RECEIVED
SEP 27 1995
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

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

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service	)	PR Docket No. 89-552 RM-8506
	)	
Implementation of Sections 3(n) and 332 of the Communications Act	)	GN Docket No. 93-252
	)	
Regulatory Treatment of Mobile Services	)	DOCKET FILE COPY ORIGINAL
	)	
Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 220-222 MHz	)	PP Docket No. 93-253

COMMENTS OF INCOM COMMUNICATIONS CORPORATION

Incom Communications Corporation ("Incomco"), by its attorneys and pursuant to §1.415 of the Commission's Rules, hereby submits comments respecting the Notice of Proposed Rule Making portion of the *Second Memorandum Opinion and Order and Third Notice of Proposed Rulemaking*, (PR. Docket No.89-552, GN Docket No. 93-252, PP Docket No.93-253), FCC 95-312, released August 28, 1995 in the above-referenced dockets (the "*3d NPRM*").

I. Introduction

Incomco is currently one of the largest 220-222 MHz system management companies in the United States and as such has a substantial interest in the outcome of this proceeding. Incomco generally supports the Commission's proposals presented in the *3d NPRM* with some specific exceptions, which are discussed *infra*. Some of the specific proposals which Incomco supports are those which provide for the elimination of channel use restrictions, such as

elimination of the trunking-only, data-only and paging-only allocations and elimination of the 5 kHz narrowband restrictions. Additionally, Incomco is a member of the American Mobile Telecommunications Association's ("AMTA") 220 MHz Council and generally supports the comments which it understands AMTA is presenting in this proceeding with the following provisos.

II. Real World Operations Demand A Larger Protected Service Area for 220 MHz Operations

The Commission's proposal, *3d NPRM* at ¶99, for ensuring that Phase I 220-222 MHz licensees receive interference protection from Phase II licensees fails to taken into consideration the real world operating characteristics of a 220-222 MHz system and therefore will not afford Phase I licensees adequate co-channel protection from future EA and Regional licensees. This is a key concern regarding the instant NPRM and the Commission has substantial precedent in resolving similar technical inconsistencies in other radio services.

When the Commission adopted the current 120 km co-channel separation set forth in §90.723 of the Rules, there were no 220 MHz narrowband systems in operation. Thus the adoption of this co-channel separation criteria was based on theoretical projections regarding the actual reliable coverage which would be provided by systems in this new radio service. Since the Commission adopted the 220 MHz Rules in 1991, actual commercial mobile radio service has been introduced in this band and reliable information is now available regarding the operating performance of 220 MHz radio systems

In the original R&O, the Commission did not define a *per se* service area for 220 MHz non-nationwide licensees It did provide for 120 kilometers (72 miles) co-channel protection for

220 MHz licensees (*see* Section 90.723(f)) and adopted maximum operating parameters of 500 watts ERP at 150 meters. (*See* Section 90.729.) 6 FCC Rcd at 2371. Thus, even assuming that a co-channel system was licensed 120.1 kilometers away, current Section 90.723(f) provides *de facto* protection to a 36-mile radius service contour.[1] Incomco reasonably relied upon this protection when it spent the millions of dollars that it has spent developing incumbent ("Phase 1") licenses.

Incomco's experience in actually operating 220 MHz systems in the "real world" has confirmed all of its expectations. Specifically, all of the 220 MHz systems Incomco manages provide reliable signal reception at distances of at least 40 miles from licensee's transmitter sites over 90% of the time. (*See* attached Declaration of Ron Domres).

In the 4th NPRM, the Commission proposes a rule change that would be devastating to Incomco and its clients, as well as to all other 220 MHz Phase I licensees that have constructed their systems and their respective management companies. Without any basis in fact or actual "real world" tests, the FCC concluded that 220 MHz licensees should have protected areas of only about 28 miles radius (*i.e.*, to their 38 dBu contour). The FCC's proposed 38 dBu

---

[1] The Commission needs to further clarify the provisions of §90.723(f) of the Rules. As currently written, the provisions of §90.723(f) do not work in the real world, as evident from the fact that no current 220-222 MHz system operator has ever sought short-spacing approval under these provisions. Additionally, this rule section does not specify how short-spacing approval is to be obtained or what factors the Commission will consider when determining whether to approve a short-spacing proposal. While modifying §90.723(f) to prescribe the use of the field strength charts in §73.699 of the Commission's Rules for calculating the prescribed 10 dB protection aids in clarification of the provisions in §90.723(f), the Commission should also clarify that §90.723(f) is analogous to §90.621(b)(4) of the Rules. Section 90.621(b)(4) permits the short-spacing of 800 MHz or 900 MHz co-channel stations upon a demonstration by the party seeking a waiver of the separation requirements that the short-spacing will not result in degradation of the reliable service contour of the protected co-channel station.

protected service contour is inappropriate and without any rational basis. First, it is unsupported by any field tests. Second, it is totally inconsistent with real-world propagation. Third, it is at odds with Commission precedent.

III. Precedent Supports Increasing the Protected Service Area

The current situation of a radio service providing the public with reliable coverage in excess of the protected service areas originally set forth in the rules is not novel. The Commission has confronted this problem before. In adopting initial technical rules for innovative radio services, the Commission must start with theoretical projections which can then be modified at a later date when empirical evidence of actual performance is available as service is introduced to the public.

Such was the case with the cellular radio service. Before cellular service was a reality, the Commission adopted initial rules with limited a station's cellular protected service area to a 39 dBu contour. However, after cellular service to the public became a reality, the Commission conceded that its prior 39 dBu standard for 800 MHz cellular service was not supported by "real world" facts:

> After careful consideration of the arguments advanced by the commenting parties, we have been persuaded that we should not make the CGSAs coterminous with the composite outer boundary of the predicted 39 dBu contours as proposed. It is clear that many of the commenting parties, including some with years of field experience with cellular system coverage, believe that reliable cellular service is regularly provided beyond the point where the median field strength drops below 39 dBu.

Cellular Service Further Notice of Proposed Rulemaking, 6 FCC Rcd 6158 ¶5 (1992). The Commission sought further comment [2] and eventually adopted a 32 dBu standard. Cellular Service Second Report and Order, 7 FCC Rcd 2449, 2452-2453 (1992).

The Commission recently followed its cellular service precedent in increasing protected services areas in the Multichannel Multipoint Distribution Radio Services and the Instructional Television Fixed Service, whose channels provide the building blocks for wireless cable television operations. In this instance, wireless cable operators demonstrated that the 15 mile protected service areas originally provided for these services ignored the actual real world coverage systems were providing to subscribers who lived well beyond a 15-mile radius of the television transmitters. Second Order on Reconsideration in General Docket No. 90-54 and General Docket No. 80-113, paragraph 4. ("Wireless Cable Order") See 60 Fed. Reg. 36737 (July 18, 1995) Thus, based on the real world experience of operators, the Commission extended the protected service area of such wireless cable systems to 35 miles.

Thus, in the instant situation, the Commission must modify §90.723(f) to provide for 10 dB protection to the 32 dBu V/m contour, as opposed to the 38 dBu V/m contour. The 38 dBu V/m contour substantially underestimates the real-world signal propagation of the 220-222 MHz service. Indeed, every private field test conducted by industry experts and 220-222 MHz system operators, including Incomco, has found much larger reliable service areas at much lower contour levels. Incomco's customers, like other Phase I 220-222 MHz system customers, are routinely receiving reliable service at the 32 dBu V/m contour and are subscribing on the assumption that existing reliable service areas will be protected. (See Attached Declaration of

---

[2] 6 FCC Rcd at 6159.

Ron Domres). Therefore, the Commission must ensure that future EA and Regional licensees do not degrade the 32 dBu V/m service area contours of the Phase I licensees.[3]

The Wireless Cable Order also provides significant guidance to the Commission regarding protection of incumbent operators from the "economic blackmail" that is possible when radio service licensing moves to an auction methodology Id. 220 MHz operators, like wireless cable operators, will be severely threatened if harmful interference from too closely spaced stations precludes service to the public in the corridors surrounding the incumbent stations. Incumbent 220 MHz operators would be forced to either accept the interference or buy off the auction winner. In effect, the Commission would be creating a situation where auction bidders can acquire spectrum on the speculation that incumbents will have to yield to their economic demands in order to provide coverage to the service areas demanded by customers.

The Commission has already experienced the incredibly adverse impact of permitting too many closely spaced stations in a radio service when its technical rules crippled the AM service in the 1980s. See Review of Technical Assignment Criteria for the AM Broadcast Service, 6 FCC Rcd. 6373, 6374-75 (1991). Learning from that experience, the Commission can avert a similar disaster in the 220 MHz Radio Service by basing spacing criteria on real world signal coverage.

---

[3] This service area protection would apply *vis-a-vis* future EA and Regional licensees -- incumbent stations would continue to comply with the existing 120 km co-channel of separation requirements of Section 90.723 of the Rules.

IV. As Far As the Public Is Concerned, More Is Not Necessarily Better

Curtailing the protected service area of 220 MHz operators will result in too many stations being crammed into too small a radio band. This will result in both an increase in cost and degradation in the quality of service provided to the public. Because of the natural propagation characteristics of the 220 MHz band and the operating excellence of equipment commonly used by operators, the radio signal provides reliable coverage over 40-50 miles (See Declaration of Ron Domres). This means that it requires fewer base stations to provide service to customers than are required in the 800 or 900 MHz SMR Service or the cellular service. Fewer base stations translates into reduced infrastructure costs which results in lower subscription rates. Curtailing incumbents' services area means that the Commission will artificially restrain the coverage an incumbent operator can provide to a customer and thereby force the customer to subscribe to service from yet another operator who establishes service outside the protracted service area contrived by the Commission for incumbent 220 MHz operators. Forcing the public to bear the burden of curtailing incumbent service could not possibly serve the public interest.

V. The Omnibus Budget Act Requires that the 220 MHz Radio Service Have Protected Service Areas Comparable to that of Other Authorized Dispatch Service Providers

The Commission attempts to justify its proposed 38 dBu standard by reference to certain statements that were contained in the original 220 MHz R&O. *See* 6 FCC Rcd at 2370-2371. However, those references were not based upon field tests, but upon rough guesses by Commission staff personnel. Moreover, those rough guesses were made at a time when the Commission was still presuming a 39 dBu contour would equate to a reliable service area

contour for cellular. Obviously, if the Commission staff was guessing that 220 MHz would yield reliable service at a median field strength of 38 dBu at the same time that it was assuming that cellular could yield reliable service only at a median field strength of 39 dBu, the Commission conceded even then that VHF-band 220 MHz systems would provide reliable service at a lower median field strength than would UHF-band cellular. Accordingly, if cellular provides reliable service along a 32 dBu contour, 220 MHz must be providing reliable service along a contour of 32 dBu or lower.

Section 6002(d)(3)(B) of the Omnibus Budget Reconciliation Act of 1993 ("Budget Act") obligates the Commission to make rules so that Part 90 CMRS licensees "are subjected to technical requirements that apply to licensees of substantially similar common carrier services." In an effort to comply with this mandate and eliminate inconsistencies between similar mobile services, the Commission amended its Rules by eliminating the prohibition on the provision of dispatch service by cellular licensees, other licensees in the Public Mobile Services and licensees in the Personal Communications Services. See Eligibility for the Specialized Mobile Radio Services and Radio Services in the 220-111 MHz Land Mobile Band and Use of Radio Dispatch Communications (Report and Order), FCC 95-98 (GN Docket No. 94-90), released March 7, 1995. Thus, the Commission has effectively increased the competition faced by the 220-222 MHz service, which is itself a dispatch service, if nothing else.

The Commission cannot hobble the 220-222 MHz industry with an overly restrictive definition of the reliable service area contour when the 220-222 MHz industry is now required to compete with other mobile services with dispatch authority and contradictory to the Congressional mandate to treat similarly positioned services alike. There is no rational basis for

discriminating in favor of cellular licensees with respect to propagation and protected service area issues. The Commission would be blatantly violating the Budget Act if it affords 220 MHz licensees any lesser protected service area than is afforded to cellular.[4]

VI. Conclusion

While Incomco generally supports the Commission's proposals in the 3d NPRM, the Commission's proposal for ensuring that Phase I licensees receive interference protection from Phase II licensees falls far short of real-world requirements. The Commission must modify Section 90.723(f) to provide for 10 dB protection to at least the 32 dBu V/m contour as opposed to the 38 dbu V/m contour. Field tests conducted by industry experts and 220-220 MHz system operators have demonstrated that 220-222 MHz systems are routinely providing reliable service at the 32 dbu V/m contour and even lower signal strengths. In light of this real-world evidence, the Commission's presumption that a 38 dBu contour equates to a reliable service area contour for the 220-222 MHz service is arbitrary and capricious.

Respectfully submitted,

INCOM COMMUNICATIONS CORPORATION

By: _____
Robyn G. Nietert
David J. Kaufman

Its Attorneys

September 27, 1995
Brown Nietert & Kaufman
1920 N Street, N.W., Suite 660
Washington, D.C. 20036

[4] Also, virtually all 220 MHz licenses and management companies are small businesses and intended beneficiaries of the Paperwork Reduction Act of 1980. The proposed rule violates this statute as well.

DECLARATION

I, Ron Domres, do hereby declare under penalty of perjury as follows:

I am Vice President of Incom Communications Corporation ("Incomco"), which is one of the largest, if not the largest, 220 MHz system management company in the United States. Incomco's principals have over a half century of experience in private land mobile communications. I have read and am familiar with the Federal Communications Commission's August 28, 1995 Second Memorandum Opinion and Order and Third Notice of Proposed Rulemaking in PR Docket No. 89-522. I have also read the Comments of Incomco, to which this Declaration is attached. All facts set forth in the Comments are true and correct. However, I would like to amplify and emphasize some of those facts.

When the 220 MHz allocation was made available to private radio service providers by the Commission, Incomco anticipated, based on its engineering projections, that a 220 MHz license using maximum power and height would provide a 40 mile reliable service area. Incomco understood that the Commission was allocating the 220-222 MHz band to private land mobile radio because allocations in the 800 MHz and 900 MHz bands had been exhausted. Demand for private radio frequency was exceeding the available supply. It was on that basis that Incomco became involved in the 220 MHz industry during its infancy.

In the years following the lottery of the Phase I 220-222 MHz licenses, Incomco planned, organized and built its infrastructure

and has begun contracting with customers for dispatch service. Our company based all of its projections on the fact that 220 MHz customers would be provided a 40 mile radius coverage area for each licensed transmit site, which allowed Incomco to offer clients a competitive edge over the coverage offered by 800 MHz SMR service. Now that we have had many months of real world use by paying customers, we have found that the performance of 220 MHz service not only met, but often exceeded our coverage area projections.

Incomco has spent millions of dollars to plan, construct and manage systems in markets that include Chicago, Houston, Dallas, San Francisco and Los Angeles, and is committed to spending millions more. Incomco is serving large numbers of subscribers from dozens of base stations. In all of the markets where Incomco is managing 220 MHz dispatch systems, the "real world" reliable coverage area is often between 50 and 60 miles from the transmit site, but never less than 40 miles. Thus, the Commission's proposal limiting a Phase I licensee's protected service area to its 38 dBu contour (or approximately 28 miles) lacks factual basis and will not provide the Phase I licensee with adequate protection of its reliable service area contour.

Executed this 27th day of September, 1995.

Ron Domres

CERTIFICATE OF SERVICE

I, JacLyn Freeman, a secretary in the law offices of Brown Nietert & Kaufman, Chartered, hereby certify that I have, on this 27th day of September, 1995, caused to have hand delivered a copy of the foregoing Comments to the following:

Chairman Reed E. Hundt
Federal Communications Commission
1919 M Street, N.W., Room 814
Washington, D.C. 20054

Commissioner James H. Quello
Federal Communications Commission
1919 M Street, N.W., Room 802
Washington, D.C 20054

Commissioner Andrew C. Barrett
Federal Communications Commission
1919 M Street, N.W., Room 826
Washington, D.C 20054

Commissioner Rachelle B. Chong
Federal Communications Commission
1919 M Street, N.W., Room 844
Washington, D.C. 20054

Commissioner Susan Ness
Federal Communications Commission
1919 M Street, N.W., Room 832
Washington, D.C 20054

Regina Keeney, Chief
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, N.W., Room 5002
Washington, D.C. 20054

John Cimko, Jr., Chief
Policy Division
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, N.W., Room 5002
Washington, D.C. 20054

Larry Atlas
Associate Bureau Chief
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, N.W., Room 5002
Washington, D.C. 20054

Martin D. Liebman
Engineer
Policy Division
Wireless Telecommunications Bureau
Federal Communications Commission
2025 M Street, N.W., Room 5002
Washington, D.C. 20054

* Alan S. Tilles, Esq.
Meyer, Faller, Weisman and Rosenberg, P.C.
4400 Jenifer Street, N.W.
Washington, D.C. 20015

Jaclyn Freeman

JacLyn Freeman

* Via U.S. Mail