

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

In the Matter of)	
)	
Amendment of Part 2 of the Commission’s Rules)	
To Allocate Spectrum Below 3 GHz for Mobile)	
and Fixed Services to Support the Introduction of)	ET Docket No. 00-258
New Advanced Wireless Services, Including Third)	
Generation Wireless Systems)	
)	
Amendments to Parts 1, 2, 27 and 90 of the)	
Commission’s Rules to License Services in the)	
216-220 MHz, 1390-1395 MHz, 1427-1429 MHz,)	WT Docket No. 02-8
1429-1432 MHz, 1432-1435 MHz,)	
1670-1675 MHz, and 2385-2390 MHz)	
Government Transfer Bands)	

To: The Commission

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

The Aerospace and Flight Test Radio Coordinating Council (“AFTRCC”), by its attorney, hereby submits its Comments on the Notice of Proposed Rulemaking in the above-captioned proceeding (FCC 03-134, released July 7, 2003; hereinafter cited as “Notice” or “NPRM”).

By virtue of the Notice, the Commission would take steps in furtherance of the allocation of spectrum for Advanced Wireless Services at 1710-1755 and 2110-2155 MHz.^{1/} Of particular

^{1/} See Second Report and Order in ET Docket No. 00-258, 17 FCC Rcd 23193 (2003).

interest to AFTRCC is the proposal to restore the band 2385-2390 MHz to flight test telemetry, and to extend the flight test band by five additional megahertz so as to include 2390-2395 MHz.^{2/}

INTRODUCTION

As the Commission's records reflect, AFTRCC is the certified Non-Federal Government coordinator for use of 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 operation is protected, and hence flight test safety, maximized.^{3/}

At the same time, AFTRCC is a trade application for the nation's principal aerospace manufacturers. In this capacity AFTRCC serves as the spectrum advocate for the aerospace industry on matters affecting flight test spectrum. Indeed, this fundamental mission was at the heart of AFTRCC's formation nearly 50 years ago. Among its many accomplishments in this regard is AFTRCC's role in helping lead efforts which resulted in the allocation of L- and S-spectrum band for telemetry. AFTRCC thus welcomes the opportunity to comment on the instant Notice.

^{2/} The band 2385-2390 MHz had been reallocated for generic wireless purposes pursuant to the Balance Budget Act of 1997. See Report and Order in ET Docket No. 00-221, 17 FCC Rcd 368 (2002) (allocations proceeding); and Report and Order in WT Docket No. 02-8, 17 FCC Rcd 9980 (2002) (service rule proceeding).

^{3/} Flight test telemetry spectrum is unique from a spectrum management standpoint: It is the only spectrum known to AFTRCC where users not only "share" the spectrum in a technical, allocations sense, but where they also share the spectrum in an operational sense. That is to say, AFTRCC member personnel and Government personnel (e.g. NASA, DOD, etc.) work together in their use of the spectrum at test ranges. The Notice adverts indirectly to this situation at para. 54.

DISCUSSION

AFTRCC wholeheartedly endorses the proposal to allocate the band 2385-2395 MHz to flight testing. In the case of 2385-2390 MHz, it represents a return to the flight test inventory of spectrum removed only last year. In the case of 2390-2395 MHz, it represents an addition. In both cases, however, the proposal represents a partial solution to a critical need.

The aerospace industry is running out of spectrum due to the exponential growth in telemetry data rates. This growth is driven by the increasing complexity of aerospace technology. Among other things, we are witnessing the development of new generations of uninhabited vehicles (both civil and military), high speed data busses, and even more advanced avionics packages. Telemetry requirements associated with these technologies have produced increases in data rates from the 150 kbps range 20 years ago to the multi-megabit range today. This growth is expected to continue.^{4/}

While data rates have been growing, the flight test spectrum inventory in the U.S. has been shrinking: No less than one-third of that inventory has been lost since the early 90s. Id. at para. 41. This has exacerbated the spectrum shortfall -- but a shortfall would remain even if not a single megahertz had been lost.

Thus, AFTRCC urges the Commission to act affirmatively on its 2385-2395 MHz proposal, a “proposal which responds in part to AFTRCC’s request that policymakers

^{4/} Recognizing the shortfall in aeronautical telemetry spectrum, the U.S. led a successful effort at the 2003 World Radiocommunication Conference (“WRC”) to place additional telemetry allocations on the agenda for WRC-07. See WRC-03 Final Acts, Agenda Item 1.5 (2003).

‘aggressively’ seek to identify additional aeronautical telemetry spectrum.” Notice at note 119 citing AFTRCC’s April 14, 1995 Reply Comments in IC Docket No. 94-31.

The Notice also addresses certain other matters which AFTRCC offers comment on below. In particular, the Notice proposes to allow co-primary sharing of the band 2390-2395 MHz with Amateurs; however, the Notice goes on to ask whether any limits should be imposed in respect of this sharing. Id. at para. 59.

In AFTRCC’s view, any new Amateur use of this band should be precluded, and any existing usage grandfathered but on a secondary basis -- assuming such usage is, as the Commission believes, “relatively light” (ibid).^{5/} There is no coordination procedure in place for flight testing as against amateur television, nor has one been proposed -- in contrast to the Notice’s extensive discussion of coordination proposals between Broadcast Auxiliary and DOD TT&C earth stations at 2025-2110 MHz. See id. at para. 30 et seq. Moreover, flight test operations should not be subjected to the risk of interference which co-primary status entails. Without taking anything away from Amateurs, who often provide valuable service, there is simply no comparison between the commitment of resources necessary to conduct a flight test and that involved with amateur television. A given test can involve several hundred engineers, as well as chase aircraft, range instrumentation personnel, crash crews, and the like -- all of which must be up and ready on a given day at a given time for a given test. Assuming the weather cooperates, the flight may then go off on schedule. Given this commitment and the number of variables which can disrupt a flight test schedule under even the best of

^{5/} Further information should be developed in the record as to the number and location of any incumbent amateur operations.

circumstances, aeronautical telemetry should not be subjected to the possibility of interference based on co-primary status.

The Notice also addresses a satellite DARS proposal that flight testing be held to the same out-of-band limits in 2360-2395 MHz as WCS is held to in the bands 2305-2320 and 2345-2360 MHz. In support, the DARS parties reference their use of terrestrial repeaters and Coordination Agreements previously struck with AFTRCC. See id at para 50.

It is not entirely clear to AFTRCC what the DARS parties are proposing. Certainly there is no basis for imposing any new or different obligations on flight test stations in respect of DARS; if anything, the reverse would be true. Moreover, flight test stations have been allowed to operate at 2385-2390 MHz for years, and such use would have continued on a protected basis at numerous sites in the United States even if the spectrum remained allocated for WCS. See US Footnote 363. Imposition of any new obligation on AFTRCC members operating at 2360 MHz and up would thus present a serious issue. If, on the other hand, what the DARS parties have in mind is simply the application of existing Rule 87.139, as the Commission proposes, that should not present a problem. In short, further clarification is in order.

CONCLUSION

For the foregoing reasons AFTRCC urges the Commission to resolve this proceeding consistent with the points made above.

Respectfully submitted,

AEROSPACE AND FLIGHT TEST RADIO
COORDINATING COUNCIL

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