November 18, 1982

Statement of
FCC Commissioner James H. Quello
in which Commissioners Joseph R. Fogarty and Henry M. Rivera join

In re: UHF Noise Figure

I fully support the Commission's proposal to reduce the maximum UHF noise figure to 12 dB. I believe the Commission was correct when it first imposed the 12 dB limit to take effect in 1982. Although the portion of that Order requiring a 12 dB noise figure limit was subsequently rejected by the United States Court of Appeals for the D.C. Circuit, the receiver manufacturers clearly demonstrated, in the interim, that a 12 dB standard was well within the state of the art. As noted in the draft Notice of Proposed Rulemaking ",...our office of Science and Technology has concluded that about 60 percent of present manufacturerers, accounting for about 80 percent of the market, would comply with a mandated maximum noise figure of 12 dB."

Those opposing the 12 dB limit, or any limit for that matter, argue that no limit is needed since 80 percent of the receivers already comply. Presumably, the same argument could be made for removing all speed limits from our streets and highways. Opponents argue, on the other hand, that the proposed limit imposes an unnecessary burden upon both the manufacturers and the Commission. Obviously, any such "burden" on the manufacturers cannot be a heavy one since 60 percent of them, manufacturing 80 percent of the sets,already comply. Insofar as the Commission's burden is concerned, it is met by an annual review of reports from manufacturers. I would like to suggest that responsibility for such burdens constitutes the raison d'etre of this agency.

In imposing a 12 dB noise figure limit on UHF television receivers, the Commission is attempting to ensure that the significant progress made by many of the manufacturers is not transitory. In striving for UHF/VHF comparability, we should keep in mind that we are dealing with television broadcasting systems and that there is room for improvement in each system element from the transmitter, through the transmitting and receiving antennae, through the tuner and receiver, itself, and, finally, to the screen. It has been argued that the 2 dB improvement in noise figure

imposed by this proposal will be imperceptible to the average viewer. It is important to remember, however, that we started with a noise figure limit of 18 dB and that a reduction to 14 dB and, finally, to 12 dB represents a 6 dB improvement which is very significant.

While it is argued that the "marketplace" will somehow work to force the noise figure down over time, the marketplace proved virtually indifferent to the problem until the Commission acted to lower the noise figure limit. Clearly, the consumer has no way of knowing what performance he can or should expect from the set he purchases other than that demonstrated on the showroom floor. That environment may bear litle resemblance to the environment in which the set will be operated in the purchaser's home.

Some opponents of the 12 dB limit have suggested there may be another way to bring about UHF/VHF comparability. They suggest a "comparative" method whereby sets with UHF noise figure only slightly worse than their VHF noise figure, say within 2 dB, would meet our standard. That approach would seem to signal to the manufacturers that it may be more cost effective for them to make their VHF noise figure worse than it now is so that they will then be "comparable" with their UHF noise figures. The fact is that VHF noise figures could be increased with little adverse effect in many cases. The VHF signal at the receiver, in most cases, is sufficiently strong so as to overcome modest increases in the VHF tuner noise. The point is that such a comparative standard would do nothing to improve UHF television service.

Some two-thirds of this nation's public television stations and more than 85 percent of the independent commercial stations operate in the UHF television band. The commercial stations must compete directly with commercial VHF stations for advertising revenues to support their program offerings. Public stations are struggling under severe budgetary constraints while, at the same time, they are faced with UHF technical disadvantages in bringing their programming to the public. A further 2 dB reduction in UHF receiver noise figure, for a total of 6 dB since 1978, will help to reduce that disparity and effect a more equitable and competitive TV marketplace.