

II. LPFM ATTACKS CONSOLIDATION

The National Association of Broadcasters (“NAB”) opposes the *NPRM*, and begins its criticisms with the subject it knows best, consolidation.³ NAB challenges the FCC’s axiomatic justification for LPFM, that subsequent to the Telecommunications Act of 1996, increased consolidation has threatened small broadcasters and potential new entrants.⁴ NAB argues, “Roughly half of the stations in the top markets...remain in ownership patterns that were *permissible* under the Commission’s pre-1992 rules and *thus have not* been affected by consolidation.”⁵ NAB further notes that “there continue to be numerous independent voices in all radio markets.”⁶ However, the fact that consolidation may be permissible under older (albeit relatively more stringent) FCC rules does not preclude the fact that consolidation has increased to levels of clear and present danger. Furthermore, a mere salvage stock of independent voices does not negate the imperative of LPFM.

Consolidation has, among other things, inflated prices and squelched diversity. In comments by George Washington University (“GW”), the President notes that “[w]hen WDCU-FM in Washington, D.C. became available last year, GW expressed interest but could not afford the final \$10,000,000 selling price.”⁷ GW may not have required the large transmitting power of WDCU, but like many universities, it had no choice—while the NCE band

³ Comments of the National Association of Broadcasters in MM Docket 99-25, filed August 2, 1999 at 4-8 (hereinafter *NAB Comments*).

⁴ *Id.* at 3. NAB fails to discuss the politically-unsafe, yet critical issue of threatened minority participation—a touchstone of the FCC’s LPFM rhetoric.

⁵ *Id.* at 4-5 (emphasis added).

⁶ *Id.* at 5.

⁷ Comments of The George Washington University in MM Docket 99-25, filed July 30, 1999 at 2 (hereinafter *GW Comments*).

is free of market controls (hence, congested by grandfathers), the commercial band is conglomerated to the point of unreasonable market prices.

Consolidation also squelches diversity. NAB examines diversity through the lens of “formats,” which can mean “adult contemporary” music versus “cyberpunk” music, for example. NAB asserts that “consolidation has lead [sic] to more diverse service to the public, not less as the Commission hypothesized,”⁸ noting that the average number of general formats in all 268 Arbitron-surveyed markets increased from 9.7 to 10.0 over two years, in line with consolidation itself.⁹ Not only is this a weak refutation to consolidation’s ills, but it also overlooks the broader artistic trend of music cross-overs. Style is not as easily compartmentalized into limited categories as it used to be, and mere increases in formats do not convince of diversity.

KWUR is an example of a place that wreaks havoc with “formats.” KWUR has no format. Opera can lead straight into punk. That is the spirit of diversified expression, and academic freedom. So clearly, there is more to diversity than formats. Diversity also inheres in the local character of LPFM. The FCC has fought hard to require delivery of local media. In *Turner Broadcasting System, Inc. v. FCC*,¹⁰ the Supreme Court affirmed that Turner—a heavyweight conglomerate by any measure—had to carry local broadcasting content over its cable television infrastructure. The Court applied intermediate scrutiny to the FCC regulation as a content-neutral restriction, justified by a strong national interest in, among other things, diversification that includes local programming. Although distinguishable in the radio context,

⁸ *NAB Comments* at i.

⁹ Mark R. Fratrick, *Format Availability After Consolidation*, *Attachment B, NAB Comments* at 5. NAB also conducted a “Specific Format Analysis” and an “Adjusted Format Analysis” that both incorporated “mixed formats,” but those results worked less favorably toward NAB’s argument. *Id.* at 7-10.

¹⁰ 520 U.S. 180, 117 S.Ct. 1174, 137 L.Ed.2d 369 (1997).

LPFM stations bear that same national interest in local responsiveness. “Local” does not succeed merely when the national reduces to the metropolitan—within cities, larger numbers of smaller stations do serve the public interest better than the growing conglomerates that melt our neighborhoods into one ball of wax.

As a corollary to the issue of conglomeration and its effects on diversity, many commenters claim that recent technological growth in outlets for expression (i.e., Web-casting, cable radio, satellite radio, etc.) takes the wind out of LPFM.¹¹ The FCC has disposed of the argument, noting that these emergent broadband pipelines are “not sufficiently mobile.”¹² NAB attacks the mobility argument, arguing that “LPFM service areas would be too small to be useful to mobile listeners” anyway.¹³ While this may be true as to commuters, mobility itself means more than car stereos. Mobility is a Walkman during a walk, a radio in a lounge, a boombox in a courtyard, or a headset in a library. None of these activities can happen when tethered to a broadband medium like the Internet. Furthermore, actual usage of Web-casting is far overestimated. NAB cites an Arbitron finding, that “the proportion of those online who *have* listened to radio stations over the Internet has jumped from 18% to 27%.”¹⁴ In reality, surfers may “have” once tuned in, or they may even occasion Web-casts, but NAB cannot show that Web-casting is even remotely analogous to wireless radio in practice and function.

¹¹ See, e.g., Comments of the Southern California Broadcasters Association, Inc. in MM Docket No. 99-25, filed August 2, 1999 at 6 (hereinafter *SCBA Comments*) (“listening alternatives range from record numbers of broadcast radio stations to cable radio and near-term inauguration of satellite digital radio service, to webcasting and other audio distribution over the internet”).

¹² *NPRM* at para. 12.

¹³ *NAB Comments* at 8.

¹⁴ *Id.* at 9 (citing PIERRE BOUVARD & LARRY ROSIN, THE ARBITRON COMPANY, RADIO AND E-COMMERCE: INTERNET LISTENING STUDY II (1999) (also at <<http://www.arbitron.com/studies1.htm>>)) (emphasis added).

III. INTERFERENCE IS A NEGLIGIBLE, JUSTIFIABLE RISK

A. LPFM

Many commenters argue at length that stringent second and third adjacent channel interference restrictions must be maintained against LPFM stations. On the other hand, proponents of LPFM argue that elimination of these restrictions is necessary to implement LPFM, and is justified by advances in modern receiver technology that do a better job of rejecting interference from nearby frequencies. NAB, however, insists that “interference will result because receivers have not *universally* improved in the area of interference rejection.”¹⁵ National Religious Broadcasters (“NRB”) notes that even today’s “portable radios, clock radios, and personal ‘Walkman’ radios are considerably less able to handle and reject interfering signals than are automobile and home stereo receivers.”¹⁶ In essence, the arguments run *in spite of* the improvements in receiver technology (improvements that themselves outdate the existing interference protections),¹⁷ imposing an ethic of “universal service” for radio that finds small

¹⁵ *Id.* at 10 (emphasis added).

¹⁶ Comments of National Religious Broadcasters in MM Docket No. 99-25, filed August 2, 1999 at 3 (hereinafter *NRB Comments*). See also Comments of The Consumer Electronics Manufacturers Association in MM Docket No. 99-25, filed August 2, 1999 at 9 (hereinafter *CEMA Comments*) (breaking down FM receiver type sales in 1998, but failing to provide any more comprehensive user base data than, “[t]he total FM receivers in use in the United States totals [sic] 710 million”).

¹⁷ See Second and Third Adjacent Channel Interference Study of FM Broadcast Receivers, *Interim Report*, Project TRB-99-3, Laboratory Division, Technical Research Branch, Office of Engineering and Technology, Federal Communications Commission (July 19, 1999) (hereinafter *Interim Report*).

Section 73.215 of the Commission’s rules provides that the predicted field strength of a potentially interfering station can be no more than 40 dB stronger than the protected field strength along a station’s protected contour. At the 3% distortion level all the receivers in the sample, except for two (samples #2 & #6), appear to meet or exceed the 40 dB second adjacent channel protection criterion and to exceed the 40 dB third adjacent channel protection criterion by a substantial margin. For the third adjacent channel, that

company in FCC precedent. While Congress has given special attention to the national interest of achieving 100-percent local telephone service (through continuous and controversial revision of Title II), it has not demonstrated an according puritanical commitment to radio access. NAB cites the past liberalization and ensuing congestion of AM to warn of history repeating itself on the FM band,¹⁸ but that is just the point: the FCC had assessed the popularization and higher fidelity of FM radio as a modern alternative, and decided to sacrifice quality on the AM band *within that emergent context*. NAB's confidence in recent alternatives to traditional broadcasting can turn on itself, because if FM isn't the only game in town now, it needn't be held to the stringent standards once imposed in radio days. Even if FM were to become as congested as AM is now,¹⁹ it is within the FCC's right (through our demonstrated public pressure) to rethink FM's place in society as less of a mass commercial interchange, and more of a public interest commodity (with—yes—even lower standards of concentric coverage and signal-to-noise ratio).

In another incarnation of the “universal service” argument, NRB adds that “economically disadvantaged listeners would suffer the loss of quality FM radio service without having the means to buy their way out of the problem.”²⁰ In other words, NRB believes that low-income people necessarily have inferior FM receivers, while failing to statistically prove that low-

margin was similar for most of the receivers at the noise limited desired signal level and at the 60 dBu contour.

Id. at 25. Although NAB conducted its own study, the only prominent outside source that it cites is “Stereo Review” and its annual “Buyer’s Guide,” a relatively non-technical consumer circular. *See NAB Comments* at 16.

¹⁸ “[I]t was the result of decisions by the Commission itself that the AM band became so congested, and we fear that the Commission is making the same mistake in the FM band by proposing the LPFM service.” *Id.* at 15.

¹⁹ Note, however, that AM is congested with high-power stations generally. LPFM does not pose such a threat because it is, after all, a low-power proposal relative to a majority of high-power FM incumbents (e.g., Class B stations).

²⁰ *NRB Comments* at 4.

income people spend substantially less on their equipment (overlooking the consumer marketing demographics that suggest otherwise). Moreover, NRB erroneously assumes an entitlement to some level of “quality.” In any case, new technology often requires upgrade from every level, regardless. For example, by a certain rapidly approaching deadline, free broadcast reception will continue only if consumers purchase either a digital television set, or a set top box to feed digital broadcasts into their existing televisions. In effect, the government is eradicating traditional VHF/UHF television in favor of a new technology, oblivious to consumer purchasing power.²¹ LPFM is a much fairer scenario. Rather than phasing out an older equipment set, it merely imposes a negligible threat to the existing FM band in favor of an increase in channels.²² This is, ironically, most important to the low-income Americans themselves (often minorities), who have lost their representation on the FM band due to commercial consolidation, as discussed above. NRB, in support of its truer evangelistic mission, might have better noted an endangerment to religious broadcasting in this same context—the *NPRM*, NRB should note, is suspiciously silent on the need for more outlets for religious broadcasters.²³ In fact, NRB member Kenneth W. Bowles, taking the opposite position to NRB, commented that, in Missouri cities nearby KWUR (Rolla, Cuba and Washington), “the Christian contemporary music format is no longer heard

²¹ Note, too, that rather than requiring DTV licensees to use their allotment for one high-definition station, the FCC permits multiple relatively low-resolution stations within the same allotment as an alternative, suggesting a strong appreciation for choice and diversity on the part of both industry and government. Since video and audio performance are clearly analogous concepts, the FCC’s DTV action justifies LPFM, in the sense that the highest technology available is traded off for lower definition, yet more channels.

²² The “threat” is cured, *if necessary*, by simply purchasing a higher-technology FM tuner, which costs much less than the proposed DTV set top box, by analogy.

²³ See *NPRM* at paras. 10-14 (“III.A. The Need for Low Power Radio Service”). Perhaps the FCC is still begrudging its landslide loss in *Lutheran Church-Missouri Synod v. FCC*, 141 F.3d 344 (D.C.Cir. 1998) (vacating the FCC’s broadcast EEO rules).

because the station carrying the format was sold to an ownership holding the licenses of several stations who changed the format.”²⁴

B. IBOC

In the *NPRM*, the FCC tentatively concluded that LPFM will not affect the rollout of IBOC, or digital radio service. On July 19, 1999, the FCC’s Office of Engineering and Technology widely published an *Interim Report* addressing that concern. Citing USA Digital Radio Partners, L.P. (“USADR”)—the original petitioners for an IBOC rulemaking—the *Interim Report* notes:

With regard to second adjacent channel interference, USADR states that an analog second adjacent interferer will have a negligible effect on the performance of the digital signal, and that the interference effects of second adjacent channel IBOC signals to FM signals should also be negligible. Regarding third adjacent channel interference, USADR states that digital reception is essentially not susceptible to third adjacent channel interference, nor is IBOC likely to increase the potential for causing such interference to analog stations.²⁵

NAB later admonished the FCC as having “no basis from which to determine how the digital transition will be affected because it has not started a proceeding to establish IBOC rules, nor obtained any test results from IBOC proponents.”²⁶ In its comments filed August 2, 1999, NAB goes on to say, “Merely assuming there will be no problem without verifying the truth is

²⁴ Comments of Kenneth W. Bowles in MM Docket No. 99-25, filed July 16, 1999 at 1. Mr. Bowles continues, “Local organizations interested in purchasing stations to restore removed formats have not been successful because of the cost of existing stations and the lack of new channels under the current interference regulations.” *Id.*

²⁵ *Interim Report* at 3.

²⁶ *NAB Comments* at 10.

the essence of arbitrary and capricious decisionmaking.”²⁷ In fact, the *Interim Report* was widely distributed several weeks earlier, reporting a substantial amount of engineering research and responding directly to the *NPRM*. Therefore, NAB’s gross oversight (or, fallout from its strategic last-minute filing) is our real example of arbitrary and capricious practice.

Legitimate concern remains, however, from the like of CEMA, who fears that “the future development of terrestrial digital audio radio would be unduly limited by the addition of numerous new facilities operating on the FM band.”²⁸ To whatever extent this may be true, the fact remains that the public will empower the FCC to favor LPFM’s clear virtues over the uncertain promise of digital radio, which is years away and marginally-at-best competitive with broadband-grounded media.²⁹

IV. FARMING AND ENFORCING

The most common misperception of LPFM is that it will reward radio pirates. The Southern California Broadcasters Association, Inc. (“SCBA”) believes that “the Commission’s [*NPRM*] may be perceived as being partial toward pirate radio supporters.”³⁰ Indeed, several commenters have advocated amnesty for known pirates who would continue their operations albeit finally compliant under the new LPFM regime.³¹

²⁷ *Id.*

²⁸ *CEMA Comments* at 6.

²⁹ SCBA tries to invoke section 7 of the Communications Act of 1934 (“it is the policy of the United States to encourage the provision of new technologies and services to the public”), see *SCBA Comments* at 19, but such an expansive directive cannot possibly *require* a preference for IBOC over LPFM (even granting such a dilemma).

³⁰ *Id.* at 5.

³¹ For NAB’s unsurprising reaction, see *NAB Comments* at 74.

However, pirate radio must not be confused with LPFM, as they raise distinct and independent concerns.³² Thinking within the FCC’s own bureaucratic structure, it is clear that pirate radio is an *enforcement* issue,³³ whereas LPFM is a *policy* issue.³⁴ The public is fully able to grasp the difference between breaking laws, and writing new ones.

But according to many commenters, the new ones are bound to be broken anyway. So much so, in fact, that NAB calls LPFM “impossible to carry out,” and “a job that only can be done by the Commission, and not any other entity.”³⁵ However, NAB oversimplifies the regulatory process as between, once again, enforcement and policy. Enforcement is not a significant administrative burden here. If the stylish rhetoric of late (even at the FCC) is that the market will take care of itself, then the notion of the FCC as an airwaves cop is silly—the FCC needn’t hunt for violations, because any radio station is vested in protecting its sphere, hence ready to rat on violators who overstep these regulatory bounds.³⁶ In addition, the larger portion of complaints about interference can continue to be swayed from government burden by a practice well known to other areas of law: settlement.³⁷

³² KWUR has no comment on the concern of pirate radio. KWUR has been duly licensed since its inception.

³³ This is within the subject matter of the FCC Compliance and Information Bureau.

³⁴ This is within the subject matter of the FCC Mass Media Bureau, Policy and Rules Division.

³⁵ *NAB Comments* at iii. Even more facetiously, SCBA comments that the FCC has greatly “diminished its ability to carry out its initial role of the ‘policeman’ of the airwaves. Plainly, the FCC does not have the budget or the personnel to handle all these tasks.” *SCBA Comments* at 22.

³⁶ This fact brings to mind the tempting proposals by classical liberals that the FCC release its radio jurisdiction to individual common law tort suits over channel property—not a far leap from the already entrenched yet nebulous concept of intellectual property.

³⁷ Settlement would be motivated not only by the variant stakes of license revocation, but moreso the major fear of FCC forfeiture authority, which operates more independently of

The administrative burden of licensing, however, will be significant. SCBA notes, “The agency costs of the Commission licensing these facilities would be enormous.”³⁸ As true as that may be, SCBA need only count the extraordinary number of supportive comments submitted in this docket. The public has shown a passionate enthusiasm for regulatory reform, and more spending (though probably not “enormous”) would be no more surprising than the day-to-day spin of appropriations in Washington, D.C.’s federal machinery. Indeed, launching LPFM may give better value for the tax dollar than bridging the trendy “digital divide,” while reaching greater heights of diversity and education than e-surfing offers.

KWUR believes that mutually exclusive applications should be resolved, if possible, by deferring to (1) educational institutions first, then (2) noncommercial entities generally, then (3) unconsolidated commercial broadcasters,³⁹ and lastly (4) conglomerates. A primary context of academic freedom benefits not only the community surrounding an educational institution, but also the education of participating students. GW notes, “Noncommercial operators, unburdened by the profit imperative, are more likely to offer programming different from what is broadcast by existing stations.”⁴⁰ This is even truer for schools, which by nature bear a rich cross section of local community and emergent culture. KGLX at Webster University (mere miles from KWUR) pledges that its “goal is to provide a solid academic foundation for students training to

selective “deep pockets” prosecution (i.e., violations are potentially charged against large and small broadcasters alike).

³⁸ *SCBA Comments* at 5.

³⁹ In this context, “unconsolidated” refers to ownership of no more than one station nationwide—a higher threshold than metropolitan area limits, yet justified for LPFM feasibility.

⁴⁰ *GW Comments* at 3. “Noncommercial operators should be favored over commercial operators.” *Id.* KWUR opposes, however, GW’s suggestion that low-power licensees must demonstrate financial viability, *id.* at 3. Many (if not most) universities in the United States do not have the high-tuition general fund of GW at their disposal, and even so, it is often a renegade

enter the field of communications.”⁴¹ As between mutually exclusive applications of educational institutions, KWUR disagrees with GW’s suggestion for auctioning.⁴² Congress’ exemption for noncommercial broadcasters from mandatory auctioning was deliberate, following serious policy rationale. There are better reasons to favor a rival school than mere financial viability, because quality and diversity do not necessarily vest in deep pockets. Mass media prove that the opposite is usually true.

V. CONCLUSION

If the glass were half empty in this millennial shift of technology, then low-power broadcasters would compromise in light of new technologies and outlets for expression. But the glass is half full. FM was never perfected, in neither sense of regulation nor technology. It can be refined, reprioritized, even rethought. The prevailing idea that small broadcasters should abandon the radio dial for digital pipelines is an arrogant position: small broadcasters believe, and have believed, that the proper place for big broadcasters is broadband. If the airwaves are a public trust, then commercial enterprise has its own infrastructure to build, whether by land, air or space. FM is exhausted, and multimedia is nearly a commercial expectation. Yet, the demand for responsive broadcasting and individual expression is unchanging. This paradigm shift confronts the elderly limitations of the FM band in a new millennium where new bands are imminent anyway. LPFM is a homecoming. This *NPRM* has our full support.

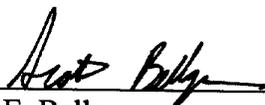
battle to secure funding from school administrators. A license-in-hand convinces of funding much more than explication of licensing criteria.

⁴¹ Comments of Georgette Bronfman, General Manager, KGLX, Webster University School of Communications in MM Docket No. 99-25, filed August 2, 1999 at 1.

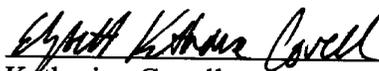
⁴² See *GW Comments* at 4.

Respectfully submitted,

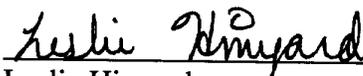
KWUR Clayton 90.3 FM <<http://kwur.wustl.edu>>



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ATTACHMENT A

PROPOSAL FOR UNIVERSITY SUPPORT OF KWUR 90.3 FM WATTAGE INCREASE

(Note: This is an old proposal dating from Fall 1995 that serves to demonstrate the still-fresh value of, and enthusiasm for, an approved power upgrade. It was an internal campus effort motivated by the possibility of waiver from a Class D limitation of 10 watts. Some of the statistical information is slightly outdated. For further detail about KWUR presently, visit its highly rated Web site at <<http://kwur.wustl.edu>>.)

**PROPOSAL FOR UNIVERSITY SUPPORT OF
KWUR 90.3 FM WATTAGE INCREASE**

CE 499
Fall 1995

Peter Keusch
Professor Slattery

EXECUTIVE SUMMARY

Washington University's student run radio station, KWUR 90.3 FM, has been in operation on the campus for almost 20 years at a power of 10 Watts. Students and St. Louis community listeners often express regret that they can't tune in to the station because its signal is too weak.

A wattage increase would benefit Washington University, KWUR, and the surrounding community greatly. Washington University is currently at a disadvantage when competing for students with other Universities having more powerful radio stations. KWUR would gain thousands more listeners, and the community would benefit from KWUR's diverse broadcast programming.

This proposal contains a plan to increase KWUR's power to 99 Watts. The plan is easy to execute, and the entire project will be funded from KWUR's operating budget, granted from Student Union. The purpose of this proposal is to acquire the University Administration's approval and support of a KWUR wattage increase.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	<u>Problem statement - KWUR's Wattage is Too Low</u>	1
1.2	<u>Purpose of Proposal - To obtain Authorization to Increase KWUR's Wattage</u>	1
1.3	<u>Scope of Proposal</u>	2
1.4	<u>Plan of Discussion</u>	2
2.0	BENEFITS	2
2.1	<u>Benefits to Washington University</u>	3
2.1.1	A New Level of University Competition	3
2.1.2	Increased Alumni Benefits	4
2.1.3	Wash U Will Gain Respect in the St. Louis Music Community	4
2.1.4	Wash U Bands Will Have Greater Exposure	5
2.2	<u>Benefits to KWUR</u>	5
2.2.1	Increased Listeners	5
2.2.2	Increased Underwriting Income	6
2.2.3	Increased Staff Interest	6
2.2.4	Increased Pledge Money Intake	6
2.2.5	Increased Quality of Broadcasting	6
2.3	<u>Benefits to the Community</u>	7
2.3.1	Benefit of KWUR's Diverse Programming	7
2.3.2	Benefit to Present Listeners	8
3.0	THE WATTAGE INCREASE - THE 90 WATT PLAN	9
3.1	<u>The 90 Watt Plan</u>	9
3.1.1	Attaining the University's Approval	9
3.1.2	FCC Waivers and application	9
3.1.3	Equipment Requirements	10
3.1.4	Installation and Calibration	10
3.2	<u>The 90 Watt Plan Budget</u>	10
3.3	<u>The 90 Watt Plan Timetable</u>	11
4.0	CONCLUSION AND RECOMMENDATION	12
5.0	REFERENCES	13
	APPENDIX A - MAPS OF KWUR BROADCASTING AREA	A-1
	APPENDIX B - SIGNED KWUR WATTAGE PETITIONS	B-1

LIST OF ILLUSTRATIONS

FIGURES

Figure 1.	Schedule of 90 Watt Plan Execution	11
Figure A-1.	KWUR's Present 10 Watt Coverage	A-2
Figure A-2.	KWUR's 90 Watt Coverage	A-3

TABLES

Table 1.	How Washington University Compares With Respect to Wattage	4
Table 2.	The 90 Watt Plan Tiny Budget	11

1.0 INTRODUCTION

Washington University's student run radio station, KWUR 90.3 FM, has been in operation on campus for almost 20 years, playing the newest in rock, jazz, blues, reggae, rap, dance, classical, international, folk, gothic, industrial, ambient, and experimental music. Over 125 students and alumni dedicate their time and energy to keep the station on the air 24 hours a day, 7 days a week during the school year, and 14 hours a day during the summer. KWUR is a non-commercial educational Class D station broadcasting at a power of 10 Watts. At this power level, the station is only able to provide its radio service to people within 5 miles of the transmitter located atop Shepley Dorm on the South 40. A map of the present KWUR broadcast area is included in Appendix A. Students and St. Louis community listeners often express regret that they can't tune in to the station because its signal is too weak.

1.1 Problem Statement - KWUR's Wattage is Too Low

KWUR's Class D status allows it to operate with no more than a 10 Watt radiating power. For the past 19 years, KWUR has been providing quality programming, yet the signal only provides a maximum 5 mile radius of coverage. Some of the listeners who are fortunate enough to receive KWUR get a weak interference-ridden signal. An increase in power is necessary because KWUR's 10 Watt signal is inadequate.

1.2 Purpose of Proposal - To obtain Authorization to Increase KWUR's Wattage

This proposal has three purposes:

- To list and describe the many benefits of increasing KWUR's wattage.
- To present a simple and inexpensive wattage increase plan.
- To attain the University's permission to increase wattage.

1.3 Scope of Proposal

According to law, Class D stations, like KWUR, must limit their broadcast power to 10 Watts maximum. To obtain a higher power, stations must become Class A which allows a minimum of 100 Watts. KWUR cannot attain Class A status on frequency 90.3 FM because its transmitter is within the service area of neighboring station KWMU, 90.7 FM. In October 1995, KWUR hired Evans Associates Communication Engineers to perform a full band FM frequency search to determine if there was a frequency, acceptable for Class A assignment, available for KWUR's relocation. The results of the search were negative, but Evans Associates suggested another possible plan, to remain at 90.3 FM and to request that the FCC waive the Class D 10 Watt limitation rule. Recently, the FCC granted a waiver of this rule to WCYC, a 10 Watt station in Chicago. This precedent makes it likely that a waiver will be granted to KWUR as well.

This proposal provides the details of the plan to increase KWUR's power to 99 Watts. The resulting broadcast area is shown in Figure A-2, and would offer coverage of the entire St. Louis metropolitan area.

1.4 Plan of Discussion

This report begins with a discussion of the needs for a KWUR wattage increase. It lists benefits to the University in section 2.1, to KWUR in 2.2, and to the St. Louis Community in 2.3. Section 3 provides a reasonably inexpensive plan for an increase to 99 Watts. Section 4 is a summary and recommendation to support KWUR's wattage increase plan.

2.0 BENEFITS

Increasing KWUR's wattage will benefit the University, KWUR, and the surrounding St. Louis community.

2.1 Benefits to Washington University

Washington University will benefit from a KWUR wattage increase in four ways:

- The University will be better able to offer incentives to prospective students interested in pursuing an interest in radio or communications studies.
- A greater number of Washington University alumni will be able to keep up with their alma mater.
- Washington University will gain respect in the St. Louis music community.
- Washington University student and alumni musical groups will have greater exposure.

2.1.1 A New Level of University Competition

Washington University is one of the most prestigious universities in the country competing with the Ivy League and other high quality schools. The wattage increase would enhance the appeal of Washington University. As shown in Table 1, Washington University radio cannot compare to its competition in radio broadcast power. KWUR's present signal does not even cover the entire city it serves. In order to compete, the Washington University Administration must be supportive of KWUR and recognize it as an asset to the University and surrounding community.

School	Station	Frequency	Wattage
Rice	KTRU	91.7	50,000
Princeton	WPRB	103.3	30,000
Vanderbilt	WRVU	91.1	14,500
Northwestern	WNUR	89.3	7,200
NYU	WNYU	89.1	4,200
Harvard	WHRB	95.3	3,000
Yale	WYBC	94.3	1,200
Duke	WXDU	88.7	1,000
Rochester	WRUR	88.5	1,000
Stanford	KZSU	90.1	500
Michigan	WCBN	88.3	200
U. of Chicago	WHPK	88.5	100
Carnegie Mellon	WRCT	88.3	100
Washington	KWUR	90.3	10
Emory	WMRE	530AM	0*
Johns Hopkins	WHSR	530AM	0*

(* - Carrier Current, signal hook up is similar to that of cable TV)

Table 1. How Washington University Compares With Respect to Wattage

2.1.2 Increased Alumni Benefits

Of Washington University's 91,919 alumni, 31,858, approximately 35% live and work in the St. Louis area, according to the 1995 Washington University Facts Brochure. The wattage increase will triple KWUR's broadcasting radius, stretching solid coverage over the city from the Mississippi River to I-270. Thousands more alumni will be able to tune in to weekly broadcasts of Washington University Bears games. In addition, spring 1996 will mark the beginning of weekly Assembly Series broadcasts which are of interest to alumni in the area as well as the entire community.

I still don't like this wording

2.1.3 Washington University Will Gain Respect in the St. Louis Music Community

KWUR is highly respected in St. Louis for its alternative programming. Local residents turn to KWUR for the latest music and band interviews. Music professionals in the industry depend on KWUR's support and exposure of their music. KWUR is already a respected voice in the community, starting music trends and promoting local and national

reflects (implied)
acts. KWUR's reputation is reflected directly onto the University who can boast of the 125+ students who run the station. The wattage increase will increase recognition of KWUR and Washington University as a prevalent force in St. Louis Music Culture.

2.1.4 Washington University Bands Will Have Greater Exposure

At present, Washington University claims over 15 bands comprised of students and alumni. One of the most popular events on campus is the annual battle of the bands. KWUR gives special attention to Washington University bands, emphasizing their recordings as well as broadcasting live interviews and performances. KWUR encourages Washington University students in their musical endeavors such as live performance, composition, and appreciation. A larger audience will increase the exposure of these bands, giving them a push in the music world.

2.2 Benefits to KWUR

KWUR will benefit most from the wattage increase in the following ways:

- A larger audience
- Increased underwriting income
- Greater staff interest
- Increased monetary gifts
- Better quality of broadcasting

2.2.1 Increased Listeners

The most important benefit of the wattage increase is simply the increase in listeners. KWUR is a business with one aim, to provide its service to as many people as possible. Thousands of people who never received the signal can now tune in to KWUR. People who already receive KWUR will get a clearer signal with less interference, and will likely tune in more often.

2.2.2 Increased Underwriting Income

Since KWUR is a non-commercial educational station, it cannot put paid advertisements on the air. However, it is legal for businesses to sponsor programs in the form of underwriting. At present, KWUR receives minimal income from underwriting, under \$50 a semester, because businesses are reluctant to sponsor programs on a station that does not cover the entire city. The wattage increase will enable more people access to KWUR making it more profitable for businesses to sponsor programs. This additional revenue will assist KWUR with operations and station maintenance.

2.2.3 Increased Staff Interest

Although staff interest in KWUR is already high, the entire KWUR staff is working towards the wattage increase. The responsibilities of each staff member will be of greater importance with an increased wattage. Interest in KWUR will expand on campus resulting in an increased number of applications for limited DJ positions. The quality of shows on KWUR will be enhanced by increased competition among DJs.

2.2.4 Increased Pledge Money Intake

Every year KWUR has an annual fundraising event, KWUR Week. During this week, the station solicits donations from its listeners and promotes nightly on-campus performances of national and local bands. Each year, KWUR week brings about \$1000 of donations into the station. The larger listener base will increase both donations and attendance at KWUR sponsored performances. Predicted gifts would increase \$1000-\$2000 dollars. The profits from KWUR week go to local charities as well as station maintenance and operation.

2.2.5 Increased Quality of Broadcasting

The wattage increase will benefit the quality of KWUR broadcasting by attracting better DJs, promoting more music, and airing more band interviews. The wattage increase will raise student interest in disc jockeying. The resulting competition for DJ spots will allow KWUR to be more selective and hire only the most qualified DJs.

There are many record labels that do not presently send their music releases to KWUR due to its 10 Watt output. Greater power will assist KWUR in attaining more music from independent labels across the country. In addition, the larger audience will encourage more bands to visit KWUR for on-air interviews and performances.

2.3 Benefits to the Community

The surrounding St. Louis community will also benefit from a power increase for KWUR.

- Thousands more people receive KWUR and benefit from its diverse programming.
- Present listeners will be able to receive a clearer signal.

2.3.1 Benefit of KWUR's Diverse Programming

KWUR's diverse programming offers something to everyone; music lovers, sports fans, and people interested in local music tune in on a regular basis. KWUR's mission is to provide programming that can't be heard anywhere else on St. Louis radio. It plays the most recent underground bands on independent labels, the latest in experimental artistic music, and the hippest of famous bands on big labels. KWUR prides itself on this diversity, providing alternative shows in every genre of music. KWUR 90.3 FM is the place to tune to hear and learn more about music and not hear the same songs repeated every hour. People involved with the music scene use KWUR as a barometer of what's 'cool' in music. However, KWUR is also for anyone interested in listening to and learning about music unavailable on commercial stations.

Community listeners will benefit from the future broadcasting of Washington University Assembly Series. Every week, the community will be exposed to the motivational, thought provoking, and analytical commentaries of the public figures who visit the campus.

Sports fans tune in to live broadcasts of Washington University Bears football, basketball, and volleyball games.

Local music fans enjoy KWUR's local music shows and frequent band interviews. Hourly broadcasts of the concert calendar keep all listeners informed about upcoming performances.

2.3.2 Benefit to Present Listeners

The listeners presently within the KWUR broadcast area will also benefit from the increased power of the KWUR signal. Tuning in to KWUR is sometimes difficult because the signal is weak and easily affected by interference. KWUR receives weekly complaints that our signal is too weak. The stronger signal will block out interference from other signals around the city, improving the reception. Listeners will not be scared away by obnoxious fuzz and will listen more.

3.0 THE WATTAGE INCREASE - THE 99 WATT PLAN

There is only one possible way for KWUR to increase its wattage: FCC waivers.

3.1 The 99 Watt Plan

The 99 Watt plan is simple. KWUR must first attain the University's approval for the wattage increase. Then, KWUR will ask the FCC for two rule waivers and apply for a new license to operate at 99 Watts. When the license is approved, KWUR will purchase the equipment necessary for the upgrade and hire a professional engineer to help install and calibrate the equipment.

3.1.1 Attaining the University's Approval

The first part of the 99 Watt plan is already underway--you have it in your hand. This proposal has outlined the many benefits of the wattage increase to the University, KWUR, and the St. Louis community. KWUR is an asset to the city of St. Louis as a whole and should be enhanced. We will begin implementation as soon as this plan is approved.

3.1.2 FCC Waivers and Application

KWUR will request the FCC to grant two waivers, (1) Section 73.506 Paragraph (a), the 10 Watt limitation to Class D stations, and (2) Section 73.509, which prevents a station from taking interference on its own signal. A precedent was set when the FCC waived these rules for 10 Watt WCYC in Chicago. The FCC has encouraged Class D non-commercial educational FM (NCE-FM) stations, such as KWUR, to upgrade from 10 Watt operation, so it seems they are eager to help. In order to receive these waivers, KWUR must have the written consent of KWMU 90.7 FM and prove that there is wide community support of KWUR. In December 1995 KWUR received a letter of support from KWMU.

To receive a new operating license, KWUR will fill out an FCC application for change of facilities, Form 340. This application for a power increase is subject to petitions

to deny based on possible interference problems. No credible petitions are expected since KWUR's power will remain comparably low and we have written consent from neighboring KWMU. KWUR will get professional help from Evans Associates with the technical aspects of the application process.

3.1.3 Equipment Requirements

KWUR will require \$2575 to purchase and install new equipment for the upgrade. KWUR already owns a 100 Watt transmitter, capable of 99 Watt broadcasting, and has a fully operational studio. Equipment not presently owned is listed in Table 2. A studio indicator that relays information from the transmitter to the on air DJ is needed. This indicator will require installation of 2 phone lines from the studio to the transmitter room. One other phone line is needed to hook up a transmitter cut-off switch. A few other miscellaneous items will also need to be purchased.

3.1.4 Installation and Calibration

KWUR will hire a professional engineer to assist KWUR's station engineer in the installation and calibration of the new and the existing equipment. The transmitter will have to be installed and set to 99 Watts. The new phone lines will have to be connected in order to assemble the studio transmitter indicator and cut-off switch. The work necessary to install and calibrate the system will take no more than 20 hours.

3.2 The 99 Watt Plan Budget

The entire cost of the 99 Watt plan will come out of the KWUR operating budget. Table 2 shows the budget.

Item	Cost	Quantity	Total
Indicator	\$500.00	1	\$500.00
Random Equipment	\$500.00	1	\$500.00
Phone Connection	\$75.00	3	\$225.00
Hourly Engineer Work	\$50.00	20	\$1,000.00
FCC Application	\$350.00	1	\$350.00
TOTAL			\$2,575.00

Table 2. The 99 Watt Plan Budget

There will also be an additional monthly phone charge of \$44.00 which will be taken from KWUR's annual operating budget.

3.3 The 99 Watt Plan Timetable

The entire plan should take under one year to complete. Chart 1 shows the schedule.

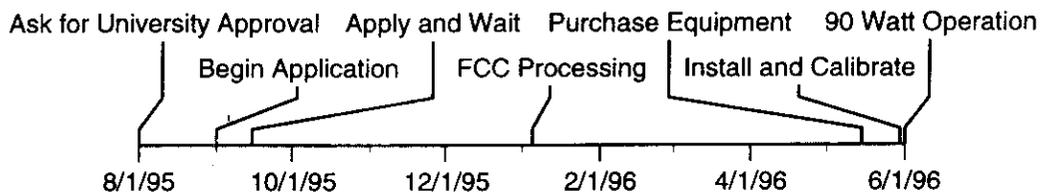


Figure 1. Schedule of 99 Watt Plan Execution

Once KWUR has the University's approval, the application process will begin. The FCC takes a minimum of 8 months to process the application and waivers. KWUR will need one month to purchase, install, and prepare equipment for 99 Watt operation after FCC approval. If there should be a petition against KWUR's increase, the FCC processing will take a minimum of 18 months. We are unable to predict whether or not a counter petition will be filed, but due to the comparably low wattage (even after the increase) and the support of KWMU, it is not likely that one will be filed.

4.0 RECOMMENDATION TO SUPPORT KWUR'S INCREASE

KWUR has been operating for almost 20 years at 10 Watts of power which does not provide KWUR with enough broadcasting area. Over 125 students and alumni dedicate their time and energy to run the station which broadcasts 24 hours a day, 7 days a week during the semester. By increasing KWUR's wattage, Washington University can compete with other Universities for students and spread KWUR coverage to thousands more people.

After working at KWUR for over three years (one year as General Manager) I ask that the Board of Trustees support KWUR in its mission to increase wattage. By approving the 99 Watt plan suggested in this proposal, KWUR can file an FCC change of facilities application and hopefully be running at 99 Watts by June of 1996.

5.0 REFERENCES

College Music Journal Directory 1995. College Media Inc., 1994.

Eads, Larry D., FCC Mass Media Bureau, Audio Services Division. Letter, September 21, 1993.

Evans, Ben, Communications Engineer, Evans Associates. Letter, October 13, 1995.

Evans, Ben, Communications Engineer, Evans Associates. Phone interview, July 1995.

Kisker, Harry, Vice Provost, Washington University. Interview, spring 1995.

KWUR Bible, 1994. Unpublished document.

"New dorm planned for fall '96," Student Life. April 14, 1995.

Perry, Ed, Communications Engineer, WATD radio. Phone interview, spring 1995.

"Slate sweeps SU elections," Student Life. April 14, 1995.

Washington University Facts brochure 1995. Wash U. Office of Public Affairs.

WCYC Engineering Statement, Ben Evans. 1992.

"WU examines overlap schools," Student Life. February 7, 1995.

APPENDIX A - MAPS OF KWUR BROADCASTING AREA

Figure A-1. KWUR's Present 10 Watt Coverage A-2
Figure A-2. KWUR's 90 Watt Coverage A-3

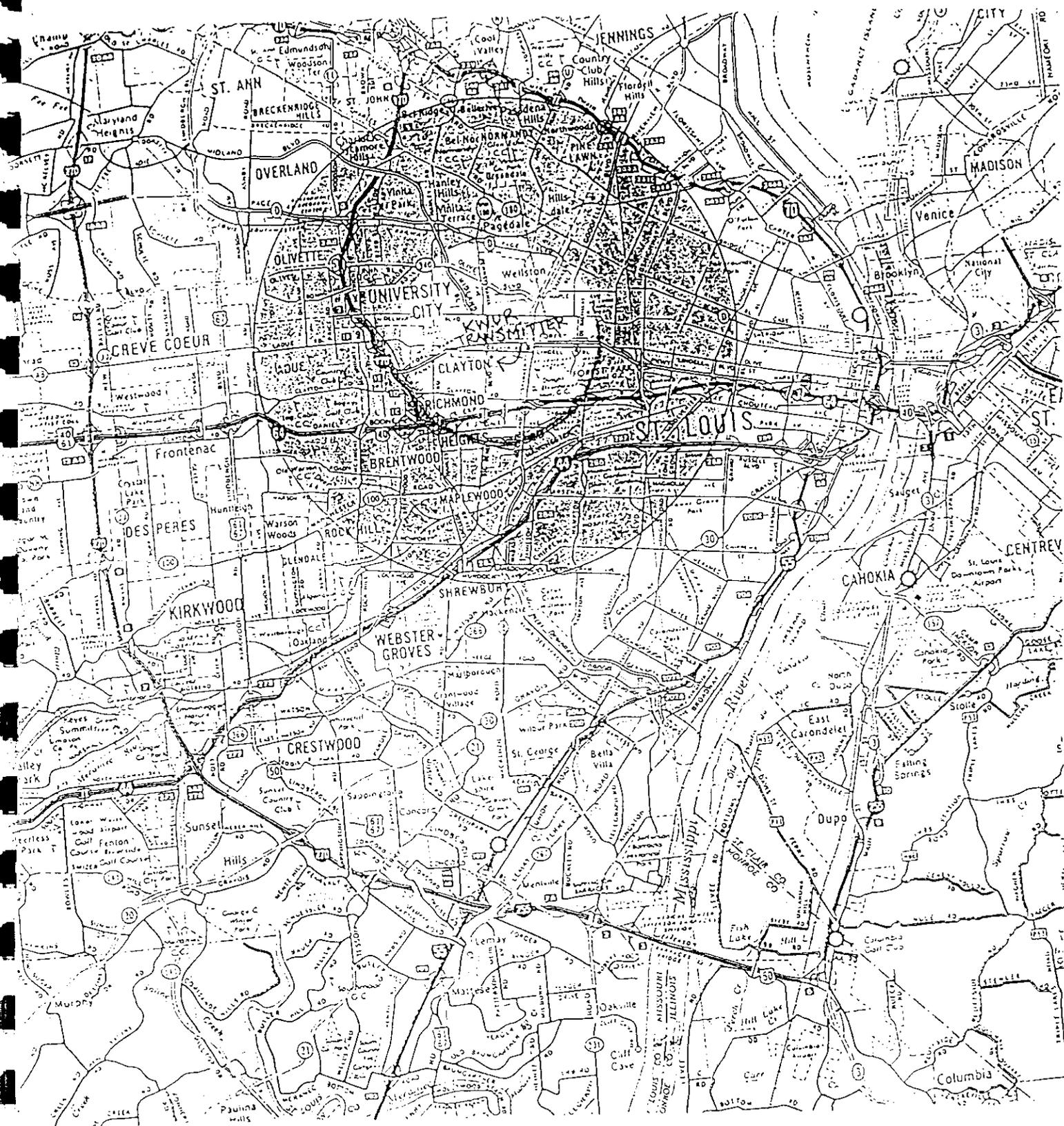


Figure A-1. KWUR's Present 10 Watt Coverage.
 Shaded areas show zones with high interference.

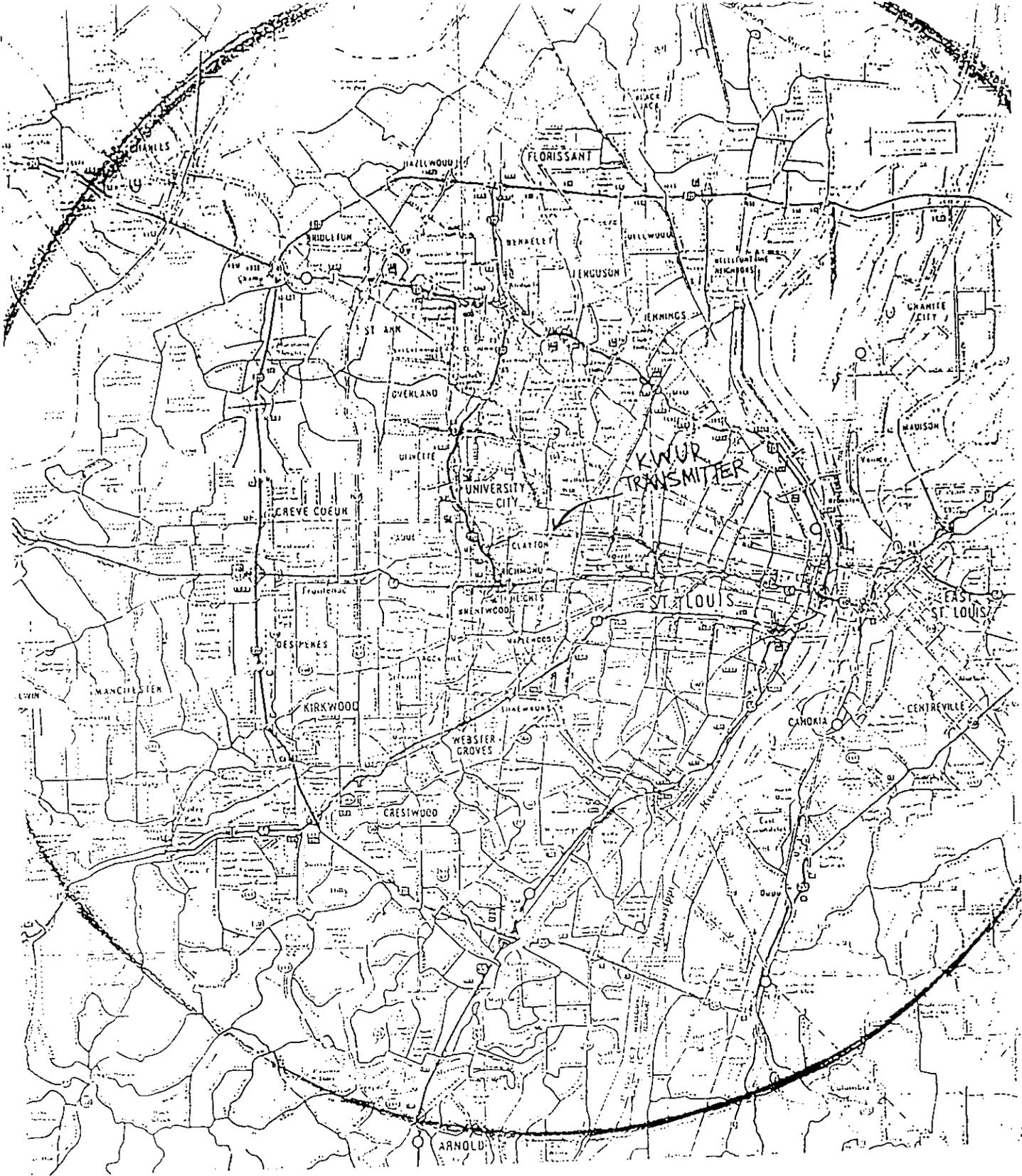


Figure A-2. KWUR's 90 Watt Coverage.