

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

|  |   |                     |
|--|---|---------------------|
| In the Matter of                           | ) |                     |
|  | ) |                     |
| Amendment of the Commission's Rules        | ) |                     |
| Regarding Dedicated Short-Range            | ) | WT Docket No. 01-90 |
| Communication Services in the              | ) |                     |
| 5.850-5.925 GHz Band (5.9 GHz Bank)        | ) |                     |
|  | ) |                     |
| Amendment of Parts 2 and 90 of the         | ) |                     |
| Commission's Rules to Allocate the         | ) |                     |
| 5.850-5.925 GHz Band to the Mobile Service | ) | ET Docket No. 98-95 |
| for Dedicated Short Range Communications   | ) | RM-9096             |
| of Intelligent Transportation Services     | ) |                     |

To: The Commission

**COMMENTS OF PANAMSAT CORPORATION**

PanAmSat Corporation ("PanAmSat") hereby submits these Comments in response to the Commission's Notice of Proposed Rule Making in the above-captioned proceeding.<sup>1</sup> In the NPRM, the Commission proposes service rules to govern the licensing and use of the 5.850-5.925 GHz Band ("5.9 GHz Band") for Dedicated Short Range Communications ("DSRC") stations in the Intelligent Transportation System Radio Service. PanAmSat operates a global network of geostationary Fixed Satellite Service ("FSS") space stations using adjacent C-band frequencies in the 5925-6425 MHz band. For reasons that are discussed below, it is essential that those service rules require DSRC stations to be capable of

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<sup>1</sup> *Amendment of the Commission's Rules Regarding Dedicated Short-Range Communication Services in the 5.850-5.925 GHz Band (5.9 GHz Band) and Amendment of Parts 2 and 90 of the Commission's Rules to Allocate the 5.850-5.925 GHz Band to the Mobile Service for Dedicated Short Range Communications of Intelligent Transportation Services, NPRM & Order WT Docket No. 01-90 ("NPRM"), ET Docket No. 98-95, RM 9096, FCC 02-302 (rel. Nov. 15, 2002).*

withstanding out-of-band emissions from FSS earth stations transmitting in the 5925-6425 MHz band.

The C-band is one of the two principal bands used by the geostationary FSS industry, and there are billions of dollars invested in C-band space and ground station infrastructure. Among other things, C-band satellite transmissions are the principal method for relaying programming to cable system head ends in the U.S.

In the conventional C-band, earth stations uplink to FSS satellites using the 5925-6425 MHz band, which is adjacent to the 5.9 GHz Band, and downlink from FSS satellites using the 3700-4200 MHz band. The uplink transmissions are high power signals, because they need to reach receivers located on spacecraft that are orbiting 22,300 miles above the earth.

Part 25 of the Commission's rules establishes out of band emissions limits for FSS stations. In particular, Section 25.202(f) of the rules requires that the mean power of emissions be attenuated below the mean output power of the transmitter by specified amounts. The amount of required attenuation increases as one moves further from the center frequency of the transmission. C-band uplinks have been designed and manufactured in accordance with these standards, and are widely deployed. In essence, Section 25.202(f), in conjunction with Sections 25.209, 25.211 and 25.212, establish a "noise floor" within which DSRC stations will need to operate.

PanAmSat is concerned that the low power transmissions from DSRC stations will be susceptible to interference from C-band uplink out of band emissions.<sup>2</sup> Its concern is heightened by the fact that the Commission has

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<sup>2</sup> This concern is distinct from the issue PanAmSat raised in a petition for clarification or reconsideration of the order allocating the 5.9 GHz Band to DSRC operations. See NPRM, ¶ 56. In that case, PanAmSat addressed the possibility that FSS earth stations operating in the 5.9 GHz Band would have to be coordinated with co-channel DSRC stations. In this case, PanAmSat's focus is on the possibility that DSRC stations could not withstand out of band emissions from FSS earth stations operating in the adjacent 5925-6425 MHz band.

proposed allocating the 5.9 GHz band “primarily for ‘public safety’ purposes.”<sup>3</sup> If DSRC equipment is not designed to withstand the noise floor from FSS earth stations in the adjacent band, the Commission will be in an untenable position. It will have to address complaints from DSRC licensees concerning interference from FSS earth stations that are being operated in full compliance with the Commission’s rules.

The Commission can avoid this dilemma by adopting service rules for the 5.9 GHz Band that take the existing noise floor into account. It should require that DSRC stations to be capable of withstanding out-of-band emissions from FSS earth stations transmitting in the 5925-6425 MHz band and operating within the limits established by Sections 25.202(f), 25.209, 25.211 and 25.212. Adopting these protections before 5.9 GHz Band systems are deployed will ensure that DSRC stations can be used for the purposes - including safety of life purposes -

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<sup>3</sup> *Id.* ¶ 18.

for which they are intended, and will protect the multi-billion dollar investment in C-band infrastructure.

Respectfully submitted,

PANAMSAT CORPORATION

A handwritten signature in black ink that reads "Henry Goldberg". The signature is written in a cursive style with a large, prominent "H" and "G".

Henry Goldberg  
Joseph A. Godles  
Brita Dagmar Strandberg

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