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John Alden  
Telecommunications Specialist  
Office of Spectrum Management, NTIA  
U.S. Department of Commerce  
1401 Constitution Avenue NW, Room 1078  
Washington, DC 20230  
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Re: Implementation of the National Spectrum Strategy – 5030-5091MHz Band

Dear Mr. Alden:

I am writing on behalf of uAvionix Corporation (uAvionix) in response to the National Telecommunications and Information Administration's (NTIA) public notice seeking input on the implementation of the Presidential Memorandum (PM) "Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy" and the "National Spectrum Strategy" (Strategy) released on November 13, 2023.

Specifically, uAvionix would like to provide comment on the 5030-5091MHz frequency band identified in Table 1 as follows:

*In January 2023, the FCC sought comment on the service rules to support safety-critical unmanned aircraft system (UAS) communications links including control and non-payload communication (CNPC) operations in the band, noting that service rules to facilitate UAS likely will require development in phases.*

Later, on Page 6 of the Strategy:

*5030-5091 MHz: The FCC, in coordination with NTIA and the Federal Aviation Administration, is expected to take near-term action to facilitate limited deployment of UAS in this band. Thereafter, this 61 megahertz of spectrum will be studied so that the FCC can optimize UAS spectrum access across the band while avoiding harmful interference to other protected in-band and adjacent-band operations.*

As background, uAvionix is a pioneering avionics designer and manufacturer and an aviation infrastructure provider. Leveraging its expertise in FAA certification and hardware solutions in these areas, uAvionix has recently invested heavily in developing solutions supporting Beyond Visual Line of Sight ("BVLOS") operations for UAS. In various operations around the country, uAvionix and its partners are already utilizing uAvionix-manufactured radios that conform to the FAA's TSO-C213a, which embodies parameters developed by the standards development organization RTCA, Inc. ("RTCA") for use of Time Division Duplex ("TDD") transmissions for CNPC communications by UAS. This FAA requirement,



which is based on RTCA DO-362A, will ensure compatible CNPC use across the entire 5030-5091 MHz band and greatly minimize the chance of a lost link at critical phases during UAS operations. In these operations, uAvionix is also functioning as a CNCP link communications service provider and offering dynamic frequency management capability.

Our commitment to this spectrum's utility is evidenced by our leadership in the RTCA standardization process. We have played a pivotal role in the development and publication of DO-362 and DO-362A and are currently spearheading the DO-362B refinement. These standards are vital for the safe and efficient operation of UAS, ensuring robust CNPC communications between Remote Pilots and Uncrewed Aircraft. This effort has been widely embraced by our industry, with many stakeholders already deploying and testing solutions based on DO-362A, or planning to do so between 2024 and 2025.

We applaud and support the work the FCC, FAA, and NTIA have done to repurpose this spectrum from Microwave Landing Systems (MLS) to UAS safety use-cases as there is no other aviation protected spectrum available for the rapidly growing demands of our young industry (The spectrum strategy doc introduces Table 1 by saying "The U.S. Government is already taking steps to identify spectrum bands for potential repurposing in the near-term to meet these growing demands." - we want to drive home that the inclusion of 5030-5091 under "repurpose" is because it was MLS (and still also is allowed for that by federal users).

We strongly believe that the maximum utilization of this spectrum without compromising the integral aviation safety use case is through the deployment of Frequency Management Organizations (FMO) that provide dynamic and fair localized channel access to all UAS users on demand. uAvionix is currently under contract with the FAA to demonstrate a nationally scalable dynamic frequency allocation management system for 5030-5091MHz which can be utilized by future FMOs.

However, we caution against any measures that could privatize or auction portions of this scarce resource. Allowing such actions, or dedicating spectrum space for non-safety-critical payload communications, would be counterproductive. This approach risks hindering the innovative progress within our industry and could potentially place the United States behind other nations in UAS development.

In summary, uAvionix recommends NTIA prioritize the following in its implementation plan:

1. Maintain the status quo allocation of 5030-5091 MHz exclusively for aviation safety purposes. This will provide certainty for continued industry investment and innovation.
2. Leverage FMOs to maximize localized shared access to the band among UAS operators on an as-needed basis. uAvionix has successfully demonstrated the viability of this efficient approach.
3. Reject proposals to repurpose any portion of this spectrum for commercial wireless services. The aviation safety use case has no alternative protected home elsewhere in the spectrum chart.

We are eager to engage further with NTIA staff to discuss these perspectives and contribute to the successful implementation of the Spectrum Strategy. Please feel free to contact me at my contact information below. We look forward to collaborating in advancing UAS innovation and safety.



Sincerely,

A handwritten signature in black ink, appearing to read "Christian Ramsey".

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