



Mail Processing Center  
 Federal Aviation Administration  
 Southwest Regional Office  
 Obstruction Evaluation Group  
 10101 Hillwood Parkway  
 Fort Worth, TX 76177

Aeronautical Study No.  
 2024-ASO-18482-OE  
 Prior Study No.  
 2024-ASO-3694-OE

Issued Date: 12/09/2024

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 108 Forbes Court  
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**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower Clay  
 Location: Clay, KY  
 Latitude: 37-27-56.24N NAD 83  
 Longitude: 87-48-38.28W  
 Heights: 402 feet site elevation (SE)  
 295 feet above ground level (AGL)  
 697 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M Change 1, Obstruction Marking and Lighting, a med-dual system-Chapters 4,8(M-Dual),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Air Missions (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

**See attachment for additional condition(s) or information.**

This determination expires on 06/09/2026 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.**

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-2611, or [angelique.eersteling@faa.gov](mailto:angelique.eersteling@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASO-18482-OE.

**Signature Control No: 634003918-641303161**

Angelique Eersteling  
Technician

( DNE )

Attachment(s)  
Additional Information  
Frequency Data  
Map(s)

cc: FCC

## **Additional information for ASN 2024-ASO-18482-OE**

The FAA recognizes emissions in 3.7-3.98 GHz at this location will result in Electromagnetic Interference (EMI) as described in Airworthiness Directives (AD) 2021-23-12 and 2021-23-13. NAS services including airport and helicopter operations within a radius of 42 NM will be impacted by 5G RF emissions. Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process.

### **BASIS FOR DECISION**

Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band.

The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band. This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation.

As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

**Frequency Data for ASN 2024-ASO-18482-OE**

| <b>LOW<br/>FREQUENCY</b> | <b>HIGH<br/>FREQUENCY</b> | <b>FREQUENCY<br/>UNIT</b> | <b>ERP</b> | <b>ERP<br/>UNIT</b> |
|--------------------------|---------------------------|---------------------------|------------|---------------------|
| 6                        | 7                         | GHz                       | 55         | dBW                 |
| 6                        | 7                         | GHz                       | 42         | dBW                 |
| 10                       | 11.7                      | GHz                       | 55         | dBW                 |
| 10                       | 11.7                      | GHz                       | 42         | dBW                 |
| 17.7                     | 19.7                      | GHz                       | 55         | dBW                 |
| 17.7                     | 19.7                      | GHz                       | 42         | dBW                 |
| 21.2                     | 23.6                      | GHz                       | 55         | dBW                 |
| 21.2                     | 23.6                      | GHz                       | 42         | dBW                 |
| 614                      | 698                       | MHz                       | 2000       | W                   |
| 614                      | 698                       | MHz                       | 1000       | W                   |
| 698                      | 806                       | MHz                       | 1000       | W                   |
| 806                      | 901                       | MHz                       | 500        | W                   |
| 806                      | 824                       | MHz                       | 500        | W                   |
| 824                      | 849                       | MHz                       | 500        | W                   |
| 851                      | 866                       | MHz                       | 500        | W                   |
| 869                      | 894                       | MHz                       | 500        | W                   |
| 896                      | 901                       | MHz                       | 500        | W                   |
| 901                      | 902                       | MHz                       | 7          | W                   |
| 929                      | 932                       | MHz                       | 3500       | W                   |
| 930                      | 931                       | MHz                       | 3500       | W                   |
| 931                      | 932                       | MHz                       | 3500       | W                   |
| 932                      | 932.5                     | MHz                       | 17         | dBW                 |
| 935                      | 940                       | MHz                       | 1000       | W                   |
| 940                      | 941                       | MHz                       | 3500       | W                   |
| 1670                     | 1675                      | MHz                       | 500        | W                   |
| 1710                     | 1755                      | MHz                       | 500        | W                   |
| 1850                     | 1910                      | MHz                       | 1640       | W                   |
| 1850                     | 1990                      | MHz                       | 1640       | W                   |
| 1930                     | 1990                      | MHz                       | 1640       | W                   |
| 1990                     | 2025                      | MHz                       | 500        | W                   |
| 2110                     | 2200                      | MHz                       | 500        | W                   |
| 2305                     | 2360                      | MHz                       | 2000       | W                   |
| 2305                     | 2310                      | MHz                       | 2000       | W                   |
| 2345                     | 2360                      | MHz                       | 2000       | W                   |
| 2496                     | 2690                      | MHz                       | 500        | W                   |
| 3700                     | 3980                      | MHz                       | 3280       | W                   |



