

Before the  
Federal Communications Commission  
Washington DC 20554

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FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of )  
 )  
Proposed Amendment of the ) PR Docket 92-257  
Commissions Rules Concerning ) Second Further Notice  
Maritime Communications. ) of Proposed Rule Making

To: Secretary  
Federal Communications Commission  
1919 M. Street  
Washington DC 20554

**REPLY COMMENTS OF FRED DANIEL d/b/a ORION TELECOM  
IN THE SECOND FURTHER NOTICE OF PROPOSED RULE  
MAKING**

<sup>1</sup>Fred Daniel d/b/a Orion Telecom (Orion), by its attorneys, submits these Reply Comments, with respect to the Comments of the National Association of Broadcasters ("NAB") and the National Association for Maximum Service Television ("MSTV"), filed on September 15, 1997, after the close of both the Comment and Reply Comment periods of Second Further Notice of Proposed Rule Making ("Second Notice"), in Docket 92-257.

**I. INTRODUCTION**

<sup>2</sup> Orion is licensed by the Federal Communications Commission (FCC) to provide Automated Maritime Telecommunications System ("AMTS") maritime CMRS services on the East, West and Gulf Coasts of the United States.

<sup>3</sup> Both the NAB and MSTV had ample opportunity to file timely Comments and Reply Comments, as did other participants to this proceeding, during the times allotted for Comments and Reply Comments. The filing of "late" Comments by the NAB and MSTV, without proffering any reason for their tardiness, could be considered disingenuous and designed to disallow other Commenters from filing timely Reply Comments. If the Commission accepts the late filed Comments of the NAB and MSTV, then Orion request that these Reply Comments be informally considered on an equal basis.

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<sup>4</sup>Notwithstanding the untimeliness of NAB and MSTV Comments, the arguments put forward by the NAB and MSTV contain no facts not already in the record. Almost all arguments made in their Comments to the Second Notice have been previously rejected by the Commission. The Nab and MSTV further attempt to place on the record in this proceeding certain distortions of fact.

## II. DISCUSSION

<sup>5</sup> Orion has no objection to the current rules requiring AMTS applicants to perform engineering studies and the notification of channel 13 and 10 broadcasters near their coverage areas, for new AMTS systems or expanded coverage of existing AMTS systems. Orion also favors the more flexible siting policy outlined in the Second Notice for "fill in" and stations at remote locations.

### SITING AND REGULATORY FLEXIBILITY

<sup>6</sup>The NAB and MSTV are mistaken in their assertion that "the possibility of interference to Channels 10 and 13 is well established". Their Comments in this proceeding, similar to those offered in other proceedings, have provided no support whatsoever for this assertion. The AMTS industry has a spotless record of performance, without a single documented case of complaint of TV interference. The Commission acknowledged this fact, when it approved Orion's New York AMTS application, over the objection of the Educational Television Authority of New York, WNET Channel 13. The Commission has reaffirmed this position in a number of instances.<sup>1</sup>

<sup>7</sup>The Eckert Report<sup>2</sup> in fact only highlighted the "susceptibility" to "perceptible" interference in the five TV sets chosen for examination in FCC Lab Division Report, Project No. 2229-71<sup>3</sup>, more than 20 years ago. Further, the Middlekamp and Davis tests, on which the Eckert Report findings are based, indicated that the five television sets used in the tests were never checked for compliance with their published performance specifications prior to the test. Middlekamp and Davis wanted "random" samples of the five receiver technologies available on the market at the time of the tests (prior to 1975).

<sup>8</sup>The assertion made by the NAB and MSTV that there is little "evidence to suggest that the filtering circuitry in TV receivers has improved enough over the past 18 years (i.e. since 1979) to warrant relaxation of the Commission's rules designed to protect TV receivers from harmful interference", was not supported by evidence.

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<sup>1</sup> In Re Applications of Fred Daniel d/b/a/ Orion Telecom and Paging Systems Inc. For Authority to Construct New Automated Telecommunications Systems at Miami, FL., New Bern, NC., Suffolk, VA., Baltimore MD., Newark, NJ., New York, NY., Oak Hill, FL., Rehoboth, MA., Spaulding, FL., and Raymond, ME. Memorandum of Opinion and Order (May 10, 1996)

<sup>2</sup> OST Technical Memorandum FCC/OST TMS2-5, July 1982

<sup>3</sup> L. Middlekamp, H. Davis, Interference to TV Channels 11 and 13 from transmitters operating at 216-225 Mhz, FCC Lab Division Report, Project No. 2229-71, Oct 1975

- <sup>9</sup>First, all of the tests conducted by Middlekamp and Davis were presumably conducted before 1975, as the report itself was published in October of 1975<sup>4</sup>, not between 1972 and 1979 as stated by the NAB and MSTV in their Comments. Thus the intervening period between the published data, on which the Eckert Report based its findings, and today is 22 years, not 18.
- <sup>10</sup>Second, most television sets today do have vastly improved IF filters, compared to the five television sets that were tested by Middlekamp and Davis. Many TV sets today use state-of-the-art Surface Acoustic Wave ("SAW") filter technology. This technology was not available in 1979, let alone in 1975 when the Middlekamp and Davis Report was published. SAW technology came about in part with the advent of cable television, where the ability to reject adjacent channels<sup>5</sup> was a necessity. If 1975 technology were used today, then the next adjacent TV channel would cause significantly more "perceptible" television interference than any AMTS system. Orion's own random field tests on more than 10 TV sets has shown modern TV sets to have significantly improved performance<sup>6</sup>. The tests were conducted because Orion respects its obligation to protect against television interference and needed to know what it could be expected to do, to carry out that obligation.
- <sup>11</sup>The NAB and MSTV also mistakenly state that further TV receivers were tested in 1982<sup>7</sup>, presumably referring to the Eckert Report. That report contained no tests or data, other than that provided by Middlekamp and Davis in 1975. Further, the NAB and MSTV provided no factual support for their statement that ".....many lower priced receivers are still susceptible to adjacent channel interfering signals". This is an interesting claim, as the manufacturers of these sets must surely be beset by performance complaints when these sets are used in a cable TV environment, and to protect their service, broadcasters should be protesting inadequate receivers.

<sup>12</sup>It is unlikely that 1975 genre TV sets are still in widespread use today. However, if such a set were to be in use, and were to incur perceptible interference from an Orion AMTS system, and a formal complaint were received by the Commission, then Orion would solve the problem, even if it meant providing a new TV, free of charge, to the complainant.

<sup>13</sup>The assumption that any conclusion, made in a study commissioned by the NAB<sup>8</sup> dealing with AM radio interference, is applicable to the susceptibility of perceptible interference to TV receivers from

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<sup>4</sup> See Footnote [1] of *OST Technical Memorandum FCC/OST TMB2-5 July 1982*

<sup>5</sup> In today's modern cable TV systems all channels from 2 through 13 are in use.

<sup>6</sup> TV sets today are on average 30 dB better at rejecting interference from systems operating between 217.000 and 220.000 Mhz, as compared to those sets tested by Middlekamp and Davis prior to 1975.

<sup>7</sup> See Page 5 *Comments of the National Association of Broadcasters and the Association for Maximum Service Television on the Second Further Notice of Proposed Rule Making* filed late, with the Commission on September 15, 1997.

<sup>8</sup> National Association of Broadcasters, *AM Radio Interference Study Final Report*.

AMTS systems, is pure conjecture. In reality, most consumers spend much more time watching television than listening to AM radio. While it may be true that AM radio listeners may simply switch to another radio station, or turn off their radio, if interference is encountered, this is not the case with television. Television viewing is seen by many consumers as "a God given right". There are few over-air television choices in any given market, reducing the number of viewing options. Orion would contend if television interference were to occur, viewers would most certainly complain. The FCC themselves publish a booklet for consumers on how to file a complaint. Further, the FCC has additional instructions for consumers on its WEB site on how to file interference complaints.

<sup>14</sup>Neither in comments filed in past proceedings by MSTV, nor in these latest Comments filed by the NAB and MSTV jointly, has either organization been able to conclusively document any complaint of interference to TV reception. Orion contends that the only conclusive evidence of television interference from AMTS services would be "real documented instances of complaints filed by viewers". There have been none.

<sup>15</sup>It is interesting to note that the NAB and MSTV confidently reference several recent engineering studies, produced during the digital television ("DTV") development process, that purportedly show the continuing susceptibility of NTSC television receivers to adjacent channel interference in their Comments. As neither the rules for NTSC television, nor those for AMTS systems, have changed materially, this conclusion is at best self-evident and at worst a meaningless anecdote. Yet in the same paragraph the NAB and MSTV readily admit that "as the DTV signal contains sophisticated error correction coding that enables it to remain unaffected by some of the interfering signals that impact analog signals". One can only conclude that, as they have chosen not to provide any substantive documentation on real occurrences of television interference from AMTS systems, the NAB and MSTV must be hedging their bets, by attempting to create confusion.

<sup>16</sup>As stated in the introduction, Orion supports engineering and notification requirements for new systems or expansion of existing systems. The construction of fill-in sites is a different matter. The ability to construct fill in stations, with siting and regulatory flexibility as proposed by the Commission, will simply provide parity for AMTS system operators with other CMRS providers, and present no greater interference potential to any other spectrum user. With fill-in applications, full engineering and broadcaster notification will already have taken place for the AMTS licensee's primary stations. Fill-in stations, by their definition, do not extend the licensed interference contour of the licensee's primary station or system, and Orion contends that AMTS providers should be allowed to construct these fill-in stations, in a timely manner, without public notice and engineering requirements, similar to other CMRS licensees, in accord with the Commission's policies on regulatory parity. AMTS licensees would be required to notify the FCC of any fill-in stations constructed, either on or before the date of commissioning, by the filing of a standard application. Orion, for its part, has absolutely no objection to

also notifying affected broadcasters of the construction of any fill-in station, but consistent with the treatment of SMR fill-in applications, no opportunity should be provided for opposition.

#### TECHNICAL FLEXIBILITY

<sup>17</sup>The Commission proposed to eliminate the modulation and channelization requirements for AMTS systems<sup>9</sup> as long as the transmissions do not exceed the adjacent channel emission limitations of each station authorization. Orion supports the Commission's conclusion, as it would allow more spectrum efficient technologies to be employed, and provide overall greater increased service to AMTS subscribers.

<sup>18</sup>The NAB and MSTV MAY be correct, in saying that this COULD increase the level of energy emitted in the AMTS band, but this does not automatically correlate to increased out-of-band AMTS emissions which WOULD impact television channels 10 and 13. This would make as much sense as suggesting, that the possibility of perceptible interference to television reception on Channels 10 and 13 could be reduced, if no more TV sets were sold. In any event, the claims put forward by the NAB and MSTV are further conjecture. Neither organization has provided any showing of fact, that in eliminating modulation and channelization requirements for AMTS systems, actual television reception on channels 10 and 13 will be adversely affected.

#### POINT TO POINT NETWORK CONNECTIONS

<sup>19</sup>The FCC by its own outdated standard as contained in the Eckert Report would allow the use of one watt effective radiated power ("ERP") on frequencies from 216.750 - 217.000 Mhz without exceeding the limits recommended in the Eckert Report.

<sup>20</sup>Avoiding the burden of licensing of this spectrum by rule is significant, as it greatly reduces the paperwork burden on both the AMTS licensee and the Commission, and complies with the Congress' call to minimize unnecessary regulation. This proposition being affirmed by the NAB and MSTV in their Comments.

<sup>21</sup>The NAB and MSTV suggestion of moving the frequencies from Part 95 to Part 80, and to impose the burden of full engineering and notification on low power 1 watt ERP stations<sup>10</sup>, similar to that required for regular AMTS stations, is illogical. This would significantly decrease technical flexibility and increase the regulatory burden for AMTS licensees. Further, it would be entirely contrary to the NAB and MSTV position endorsing "the reduction of regulatory burdens". The NAB and MSTV call for compliance with

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<sup>9</sup> Not necessarily just base stations as stated in the NAB and MSTV Comments.

<sup>10</sup> Standard AMTS engineering is computed at 1000 watts ERP. To use this same algorithm in a 1 watt link environment would result in a grossly inaccurate result. The disparity between 1 watt and 1000 watt ERP is 30 dB.

the out-of-band emission requirements as noted in 47 C.F.R. 80.211 is moot, as the Commission never intended to waive this requirement in the regulatory and technical flexibility proposals in the Second Notice.

## **CONCLUSION**

<sup>22</sup>The current engineering criteria, contained in the Eckert Report, are excessive in light of the performance characteristics of modern TV receivers. Even applying the very conservative engineering suppositions contained in the Eckert Report, all AMTS providers have been able to engineer comprehensive systems that do not cause television interference. This has been noted on a number of occasions by the Commission itself.

1. <sup>23</sup>Orion has, in its original Comments, confirmed its willingness to provide both system engineering and broadcaster notification for new AMTS systems or the expansion of existing AMTS systems.
2. <sup>24</sup>Orion further supports the Commission's tentative conclusion, to decrease regulatory burdens, by relaxing the licensing requirements for fill-in, fixed and point-to-point stations. Orion has indicated its willingness to notify broadcasters of fill-in, fixed and point-to-point facilities that fall within the Grade B contour of channel 10 and 13 stations.
3. <sup>25</sup>Orion oppose the relocation of the frequencies 216.750-217.000 Mhz from Part 95 to Part 80. Orion likewise support the increase of permitted power levels from 100 mW ERP to 1 watt ERP on these frequencies, as tentatively concluded by the Commission. Orion objects to the suggestion, of the NAB and MSTV, that it be subject to additional regulatory and licensing burdens for these control frequencies.
4. <sup>26</sup>No AMTS provider has ever had a single complaint of interference to channel 10 or 13 television reception brought against it.
5. <sup>27</sup>The NAB and MSTV presented no substantive showing that AMTS services have in the past or are likely ever to cause, given the regulatory changes contemplated by the Commission, perceptible interference to television reception within the Grade B contours of channels 10 and 13. The regulatory changes were not shown to increase the potential for television interference in any way.

<sup>28</sup>Many of the claims, assertions and innuendoes contained in the Comments lofted by the NAB and MSTV collectively, have been previously claimed by MSTV in various proceedings involving Orion before the Commission over the last five years. These Comments by the NAB and MSTV are yet another vexatious attempt to obfuscate the real issues, and to impede the Commission's execution of its Congressional mandate to reduce unnecessary regulation and increase spectral efficiency. Nonetheless,

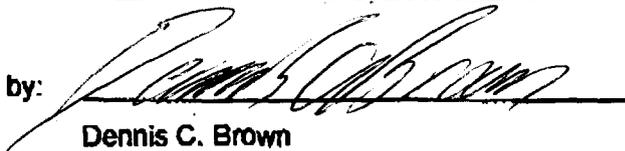
television viewers have been provided by the Commission with the ultimate caveat against television interference from AMTS systems: if interference is encountered and attributed to an AMTS system, the AMTS licensee must rectify the interference, or cease operations.

<sup>29</sup>WHEREFORE, THE PREMISES CONSIDERED, Orion Telecom hereby request the Commission disregard the unsupported Comments of the NAB and MSTV, and adopt the regulatory improvements which the Commission has proposed.

Respectfully submitted

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Dated September 19, 1997

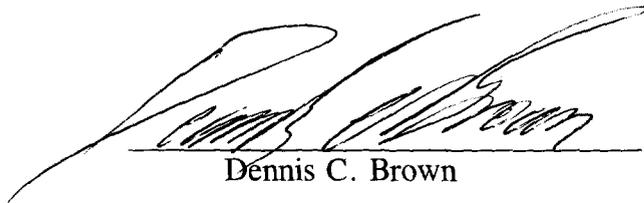
CERTIFICATE OF SERVICE

I hereby certify that on this nineteenth day of September, 1997, I served a copy of the foregoing Reply Comments of Fred Daniel d/b/a Orion Telecom in the Second Further Notice of Proposed Rule Making on each of the following persons by placing a copy in the United States Mail, first-class postage prepaid:

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