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Mr. William F. Caton, Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Mail Stop Code 1170
Washington, DC 20554

Re: Comments to MM Docket No. 94-131 and PP Docket No. 93-253
Notice of Proposed Rule Making

Dear Mr. Caton:

Enclosed herewith in an original and five (5) copies, are Comments prepared by The Richard L. Vega Group in response to the Notice of Proposed Rule Making, in MM Docket No. 94-131 and PP Docket No. 93-253, released December 1, 1994.

Should the Commission have any questions concerning these matters, please contact the undersigned.

Respectfully,

Richard L. Vega, Jr.
President

RLVjr/lt
Enc.

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Telecommunications Engineers/Consultants
P.O. Box 915049 □ 235 Hunt Club Boulevard □ Suite 101 □ Longwood, FL 32779 □ (407) 682-7104 □ FAX (407) 682-7144

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

In The Matter of:	)	
	)	
Amendment of Part 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service	)	MM Docket No. 94-131
	)	
and	)	
	)	
Implementation of Section 309(j) of the Communications Act--Competitive Bidding	)	PP Docket No. 93-253

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COMMENTS

Submitted by:

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Dated January 5, 1995

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COMMENTS

The Richard L. Vega Group ("Vega Group"), a telecommunications engineering and consulting company with offices located in Longwood, Florida, by its President, Richard L. Vega, Jr., in response to the NOTICE OF PROPOSED RULE MAKING ("Notice"), in MM Docket No. 94-131 and PP Docket No. 93-253, released December 1, 1994, hereby submits its COMMENTS to the Notice. The Vega Group, a recognized expert in all facets of telecommunications, holds extensive experience in both the Multipoint Distribution Service ("MDS") and in the Instructional Television Fixed Service ("ITFS"), and has become intimately familiar with the application processing dilemmas experienced by the Federal Communications Commission ("Commission") as outlined in the Notice. Moreover, the Vega Group's Chairman, Richard L. Vega, has been involved in the MDS industry since its inception, was directly responsible for pioneering several standards now applied to MDS/ITFS stations and fully recognizes that changes are needed to help facilitate the growth of the industry. While the Vega Group supports the Commission's

efforts to bring forth MDS/ITFS services to the public in an efficient and expedited fashion, the complex issues contained in the Notice require careful evaluation and certain modification before the Commission radically modifies its current processing procedures.

APPLICATION FILING PROCEDURES

In the Notice, the Commission essentially identifies three (3) methods that it is evaluating as alternatives to the current application filing process. These methods are: 1.) utilization of defined markets using predetermined geographic areas, such as Metropolitan Statistical Areas, Rural Service Areas or Areas of Dominant Influence; 2.) limit applications to predetermined or already authorized locations of E-Group, F-Group or H-Group channel stations or; 3.) utilize periodic national filing windows with no geographic restrictions and possibly limit the first window eligibility to only those existing system operators and licensees.

MSA/RSA/ADI APPROACH

The Vega Group generally opposes Commission utilization of any predetermined geographic market areas as might be defined by Metropolitan Statistical Areas ("MSA"), Rural Service Areas ("RSA"), Basic Trading Areas ("BTA"), Major Trading Areas ("MTA") boundaries and/or Areas of Dominant Influence ("ADI") since utilization of this filing approach for MDS/ITFS applications would seriously jeopardize the rapid advancement of service from being offered to the public. As demonstrated herein, this approach seriously limits the advancement of wireless cable in most areas due to the irregular market boundaries unfit for "wide-area", over-the-air broadcast services such as MDS/ITFS and, therefore, should be eliminated as an option.

Originally, under FCC **REPORT AND ORDER**, in General Docket 80-112, released July 15, 1983, Para. 149, the Commission elected to utilize the MSA boundaries as the official designated markets to which it would accept multichannel MDS applications. The record shows that this method is flawed due to various reasons some of which are still responsible for delaying an unconditional window opening for new MDS applications. As is the case in television, FM and AM radio, MDS is a "wide-area", mass media service that is designed through the use of one (1) single transmitting platform, to cover as much of an audience as technically possible without the confines of market boundaries. Unlike the Mass Media Service, other services such as Cellular Telephone Service, Interactive Video and Data Service ("IVDS"), Personal Communications Service ("PCS"), which use defined market boundaries as service areas, employ several small micro-transmitting stations to which control over propagation and "unwanted" penetration can be achieved. It is relatively easy to minimize the penetration of an "unwanted", adjacent-market signal into a particular MSA, RSA, BTA, MTA or ADI border when such small areas are covered.

The Vega Group's study clearly shows that the concept of using MSA/RSA's as MDS/ITFS markets will not serve to promote rapid advancement of MDS/ITFS service to the public. For example, Exhibit 1, attached, represents typical MSA/RSA markets which illustrate why use of fixed boundaries is not in the public's interest. First, in the case of RSA Market No. 720, Wyoming 3-Lincoln, several MDS stations could be accommodated inside this roughly 40,000 square mile area. Yet, under the Commission's approach, this area, assuming thee are not already multiple stations serving this market, would be off limits to other facilities thereby leaving the majority area without service. This method

would preclude a great number of people from receiving MDS service perhaps forever. Secondly, with regard to those small MSA's, RSA's and ADI's which are adjacent to each other, service quality be compromised in order to protect an adjacent-market system. Also illustrated in Exhibit 1 is MSA No. 255-Odessa and MSA No. 295-Midland which clearly show that some MSA's are located too close together to be classified as separate markets. This is only one (1) illustration of the many cases that exist.

In short, the Commission should allow the industry to select specific locations it feels are appropriate for MDS service without imposing market boundaries, adopt a fixed separation distance of 50 miles to identify mutually exclusive cases and retain the current interference studies as further discussed herein. Only this method will truly promote rapid advancement of MDS service to the nation. Again, while the MSA geographic area may have been appropriate for the acceptance of initial MDS applications in 1983, it has now proven to have been an extremely ineffective method of processing applications which involve "wide-area" coverage such as MDS, Low Power Television or FM radio.

Similarly, utilization of ADI market boundaries[1] is also not appropriate. The Arbitron Company created the ADI boundaries as a measurement technique used for both market surveys of television viewing and broad scale station circulation information by county. The rather unique and anomalous geographic area is used to determine which full-service television stations are viewed the most and during what times certain

---

[1]ADI is the acronym for Area of Dominant Influence which consists of counties receiving a net weekly circulation of at least five (5) percent of a particular television station. The Vega Group is not aware of any Commission service to which the physical market is defined by ADI boundaries. In television, the ADI list provides only rank of the nation's top television viewing locations.

segments of the population tune to a particular program. This system allows the television broadcasters to establish their advertising rate structures. The defined boundaries have absolutely no relationship to a television station's physical coverage which is determined utilizing three (3) grades of predicted contours as established under C.F.R., Part 74 of the Commission's Rules.

Exhibit 2 illustrates all ADI markets in and around Alabama. It is noted that a transmitting site directly inside ADI Market 194 (Anniston) may not be appropriate or superior to properly serve Anniston, Alabama due to the community's position in proximity to the ADI market's borders. The relatively small size of this ADI would result in a 15-mile protected service extending beyond its borders which would also create an interference dispute with adjacent ADI licensees. Due to the configuration of ADI Market 49 (Birmingham), communities such as Gadsden and Cullman would be essentially precluded from receiving MDS programs since it is likely that anyone filing for channels in this market would file for Birmingham. Conversely, many ADI markets already support multiple MDS stations. The Vega Group predicts that the Commission will be over-whelmed with expansion disputes from these "same market" licensees thereby grinding the application processing system to a halt. This scenario would hold true should the Commission adopt MSA/RSA boundaries as well. Hence, as recommended below, the Commission should allow the industry to determine service area locations using standardized interference studies and fixed distance separations. In any event, since the Commission had, at one point, already adopted the utilization of MSA's as market boundaries, a shift to ADI geographic areas would be disastrous in that they are not

identical in coverage and would create unduly conflicts with already existing transmitting sites.

E, F AND H IDENTIFIED SITES

Adoption of an alternative filing approach which limits new applications to predetermined sites as identified by the Commission under future Public Notice will not rapidly promote the development of MDS and would essentially cripple the MDS industry altogether for the reasons stated below. Under this approach, the industry would be subject to Commission identification and subsequent notice of "open" frequencies to which it would eventually, with no fixed timetable, make the frequency/market available for filing. While this method may work well for competitive bidding procedures since it artificially creates mutual exclusivity where otherwise no competition would exist, advertising what frequencies are available is not in the public interest nor in the interests of the incumbent MDS operators that may be seeking to enhance the existing wireless cable MDS operation. The Commission's track record processing the originally filed MDS applications submitted on September 9, 1983 under the previously announced filing window has proved to be ineffective and insufficient. In a twelve- (12) year period, the Commission has announced only two (2) specific filing windows to which it would accept applications for predetermined sites on essentially available channels. To this day, many communities are still without multichannel wireless cable service because of the Commission's ineffective method of processing applications under this scenario. Again, this application filing approach only serves to promote the Commission's competitive bidding scheme and is not appropriate for MDS.

NATIONAL FILING WINDOW PROPOSAL

By far the most superior method of processing MDS applications would be through the adoption of the national filing window alternative as discussed in the Notice at Page 8, Para. 12, where the Commission would issue a public notice announcing a filing window which would remain open for a specific period of time. This approach offers no geographic restriction on the filing of available MDS channels. With slight modification, this method is the only way to truly encourage universal coverage and would most definitely afford the greatest likelihood of rapidly promoting and establishing the development of successful MDS service as a viable competitive system. The altered methodologies presented here outweigh the methodologies of the Commission's preferred way of processing (using predetermined geographic areas) since this method, albeit slightly modified by the Vega Group, will expedite the processing of MDS applications. First, unlike the Commission's proposal, the Vega Group suggests that a short form application be filed identifying all co-channel and adjacent-channel stations licensed or pending within 50 miles of the proposed transmitter site. No detailed analysis would be required at this point, only a certification stating that an applicant has conducted the necessary interference study to those affected stations would be needed and the study itself would be submitted after the auction. This plan is essentially the same format utilized by the Private Radio Bureau to process Operational Fixed Microwave Stations ("OFS") and has proven extremely successful in providing rapid service to the community and assisting the Commission in quick detection of mutually exclusive situations. After the close of the national filing window, the Commission could determine which newly filed

applications are located within 50 miles of one another and designate those applications for competitive bidding. Additionally, the Commission should provide a 30-day right to amend period to allow any designated "mutually exclusive" applicant or applicants an opportunity to resolve the mutual exclusivity on their own through consent. Any applications remaining could be then designated for competitive bidding which would be conducted as recommended herein.

This method would not create any "daisy-chain" problems since the MDS service does not incorporate the same interference criteria as the LPTV Service. For example, under LPTV, "daisy-chain" situations are far more statistically probable since there are many many ways in which applications can be linked together including co-channel, adjacent-channel, 7, 14 and 15 channels ("taboo") removed not to mention linking to Full Service Television Stations. Moreover, the LPTV Service allows applicants to specify a wide variety of power outputs, antenna patterns and EIRP that further enhance the probability of creating "daisy-chain" scenarios. In the MDS service, the Commission is only processing essentially two (2) scenarios which could lead to daisy-chaining. These scenarios are limited to only: 1.) co-channel and 2.) adjacent-channel cases. Additionally, MDS systems are generally configured with a similar output power, antenna configuration and EIRP further minimizing conflicts. Even so, the LPTV Branch has not experienced many cases of daisy-chaining since it adopted the national filing window concept. Barbara Kreisman, who is now partially responsible for the processing of MDS applications, came from the LPTV Branch and has extensive experience with the national filing window concept and, as such, will be capable of implementing this plan so that it

is successful as it is in LPTV. The Vega Group supports an advanced, 30-day notice of acceptance of applications under this scenario with a five- (5) day filing window to submit applications.

FIRST WINDOW

The Vega Group vehemently opposes the Commission's suggestion that the initial national filing window be available only to incumbent MDS operators and licensees. This concept is seriously prejudicial and jeopardizes the potential of new and better concepts being introduced to the MDS industry. Furthermore, as stated in the **ANNUAL ASSESSMENT OF THE STATUS OF COMPETITION IN THE MARKET FOR DELIVERY OF VIDEO PROGRAMMING (COMPETITION REPORT)**, CS Docket No. 94-48, FCC 94-235 (released September 28, 1994), the Commission recognizes that the "...use of digital compression should help..." alleviate the channel capacity problem. Hence, with digital 10-to-1 compression technology, existing licensees utilizing MDS as a multichannel wireless cable service don't require additional spectrum. The Commission must further recognize that there are existing entities not utilizing these frequencies in a multichannel video entertainment format. For example, MDS Stations WFY742 and WGW518 licensed to the board of Orange County, Florida in Orlando, Florida as well as Station WEF378 in Miami, Florida licensed to Dade County and Stations WPY38 and WGW504 licensed to Palm Beach County in West Palm Beach, Florida are all examples of facilities not wishing to incorporate what the Commission defined as "critical mass" of MDS frequencies in a particular geographic area. These services involve limited use of frequencies to transmit certain specialized, public interest programming. It is predicted that the Direct Broadcast

Service, the C-band "prime star partners" satellite system, cellularvision's 28 GHz networks and video dial tone will be the primary focus of cable competition. To restrict the eligibility of an applicant to existing system operators and licensees essentially eliminates the ability for new, more innovative and competitively based services from being introduced to the market. Any operators seeking to accumulate additional capacity can do so by filing its own application and "...those who most highly value the spectrum..." will obtain the license through competitive bidding as desired by the Commission. The Commission fails to demonstrate how this discriminating plan would "encourage enhancement of existing wireless cable operations" and not simply promote warehousing. The Commission should be concerned about accelerating opportunities for competition with wired cable systems through MDS since the introduction of video dial tone, Direct Broadcast Service and 28 GHz "cellular vision" system will have a far greater impact on cable than a limited, 30-channel wireless cable application.

INTERFERENCE CRITERIA AND MUTUAL EXCLUSIVITY

As stated previously, the Vega Group supports the utilization of a straight-line distance separation figure as a method of calculating mutual exclusivity with the exception that the Commission allow a 30-day period following Public Notice listing those applications deemed mutually exclusive an opportunity to submit consent amendments eliminating the mutually exclusive situation. By incorporating engineering techniques acceptable by the Commission such as offset operation which have proved successful in preventing harmful interference from penetrating a Protected Service Area, this plan can work. Adoption of a 50-mile standard ensures capture of all stations capable of

creating interference to one another while at the same time eliminating any threat for "daisy-chain" scenarios.

The Vega Group generally supports the current method of calculating interference as based on the 45dB and 0dB co-channel and adjacent-channel Desired-to-Undesired signal strength ratios at points along and inside the service contour of the station to be protected. The 15-mile Protected Service Area has generally been accepted as standard for calculating interference and, anyway, has now been well entrenched as the standard for MDS service. The Vega Group supports the formulation of a computer assisted interference program available to all users, not simply the Commission staff as suggested in the Notice. The concept of delegating the process of conducting interference studies to the Commission staff will result in lengthy delays and certain failure as evidenced in the Private Radio Bureau where the Commission's efforts to process SMR applications completely failed. Nonetheless, and perhaps most importantly, in the spirit of the current administration's goals to reduce regulatory burdens on licensees, the Commission is obligated to retain its current processing scheme in which the long-form application would be submitted with the detailed interference analysis and demonstration of noninterference after the auction by the high bidder. This eliminates any delays in obtaining Commission approval of an interference analysis until after a high bidder has been identified.

A computer interference program should be proposed under separate notice by the Commission to which it would accept comments or changes by interested parties. This method of interference calculation would then be available to all interested parties to utilize as a standardized method of calculating interference. This algorithm should be

configured such that all pertinent attributes are identified in the study printout such as technical configurations of desired and the undesired station as well as the free-space path loss analysis itemized for evaluation. Exhibit 3 provides further information on the standards that should be applied to interference studies and illustrates the format to which the study should be presented.

Finally, under the Commission's **REPORT AND ORDER** in PR Docket No. 92-80, released February 12, 1993, Para. 17, states that "...in addition, we agree with Hardin and Associates that future processing can be expedited by requiring MDS applicants to submit, upon initial filing of the MDS application, two (2) maps." In this same paragraph the Commission goes on to describe that the maps would show the boundaries of the Protected Service Areas of all authorized or previously proposed co-channel and adjacent-channel stations within 100 miles of the applicant's proposed MDS transmitter site, and that the 45dB and 0dB Desired-to-Undesired signal contour line would also be illustrated. However, upon review of the Hardin and Associates ("Hardin") Comments, referenced in the Commission's **REPORT AND ORDER**, nowhere does Hardin suggest that these two maps be submitted. In fact, what Hardin sought was to require submittal of a "radio shadow map" depicting the Protected Service Area of any stations which may be affected. Hardin did not propose any fixed mileage distance either. Moreover, in Hardin's, **MOTION FOR PARTIAL RECONSIDERATION**, in PR Docket No. 92-80, received March 31, 1993, he points out to the Commission that the intention was to submit **SHADOW MAPS**, not detailed and complex interference contour maps which would include all stations within 100 miles. Hence, given the misunderstanding of

Hardin's intention and the fact that the contour maps are completely cumbersome and inappropriate for wireless cable, the Vega Group agrees that the Commission should modify Section 21.902(2)(i) and 21.902(2)(ii) of the Commission's Rules and eliminate the map requirement since they were never suggested by any commentor in the referenced **REPORT AND ORDER**.

The Commission is advised that it should retain the detailed technical information currently requested in the FCC Form 494 application and not exclude technical data such as transmitter type, transmission line loss and/or antenna gain including antenna manufacturer and model number. Additionally, the Commission should retain the antenna vertical sketch as it has played an important role in the attributes of the mounting configuration of a particular MDS facility in relationship to other services utilizing the structure. It also gives a general identification of the type of structure itself which can be particularly helpful under certain situations such as building mount configurations that are rather elaborate. For example, a particular antenna mounted atop the Empire State Building in New York City may be mounted in a fashion such that the building itself creates an obstruction between two stations thereby establishing a null in the antenna pattern supporting noninterference claims to the opposite direction of the main lobe of radiation. Further, an omnidirectional transmitting antenna mounted on the side of a support structure should provide additional structural data to include tower model or at a minimum the general structure characteristics such as face width. This information is also beneficial to the consulting engineer that cross references technical data with other services such as radio, television, cellular and microwave that might share the same

structure. The Vega Group also stresses the importance of identifying the transmission system so that proper consideration under directional antenna conditions can be applied in the construction of a proper interference analysis. The Commission's attempts to improve the current application form may in fact serve to promote further frustrations that applicants, consulting engineers and law firms encounter with respect to current, up-to-date information regarding a newly filed or existing applications.

AN ELECTRONIC APPLICATION FORM

The Vega Group is not persuaded that the Commission should incorporate, at this point, an electronic application form since the data from the former Private Radio Bureau relative to submittal of its FCC Form 574 in electronic format has not been proven successful. Additionally, by the Commission's own COMMENTS at Paragraph 17 in the Notice, there is a probability that an applicant will need to "supplement" the application in paper form for those situations that are not conducive to electronic filing. This further reduces the efficiency and moves away from simplifying the process of filing an MDS application. In fact, even with the electronic application form scenario adopted by the Private Radio Bureau, the Commission was forced to implement a freeze of the 800 MHz, 900 MHz and 220 MHz Mobile Radio Service since the Commission has been overwhelmed with applications. It is clearly demonstrated under this scenario that the Commission is not capable of increasing processing efficiency simply by using an electronic application form.

ELECTRONIC FILING PROCESS

The Commission states that in "designing an electronic filing system that will work efficiently, we believe that it will be necessary to eliminate the filing of paper to the maximum extent possible". While the Vega Group is not completely opposed to the electronic filing format, it suggests that the Commission slowly and carefully complete a transition from filing in original paper form to filing in an electronic form. The Commission has not demonstrated that the electronic filing would increase the number of applications to be processed (see above). Moreover, by simply adopting the provisions of the Notice without consideration to the electronic filing aspect, the Commission will have essentially eliminated substantially the number of applications to be processed anyway. Hence, it is recommended that the Commission move to incorporate an electronic filing scheme later. Furthermore, with the implementation of the auction process, necessity to pay annual user fees, and a limited number of available markets, the Commission is substantially increasing the cost for those small businesses, entrepreneurs and minorities to participate in the MDS service. By the Commission's own statement, the cost of adopting the electronic filing process "...would not come inexpensively." It has not been proven that the cost be minimized by utilizing established representative groups nor has the security of this transfer protocol been proven fail safe.

ELECTRONIC FEE PAYMENTS

The Vega Group supports the Commission's adoption of a method to accept electronic payments under Section 1.1109 of the Commission's Rules. This, of course, assumes that the Commission maintains its current methods of payment for application

fees via check, bank draft, money order, wire transfer, electronic customer-initiated payments and VISA or MasterCard credit cards. This vast array of payment opportunities greatly enhances a licensee's ability to ensure that payment is made in a reasonable and expedited fashion. However, since the Commission, as discussed further, is preparing to adopt a competitive bidding procedure, the Commission should waive the initial application fee payment and adopt an up-front payment scheme upon determination that an application is deemed mutually exclusive and subject to competitive bidding. The method of paying the up-front payment or required down payment under a competitive bidding procedure should be available under the same methods described above.

COMPETITIVE BIDDING PROCEDURES

The Vega Group does identify concerns relative to the competitive bidding process which should be addressed prior to adopting a recommended bidding approach. First, pursuant to Commission Public Notice, **MASS MEDIA ACTION**, dated June 9, 1994, the Commission transferred the responsibility for processing MDS applications from the Common Carrier Bureau to the Mass Media Bureau. Currently, there are no other mass media services subject to competitive bidding, see **NOTICE OF PROPOSED RULE MAKING**, PP Docket No. 93-253, released October 12, 1993. As identified in these COMMENTS, the Vega Group has pointed out that there is a growing utilization of the MDS frequencies for nonsubscriber based services which essentially classifies these operations as "private services" not subject to competitive bidding. It is questionable how the Commission intends to process MDS applications under a competitive bidding format

while recognizing the growing utilization of these frequencies for non-traditional, private-based services.

However, since the Commission is compelled to adopt a competitive bidding scheme in which to award licenses, the Vega Group strongly supports the sequential oral auction method over any other method especially sealed bid or simultaneous multi-round. Since there is virtually no interdependence to these licenses, simultaneous multi-round bidding would be cost prohibitive and time consuming to administer. Additionally, since the Vega Group supports national filing window approaches, an interdependence issue is virtually eliminated.

The Vega Group believes that the competitive bidding procedures adopted for MDS licenses can be simple, easy to administer and fair to all those parties typically seeking MDS licenses which are primarily entrepreneurial, small business entities which are also referred to as designated entities. The Vega Group not only favors sequential oral auctions, but fixed, up-front payments similar to Interactive Video and Data Service ("IVDS"), consideration for designated entities such as reduced payment amounts, and limitations in the number of licenses any one entity may own.

The Vega Group agrees with the Commission that the interdependence between MDS licenses in different geographic areas is not significantly high to justify the use of simultaneous, multi-round bidding. Further, there is no public interest advantage to any one entity being allowed to control a number of licenses spread out over a geographic area as this creates monopolistic opportunities in any particular geographic region. Further, the Vega Group is not convinced that there is significant interdependence

contained inside an existing MDS market to warrant the utilization of simultaneous, multi-round auctions anyway. It is predicted that the competition amongst mutually exclusive applicants will be extraordinarily low and that the perceived value of the license will also be minimal, at best. Therefore, as in the case of IVDS licenses, the value of MDS licenses is not expected to be sufficiently high to justify the use of simultaneous, multi-round bidding. Simultaneous, multi-round bidding is far more complex for bidders and will certainly be administratively more expensive than other auction methods the Commission could select. Further, while the value of particular licenses in MDS are low relative to the cost of conducting a simultaneous, multi-round auction, the Commission said that it would consider auction designs that are relatively simple, with low administrative cost and minimal cost to the auction participants. The utilization of sequential oral bidding proved exceptionally successful under IVDS and is perfectly suited to be integrated into a national filing window sequence. There will be no need to initiate a bid sequence since there will probably be a limited number of applications submitted during a national filing window period. As in IVDS, the bid increments should be established by the auctioneer before or during the auction process. An application deemed mutually exclusive under the short-form filing format should, at some later point, be required to submit an up-front equivalent to $500.00 per every five (5) market/channel groups that an applicant intends to purchase.

To maximize the integration of multiple entities into the MDS industry, the Commission should limit the number of licenses any one applicant can own. The Vega Group believes that based on an average of five (5) licenses or applications

owned/leased by one entity per market a twenty-five (25) market maximum would be appropriate. This mirrors the existing mass media ownership rules as well. This type of limitation would promote the participation by the greatest number of individuals or entities that desire to participate in the wireless cable industry. This also ensures that no one entity gains total control of the MDS frequencies.

Finally, similar to the Personal Communications Service ("PCS") opportunity, the Commission is encouraged to adopt provisions to help ensure that small businesses, businesses owned by members of minority groups and women are given an opportunity to participate in the provision of spectrum-based services. The Vega Group supports the ability to incorporate installment payments, tax certificates, bidding credits as preferences afforded to these entities. The Vega Group does not believe that set-asides are conducive to this particular service. The Vega Group believes that small business should be defined as those organizations with an average gross revenue for the two (2) preceding years of less than $2 million. These designated entities should be afforded a twenty-five (25) percent bidding credit as applied to the winning high bid and limited to a down payment of five (5) percent of the high bid total to which the up-front payment would apply. Those high bidders not classified as designated entities would be required to submit the total high bid amount within five (5) days following the auction. All designated entities should be allowed a ten- (10) year period in which to pay off the high bid amount with interest only applied for the first five (5) years. The Vega Group believes that these aspects are fair and in line with the Commission's intention on meeting the congressional mandate of conducting auctions.

CONCLUSION

The Commission must move swiftly to adopt the issues established under the Notice with modifications as provided in these COMMENTS so the MDS industry can begin to rebuild itself. The MDS industry has had a long history of troubled regulatory handling resulting in an absolute need for positive changes to the processing procedures which can be accomplished through the adoption of those issues identified herein.

WHEREFORE, the foregoing information being considered, the Vega Group hereby requests that the Commission consider and adopt those suggestions as identified herein and eliminate those determined to be contrary to the public interest.

Respectfully submitted,

By: _____

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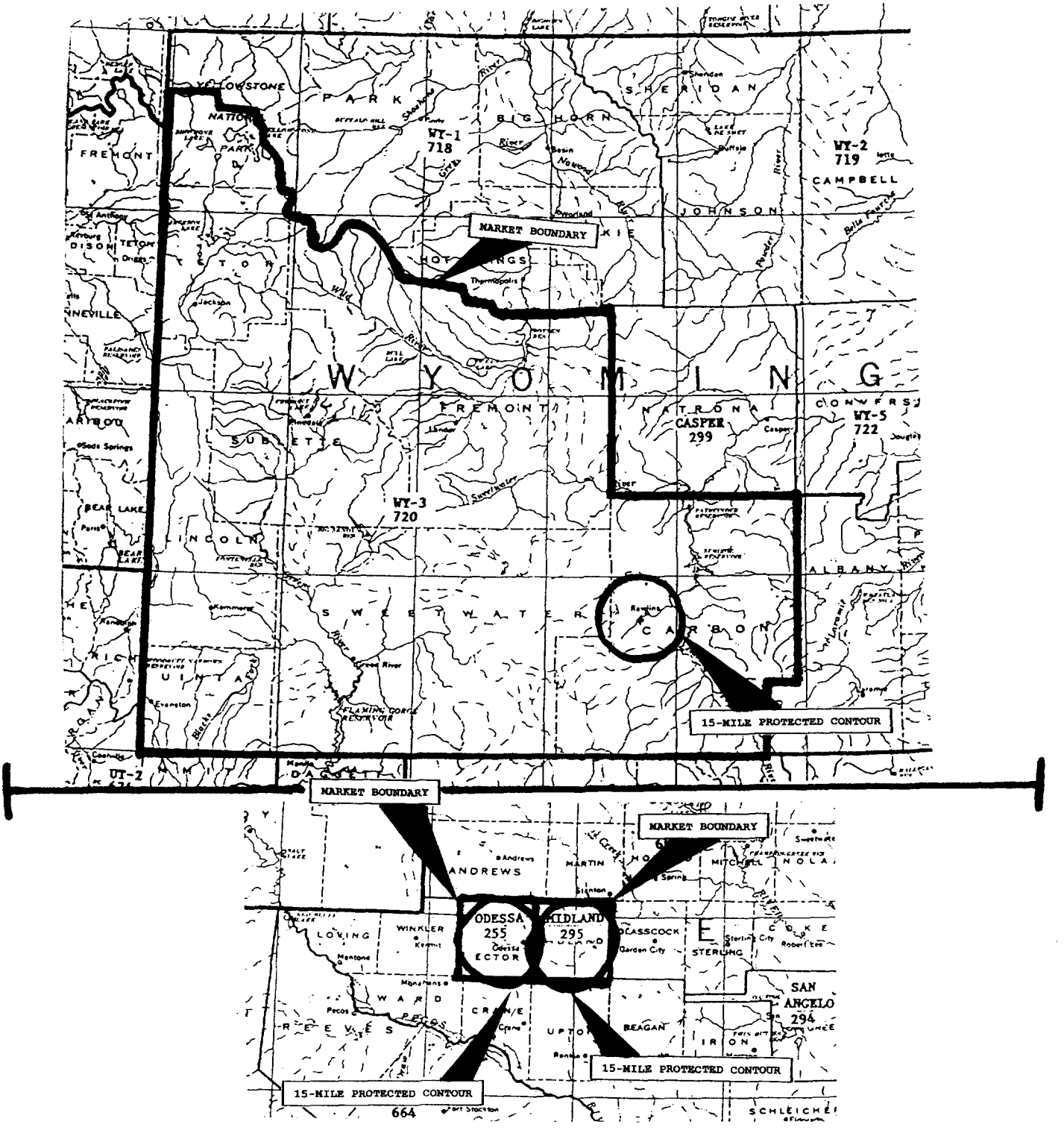
Dated January 5, 1995

(23.27)

EXHIBIT 1
MSA/RSA MARKETS
TOP: RSA #720-WYOMING 3-LINCOLN
BOTTOM: MSA #255-ODESSA AND MSA #295-MIDLAND
WITH HYPOTHETICAL PROTECTED SERVICE AREA

PREPARED BY
THE RICHARD L. VEGA GROUP



SCALE 1:2,500,000

1 inch equals approximately 40 miles

25 0 25 50 75 100 125 150 175 200 MILES

25 0 25 50 75 100 125 150 175 200 KILOMETERS

EXHIBIT 2
ALABAMA ADI MARKETS
WITH
HYPOTHETICAL PROTECTED SERVICE AREA

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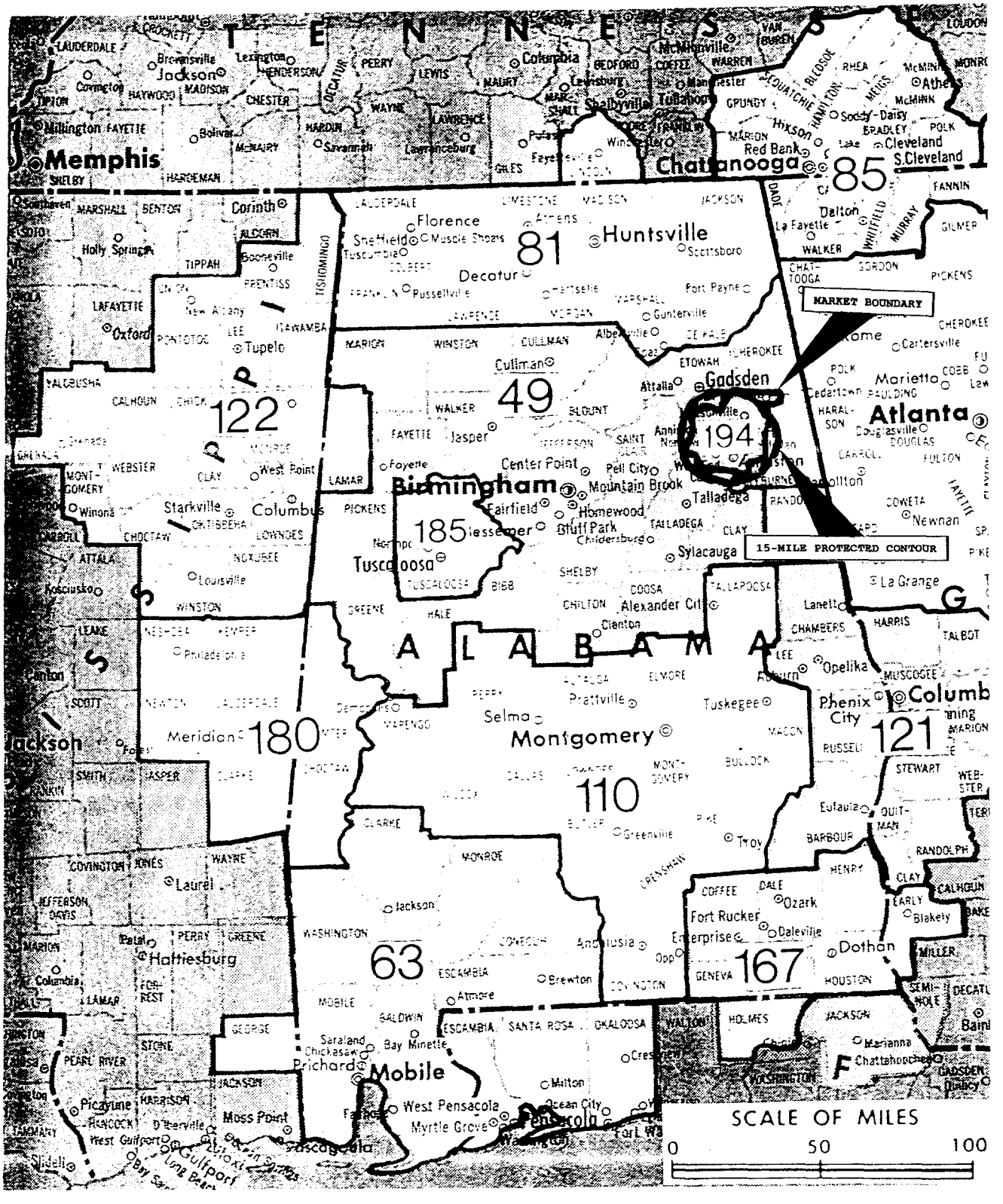
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La Grange
Opelika
Auburn
Phenix City
Columbus
Montgomery
Selma
Prattville
Tuskegee
Meridian
Hattiesburg
Laurel
Jackson
Mobile
Prichard
Bay Minette
Brewton
Andalusia
Dothan
Ozark
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Picayune
Marianna
Chattahoochee
Blakely
Cullman
Jasper
Fayette
Columbia
Lawrenceburg
Lexington
Jackson
Brownsville
Covington
Millington
Bolivar
Savannah
Lewisburg
Shelbyville
Tullahoma
Manchester
McMinnville
Winchester
Red Bank
Soddy-Daisy
Dalton
La Fayette
Calhoun
Rockwood
Kingston
Lenoir City
Sevierville
Gatlinburg
Pigeon Forge
Knoxville
Oak Ridge
Clinton
Harriman
Jellico
Cumberland Gap
Tazewell
Morristown
Greeneville
Johnson City
Kingsport
Bristol
Elizabethton
Erwin
Mountain City
Jonesborough
Rogersville
Sneedville
Big Stone Gap
Wise
Pound
Norton
Appalachia
Pennington Gap
Jenkins
Hazard
Whitesburg
Pikeville
Paintsville
Prestonsburg
Martin
Hindman
Salyersville
Mt. Sterling
Irvine
Richmond
Berea
London
Corbin
Somerset
Pulaski
Stanford
Danville
Lancaster
Harrodsburg
Frankfort
Lexington
Winchester
Paris
Cynthiana
Maysville
Ashland
Grayson
Olive Hill
Morehead
Flemingsburg
Carlisle
Mt. Vernon
Nicholasville
Versailles
Georgetown
Cadiz
Hopkinsville
Elkton
Guthrie
Pembroke
Cerulean
Trenton
Ashland City
Dickson
Lebanon
Gallatin
Hartsville
Carthage
Cookeville
Sparta
Crossville
Dayton
Ooltewah
Ringgold
Chickamauga
Lafayette
Rossville
Ft. Oglethorpe
Cleveland
S. Cleveland
Athens