

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Petition To Adopt Service Rules for the Aeronautical	)	RM-11793
Mobile Airport Communication System (AeroMACS)	)	
	)	

**COMMENTS**

The Aerospace Industries Association (AIA) hereby submits its comments in the above-referenced proceeding.<sup>1</sup> The nation's most authoritative and influential voice of the aerospace and defense industry, AIA represents more than 100 leading aerospace and defense manufacturers, along with a supplier base of nearly 200 associate members, representing over one million direct U.S. aerospace and defense jobs. Our members, many of which have equities in both Aeronautical Mobile Airport Communication Systems (AeroMACS) and aeronautical mobile telemetry (AMT), are directly interested in contributing their expertise to the issues raised in this proceeding. As explained below, it would be premature to rush a proceeding that will impact aviation safety, infrastructure investments, and product development cycles for decades, as there is substantial detail for which interested stakeholders must agree.

AIA is a vigorous proponent of the NextGen program that the Federal Aviation Administration (FAA) is undertaking to modernize our nation's airspace. AeroMACS, which will benefit the safety and regularity of flight, is a key part of that program and many of our members have strong interest in its success.

At the same time, AIA is also a vigorous proponent of a safe air system and performing testing and certification of aircraft is a key component of safety. AIA has consistently sought to preserve AMT operations and the spectrum resources that support those operations, which benefits national security, civil aviation, and national defense. The FAA, Department of Defense, and the National Aeronautics and Space Administration (NASA) all require certification that aircraft will operate within safety and design specifications. AMT spectrum is critical for certifying aircraft to such safety standards as well as for research and development (R&D). Further, access to domestic AMT resources provides U.S. manufacturers a cost advantage compared to some foreign competitors that do not have similar access to AMT.

The most efficient way to show that a manned aircraft will operate safely and an unmanned aircraft will perform as directed is to test it in the air. Therefore,

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<sup>1</sup> *Comment on WiMAX Forum Petition Proposing Rules for the Aeronautical Mobile Airport Communications System*, Public Notice, DA 17-696 (rel. Jul. 19, 2017).

uninterrupted, interference-free transmission of data from aircraft to control centers on the ground is essential. AMT spectrum enables this real-time transmission of data on aircraft performance and safety. Importantly, it allows ground-based engineers to detect unsafe conditions and warn the pilot, or end an unmanned vehicle's flight, before serious consequences for the pilot and those on the ground occur.

Flight testing involves the marshalling of scores of test and support personnel, numerous additional facilities, search and rescue aircraft and chase planes, to name just a few elements. Costs for test flights for advanced technology aircraft can exceed \$1 million per flight.

With the exponential increase in the amount of measurements being required during flight tests – e.g. for passenger safety, security and convenience, as well as aircraft efficiency – access to additional radio frequency spectrum was determined years ago to be critical. This led the International Telecommunications Union at WRC-07 to allocate additional spectrum resources for AMT to meet the dramatic increase in the complexity of aerospace technology. Of the three bands allocated, the Federal Communications Commission (FCC) has thus far implemented only the 5091-5150 MHz band.

Enabling access to the 5091-5150 MHz band for AMT operations at the few civil airports where AMT and AeroMACS would need to co-exist, would greatly benefit the national airspace and help U.S. leadership in providing a safe, secure and prosperous air transportation system. AIA welcomes the opportunity for industry to provide feedback to the FCC on the proposed solutions to coexistence of AMT and AeroMACS and effective methods for spectrum sharing.

AIA and its member companies will continue to engage in discussions with the FCC on this matter. However, for the reasons set forth above, AIA urges the FCC to move forward with great care to ensure that the service rules being sought address the needs of all interests within the aerospace community, including flight testing. Furthermore, understanding the significant role that the FAA and all interested parties will play in the ultimate shaping of a regulatory framework that should permit both AeroMACS deployment and AMT operations in the band, is critical; and AIA looks forward to engaging with FAA and FCC on the future of both services.

Respectfully submitted,

/s/ David Silver

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