

Hughes Network Systems (Hughes) hereby submits comments in response to the NPRM in the above-referenced proceeding.

Hughes Network Systems and Hughes Space & Communications are currently developing a mobile-satellite system that operates in L-Band using a geostationary-based satellite to provide service to hand-held terrestrial terminals. The first such system is being built now for a non-US operation and is scheduled for delivery next year.

Hughes supports the Commission's Actions to implement the GMPCS and indeed commends the Commission for moving forward in development of procedures for the licensing, marking, certification and customs treatment of GMPCS user terminals consistent with the objectives of the GMPCS Memorandum of Understanding (GMPCS MoU). However, we do have one specific concern about the Commission's proposal.

#### The Commission Should Defer Consideration of Narrowband Emission Limits

The Commission proposes to adopt limits on discrete emissions of Mobile Satellite Service (MSS) earth terminals outside the operating band 1610-1660.5 MHz. (NPRM at para 62). The proposal is to limit emissions in the band 1559-1605 MHz to less than -80 dBW within a 700 Hz band to protect GPS receivers. While we have no difficulty with the specification of a wideband limit (i.e., -70 dBW/MHz), Hughes is of the view that the proposed narrowband limit may present a significant constraint on handheld terminals that may prove to be infeasible to implement in practice.

There are several factors that suggest the commission exercise caution in implementing the proposed narrowband limit.

- Preliminary analyses indicate that the -80 dBW/700 Hz specification will be extremely difficult to meet, and even if possible would likely result in significant increase in cost of the handheld user terminal;
- While we do not now wish to debate the validity of the scenarios leading to the proposal presented in the NTIA petition, it appears that the narrowband criteria were developed based upon worst case scenarios that would seldom, if ever, be encountered in actual operation;
- If the proposed limits do prove to be necessary to protect the integrity of measurements of GPS receivers, there is no technical analysis supporting its application solely to MSS terminals while not applying it to other terminals or devices (such as cellular phones, PCS phones, two-way pagers, or Little-LEO terminals).

Hughes has developed its geostationary MSS system in accordance with the ITU and other applicable regulatory standardization provisions (e.g., ETSI) in effect or known to be under development. The -70 dBW/MHz limit has been generally recognized within ITU and ETSI. The narrowband limit has been mostly an issue within the United States. A statement in the NPRM (at para 50) referring to previous RTCA discussions suggests that, "the aviation and MSS participants agreed [on the limits] and the MSS participants conceded that it was feasible for them to meet those limits in the precision-coded GPS band". We do not agree with this conclusion (with respect to the narrowband limit).

Hughes understands the scope of the present proceeding to encompass GMPCS procedures, in general, as well as specific out-of-band emission limits for MSS terminals. Hughes' interest is that the delineation of out-of-band emission limits for MSS terminals may become a de-facto benchmark for FCC acceptance of the GMPCS terminals authorized elsewhere -- or influence FCC positions with respect to international standards, such ITU-R Recommendations. If at all possible, we should avoid the prospect of having different national and international criteria. This is one additional reason why the Commission should defer adoption of the narrowband emission limit until there has been sufficient time to consider the essentiality of this limit for general application, as well as the implications it may have on all types of terminals (MSS and otherwise)

that may emit radiation within the protected band.

#### Conclusion

For the reasons set forth above, Hughes Network Systems supports generally the Commission's efforts to move forward on GMPCS procedural matters, but to defer adoption at this time of narrow-band emission limits on MSS terminals.

Respectfully submitted,

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June 21, 1999