

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
Amendment of Part of the Commission's Rules)
For Federal Earth Stations Communicating with) ET Docket No. 13-115
Non-Federal Fixed Satellite Service Space Stations)
)
Federal Space Station Use of the 399.9-400.05)
MHz Band; and)
)
Allocation of Spectrum for Non-Federal Space)
Launch Operations)

To: The Commission

**COMMENTS OF AEROSPACE AND FLIGHT TEST RADIO
COORDINATING COUNCIL**

Aerospace and Flight Test Radio Coordinating Council ("AFTRCC"), by its counsel, hereby submits its comments on the Notice of Proposed Rulemaking and Notice of Inquiry ("Notice") in the above-captioned proceeding (FCC 13-65, released May 9, 2013). AFTRCC's comments are limited to those portions of the Notice affecting Aeronautical Mobile Telemetry ("AMT") spectrum. In particular, AFTRCC encourages the Commission to compile a full and complete record regarding the spectrum requirements of the commercial launch industry, before considering whether any new allocations are necessary.

BACKGROUND

AFTRCC is an association of the nation's principal aerospace manufacturers (see Attachment). AFTRCC was founded in 1954 to serve as an advocate for the aerospace industry on matters affecting spectrum policy. AFTRCC is also the recognized non-Federal Government coordinator for the shared, Government/Non-Government spectrum allocated for flight testing.

AFTRCC works closely with Government Area Frequency Coordinators, who are responsible for Federal Government use of the spectrum, in an effort to ensure that interference-free flight test operations are protected, and flight safety is maximized.

The Notice is a result of the National Space Policy and attempts to address the spectrum needs of the commercial communications satellite industry and the commercial space launch industry. Among other things, the Notice of Proposed Rulemaking (“*NPRM*”) portion of the item identifies the 2360-2395 MHz AMT band (the “AMT Band”) as potential spectrum for commercial space operations, in particular during the launch phase. In the Notice of Inquiry portion, the Commission poses inquiries regarding the use of various bands for expanded commercial space operations, e.g. use of specific bands on-orbit and during re-entry.

DISCUSSION

As described in the *NPRM*, in 1990 the Commission made six frequencies available in the 2310-2390 MHz band for both Federal and non-Federal use for telemetry and telecommand of launch and reentry vehicles. *Id.* at para. 69. The Commission later reduced this designation to the three frequencies located in the AMT Band. But, as the *NPRM* explains, referring to the frequencies in the AMT spectrum, “the Commission has not authorized use of this spectrum for launches.” *Id.* Rather, commercial space launches have historically used STAs at federal launch facilities in the 420-430 MHz, 2200-2290 MHz, and 5650-5925 MHz federal bands set aside for launches. *Id.* para. 65.

The *NPRM* poses the question whether the AMT Band would be an appropriate alternative to the 2200-2290 MHz band currently used for communications during launches (*Id.*, para. 83). The Commission further offers the supposition that the use of the AMT Band may have significantly changed since 1990. (*Id.*) However, the *NPRM* offers no supporting information for this proposition. Additionally, the *NPRM* fails to provide meaningful data

regarding the spectrum requirements of the commercial launch industry. *Compare NPRM* at paras. 6 and 16-18 *with id.* at 65-71. Without such information (as opposed to conclusory statements), interested parties, such as AFTRCC, are unable to offer meaningful comments on the Commission's proposals or questions.

AFTRCC supports the National Space Policy as well as the growth of the commercial launch industry. But, based on the current state of the record, there is no demonstrated need for access to even the three previously designated frequencies, much less the entire AMT Band. The changes that have occurred with respect to use of the AMT Band during the previous two decades make the band even less of a potential candidate for shared operations with launch and on-orbit space operations. Spectrum requirements for flight test telemetry have increased dramatically due to more comprehensive flight test procedures and the use of high-data rate telemetry links during test operations. Further, the flight test community recently agreed to a new spectrum sharing regime in the AMT Band with Medical Body Area Networks ("MBANs") that has yet to be tested in practice.

Spectrum is in increasingly short supply, and subject to increasingly greater demand by all users, including the commercial aerospace industry and the federal government. In this environment, it would send an inappropriate message for the Commission to consider a new allocation without strong record support that it is technically feasible, and does not adversely impact AMT. At such time, if ever, as proponents demonstrate a requirement beyond the spectrum that has been used historically, AFTRCC will submit more detailed comments.

One final point should be noted. Telemetry transmitted during the launch phase of commercial operations will frequently occur at high altitudes. At such altitudes, the interference footprint will be very large. Thus, whatever frequencies might be used for commercial space

launches, it will be important for launch schedules to be carefully coordinated in order to avoid destructive interference to and from telemetry receivers used for space launches, on the one hand, and existing co-channel operations, on the other hand.

CONCLUSION

For the foregoing reasons, AFTRCC urges that the Commission develop and full and complete record before proceeding to formulate any new allocation rules for commercial space launches or related activities.

Respectfully submitted,

AEROSPACE AND FLIGHT TEST RADIO
COORDINATING COUNCIL

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