

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter Of)

Replacement of Part 90 by Part 88)
to Revise the Private Land Mobile)
Radio Services and Modify the Policies)
Governing Them)

) PR Docket No. 92-235

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: The Commission

COMMENTS OF BROWN AND SCHWANINGER

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SUMMARY

The Commission's proposals to reshape the whole of the Private Radio industry, including spectrum allocation, application processing, frequency coordination, system design, and the eligibility of users to occupy particular bands, is a daunting and almost overwhelming task. It is expected that there will be many supporters and detractors, each with their own agenda. But the Commission's objectives must be clear among the banter of demands, defenses, and detractions. The Commission must focus on the public interest.

The public interest demands that government rule in a manner which supports the greater good for the majority of affected persons. The public interest demands that government not make promises which cannot or will not be kept. The public interest demands equity, access, and a clear voice in the manner in which resources are parceled and individual rights are supported.

Of greatest concern in this matter is the Commission all-too-obvious failure of explanation. The NPRM does not explain (1) why the alternatives proposed are the best and only alternatives (2) why there is no reflection of the obvious differences between rural and urban users (3) what the legal status, need for and function of frequency coordination entities might be (4) whether the Commission will possess the resources to respond to the increased demand for application processing services which will result from adoption (5) whether the Commission is prepared or willing to provide necessary enforcement of its proposed rules (6) whether the Commission's chilling of the complaint process is proper and necessary and (7)

whether the Commission's proposals are designed to serve the public interest or the interests of only the largest manufacturers and industry members.

The woeful lack of explanation contained within the NPRM does not demonstrate reasoned decisionmaking. In fact, it creates greater questions than it answers -- questions which demand illumination and thoughtful reflection. For this reason alone, the Commission should defer further consideration of this matter until and unless it publishes a Further Notice, designed to reach the largest issues contained within the Commission's proposals.

From the comments received, the Commission can begin culling through its proposed rules to separate wheat from chaff. It can eliminate uncertainty in its definitions. It can determine whether it has unknowingly created an unfair imbalance in its treatment of rural and urban licensees. It can determine whether the marketplace effects of its actions will create a peaceful, progressive movement toward efficiency; or an unworkable, panicked onslaught of profiteering. In sum, it can determine what good and what bad might flow from adoption of its proposals.

The Commission seeks much in its rule making. It seeks channels, efficiency, cooperation, and sacrifice. Yet, at this time, with this paucity of explanation, the Commission is not eligible to receive any of these things. Not until it met its initial and most paramount threshold -- to demonstrate that it might rule in the public interest.

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To progress the interests of our clients and serve our ongoing responsibility to assist the agency in the improvement of laws regulating the use of the radio spectrum, Brown and Schwaninger ("we") hereby comment on the Commission's proposed Part 88 to replace and rewrite Part 90 of the Commission's Rules. Our interest in this matter and our unique qualifications are a matter of record before the Commission.

The Commission's Inconsistent Vision

By its NPRM, the Commission brought forth a proposal which was inexplicably inconsistent with its other contemporary actions. At the same time that the Commission has decided to double the spectrum which it will provide to existing television broadcasters, it has proposed to slice to one-quarter the spectrum which is used for the workhorse radio communications services which lie at the heart of the troubled American economy, which protect the safety of lives, and which are an integral portion of the common wealth of local governments.

Over the past 45 years, the efficiency of the public safety, business, industrial, land transportation, and affiliated Radio Services' use of the radio spectrum has improved by a factor of more than four in terms of the bandwidth used by each station. Trunked systems provide highly efficient service to millions of mobile units in all parts of the nation.

In comparison, over the past 45 years, the efficiency of the Broadcasting services has remained constant. Standard Broadcast stations are still 10 Khz apart and FM stations still consume 200 Khz each. The Television Broadcast service still transmits with the same efficiency that it had achieved nearly half a century ago -- one game show per six megahertz. Now, at the same time that the Commission has not only decided to give each existing broadcaster 12 megahertz, requiring the broadcaster to duplicate each game show, each talk show, and each "daytime serial" on two channels, it proposes to reduce each Private Radio Service user's spectrum by a factor of four.

At the same time that the Commission has decided to force an Advanced Television System on the American public which is intended to provide a higher quality of received

~~entertainment reproduction, the Commission has proposed to impose on the most serious and~~

to overwhelming public demand. The Commission had been asked to take a role in improving America's competitive position in the consumer electronic marketplace and has encouraged standards which might create a fertile ground for U.S. consumer electronics manufacturers to reap economic awards. If one assumes that the Commission is moreover creating industrial policy in its actions regarding ATV; it is fair to assume that a similar motivation might be at work in the instant matter.

In its considerations regarding ATV, the Commission appeared to be attempting to assist every affected market segment. The manufacturers are forging standards to comport with the desires of a majority of U.S. manufacturers; the broadcast licensees happily got a slice of spectrum for little or nothing with a vague nod that someday they might have to return a portion of the booty, and the American public got a promise that someday they will be able to purchase a television receiver with better reception capabilities.² On first blush it appears that winners abound.

What is, therefore, in greatest contrast to the instant proceeding is that within the ATV proceedings the Commission is attempting to balance the interests of all affected parties prior to arriving at a proposed solution. No such balancing appears to have occurred within

² We further note that broadcasters continue to position themselves outside of the auction arena, claiming that inclusion would somehow violate their First Amendment rights. This narrow view that the freedom of speech and the press extends only to entities which hold a

this proceeding. Rather, the Commission has proposed rules which will benefit

have for selling more units, the Private Radio market does not work in the same way as the consumer electronics market and cannot be made to work that way.

Industrial and public safety radio users have an appreciation of their needs based on reason, reliability, and dollar efficiency. They do not buy radios for fancy features or for how cool the radios make them feel; they buy radios which have developed a reputation for solid economic value. No known bell or whistle will sell one more radio. If the market for land mobile radios is soft, it is for one of three reasons, namely, the general economy is soft, the currently installed base of radios is still deemed acceptable and viable by consumers, or customers are not convinced that the newer offerings include additional real value to justify expenditures.

The perception of those segments of the radio industry which use the equipment, both for their own communications service and for provision of service to others, is that equipment manufacturers have successfully inveigled the Commission to help them out by requiring everyone to buy new radios at once, at no obvious benefit to the victims of the manufacturers' schemes. Whether this perception is accurate or not, it exists. Perhaps the perception was supported, in part, by the Commission's holding of special roundtable discussions to listen to the views of the manufacturers, without holding any comparable session for business, industrial, land transportation, or commercial service users. We do not intend to fault the Commission for errors in public relations. We do, however, take issue if

the Commission fails to recall the sources and motives of such comments and mistakenly believes that it has heard from the whole of the telecommunications industry.

As the Commission is reminded time and again, its mandate requires that it rule in the *public* interest. Therefore, the Commission's primary concern is not manufacturers of radio equipment nor frequency coordinating committees nor vendors. Nor are the administrative interests of the Commission equal to the public interest. To meet its mandate, the Commission must demonstrate that a patient, lying in an ambulance, whose vital signs are being radioed back to the hospital, will benefit by what the Commission proposes. Consumers and users must be served by the Commission's actions. There is little discussion about this primary objective and the NPRM suffers from the paucity of truly *public* interest analysis.

The Unkind Alternative

By its proposals, the Commission seeks to increase the number of Private Radio channels by reducing the amount of permissible bandwidth by half or three fourths. The Commission's proposal ignores an obvious alternative of allocating additional spectrum for Private Radio use. That this alternative is not sufficiently explored within the NPRM is

For example, when television broadcasters were interested in carrying Advanced TV, the Commission did not require that they provide the service on the then assigned spectrum for broadcast television. Instead, an accommodation of previously unused spectrum was granted. When would-be providers of Personal Communications Service (PCS) unveiled their dreams, the Commission began the process of uprooting existing microwave users to make room. Pending discussions about spectrum uses by cellular providers also mention additional spectrum allocation in the same breath with the introduction of digital technology and TDMA technology and CDMA technology. Finally, in a recent rule making concerning the use of the 902-928 Mhz band, the Commission has favored wider-band systems over narrow band technology, proposing that channels be up to 8 Mhz wide.⁴

One may then ask, why is it that the Commission can find spectrum for all other uses, but seems absolutely stymied in finding spectrum for the largest segment of licensees? The Commission admits that the Private Radio industry requires relief, but simultaneously refuses to explore the same kind of alternative for Private Services which it has rushed to embrace for other services. We do not pretend to have the answer for this disparate treatment of Private Radio licensees and users. However, it is apparent that Private Radio is being treated like a poor stepchild as compared with broadcasters and common carriers.

This disparate treatment is particularly vexing in view of the nature of this proceeding. By its very nature, the NPRM is proposing that all Private Radio licensees

⁴ See, PR Docket 93-61 (released April 9, 1993).

employ advanced technology which will enable operation on narrow bands in an allegedly more efficient manner. The Commission's recent actions in other proceedings suggest that users of advanced technology shall be entitled to more, not less, spectrum as a reward for advancing the state of the radio art and for finding more efficient uses of the radio spectrum. The Commission, therefore, reneges on its promise in its NPRM which will result in little reward and much sacrifice for the licensees which employ the newest technology.

Perhaps what continues to amaze Private Radio licensees is the Commission's apparent denigration of the functions performed by the operations of Private Radio systems. We admit that Private Radio does not have the glitz of ATV or the power brokers of PCS or the Congressional scrutiny of the RBOCs. What it is, however, is the backbone of radio communications in the United States. It performs all of the daily tasks that are considered too mundane for coverage on the Six O'Clock News. However, those mundane tasks are vital to the overall economy of the United States. The Country could exist without serious repercussions if PCS never became a reality, or if ATV remained an amusing toy, or if cable television was not able to deliver interactive video games. But threats to the quality of Private Radio go to the core of the U.S. economy and the vital services it delivers to the American public. In this proceeding, we urge parity of purpose and reasoning and consideration for Private Radio every bit as comprehensive as the Commission has given to the high profile services. The Commission's all too brief discussion of its motivations, reasoning, and analysis once again demonstrate its annoyance with the millions of "little

people" serving every segment of American society with Private Radio facilities. Existing licensees and providers deserve much more. They've earned it.

**The Ride Is Smoother
With The Horse In Front**

Another alternative which appears to be overlooked in the Commission's NPRM is changing the type acceptance rules. As the Commission has come to realize by its roundtable discussions and by its preliminary contact with affected users, the simple adjustment to the transmitter, which the Commission claimed would be required to narrow fixed station transmissions, is not possible for receivers. The receiver bandwidth is far more difficult to alter and a turn of a screwdriver won't get it. Manual adjustment of modulation level is a feature inherent in the design of any transmitter. However, receivers are built no better than required at the time of sale and their bandpass cannot be substantially narrowed without major component changes. Therefore, the Commission must now recognize the enormous economic impact of its suggested narrowing of permissible bandwidths.

Millions of new receivers would need to be produced, marketed, sold and purchased before real narrowing might be possible. Retrofits into existing units could be impossible, either technically or regulatorily.⁵ This reality requires the Commission to test its proposals against the cost to users employing systems which are far from fully amortized. It also

⁵ Unlike transmitters, the alteration of receivers to comply with the Commission's proposals would void the associated equipment authorization for these devices. Accordingly, the Commission's own rules would preclude the modifications required to reduce the bandwidth of receiving devices.

requires the Commission to assess the effect of creating a panicked market as users scramble to come into compliance at any price within the proposed short transition time.

Manufacturers may reap a huge benefit from panic sales at the direct detriment to users who perceive no benefit from the Commission's actions and must still endure the huge costs. We believe that the creation of a panicked buying market is not in the public interest and would be highly detrimental to hundreds of thousands of licensees.

It is a given that, like lawyers, manufacturers will benefit by whatever changes in the permissible bandwidth the Commission mandates. The Commission's adoption of any change will result in a windfall of demand for manufacturers. We do not begrudge manufacturers their profits for producing and selling a new generation of radio equipment. We do, however, believe that fundamental fairness requires that the public not be forced to pay more than is required to achieve the Commission's goals.⁶

⁶ Perhaps the Commission is simply not looking at its own numbers. Within its regulatory flexibility analysis, the Commission states that between 20 to 40 billion dollars in equipment will be sold following adoption. However, the Commission further states that only \$500 million represents the cost to the public. NPRM at Appendix B. Something is seriously amiss in the Commission's estimations, unless the Commission is identifying the public's cost simply as the Commission's cost of administering the adopted proposals. The Commission is ignoring the fact that the enormous cost of the resulting forced equipment sales will be borne by the public. If the Fortune 500 companies are to buy new radios and remain on that list, they must pass the costs along to the struggling 250 million who buy their products and services. Therefore, we logically assume that the public's cost will be closer to \$20 billion in forced sales. We further note that the Commission has also failed to show where it plans to raise its \$500 million.

We suggest that the Commission introduce narrower bandwidths by first changing the type acceptance rules for new equipment, requiring that all equipment to be marketed and sold within the United States after January 1, 1996 must employ a bandwidth of no greater than 12.5 KHz. Between now and then, manufacturers will have sufficient time to redesign their products, ramp up production, perform necessary research and development, install necessary machinery to meet the demand, add necessary personnel, and establish an inventory of products for sale. This time will also provide an opportunity for additional producers to be created and established to add greater competitive pressure on pricing.

We then suggest that any imposition of narrower bandwidths on licensees be made mandatory no earlier than 2001. This would allow a sufficient period for the introduction of the new equipment, thereby reducing the economic burden on licensees by enabling them to change out equipment naturally. It would also provide time to fully amortize the equipment presently being employed throughout the United States. In sum, it would be an evolution, not a chaotic revolution of the Private Radio industry, lessening hardships on those portions least able to endure a too rapid change.

The Commission's present proposals do little to ease the burden on licensees. Instead, licensees are to be force fed new requirements without any attendant benefits and with the absolute assurance of high costs. It is absolutely vital, therefore, that the Commission do everything in its power to lessen the harsh burden on users by protecting them from the ravages of profiteering. The most logical method of assuring some fairness in

the marketplace is to not move too quickly to declare all existing equipment obsolete by fiat and support panicked buying. The Commission must first make sure that the public is not the first victim in its Private Radio revolution.

The 6.25 kHz Question

The Commission has also requested comments on whether the permissible bandwidth standard should be 6.25 kHz, either initially or following a prior narrowing to 12.5 kHz. Although the Commission can point to experiences with systems employing 12.5 kHz bandwidths to support its new proposed standards, the Commission is speculating that 6.25 kHz bandwidths might be possible and desirable to further increase the number of Private Radio channels. We believe that such speculation is a poor basis for rule making.

It is axiomatic that narrowing of the bandwidth will adversely effect the quality of the transmissions which are dependent on the function of power and bandwidth to produce quality communications. Narrowing the permissible bandwidth to 6.25 kHz will impose a second class status on Private Radio transmissions as compared to all other similar services. When considered in conjunction with the Commission's proposed height/power restrictions, one is assured that the quality of Private Radio will never again be as good as it is today.⁷

⁷ The Commission's passing references to negligible effects to noise floor within the narrowed bands are not sufficiently convincing to warrant support. Some additional technical analysis relied upon by the Commission in reaching its bald conclusions is necessary.

We again note the inconsistency of this proposal in light of the Commission's recent actions in other services, most notably Advanced TV. In that proceeding, the Commission's sole, expressed goal was to bring higher quality transmissions into American homes. The Commission is proposing within this proceeding to mandate lower quality transmissions. Given the relevant merits and comparative benefits of entertainment television versus Private Radio, it is apparent that the Commission's proposal cannot be seen as anything other than arbitrary. We do not believe that the same public which the Commission purported to serve in its ATV proceeding agrees that it will benefit by better viewing of sitcoms, while willingly giving up quality transmissions for ambulance dispatch.

The Commission should not be quick to dismiss other, wide-band methods of increasing channel efficiency, such as spread spectrum. As the Commission is fully aware, there is much more than a little evidence that the future of efficient use of the radio spectrum does not lie in narrow-band uses, but in wide-band applications. For the Commission to now commit itself permanently to narrow-band methods of spectrum efficiency would be to paint itself into a technological corner. We believe that the Commission should further explore the advantages of wider-band efficiencies before pronouncing its new era of ever narrower Private Radio operations.

We also note that the Commission's two-step process, first to 12.5 kHz then 6.25 kHz (or 5 kHz), is a certain formula for economic waste. The Commission's proposed manner and timetable for introduction of a 12.5 kHz permissible bandwidth, as discussed *supra.*,

would already guarantee an extreme economic burden for licensees. If licensees were then commanded to go through the entire process of changing out systems a second time, the Commission would be duplicating the injury to licensees. This is unconscionable and should be strictly avoided.

Once again, we place the priorities of the affected licensees first. We do not believe that the Commission has demonstrated that a narrowing of the permissible bandwidth to 6.25 kHz is either desirable, feasible or in the public interest. We, therefore, urge the Commission to withdraw this proposal as wholly premature or without merit. However, in the event that the Commission adopts rules which would, in the future, narrow the permissible bandwidth to 6.25 kHz, we strongly urge the Commission to skip the interim step to 12.5 kHz. As with all harsh medicine, it is better to swallow it all at once, rather than prolonging the unpleasant experience. In this event, it is better, if reasonable at all, to demand that manufacturers and licensees tolerate the full brunt of the Commission's action in the first instance, rather than asking the public to sustain multiple blows.⁸

We assume that the industry has now informed the Commission through roundtable discussions and other channels that the conversion methods proposed by the Commission will not go as smoothly as planned. The NPRM suggests that equipment can be adjusted first to

⁸ In its NPRM, the Commission suggests that operators could finance the cost of new equipment by selling off half their licensed bandwidth to interested purchasers. The Commission does not identify the entities which might be interested in purchasing 6.25 kHz of spectrum, operational within no more than a fifty-mile radius from a community of, say, the size of Wichita, Kansas. We can see little marketability for such spectrum.

operators in rural areas, the Commission's proposals might be palatable to those persons who have no need or desire to accommodate persons living a thousand miles away. As proposed, however, the Commission would create four times the amount of fallow spectrum which presently exists in rural areas. Our clients situated in those areas respectfully point out to the Commission the fact that "four times nothin' is nothin'".

Since the fact that sufficient spectrum exists in rural areas of the Country is easily demonstrated, the Commission should take note of this plain truth and conform its proposals to meet the needs of rural operators. We suggest that, if the Commission goes forward with its reduction of permissible bandwidth, rural operators be provided with a longer time period for such conversion which takes their needs into account. In this manner, rural operators will not be required to bear a burden without any resulting benefit whatsoever.

Nor do the Commission's proposed height/power restrictions make sense in a rural environment. Operators which provide much needed service to the public in sparsely populated areas would not be able to do so if they were required to construct multiple transmitters to deliver the same signal. Mountaintop sites would lose vital utility and the dearth of available tower sites in these areas would effectively eliminate many offerings.¹⁰

¹⁰ A review of tower data files fully demonstrates that many counties in the United States have few commercially available construction sites. A county with a population of less than 50,000 residents might easily have less than three towers, none of which may be leased for operation of non-governmental radio equipment. See, Fryer's Site Guide, 1992 Edition.

number of applications to be filed, modifying licenses to reflect bandwidth changes, height/power restrictions, and revised system designs to assure reliable signal coverage within acceptable performance parameters. This certain avalanche of applications will require resources which the Commission has consistently demonstrated that it does not

By its proposals, it appears that the Commission is seeking concurrence from the public first and will use the public's comments as ammunition before Congress to request additional, necessary resources to administer the tremendous flow. Placing the public in this position is inappropriate. If the Commission considers its proposals worthy and within the

doom the Private Radio Bureau to a similar fate and would leave the entire industry awash in uncertainty and chaos.

We suspect that the Commission will receive supporting comments to its proposals based on the laudable goal of trying to find additional channels for operation of Private Radio facilities. It is without doubt that there is tremendous demand for additional channels in every urban area throughout the Country. However, the Commission does the industry no favor if it cannot back up its promises with the resources to administer its proposals. We, therefore, suggest that the Commission examine supporting comments with great scrutiny and ask itself a single question, "Would this commenter have supported the proposals if it knew the Commission would not have the resources to administer the outcome?"

Frequency Coordination...The Unclarified Position

By its proposals, it appears that the Commission wishes to reduce the number of coordinating entities to three. These three are not named, either purposefully or because the leading candidates are so obvious that the Commission has deemed such suggestions unnecessary. It is also possible that the Commission contemplates a firestorm of protest from frequency coordinating entities which might be disenfranchised by the Commission's proposed changes. Whatever the reason for skirting the issue, the Commission errs in its supposition that reducing the number is of little significance to the outcome of its proposals.