

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

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| In the Matter of |) | |
| |) | |
| AVIATION SPECTRUM RESOURCES, INC. |) | WT Docket No. 19-180 |
| |) | |
| Petition for Waiver of Sections 87.173(b) and |) | |
| 87.263(a) of the FCC’s Rules to Allow Use of the |) | |
| Lower 136 MHz Band by Aeronautical Enroute |) | |
| Stations |) | |

ORDER

Adopted: March 10, 2020

Released: March 10, 2020

By the Chief, Mobility Division, Wireless Telecommunications Bureau:

1. *Introduction.* We have before us a petition filed by Aviation Spectrum Resources, Inc. (ASRI)¹ seeking a waiver of sections 87.173(b) and 87.263(a) of the Commission’s rules² to permit aeronautical enroute service stations to use the 136.000-136.4875 MHz frequency band, referred to as the lower 136 MHz band. ASRI asserts the waiver is needed in order to permit use of the lower 136 MHz band for both aeronautical operational control (AOC) and air traffic control (ATC) data communications, which is essential for timely implementation of a key component of the Next Generation Aviation System (NextGen) that will begin operation in 2020. For reasons discussed below, we conditionally grant the waiver subject to the outcome of a pending rulemaking proceeding in which the Commission is proposing rule changes that would allow use of the lower 136 MHz band for both AOC and ATC communications.³

2. *Background.* ASRI manages aeronautical enroute service stations on behalf of the U.S. air transport industry.⁴ Aeronautical enroute service stations use the 136.4875-137.000 MHz frequency band (the upper 136 MHz band) to provide AOC communications to aircraft along domestic and international air routes.⁵ AOC communications consist of information pertaining to “the safe, efficient and economical operation of aircraft, such as fuel, weather, position reports, aircraft performance, and essential services and supplies.”⁶ The Commission’s part 87 rules, however, do not currently permit AOC communications in the lower 136 MHz frequency band.⁷ Rather, the lower 136 MHz frequency band currently is

¹ Petition of Aviation Spectrum Resources, Inc. for Waiver of Sections 87.173(b) and 87.263(a) of the FCC’s Rules to Allow Use of the Lower 136 MHz Band by Aeronautical Enroute Service Stations (filed May 15, 2019) (ASRI Waiver Petition).

² 47 CFR §§ 87.173(b), 87.263(a).

³ See *Amendment of the Commission’s Rules to Promote Aviation Safety, et al.*, Notice of Proposed Rulemaking, 34 FCC Rcd 4984 (2019) (*Aviation Safety NPRM*).

⁴ ASRI Waiver Petition at 1 n.1. For additional information regarding ASRI, see <https://www.asri.aero/about-us/> (last visited Mar. 9, 2020).

⁵ 47 CFR §§ 87.173(b), 87.263(a).

⁶ 47 CFR § 87.261(a).

⁷ 47 CFR § 87.173(b).

designated for ATC communications,⁸ which concern “the safe, orderly, and expeditious flow of air traffic.”⁹

3. ASRI filed a petition for rulemaking in 2018 asking that the Commission amend its part 87 rules so that aeronautical enroute stations may use the lower 136 MHz band for both AOC and ATC communications.¹⁰ In the petition for rulemaking, ASRI asserted that permitting aeronautical enroute stations to have access to the lower 136 MHz band and to use the band to transmit both AOC and ATC communications would support the Federal Aviation Administration’s implementation of NextGen, a modernization of the U.S. air transportation system.¹¹ It noted, in particular, that NextGen has a Data Communications (Data Comm) component that will shift certain repetitive and routine communications to aircraft from voice to data transmission.¹² Data Comm is designed to transmit both AOC and ATC data communications throughout the 136-137 MHz frequency band using VHF Data Link Mode 2 (VDLM2) technology, while according priority to ATC communications.¹³ The current part 87 bifurcation of the 136-137 MHz band into an upper AOC band and a lower ATC band therefore does not accommodate Data Comm.

4. In a Notice of Proposed Rulemaking adopted in June 2019, the Commission tentatively concluded that the public interest in aviation safety would be served by amending sections 87.173(b) and 87.263(a) as recommended by ASRI.¹⁴ That rulemaking proceeding, which covers a number of aviation safety issues in addition to the regulatory treatment of the 136-137 MHz band, remains pending.

5. ASRI filed its waiver petition notwithstanding the pendency of the rulemaking proceeding because it expects to need access to the lower 136 MHz band before the Commission is expected to adopt a report and order in that proceeding.¹⁵ It seeks waiver relief that would permit aeronautical enroute stations to transmit AOC and ATC communications on two of the twenty 25 kHz channels in the lower 136 MHz band.¹⁶

6. The Mobility Division (Division) issued a public notice seeking comment on the ASRI waiver petition.¹⁷ No comments were filed.¹⁸

⁸ *Id.*

⁹ 14 CFR § 1.1.

¹⁰ Petition of Aviation Spectrum Resources, Inc. for Amendment of Sections 87.173(b) and 87.263(a) of the FCC’s Rules to Allow Use of the Lower 136 MHz Band by Aeronautical Enroute Stations, RM-11818 (filed Oct. 16, 2018) (ASRI Rulemaking Petition). In response to an FAA request, the Mobility Division in 2018 clarified that the part 87 rules already permit aeronautical enroute stations to transmit both AOC and ATC communications in the upper 136 MHz band, obviating the need for a waiver with respect to the upper 136 MHz band. *See Federal Aviation Administration, Order*, 33 FCC Rcd 6011, 6012, para. 5 (WTB MD 2018).

¹¹ *See* ASRI Rulemaking Petition at 1. NextGen is a modernization of the U.S. air transportation system that is designed to increase the safety, efficiency, capacity, predictability, and resiliency of American aviation. *See* https://www.faa.gov/nextgen/what_is_nextgen/ (last visited Mar. 9, 2020).

¹² *See* ASRI Rulemaking Petition at 4.

¹³ *Id.*

¹⁴ *See Aviation Safety NPRM*, 34 FCC Rcd at 4996, para. 32.

¹⁵ *See* ASRI Rulemaking Petition at 4.

¹⁶ *Id.* at 1.

¹⁷ *See Wireless Telecommunications Bureau Seeks Comment on Aviation Spectrum Resources, Inc. Petition for Waiver of Part 87 Rules to Allow Aeronautical Enroute Service Station Use of Lower 136 MHz Band*, Public Notice, 34 FCC Rcd 5110 (WTB MD 2019).

7. *Discussion.* To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that: (a) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (b) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.¹⁹ We conclude that ASRI has justified grant of the requested waiver under the first prong of this standard.

8. The purpose of the rules bifurcating the 136-137 MHz band into separate AOC and ATC sub-bands is to ensure that there is adequate interference-free spectrum for both services.²⁰ In an environment in which AOC and ATC communications not only used separate transmission paths and links, but also were provided by different federal and private sector entities, it made sense to designate discrete blocks of frequencies for each service to ensure that they both could be provided effectively and efficiently, with sufficient spectrum resources and safeguards against cross-interference.²¹ With the advent of NextGen, however, where AOC and ATC communications can be provided effectively over a single data link that provides priority to ATC communications, the rationale for bifurcation disappears. Instead, the underlying purposes of the relevant rules are better served by expanding the flexibility of AOC and ATC providers to use the spectrum cooperatively in whatever way will best promote aviation safety and the efficient use of the allocated spectrum.²²

9. We also find that the requested waiver will serve the public interest. As noted by ASRI, the waiver will facilitate “the early deployment of advanced aeronautical communications systems, thereby enhancing aviation safety and improving efficiency.”²³ ASRI notes that the FAA estimates that Data Comm will save operators more than \$10 billion and the FAA \$1 billion in costs over the next 30 years.²⁴ Denying relief, moreover, would delay the timely implementation of a key component of

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¹⁸ Although we have not received comments on the ASRI Waiver Petition, we note that all of the commenters addressing the issue in the rulemaking proceeding support the proposal to allow aeronautical enroute stations to use the entire 136-137 MHz band for both AOC and ATC communications. See, e.g., Comments of the Air Line Pilots Association, Int'l, WT Docket No. 19-140 at 2-4 (rec. Sept. 3, 2019); Comments of the Boeing Company, WT Docket No. 19-140 at 6-7 (rec. Sept. 3, 2019); Comments of Collins Aerospace, WT Docket No. 19-140 at 3-5 (Rec. Sept. 3, 2019).

¹⁹ 47 CFR § 1.925(b)(3).

²⁰ When the Commission first permitted stations in the aviation services to operate in the 136-137 MHz band, in conformity with the Final Acts of the 1979 World Administrative Radio Conference, it sought to relieve congestion in both the aeronautical enroute service spectrum and in the spectrum used for general aviation services, including but not limited to ATC. It determined that the best way to do that would be to designate 20 discrete 25 kHz channels in the upper 136 MHz band for the aeronautical enroute service, to designate 15 discrete 25 kHz channels in the lower 136 MHz band for general aviation services, and to give the FAA shared access to the latter. See *Amendment of Parts 2 and 87 of the Commission's Rules to permit the Aviation Services to use frequencies in the 136-137 MHz band*, Report and Order, 5 FCC Rcd 3594, 3957-58, paras. 22-31 (1990), *recon. granted in part*, 6 FCC Rcd 2291 (1991).

²¹ In 2001, the Commission denied requests to change the 136-137 MHz allocation, but it did provide for FAA shared access to five additional lower 136 MHz band channels. In doing so, it stated that “[m]aintaining the existing allocation will protect ARINC’s [now ASRI’s] current use of the 136-137 MHz frequencies for aircraft operational control communications without having a negative impact on the FAA’s existing rights to use the lower channels . . . for air traffic control purposes.” See *Amendment of Parts 2 and 87 of the Commission's Rules to Accommodate Advanced Digital Communications in the 117.975-137 MHz Band and to Implement Flight Information Services in the 136-137 MHz Band*, Report and Order, 16 FCC Rcd 8226, 8230, para. 9 (2001).

²² The Commission first authorized the use of digital technologies, including VDLM2 technology, in 2001, and in doing so, it authorized their use “throughout the [aeronautical] band without limitation.” *Id.* at 8232, para. 14. The Commission explained that “placing no restrictions on the types of digital technologies that may operate in the 136-
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NextGen and impede the cooperative efforts of the industry and the FAA to enhance aviation safety.

10. For these reasons, we grant ASRI's request and waive sections 87.173(b) and 87.263(a). ASRI represents, here, in its rulemaking petition, and in its comments in the rulemaking proceeding, that the VDLM2 technology that it will use for Data Comm communications in the 136-137 MHz band will provide priority to ATC communications.²⁵ We condition the waiver on the provision of such priority. In addition, consistent with the ASRI request, we are limiting ASRI's access to the lower 136 MHz band to two 25 kHz channels. We further condition the waiver on ASRI's coordinating with the FAA over the selection of those two channels, notifying the Division of the channels selected, and providing a copy of this waiver grant when filing applications seeking authority to use the frequencies at particular fixed sites. Finally, we condition grant of the waiver on the outcome of the aviation safety rulemaking proceeding (WT Docket 19-140).

11. Accordingly, IT IS ORDERED that pursuant to section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission's rules, 47 CFR § 1.925, the Petition for Waiver of Aviation Spectrum Resources, Inc. filed on May 14, 2019 IS GRANTED as conditioned above.

12. This action is taken under delegated authority pursuant to sections 0.131 and 0.331 of the Commission's rules, 47 CFR §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Roger Noel
Chief, Mobility Division
Wireless Telecommunications Bureau

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137 MHz band or, for that matter, the entire 117.975-137 MHz band will promote flexibility and efficiency during the transition to digital aviation communications systems." *Id.*

²³ See ASRI Waiver Petition at 7.

²⁴ *Id.* at 8 (citing FAA, Data Comm Facts and Figures, https://www.faa.gov/nextgen/how_nextgen_works/new_technology/data_comm/ (last visited Mar. 9, 2020)).

²⁵ See ASRI Waiver Petition at 5; ASRI Rulemaking Petition at 4; Comments of Aviation Spectrum Resources, Inc., WT Docket No. 19-140 at 4 (rec. Sept. 3, 2019).