Mail Processing Center
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Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76137

Aeronautical Study No.
2011-AEA-3533-OE
Prior Study No.
2010-AEA-3555-OE

Issued Date: 04/12/2012

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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:	Positive Alternative - Blacksburg
Location:	Blacksburg, VA
Latitude:	37-11-13.80N NAD 83
Longitude:	80-27-20.30W
Heights:	2460 feet site elevation (SE)
	116 feet above ground level (AGL)
	2576 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure should continue to be marked/lighted utilizing paint/red lights.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

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

See attachment for additional condition(s) or information.

Any height exceeding 116 feet above ground level (2576 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 10/12/2013 unless:

(a) extended, revised or terminated by the issuing office.

(b) 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 subject to review if an interested party files a petition that is received by the FAA on or before May 12, 2012. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on May 22, 2012 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

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 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 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.

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 Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

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 Cindy Whitten, at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2011-AEA-3533-OE.

Signature Control No: 149167103-162571973 (DNH)
Sheri Edgett-Baron
Manager, Obstruction Evaluation Group

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

cc: FCC

The proposal is for a new top mount antenna pole (additional 7 feet, for a total height of 116 feet AGL) and frequencies on an existing antenna tower. The structure is located approximately 2.60 nautical miles southwest of the Airport Reference Point (ARP) for the Virginia Tech/Montgomery Executive Airport (BCB), Blacksburg, VA. It is identified as an obstruction under the standards of 14 CFR, part 77, as applied to BCB as follows:

Section 77.19(b): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23, exceeds the conical surface by 105 feet. This is due to the rising terrain between the airport and the site location.

From Frequency Management:

Spurious Emission was predicted from the propose FM broadcasting: An evaluation of this proposal predicts in-band signals as indicated below for various frequency ranges. The additional attenuation required to reduce in-band spurious signal level is showed below to reduce the maximum allowable level to -104 dBm. This level was established and agreed upon by the FCC and FAA in 1985 to eliminate the harmful interference to FAA facilities. The last row shows the total amount by which the spurious radiation must be attenuated below the unmodulated R.F. carrier for the frequency range specified. Location: Blacksburg, VA Frequency Range: 118-137 MHz Spurious Level: -102.38dBm Additional Attenuation Required: 1.62dB Total Attenuation Required Below R.F.Carrier:81.62dB This determination of no hazard is granted provided the following condition statement is included in the proponent's construction permit or license to indicate. "Upon receipt of notification from the Federal Communications Commissions that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference." This condition expires after one year of interference-free operation.

The proposal was circularized on February 6, 2012, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. The public comment period ended on March 14, 2012. One letter of objection was received and is summarized below.

Comment: The responder stated that generally they can not support a construction alteration that results in the creation of Part 77 penetrations. However, if the antenna cannot be installed as to not create a penetration, then obstruction lighting and marking should be assigned. No other specifics were presented.

Response: The sponsor has agreed to obstruction marking and lighting. Additionally, the fact that the proposed structures exceed Part 77 obstruction standards does not necessarily mean that the structure would be a hazard to aviation. Part 77 identifies the point at which a proposed structure might be a hazard and, therefore, further study would be necessary. Further study would then determine whether the proposed structure would, indeed, be a hazard. Our further study does not support a hazard. There is nothing to support a substantial adverse effect.

Aeronautical study disclosed that the proposed structures would have no effect on existing or proposed arrival, departure, or en route instrument flight rule (IFR) operations or procedures.

The proposed structure alteration would have no effect on any existing or proposed IFR minimum flight altitudes or minimum vectoring altitudes.

The proposed structure alteration would not penetrate those altitudes normally considered available to airmen for VFR en route flight. The structure will not be located within the traffic pattern airspace. Therefore, it will not conflict with airspace required to conduct normal VFR traffic pattern and/or visual approach operations at BCB or any other known public use or military airports.

The proposed structure alteration will be appropriately obstruction marked and/or lighted to make it more conspicuous to airmen flying in VFR weather conditions at night.

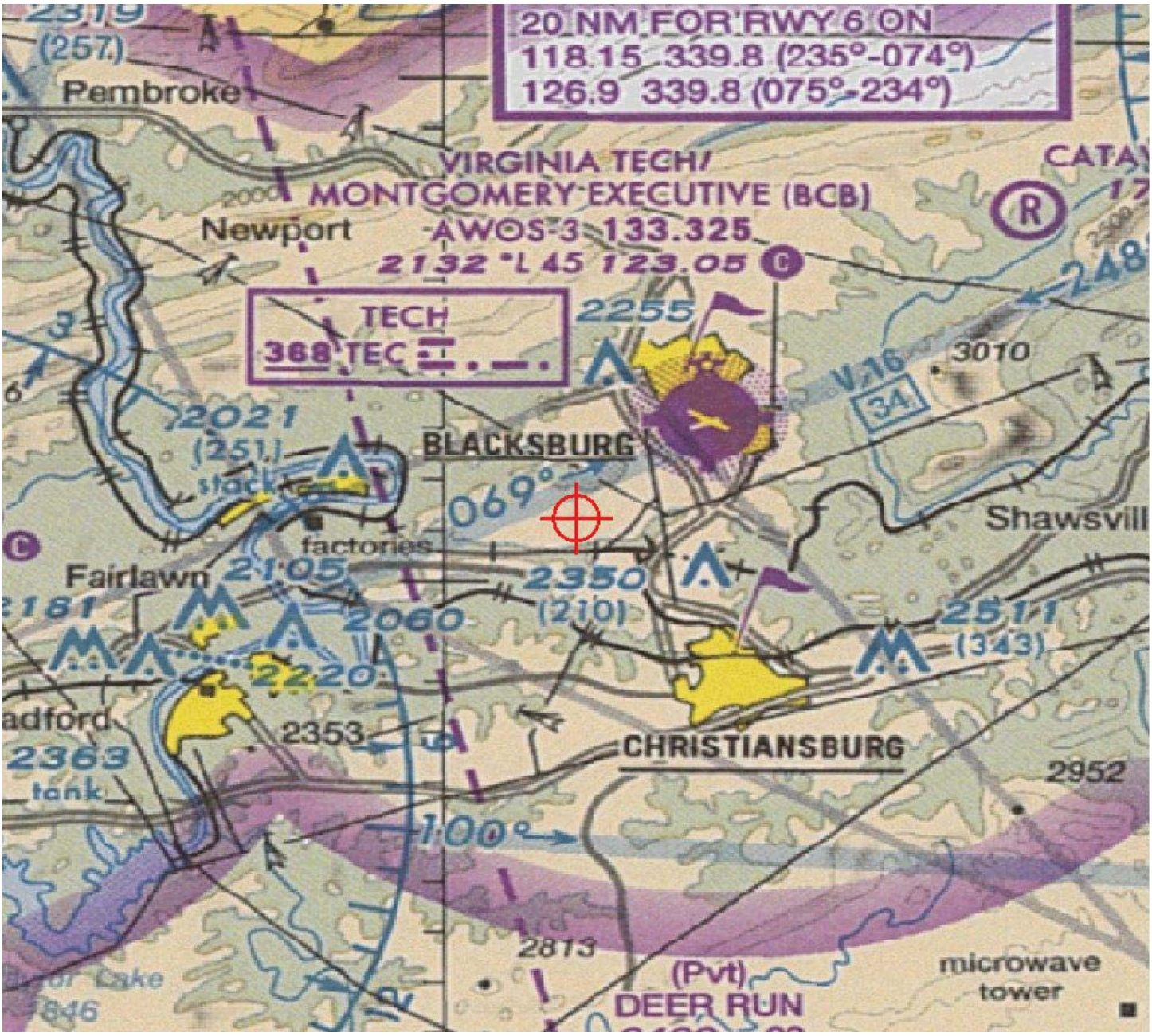
The cumulative impact of the proposed structure alteration, when combined with other proposed and/or existing structures, is not considered to be significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities, nor would the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed structure alteration would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.

Frequency Data for ASN 2011-AEA-3533-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
93.1	93.1	MHz	10	W
94.1	94.1	MHz	10	W
106.3	106.3	MHz	10	W

TOPO Map for ASN 2011-AEA-3533-OE


20 NM FOR RWY 6 ON
118.15 339.8 (235°-074°)
126.9 339.8 (075°-234°)
Pembroke
VIRGINIA TECH/
MONTGOMERY EXECUTIVE (BCB)
AWOS-3 133.325
Newport
2132 °L 45 123.05
TECH
368 TEC
2255
3010
V16
34
2021
(251)
BLACKSBURG
069°
factories
Fairlawn
2105
2350
(210)
2060
2220
2511
(343)
Shawsvill
adford
2353
2363
tank
CHRISTIANSBURG
2952
100°
2813
(Pvt)
DEER RUN
microwave
tower