

Exhibit I

Question 10, sub (a) The complete program of research and experimentation proposed including description of equipment and theory of operation.

Description- An experimental low-power FM station, operated with typically accepted "micro-power" equipment, and operating as a non-commercial station in the commercial band, that provides the consistence, dependability and public service requirements of a full-service, licensed FM station. It's purpose is to examine the effectiveness and perception of a fully licensed low-power service that is delivered with common radio programming theory and provides unlimited hours of operation. Ongoing research and data collection will commence from the first day of operation. From this experiment, data regarding the influence as a public servant, positive and negative relationship to full-power radio & absolute purpose and necessity of low-power radio to the diverse and under-served fragmented segments of society will be gained. The experiment will reveal many technical issues and society related answers. An underlying study will also be done on the effect of localism and it's influence on full-power stations.

The station proposed will operate at 199 watts effective radiated power at a height of 899 feet AMSL & 300 feet AGL, from the top of the Wachovia Building in downtown Winston-Salem.

The program of research can be sub-defined with the following objectives.

- A- The public's desire for and perception of a low power FM station in a marketplace of full power stations.
- B- Investigate interference issues, including impact on third adjacent channels and other technical concerns.
- C- Examine what influence, if any, micropower radio would have on existing consolidated group owners.

A-

1- David Solomon will conduct on-going research to determine-

- a- The station's recognition within the community.
- b- The influence the signal may have in outside surveys.
- c- Reaction within the existing local radio industry.
- d- Validity of the current micro-power radio movement.
- e- Validity of the National Association of Broadcasters' position against it.

2- David Solomon will invest money in local advertising outlets to promote the station.

- a- To gain a "real world" perspective as a small operator may do should micropower service be established.
- b- To gain participants for research- circulation of questionnaires, etc.
- c- To further inform the public of our purpose.

3- David Solomon will operate the station 24 hours a day, 7 days a week.

- a- To further position the station as a real public service.
- b- To establish confidence from the public and examine actual impact of the station as a technical service.
- c- To provide emergency messages should it be necessary to do so.
- d- To accomodate existing public perception in the integrity of the FM radio service.

B-

1- David Solomon will operate utilizing typical, low-cost low-power equipment.

- a- Veronica 1 Watt PLL Exciter with Broadcast Warehouse 100 watt amp- filtering each stage into a 1/2 wave dipole antenna.
- b- A very stable Phase Lock Loop transmission system, with no frequency drift.
- c- Exceeds FCC specs for harmonic suppression & spurious emissions.

2- David Solomon will operate in stereo and provide program service from computer hard drive automation.

- a- To better understand the issue of bandwidth and it's effect on 2nd & 3rd adjacent channels.
- b- Utilizing existing Pentium II 300MHz computer and compressed .wav file technology.

3- David Solomon will operate station in a manner that closely parallels typical full power stations.

- a- Station will not cause harmful interference to existing radio service or spectrum users.
- b- Station will maintain frequency stability.
- c- Station will be tested on a regular basis for modulation limits and harmonic suppression and will cease to operate should it cause harmful interference to an existing station.

C-

1- This area is host to Clear Channel, Captar and other large groups who operate with consolidated facilities of multiple class C FM stations.

- a- Investigate the station's effect on local operators of FM radio stations.
- b- Log any significant reaction of the local radio station industry.
- c- Utilize results to better anticipate public and professional reaction to a low power service.

2- Provide 24 hour stereo service.

- a- This will demonstrate the impact that could be achieved with low power versus full power.
- b- The goal is to examine data where the only apparent difference is in signal strength.
- c- Public service announcements would be announced but never sold- no airtime would be sold as per FCC rules regarding program charges.

Question 10, sub (b) The specific objectives sought to be accomplished.

To provide the Commission, the Radio Industry and the American public accurate, real world data concerning the mounting micropower radio debate, sparking three Petitions for Rulemaking that were accepted for filing by the Commission earlier this year. Much of this debate is centered around speculation regarding exactly what service such a station could provide the public. The prime objective is to answer conclusively- "Would, and/or, how would such a service benefit the public without causing interference and undue financial damage to existing services?"

I plan to also answer the following questions-

- 1- Can a low-power FM service be perceived by the public as a credible medium?
- 2- Will existing local services (AM,FM,TV) be adversely harmed with the introduction of such a service?
- 3- Can such a service cover enough population to be effective in supporting itself financially?
- 4- What should be the technical standards regarding spacing and power limitations?
- 5- Should such a service be non-commercial or commercial?
- 6- Can such a service effectively demonstrate listenership without being listed in Arbitron's research surveys?
- 7- Would a low-power service become a new medium of advertising for small businesses and companies?
- 8- Can such a service be an advocate for public service organizations as they attempt to help society?
- 9- How would a low-power FM service advance the art of radio broadcasting and fulfill its obligations to inform, entertain and educate?
- 10- Since low cost, low-power equipment has been so hyped recently, with one petition for rulemaking concerning low-power radio even suggesting its use, the question arises, "Would there be a significant interference problem or public perception obstacle that would prevent these units from operating as fully redundant, reliable public servants?"

Question 10, sub (c) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion, or utilization of the radio art, or is along line not already investigated.

With the ongoing microradio debate going on at the Commission, with the NAB, within the radio industry and within a newly organized group of "pirate" broadcasters; the only data not readily available is the actual impact a station of this sort might have in a real environment. The old Class D FM can not be considered actual data, as the landscape is paved quite differently as a result of consolidation. Current law breaking low power operators can not be considered accurate data as their service is often sporadic and of less than adequate standards. The research data collected from this research experiment would be invaluable to making an informed decision when considering the public interest regarding this debate. It is research that has not been done, yet, should be.

Exhibit II.

Question 13. List below transmitting equipment to be installed (if experimental, so state):

Item	Manufacturer	Model Number	No. of Units
Exciter	Veronica FM	1 watt PLL	1
Low Pass Filter	Progressive Concepts	LPF 7002	2
Dipole Antenna	Comet	CFM-95-SL	1
100 watt RF amp	Broadcast Warehouse	100 watt	1
Computer	Intel	Pentium II, 300 MHz	1

**Also- stereo generator, audio processing, cable and power supplies.
All equipment is used in experimental low power configuration.*

Discussion-

In order to further explain how each piece of equipment plays into our proposal, it is necessary to further explain the equipment-

Veronica FM-1 watt PLL
Phase Lock Loop Transmitter
Freq Stability- PLL Typ +/-0.5KHz
Spurious Emissions- Better than -40db ref to carrier

Progressive Concepts LPF-7002 Low Pass Filter
80db attenuation at 200 MHz
125 watt capacity

Broadcast Warehouse 100 Watt RF Amplifier
Output 110 watts typically- we attenuate to 105 watts
Harmonics- >=50db
Spurious Emissions- >=75db

Comet CFM-95-SL Vertically Polarized 1/2 Wave Dipole Antenna
3.4 db gain
200 watt capacity

Intel Pentium II, 300 MHz Computer
Program Material Playback & Switching Source Using Compressed Audio Files & Software
Hourly Station ID File Function

Sec. 74.131 Licensing requirements, necessary showing.

Part 74

Sec. 74.131 Licensing requirements, necessary showing.

David C. Solomon has a definite program of research and experimentation in the technical phases of broadcasting which indicates a reasonable promise of substantial contribution to the advancement of the broadcasting art.

-The experimental operation of a low-power radio station would yield the following results-

Data as to the real world economic effect upon consolidate radio clusters.

Examination as to the impact of such a station with limited signal strength.

Response of segments of society which could benefit from such a service.

Would better inform the Commission regarding the debate about low-power radio, or micropower FM broadcasting, and it's actual promise to it's contribution to the advancement of the broadcast art. A debate based mainly on speculation from all sides.

Data concerning the effect on a specialized area with programming localized to it's limited boundaries.

A misinformed rulemaking or decision on this highly contested debate could impede the advancement of a service commonly operated with a spirit of localism. The effects of consolidation on the public has been a frequently asked question among experts in the broadcast industry and with community leaders ever since it was allowed. The research gathered on a station that is confined by signal could lend credence to the idea that the media an influence it's audience- that by being local, a radio station can help bring many of societies issues. Only a research study such as the proposed can provide the actual data.

The transmission of signals by radio is essential to this experiment.

Upon authorization of the proposed station, David C. Solomon can and will immediately proceed with the proposed program of research and experimentation.

The program of research and experimentation will be conducted by David C. Solomon, a qualified member of the broadcast community.

-David C. Solomon is a US Citizen who has the funds to support the construction and operation of the experimental station for a period of three years without revenue. His is not subject to denial of federal benefits and has more than 17 years of full-time, radio broadcasting experience in the capacities of-

- Chief Operator
- General Manager
- Chief Engineer
- Program Director
- Research

This experience gives him the credibility to-

Construct the station

Create and maintain program material.

Maintain and service all broadcast equipment.

Collect data and petition response to research related topics.

Create organized, comprehensive reports for public inspection.

David C. Solomon, should he become the licensee of the proposed station will not authorize exclusive use of any frequency. In the case that interference would be caused by simultaneous operation of stations licensed experimentally, David C. Solomon shall endeavor to arrange satisfactory time division. David C. Solomon understands that if in the event no satisfactory agreement can be arranged, the FCC will determine and specify the time division.

Supplementary Statement of David Solomon

Part 74

Sec. 74.112 Supplementary statement with application for construction permit.

This is to state that David C. Solomon understands-

- (a) That all operation upon the frequency requested is for experimental purposes only.
- (b) That the frequency requested may not be best suited to the particular experimental work to be carried on.
- (c) That the frequency requested need not be allocated for any service that may be developed as a result of the experimental operation.
- (d) That any frequency which may be assigned is subject to change without advance notice or hearing.
- (e) That any authorization issued pursuant to the application may be cancelled at any time without notice or hearing, and will expire as a matter of law if the station fails to transmit broadcast signals for any consecutive 12 month period, notwithstanding any provision, term or condition of the license to the contrary.
- (f) That if approval of the experimental broadcast station may have a significant environmental impact, see Sec. 1.1307 of this chapter, submission of an environmental assessment, under Sec. 1.1311 of this chapter, and compliance with the Commission's environmental rules contained in part 1 of this chapter is required.