718,750 per year revenue income). In fact double the above after the ideal level of stations is reached. Which comes from the fees and other services the LPAM stations request. After the service has had time to grow a little. Demonstrating how to offset tax payer cost, etc via fees and other services Administered through the LPAM station ranks. And so, become economical and profitable in terms of FCC revenue needs for this service.

**This section is for review of the potential uses and possibilities for growth of the LPAM service. By revenue support of the service from the ranks of the LPAM Service. Via reasonable and justifiable means in terms of required fees for the Administration services of the FCC.**

Application processing fees for example would include such things as modifications to stations via filing an application and the necessary processing and support fees. This is a review then of the potential in terms of what sort of fees are required for the service and it's support on the Administrative end for it's services. Wherein the Administration herein means the FCC branch in charge of this service. Herein we look at the economy of the service.

The main demographical view for this service lies in the view of how that the service is based upon a low power radio broadcast class of operation which is specified as being 10 watts RMS carrier. And this means that in this scenario, numerous stations in...

time can come into being and more so than could be possible if the Regional Band segment were only for use by high powered stations.

High powered stations hence limit the numbers of stations of their type that can use the band. The numbers of low powered stations that can use the band hence are vast in comparison and so more of these class of stations can share the band segment.

The potential for growth then of the the LPAM Service is substantial over time. Allowing for more stations use than would other wise be possible. By virtue that the low specified station power level means; more stations closer together in any region, can use the band without great competition for coverage area and channel spacings. And do so, more so than higher powered stations. However, charging the small stations an application fee compatible to that of higher powered stations would not serve the service and hence limit the numbers of stations. And in turn make the revenue generating potential for the servicing of the service by the Administration uneconomical. The economy's of the service is not served.

### **Spectrum Economy:**

*Keep in mind the factors below as you consider the potential for the numbers of stations that can come into being. The statistics below in this section are based upon perceived likelihood of services desired to be used as mentioned with those less likely to be used numerically smaller in comparison.*

Keep in mind that this is a low powered service and has the potential to allow a vast number of stations to come into the spectrum who will only be covering about a **radius of 4 miles on average (6 mile fringe)** and not have to suffer much in terms of the distance between stations and hence numbers. The square area of broadcast coverage for the station being estimated on the average radius of 4 miles is 50.26 square miles (**excluding the fringe area**) and so, this is a fine square area of coverage for a radius of up to 4 miles. Defining the effective circular square area of coverage. **The fringe area to 6 miles defines a square area of 113 miles.**

*The demographics however are for stations no closer than 12 miles apart operating on the same frequency and this is most advisable to minimize interference and resolution conflicts.*

To make the economics feasible, the stations are given means whereby they in the field can examine problems in their region and make self determinations on how that they can resolve those problems. Which is how the proposed Rules of this service are devised in this Rule Making proposal this text comes from. And hence file an application for station modifications with the required fee. And in this manner the FCC does not need a special staff of technicians or other personnel to investigate and to handle complaints in the field. At least not so much initially. Growth of the service would then bring in the revenue for expansion of the service at the Administrative end in due time.

In addition the only thing that this service needs to begin with is not a new FCC office but new forms for use by the existing offices that currently handle broadcast licensing applications. And existing software at the FCC can be used to file and record the data. Ponder then there, how this service can start there with existing offices and personnel as a side lite operation at first, since the initial license applications at first will be few. Yet as this service grows in coming years, the revenue coming into the Administration from the applicant ranks in the service, will be capable of supporting the FCC in handling the service.

**The following mathematical expressions of revenue examples can result in the FCC making slight changes in the fees to better serve the needs of the service.**

However we will look at the potential of an application fee of \$225.00. And for reasons of looking at the needs of an 8 year period between filing for license renewal we will then say we have 8000 stations who come into being across the nation somewheres in the period after the first 8 years of this service. And so this is just for review purposes to examine the potentials. Leaving it up to the Internet and word of mouth, and such interest as broadcasters, and call in listeners on the Shortwave radio stations, to advertise this service for the needs of this service and thus help it to grow. And well as you know talk of this will spread through the amateur radio ranks like wild fire, so it's potential for becoming wide spread is great.

**Now lets look at those 8000 stations. With an application filing fee of \$225.00:**

**$\$225 * 8000 \text{ stations} = \$1,800,000.00 \text{ revenue per } 8 \text{ year period}$**

Now let us say that as many as half of these stations come from metro areas of a population density of 2000 individuals or more. And that in those areas the FCC decides it wants to enact a ceiling to limit the channel sharing and time sharing conflicts. And so, those stations there are required to file a application fee of \$550.00. **This then means that half are for \$225.00 application fee requirement and the other half of the 8000 are for \$550.00.**

$\$550 * 4000 = \$2,200,000.00$

$\$225 * 4000 = \$900,000$

Summed: As Total Revenue From These Stations.

**$\$2,200,000 + \$900,000 = \$3,100,000.00 / 8 \text{ year period}$**

Here now, we will look at the potential for revenue to the service where half of the above stations decide to file for a antenna modification and pay the precessing fee thereof which is \$50.00. Borrowing upon as mentioned above: "To make the economics feasible, the stations are given means whereby they in the field can examine problems in their region and make self determinations on how that they can resolve those problems."

And so they labor out the problem and the FCC does not have to labor it out, only process the modification request application and authorize the modification. Time per application in terms of FCC in house labor let's say averages out to 20 minutes per station modification application processed.

For 1/2 the stations:

$$\$50 * 4000 = \$200,000.00$$

Summed: As Total Revenue From These Stations.

License Application Fees + Antenna Modification Fees

$$\mathbf{\$3,100,000.00 + \$200,000.00 = \$3,300,000.00 / 8 \text{ year period}}$$

So far at this point we have a average of **\$412,500.00 per year revenue income** to the Administration, for the 8 years licensing period based upon these 8000 stations. So this at this point is nearly one half a million dollars per year FCC revenue income.

$$\mathbf{\$3,300,000.00 / 8 \text{ years} = \$412,500.00 / \text{year}}$$

**Well what other potential services are associated with this proposed LPAM Service?**

The provision of "LPAM Channel Segment Data" as mentioned in I : A: LPAM Service General Rules Section, Rule 6: (in future petition draft)

This is a \$50 data sheet of as many simple pages that detail the high powered stations in the Regional Mediumwave Band segment of 1620 to 1700 kHz across the nation with a page on the stations in the state of the applicant wherein the station is to be located. Which anyone may obtain as current up to date data. And so the public can obtain this to look in the band and utilize this in a channel search.

Let us say then that 1/4 of the above stations used this service:

$$\$50 * 2000 = \$100,000.00$$

Summed: As Total Revenue From These Stations.

$$\mathbf{\$3,300,000.00 + \$100,000.00 = \$3,400,000.00 / 8 \text{ year period}}$$

**A useful \$35 a year application to this service is for stations to be able to use any antenna they want which is authorized in this service, borrowing on existing Mediumwave Band Class III Stations use of directional antennas. And they may want to do this to compensate for daylight versus night time conditions. And this ...**

**application is for a reasonable fee of \$35 a year. And can be payed yearly or for two or more years in advance however they choose. (This excludes use of more efficient antennas only meant for mountain terrain areas.)**

We will say then that 1/8 of the station do this.

$$\$35 * 8 \text{ years} = \$280$$

$$\$280 * 1000 \text{ stations} = \$280,000.00$$

Summed: As Total Revenue From These Stations.

$$\$3,400,000.00 + \$280,000.00 = \$3,680,000.00 / 8 \text{ year period}$$

In addition the FCC can think of some reasonable fines for serious violations which are not serious enough to warrant revocation of a license but require Administrative action to enforce the rules and to make the stations act with responsibility and value their stations existence. This review will not theoretically include any FCC fines since this petition does not define FCC fines which are the FCC's department to figure herein.

It would be advantageous to consider what is the amount of stations the FCC would like to see in the service and how to further grow the potentials?

**To further revenue income: Let us first average out then the average cost per station in a spread out manner for their participation in this service for 8 years and then apply that to as many as 250 stations per state irrespective of the size of states, for some will have more stations and some less as time goes by.**

$$\$3,680,000.00 / 8000 \text{ stations} = \$460 \text{ per station} / 8 \text{ year term of license}$$

Applying the number of stations per state, knowing small states such as Hawaii will not have this many, and larger states may come to have more in time.

$$250 \text{ stations} * 50 \text{ states} = 12,500 \text{ stations}$$

$$12,500 \text{ stations} * \$460 = \$5,750,000 / \text{average 8 year period of Continued Service}$$

$$\$5,750,000 / 8 \text{ years} = \$718,750 \text{ per year revenue}$$

*"At this level of station growth over time the yearly revenue then is nearly three quarters of a million dollars per year."*

## **2. Further Revenue Potential: Greater Than The \$5,750,000 / 8 year period**

*Herein this section the following notions will help to increase the revenue ....*

*potential further if the FCC will entertain the notion of allowing stations to grow in regards to their potential and needs. In making it possible for stations to stay on the air for a long period of time. And making it feasible and desirable for them to want to renew their license again. And hence making possible a further increase in the revenue potential. First the idea, and then we will look at the feasibility and how to make it so. We want to make the service attractive to the licensed stations and for them to want to make it a continued service.*

We will here raise a fee and show how the stations can be able to afford it.

\* If the first obtained license is a First Time Start Up License we will officially call a "New LPAM Station License." And the second 8 years term is for a "Continued Service License." Where the second license is raised from \$225 to \$300 for locations of population density of under 2000 / square mile. And the metro ceiling area license fee is raised from \$550 to \$690 in areas over 2000 / square mile. And hence every term after the second term that a station renews it will be for a Continued Service License. Where the license fee is based upon metro or non metro areas for good reasons.

This is predicated upon the FCC not specifying the content of the stations other than the stations may not violate obscenity rules. They may carry alternative non mainstream media networks. Without having to edit the audio feeds just like the big stations do. Which means that commercial content has to be allowed in order for the stations to survive. And for the revenue to increase. And for the service to be made attractive for the stations to want to remain in service many more terms.

Now, as a furtherance of the cause of the service and it's revenue needs. And the potential of the growth of resources from this service. There should be a technician class license created for this service which is for the use of the stations to appoint whom they feel is competent to run the station in stations that are on the air daily, and reliably and even round the clock with nighttime broadcast.

So a LPAM Technician License for a term of 4 years for \$50 is advised. Thus those whom the station owner wishes to aid them in the running of the station and watching the operations and transmitter will have to obtain this license to do so. The station can then elect those competent or hire those competent.

So the 8 years term has a source for \$100 coming in from every technician in the service who stays in it over that 8 years period. And these technicians may be among those ranks who decide to build stations of their own. Getting a taste and flavor. Some technicians in as early as one year working with a station may decide to go out then and start their own station.

Using this outline, the FCC can further look at the economic figures and what they can do. And for this to exist, it is all predicated upon the service allowing for commercial content. The revenue potentials herein devised and any other the FCC may devise, have to have a means to make the revenue feasible. And that can only become so

by helping the stations in the service grow on their end of the service; by profiting a little from local commercial content and airing non mainstream media networks off the Internet etc.

The idea of having a LPAM Technician License will help those folk such as electronics techs and ham radio operators who will be among the first station owners. To bring in folk who are serious. If they get a license they are somewhat serious. Being a License holder then will be a matter of pride. And they will learn the ropes and hence be somewhat trained and enlightened individuals to go out and start stations of their own. And so, this will serve the needs of the service and the further revenue needs of the Administration.\$5,750,000

A LPAM Technician License is a matter that makes the whole service seem somewhat a serious manner in the public perception. And actually the service is a serious matter that the station owners can not take lightly. The Rules, Regulations, as well as fines, and even the matter of license revocations are all serious matters. As well are the public domain airwaves and the station owner's public domain conduct.

The perception of seriousness must be kept up in the ranks. And so requiring a LPAM Technician License will serve to make the service further regulated through the ranks.

I want to close this text, with the thought that the FCC can ponder the figures and better manipulate them based upon the data the FCC has and tweak or modify them. And this is some of the views that we hope to make available in a future study contrived into a Rule Making petition which will hopefully be ready in the coming up years year.

**"What can the FCC do -- and/or refrain from doing -- that will promote Broadcast Localism?"**

**The number one thing to make the revenue of the LPAM Service feasible for the FCC, is to make the service attractive to the people who would want to run stations. If licensing and other fees are considered to run the service the LPAM Service has to be built upon the idea of not disallowing commercial content so that the stations can derive a little revenue thereby. There is no other way to make such a plan as demonstrated herein, feasible. If the stations can not compete in the market place and along with the market place of ideas. Then there is no profit in it for them or the FCC. There would be no benefit for anyone involved.**

**The future coming proposal for rules, exclude high powered stations and major mainstream media networks from having a license for a LPAM Station.**

Daniel Jackson

