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[4910-13]

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

14 CFR Part 77

[Docket No. FAA-2004-16982; Notice No. **07-16**]

Colo Void Clause Coalition; Antenna Systems Co-Location; Voluntary Best Practices

AGENCY: Federal Aviation Administration (FAA); DOT.

ACTION: Notice of amended policy.

SUMMARY: On April 27, 2004, the FAA revised its policy regarding the co-location of antenna systems on existing structures previously studied by the FAA. Based on various additional comments from industry regarding the initial policy, the FAA finds that further modifications to this policy are necessary.

DATES: This policy is effective on November 21, 2007.

FOR FURTHER INFORMATION CONTACT: René J. Balanga, ATC Spectrum Engineering Services, Spectrum Assignment and Engineering Office, Federal Aviation Administration, 800 Independence Ave., SW, Washington, DC 20591, Telephone (202) 267-3819 or (202) 267-9710.

SUPPLEMENTARY INFORMATION:

Availability of Documents

You can get an electronic copy of rulemaking documents using the Internet by—

1. Searching the Federal eRulemaking Portal (<http://www.regulations.gov>);

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2. Visiting the FAA's Regulations and Policies Web page at

http://www.faa.gov/regulations_policies/; or

3. Accessing the Government Printing Office's Web page at

<http://www.gpoaccess.gov/fr/index.html>.

You can also get a copy by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue S.W., Washington, DC 20591, or by calling (202) 267-9680. Make sure to identify the notice number or docket number of this rulemaking.

Background

Prior to April 2004, when the FAA issued a Determination of No Hazard for proposed construction or alteration of an antenna structure, the Determination included the following condition: "This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, frequency(ies) or use of greater power will void this determination. Any future construction or alteration, including an increase in heights, power, or the addition of other transmitters requires separate notice to the FAA." As a result of this condition, a proponent seeking only to add frequencies to a previously studied structure for which the FAA had issued a Determination of No Hazard must file notice with the FAA. They must file the notice on FAA Form 7460-1 in accordance with the previous discussed condition.

On April 27, 2004, the FAA revised its policy regarding the notification requirements for co-locating antenna systems on existing structures previously studied by the FAA. (See Notice No. 04-03; FAA-2004-16982; 69 FR 22732; April 27, 2004.) The FAA adopted this new policy,

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which was based on a Best Practices Agreement recommended by the CVCC.¹ Under this policy, a proponent is not required to file notice for an aeronautical study when adding certain frequencies to an existing structure that has a current Determination of No Hazard on file with the FAA. The policy applies only to antenna systems operating on the following frequencies and service types, as dictated by various parts of Title 47 of the Code of Federal Regulations (47 CFR),

- 806 – 821 MHz and 851 – 866 MHz (Industrial/Business/Specialized Mobile Radio Pool – Part 90)
- 821 – 824 MHz and 866-869 MHz (Public Safety Mobile Radio Pool – Part 90)
- 816 – 820 MHz and 861 – 865 MHz (Basic Exchange Telephone Radio – Parts 1 and 22)
- 824 – 849 MHz and 869 – 894 MHz (Cellular Radiotelephone – Parts 1 and 22)
- 849 – 851 MHz and 894 – 896 MHz (Air-Ground Radiotelephone – Parts 1 and 22)
- 896 – 901 MHz and 935 – 940 MHz (900 MHz SMR – Part 90)
- 901 – 902 MHz and 930 – 931 MHz (Narrowband PCS – Part 24)
- 929 – 930 MHz, 931 – 932 MHz, and 940 – 941 MHz (Paging – Parts 1, 22, and 90)
- 1850 – 1990 MHz (Broadband PCS – Part 24, Point-to-Point Microwave – Part 101)
- 2305 – 2320 MHz and 2345 – 2360 MHz (Wireless Communications Service (WCS) – Part 27).

¹The CVCC is a coalition of wireless cellular phone and Personal Communication Services (PCS) service providers, tower companies, and trade associations, including the Personal Communications Industry Association (PCIA) and the Cellular Telecommunications and Internet Association (CTIA). CVCC members currently own or manage most of the radio towers throughout the United States. Major wireless service providers primarily make up the coalition, but all other wireless service providers in the cellular phone and PCS industries are represented by the CVCC through membership with PCIA and CTIA.

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On February 1, 2006, the CVCC requested that the agency consider amending the April 27, 2004 policy by adding additional frequency bands to the policy. The following frequency bands and wireless services, as prescribed in 47 CFR, were submitted by the CVCC:

- 698 – 806 MHz (Advanced Wireless Service – Part 27)
- 1710 – 1755 MHz, 2020 – 2025 MHz, and 2110 – 2180 MHz (Advanced Wireless Service – Part 27)
- 1670 – 1675 MHz (Wireless Communications Service – Part 27)
- 1990 – 2000 MHz (Broadband PCS – Part 24)
- 2000 – 2020 MHz and 2180 – 2200 MHz (Mobile Satellite Service – Part 25)
- 2320 – 2345 MHz (Satellite Digital Audio Radio Service – Part 27)
- 2496 – 2690 MHz (Broadband Radio Service – Part 27)
- 6.0 – 7.0 GHz, 10.0 – 11.7 GHz, 17.7 – 19.7 GHz, and 21.2 – 23.6 GHz (Fixed Microwave Service – Part 101).

In reviewing the above list, the FAA notes that two frequency bands (1710 – 1755 MHz [Advanced Wireless Service] and 21.2 – 23.6 GHz [Fixed Microwave Service])² overlap a portion or in its entirety, frequency bands the FAA currently uses to support aviation. These services may include, but are not limited to, critical situational data regarding aircraft positioning to air traffic controllers or essential voice or data communication links for air traffic control operations. If harmful electro magnetic interference (EMI) occurs to these FAA services, the services may be interrupted or degraded to a level at which pilots or air traffic controllers miss vital flight transmissions, thus potentially reducing aviation safety in the National Airspace System.

² In 2006, the FCC conducted an auction of the 2GHz (1.7 GHz and 2.1GHz) frequency band (Auction 66).

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On June 13, 2006, the FAA published a Notice of Proposed Rulemaking that, in part, sought to require notice for wireless services and fixed microwave services operating in the 21.2 - 23.6 GHz (71 FR 34028; June 13, 2006). These frequencies are now included under this amended policy. Even though the agency has not adopted a final rule in this matter and the rule is pending, the FAA announces its intention to exclude the 21.2 – 23.6 GHz frequencies from the final rule. When the final rule is issued, those frequencies will be withdrawn.

FAA’s review of prior case studies of co-located antenna systems and extensive engineering evaluations showed minimal EMI effects on FAA facilities from wireless services propagating on a majority of the identified frequency bands above, if operating under typical specifications. In addition, existing frequency coordination policies set forth by the National Telecommunications and Information Administration and the Federal Communications Commission, facilitate the evaluation of potential EMI in frequency bands that are joint-use by industry and the FAA. Therefore, the FAA concludes that the current policy can be amended to include the proposed frequencies.

Lastly, the April 27, 2004, policy stated several conditions that would facilitate the assurance of aviation safety from the potential of EMI. One condition is for proponents to provide the FAA with an electronic copy of its antenna system location databases. Since the inception of the policy, the FAA has received several requests for clarification by CVCC members with respect to that condition 1.

Condition 1 provides that,

“The proponent must provide the FAA Regional Spectrum Offices with an electronic copy of its antenna system location databases quarterly or as specified in a Letter of Agreement with the FAA Regional Spectrum Offices.”

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CVCC members seek clarification with respect to: (1) the type of information necessary for the electronic database; (2) the sites that need to be included during each quarterly database submittal to the FAA; and (3) how to submit the database file(s). We have reconsidered the condition and find that any unintentional EMI resulting under this policy can be mitigated by condition 2 of the policy.³ Therefore, condition 1 can be withdrawn and it will no longer be necessary to provide that information.

The amended policy is restated in its entirety below.

POLICY

The FAA recognizes the telecommunications industry's need and commitment to provide wireless services to the public. Also, the FAA recognizes that it is essential for these companies to speed up the time frame for build-out and deployment of their networks. However, the FAA's first commitment is to aviation safety. Thus the FAA finds that it can amend its policy to accommodate certain issues raised by the CVCC's Best Practices Agreement. Notwithstanding this new policy, the requirements under 14 CFR part 77 about notice to the FAA of proposed construction or alteration of man-made structures under existing FAA policy and regulations are not altered or modified. If the addition of frequencies, under this policy, to a previously studied structure increases the height of that structure, notice must be filed with the FAA under 14 CFR 77.13. Physical structures located on or near public use landing facilities raise concerns about

³ Condition 2—If an antenna system, operating in the designated frequency bands, causes EMI to one or more FAA facilities, the FAA will contact the proponent. The proponent must mitigate the EMI in a timely manner, as recommended by the FAA in each particular case. Depending upon the severity of the interference, the proponent must eliminate harmful EMI either by adjusting operating parameters, (for example, employing extra filtering or reducing effective radiated power), or by ceasing transmissions, as may be required by the FCC and the FAA. Failure to provide successful EMI mitigation techniques will result in referral to the FCC's Enforcement Bureau for possible enforcement action. (69 FR 22732; April 27, 2004)

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possible obstruction to aircraft, and the FAA will handle these issues pursuant to current regulations and procedures.

Under this new policy, a proponent is not required to file notice with the FAA for an aeronautical study to add frequencies to an existing structure that has a current No Hazard Determination on file with the FAA. If an additional antenna system must be used to add frequencies, the antenna system must not be located on Federal or public use landing facilities property. Also, the antenna system must not be co-located or mounted on an FAA antenna structure without prior coordination with the FAA's ATC Spectrum Engineering Services.

This policy only applies to antenna systems operating on the following frequencies and service types, as dictated by various parts of 47 CFR:

- 698 – 806 MHz (Advanced Wireless Service – Part 27)
- 806 – 821 MHz and 851 – 866 MHz (Industrial/Business/Specialized Mobile Radio Pool – Part 90)
- 821 – 824 MHz and 866-869 MHz (Public Safety Mobile Radio Pool – Part 90)
- 816 – 820 MHz and 861 – 865 MHz (Basic Exchange Telephone Radio – Parts 1 and 22)
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- 6.0 – 7.0 GHz, 10.0 – 11.7 GHz, 17.7 – 19.7 GHz, and 21.2 – 23.6 GHz (Fixed Microwave Service – Part 101).

In addition, the following conditions also apply: (1) If an antenna system, operating in the designated frequency bands, causes EMI to one or more FAA facilities, the FAA will contact the proponent. The proponents must mitigate the EMI in a timely manner, as recommended by the FAA in each particular case. Depending on the severity of the interference, the proponent must eliminate harmful EMI either by adjusting operating parameters (for example, employing extra filtering or reducing effective radiated power), or by ceasing transmissions, as may be required by the FCC and the FAA. Failure to provide successful EMI mitigation techniques will result in referral to the FCC's Enforcement Bureau for possible enforcement action. (2) This policy only applies to current technologies and modulation techniques (analog, TDMA, GSM, etc.) existing in the wireless radiotelephone environment on the date of issuance of this policy. Any future technologies placed into commercial service by wireless service providers, although operating on the frequencies mentioned above, must either coordinate the new technology with the FAA's

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ATC Spectrum Engineering Services or must provide notification to the FAA under 14 CFR part 77 procedures.

The FAA will revise the conditional language in future cases involving Determination of No Hazard to reflect this policy. Furthermore, this policy applies retroactively to any structure for which the FAA has issued a Determination of No Hazard.

Issued in Washington, DC, on November 15, 2007.

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