

## **“Grandfathering” Of Existing Class D Stations**

26. We support keeping all “grandfathered” Class D stations on the air. We also support giving each of these stations the option of converting its current license to an LPRS license, with priority over all competing applications for the use of their frequency.

During 20 years of growing domination of radio by Big Business and Big Government, these “grandfathered” stations have remained beacons of hope, opportunity and independent thought. America would be foolish indeed to toss them aside now.

### **Special Case-By-Case Adjustments**

27. In cases where the normal signal range is shown to be substantially diminished by topography, man-made structures and/or other factors beyond a licensee’s control, such licensees (and/or license

applicants) should be able to obtain an adjustment of the wattage and elevation limits that normally apply to stations in their Tier.

Any such adjustments should be limited to the facts of each particular case AND based upon a clear preponderance of the evidence. IN ADDITION, any such adjustments should not exceed the level needed to bring a station to parity with the Protected Contour available to other stations in the same Low Power Tier.

### **Possibility of Self-Regulation Organizations For LPRS Stations**

28. It is our understanding that certain other groups and/or individuals in the Low Power Radio movement may propose establishment of one or more self-regulation organizations for LPRS stations. Under this concept, the FCC would allow stations to join such a self-regulation

organization. Thereafter, in some areas, the station would be regulated by its peers.

To their credit, the advocates of this concept envision a totally VOLUNTARY arrangement.

So long as the arrangement REMAINS totally voluntary, we do not object to it. Still, we are concerned that the FCC might MANDATE participation for the sake of administrative convenience.

Should that be the choice, most of us in Amherst would choose NO self-regulation over MANDATORY self-regulation.

We reserve the right to change our minds on this matter in future years, as our broadcaster Members gain more experience with the actual working environment of an LPRS industry. For now, however, there are TWO MAJOR REASONS why most Amherst broadcasters would prefer to avoid being part of a self-regulation organization.

In DESCENDING order of priority:

(A) The aspiring broadcasters in our ranks tend to be entrepreneurial and individualistic. They recognize the need for regulation of radio, particularly on matters of spectrum allocation, but within the limits of the public interest they seek the maximum reasonable operating autonomy.

Future Amherst broadcasters fear that self-regulation groups could easily grow an ADDITIONAL layer of regulation instead of an ALTERNATIVE layer of regulation. At least for now, they want ONE regulator -- and they want it to be the FCC.

(B) The Low Power Radio movement encompasses diverse ideological AND operational territory. On the Left, we have "anti-profit, all-volunteer collectives". On the Right, we have people seeking Class A licenses under another name, presumably to avoid mandatory auctions -- or at least narrow the number of eligible bidders.

THE AMHERST ALLIANCE straddles the Center of the movement.

Like our peers on the Left, we want to keep LPRS stations "community-sized". We see no need for, and in fact we see great harm from, allowing LP-1000 stations into major urban areas. Also, we ADAMANTLY oppose allowing any LP-1000 to "bump" any LP-100 or any LP-10, anywhere.

Like our peers on the Right, we consider it imperative to allow the airing of commercials (although, as noted earlier, we are willing to air them as "non-profits" if necessary).

We feel we hold a "middle ground" where the needs of the larger society AND the ambitions of individuals can BOTH be served. We like it here.

Unfortunately, putting ALL of the LPRS broadcasters into a SINGLE organization might involve too much mixing of oil and water.

Speaking bluntly, we believe there is room for -- and perhaps even a need for -- having SOME "anti-profit, all-volunteer radio collectives" on the air. However, with all due respect to our comrades, we do NOT want to see Marxists overseeing the programming content of entrepreneurs.

Nor do we wish to be yoked together with LP-1000 station owners who would like to have our Amherst stations for dinner.

Looking Left AND Right, we prefer the Center.

IN LIGHT OF THESE CONCERNS, we have the following requests to the Commission:

- (i) Please do not establish self-regulation regulation organizations unless Membership in them is COMPLETELY voluntary.
- (ii) If Membership IS made mandatory, in spite of our recommendation to the contrary, please allow us a CHOICE by chartering MULTIPLE organizations. One possible dividing line would be "commercial-airing stations" versus "commercial-free", perhaps with LP-1000s in a world of their own.

- (iii) In any case, please do not give ANY such organization control over programming content OR internal station management.

### **Possible Conversion Of TV Channel 6**

29. The FCC was wise to raise this option. However, because this is a NEW AND COMPLEX possibility, we do not advocate it at this time. Our biggest reservation about IMMEDIATE action is the concern that inclusion of Channel 6 conversion could slow down the entire LPRS rulemaking.

However, we agree with the Commission that there may be merit in the concept. We advise the FCC to consider the conversion of TV Channel 6 as part of any Proposed Rule, and/or Notice of Inquiry, regarding Digitalization Implementation. This is one of several ways through which the FCC could avoid -- or at least reduce the scope of -- station elimination via Digitalization.

## **Possible Implementation Of Digitalization**

30. Whether the FCC ultimately chooses IBOC Digitalization, Eureka-147 Digitalization or NO Digitalization at all, the FCC should be careful not to displace the LPRS stations it has just put on the air. As ONE precaution, the FCC should not issue a PROPOSED rule to implement Digitalization until it knows the details of a FINAL Rule on LPRS.

We incorporate, by reference, our December 22, 1998 Written Comments and our February 12, 1999 Corrective Supplemental Comments in Docket RM-9395.

## **Development of DIGITAL Low Power Radio**

31. We know that, during the first decade of the 21<sup>st</sup> century, Digitalization may begin to render analog stations obsolete - or even extinct.

We hope that the Commission will adopt relaxed

channel spacing requirements, and consider the possible conversion of TV Channel 6, as ways to reduce the degree of disruption for LPRS stations.

Nevertheless, we also realize there are things WE must do as well. One of them is development of DIGITAL Low Power Radio.

We hereby put the Commission on notice that the Low Power Radio community in general, and THE AMHERST ALLIANCE in particular, are committed to pursuing this option. We do not know how far we can progress, without outside help, but we have STARTED the journey toward this goal.

### **The Possibility of Light Wave Broadcasting**

32. Some Amherst activists have recently begun to explore the potential of LIGHT WAVE BROADCASTING, on infrared frequencies, as a Low Power Radio technology for the 21<sup>st</sup> century.

Among other forums, light wave broadcasting has been discussed in QST: the ARRL magazine.

We refer the FCC to "The Micrometer Bands" by Emil Pocock, W3EP, in the May 1999 department, "The World Above 50 MHz". (See pages 78 and 79.)

We are not "sold" on light wave broadcasting, but we ARE intrigued.

Of course, many potential obstacles can be identified. They include conducting Research, Development and Demonstration (RD&D); assuring affordability; perhaps developing more portable equipment; and addressing the need (at least at present) for special receiving equipment.

On The Other Hand, the frequencies involved are "wide open" and unregulated: a true frontier!!

Further, at least with respect to the INITIAL RD&D projects, RD&D costs seem to be within the reach of everyday Americans who band together (for example, in a class or a club on a college campus).

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In any event, before THIS century is out, we wish to notify the FCC that we have an interest in light wave broadcasting. To the extent we can, we claim "first dibs" on the 10 micrometers wavelength (aka the 30 Terahertz frequency).

Eric Pocock's QST article suggests that infrared communications, at a wavelength of about 10 micrometers, may be quite effective because there is little absorption of the signal by water vapor and carbon monoxide in the atmosphere. At this wavelength, the signal loss is less than 0.1 dB per kilometer of signal path. Across most of the infrared band, signal losses are much higher.

### **Placement of "Non-Commercial" LPRS Stations On The FM Band**

33. We do not believe "non-commercial" LPRS stations should be limited to one small corner of the FM Band. Such a limitation is NOT consistent

with the programming and ownership diversity that this Proposed Rule is striving to encourage.

### **The Continuing Importance Of Constitutional Issues**

34. The FCC should bear in mind that the current ban on LOW POWER RADIO -- that is, the ban on new licenses for stations broadcasting at 100 watts or less -- has generated Constitutional controversy. Don Schellhardt, Nick Leggett and Judith Fielder Leggett -- the RM-9208 Petitioners -- have asserted on the FCC record that the ban violates the FOURTEENTH Amendment to the U.S. Constitution ("equal protection of the laws").

THE AMHERST ALLIANCE shares this assessment.

Also, the National Lawyers' Guild Committee for Democratic Communications, and others, have asserted the ban violates the FIRST Amendment ("freedom of speech").

With these assertions clearly on the record at the FCC, Constitutionally grounded lawsuits are a possibility IF the Commission's final regulations do not establish a meaningful Low Power Radio Service that offers everyday Americans a real opportunity for access to the airwaves.

35. The Constitutionality of MANDATORY AUCTIONS, under the FOURTEENTH Amendment, has ALSO been challenged on the record. This claim has been made in Docket RM-9208 filings by Don Schellhardt, Nick Leggett and Judith Fielder Leggett. Filings by others have seconded this assertion.

THE AMHERST ALLIANCE seconds it now.

We urge the Commission to urge Congress to repeal the mandatory auctions language that was placed on the statute books in 1996. Pending repeal, the FCC should avoid imposing auctions in every case where the statute allows it to do so.

## **THANK YOU, FCC**

All of us in THE AMHERST ALLIANCE recognize that the Commission's Proposed Rule is A Giant Step forward -- and, with current political conditions, a genuine Profile In Courage.

We thank the Commission for taking this historic step.

## **CONCLUSIONS**

For the reasons set forth herein, we urge the FCC to adopt the recommendations of THE AMHERST ALLIANCE regarding the Proposed Rule, in Docket MM 99-25 (aka RM-9208 & RM-9242), to create the LPRS.

Respectfully submitted,



Don Schellhardt

National Coordinator,  
THE AMHERST ALLIANCE

For THE AMHERST ALLIANCE

Capistrano@earthlink.net

203/591-9177

45 Bracewood Road  
Waterbury, CT 06706

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## **APPENDIX A:**

### *SPECIAL BACKGROUND INFORMATION ON LP-1000s, LP-100s & LP-10s*

The geography and demography of America is EXTREMELY diverse. The FCC needs to take this factor into account as it sets wattage and elevation ceilings for the Tiers of the proposed Low Power Radio Service.

An LP-1000 station, for example, serves a broadcast coverage area of roughly 250 square miles. (8.9 miles of Protected Contour squared is 79.2 square miles, and then 72.9 times *pi*, or 3.14, is 249.7 square miles -- which we will "round off" to 250)

In a statistically typical part of Alaska, 250 square miles means -- 250 people. (250 times Alaska's average population density of 1 person per square mile)

In New York City, by contrast, 250 square miles means a potential audience of 5,748,000 people -- NOT counting commuters. (250 times New York City's average population density of 22,700 persons per square mile)

In accordance with the laws of mathematics, the same pattern applies with respect to smaller stations, although the numbers at both ends are lower. For example, an LP-100 station covers 38 square miles: 38 people in statistically typical Alaska and 836,000 people in New York City.

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For LP-10s, with a 2-mile Protected Contour, the coverage area is 13 square miles -- and the contrast is 13 people versus 286,000 people. Even a 1-watt station, with a 50-foot tower and a Protected Contour of .6 miles, could reach 26,000 people in New York City.

PLEASE NOTE THAT OUR BROADCAST COVERAGE AREA ESTIMATES ARE BASED ON THE "BOTTOM LINE" PROTECTED CONTOURS.

We recognize that normal signal ranges can be substantially diminished by man-made structures, topography and/or other factors beyond the control of an LPRS licensee.

Thus, for example, when we refer to an "LP-10", we mean a station with 10 watts and a 100-foot tower OR whatever ALTERNATIVE COMBINATION of wattage and height will produce a Protected Contour of 2 miles.

In any case, a flat standard for each Tier -- a standard which is blind to geography -- will produce "micro audiences" (if not SUB-ATOMIC audiences) in central Utah or the Alaskan interior, while producing truly enormous audiences in the largest metropolitan areas.

There are times when, as William Blake observed: "One law for the lion and the lamb is oppression."

That is, admittedly, an overstatement in this context. Geographically uniform wattage and height limits may not constitute "oppression" -- BUT they ARE less than fully equitable.

Flat ceilings perpetuate the marketplace bias toward siting large stations in large metropolitan areas -- while small cities and rural areas are under-served. If the prospect of higher AUDIENCE SHARES in such areas can be coupled simultaneously with higher wattage and elevation ceilings, as a full or partial offset to the lower population density, then the current "urban tilt" in the radio industry can be eased -- or even reversed. A number of Low Power broadcasters might then be drawn away from major urban areas to America's smaller cities and towns.

Ironically, URBAN NEIGHBORHOODS will also benefit from this trend. If more aspiring LPRS station owners are drawn to small cities and rural areas, there will be LESS COMPETITION FOR LPRS LICENSES IN THE CITY. Urban neighborhood-oriented stations cannot relocate unless their neighborhoods do -- BUT they can still reap the benefits of a more rational pattern of radio resources in America.

Of course, the number and vitality of urban neighborhood stations will ALSO depend GREATLY upon whether the FCC: (a) establishes and licenses a Tier of LP-10 stations; (b) protects LP-10s from "bumping"; (c) licenses both AM and FM LP-10s; AND (d) opens the LP-10 Tier to part-time operations.

Various methods could be used to "fine tune" Tiers for geography. FOR EXAMPLE, LP-1000 stations should be limited to areas where their potential audience will not exceed 250,000 people. (This means areas -- such as the City of Jacksonville -- where the population density is at or below 1,000 people per square mile.)

AS ANOTHER OPTION, spectrum scarcity could be used as a criterion: for example, LP-1000s could be limited to areas where Primary Service stations occupy less than 80% of the available spectrum.

ALTERNATIVELY, the FCC could simply ban LP-1000s from the top 50 media markets (though this standard may be less precise than others).

The specific mechanism is less important than the overall goals of the policy, which are:

- (1) Preventing the "unjust enrichment" of LP-1000 station owners, at the DIRECT expense of aspiring (but displaced) LP-100 and LP-10 station owners, in large metropolitan areas;

AND

- (2) Shifting the emphasis from UNIFORM WATTAGE AND ELEVATION CEILINGS to A MORE UNIFORM RANGE OF POTENTIAL AUDIENCES -- thereby giving the market a reason to increase the number of Low Power stations in small cities and rural areas, while easing the level of competition over licenses in or near large urban areas.

For more information on the interaction of Protected Contours with population density, please see Appendices B, C and D.

THE AMHERST ALLIANCE  
DJS/djs  
3/19/99

## **APPENDIX B:**

### **POTENTIAL RESIDENTIAL AUDIENCES**

#### **IN THE 50 LARGEST U.S.A. CITIES**

(Ranked In Order Of  
Population Density)

LP-10 Broadcast Coverage Area: 13 square miles  
LP-100 Broadcast Coverage Area: 38 square miles  
LP-1000 Broadcast Coverage Area: 250 square miles

*See NOTES At The Bottom Of This Chart*

#### **1. NEW YORK CITY**

22,700 people/square mile (sm)

LP-10: 286,000

LP-100: 836,000

LP-1000: 5,478,000

#### **2. SAN FRANCISCO**

15,700/sm

LP-10: 204,000

LP-100: 596,000

LP-1000: Entire city (724,000)  
PLUS 202 square miles of surrounding area

3. BOSTON & CHICAGO (Tie)  
12,200/sm

LP-10: 158,000

LP-100: 464,000

LP-1000: (Boston) Entire city (574,000)  
PLUS 203 square miles of surrounding area

LP-1000: (Chicago) Entire city (2,784,000)  
PLUS 32 square miles of surrounding area

5. PHILADELPHIA  
11,700/sm

LP-10: 152,000

LP-100: 445,000

LP-1000: Entire city (1,586,000)  
PLUS 124 square miles of surrounding area

6. MIAMI  
10,600/sm

LP-10: 138,000

LP-100: Entire city (359,000)  
PLUS 4 square miles of surrounding area

LP-1000: Entire city (359,000)  
PLUS 214 square miles of surrounding area

7. BALTIMORE  
9,200/sm

LP-10: 120,000

LP-100: 350,000

LP-1000: Entire city (736,000)  
PLUS 170 square miles of surrounding area

8. WASHINGTON, DC  
8,900/sm

LP-10: 116,000

LP-100: 338,000

LP-1000: Entire city (607,000)  
PLUS 182 square miles of surrounding area

9. LONG BEACH (California)  
8,600/sm

LP-10: 112,000

LP-100: 327,000

LP-1000: Entire city (429,000)  
PLUS 200 square miles of surrounding area

10. BUFFALO  
8,000/sm

LP-10: 104,000

LP-100: 304,000

LP-1000: Entire city (328,000)  
PLUS 211 square miles of surrounding area

11. LOS ANGELES  
7,500/sm

LP-10: 98,000

LP-100: 285,000

LP-1000: 1,868,000

12. DETROIT  
7,200/sm

LP-10: 94,000

LP-100: 274,000

LP-1000: Entire city (1,028,000)  
PLUS 107 square miles of surrounding area

13. OAKLAND (California)  
6,900/sm

LP-10: 90,000

LP-100: 262,000

LP-1000: Entire city (372,000)  
PLUS 196 square miles of surrounding area

14. PITTSBURGH  
6,600/sm

LP-10: 86,000

LP-100: 251,000

LP-1000: Entire city (376,000)  
PLUS 195 square miles of surrounding area

15. MILWAUKEE & ST. LOUIS (Tie)  
6,500/sm

LP-10: 85,000

LP-100: 247,000

LP-1000: (St. Louis) Entire city (397,000)  
PLUS 189 square miles of surrounding area

LP-1000: (Milwaukee) Entire city (628,000)  
PLUS 154 square miles of surrounding area

17. CLEVELAND  
6,400/sm

LP-10: 83,000

LP-100: 243,000

LP-1000: Entire city (506,000)  
PLUS 171 square miles of surrounding area

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18. MINNEAPOLIS

6,200/sm

LP-10: 81,000

LP-100: 236,000

LP-1000: Entire city (368,000)  
PLUS 191 square miles of surrounding area

19. CINCINNATI

4,700/sm

LP-10: 61,000

LP-100: 179,000

LP-1000: Entire city (364,000)  
PLUS 172 square miles of surrounding area

20. SAN JOSE

4,300/sm

LP-10: 56,000

LP-100: 163,000

LP-1000: Entire city (782,000)  
PLUS 69 square miles of surrounding area

21. AUSTIN & TOLEDO (Tie)  
4,000/sm

LP-10: 52,000

LP-100: 152,000

LP-1000: (Toledo) Entire city (333,000)  
PLUS 156 square miles of surrounding area

LP-1000: (Austin) Entire city (466,000)  
PLUS 134 square miles of surrounding area

23. SACRAMENTO  
3,800/sm

LP-10: 49,000

LP-100: 144,000

LP-1000: Entire city (369,000)  
PLUS 152 square miles of surrounding area

24. FRESNO & SEATTLE (Tie)  
3,600/sm

LP-10: 47,000

LP-100: 137,000

LP-1000: (Fresno) Entire city (354,000)  
PLUS 151 square miles of surrounding area

LP-1000: (Seattle) Entire city (516,000)  
PLUS 105 square miles of surrounding area

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26. SAN DIEGO  
3,400/sm

LP-10: 44,000

LP-100: 129,000

LP-1000: 847,000

27. PORTLAND (Oregon)  
3,200/sm

LP-10: 42,000

LP-100: 122,000

LP-1000: Entire city (437,000)  
PLUS 112 square miles of surrounding area

28. COLUMBUS (Ohio) & OMAHA (Tie)  
3,100/sm

LP-10: 40,000

LP-100: 118,000

LP-1000: (Omaha) Entire city (336,000)  
PLUS 143 square miles of surrounding area

LP-1000: (Columbus) Entire city (633,000)  
PLUS 47 square miles of surrounding area