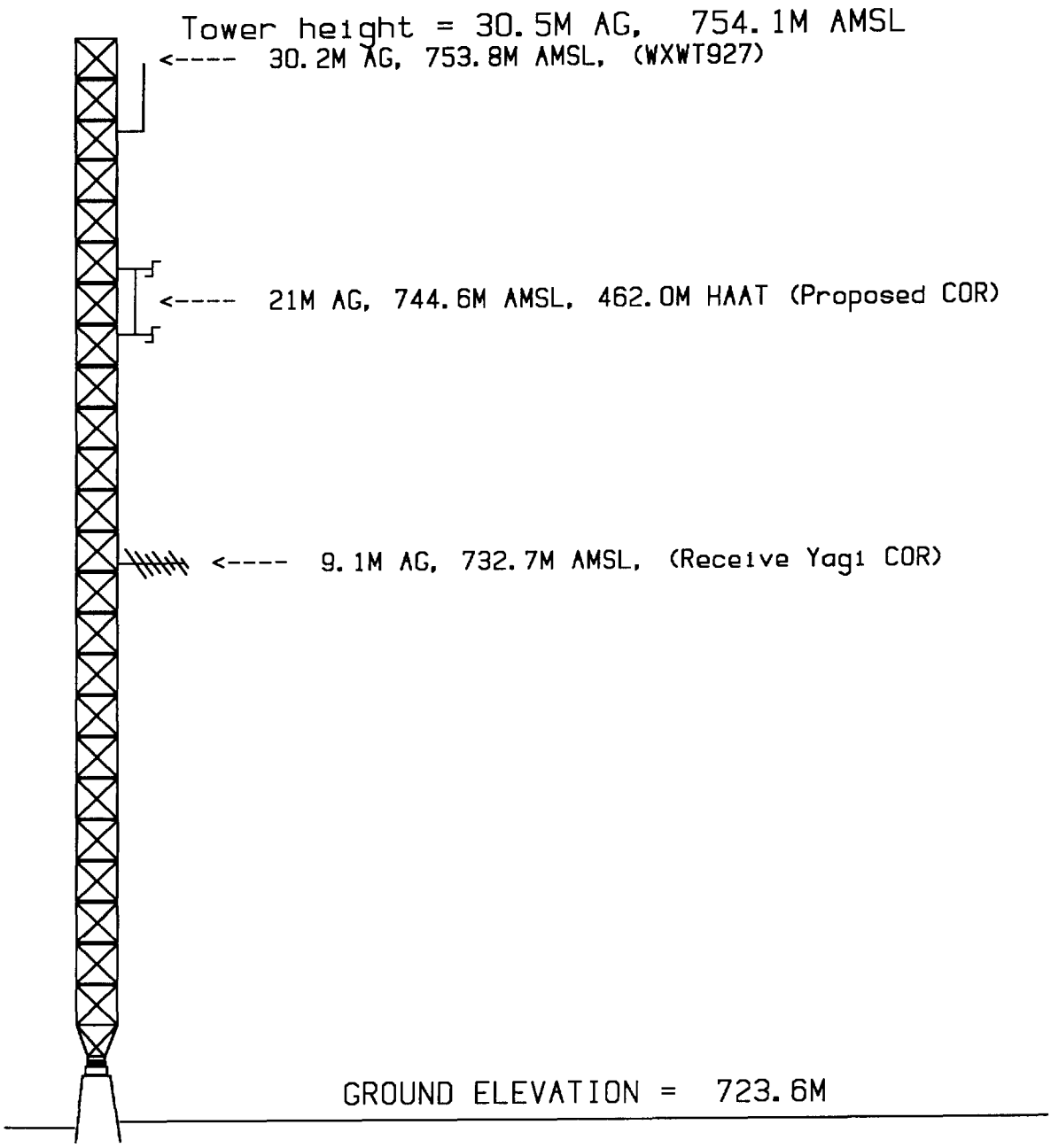



# VERTICAL SKETCH

N. Lat. 37 57 00
W. Lng. 78 43 38

---

(Existing tower)
Antenna = FML-2E

---

(Not to Scale)

# EXHIBIT #E2

CH 278 - .27 kW - 462M HAAT
Crozet, Virginia
James Madison University

---

October 1991

DOUG VERNIER
BROADCAST CONSULTANT
1600 PICTURESQUE DR.
CEDAR FALLS, IA 50613
319 266-8402


EXHIBIT E-3

studio rule is in the public interest because the proposed satellite station at Crozet would fulfill an otherwise unmet programming need. JMU is convinced that the Crozet station could not provide the highest quality noncommercial programming if required to operate as a wholly separate entity. The station's programming in all areas, such as public affairs, will be of much higher quality due to its ability to draw on the programming produced for WMRA. Therefore, JMU determined that a satellite station at Crozet would provide public radio service to the area in a manner consistent with the realities of funding for public broadcasting.

JMU will be able to determine local needs in Crozet through several means. First, JMU maintains a community advisory board which provides recommendations on community needs and programming directly to WMRA's management. JMU will appoint at least one resident of Crozet to the advisory board, thus permitting direct input from Crozet into the ascertainment and program planning process. JMU also intends to conduct its own ascertainment study in the Crozet area each year. Finally, JMU will maintain a local presence in Crozet at The Jefferson-Madison Public Library where its public inspection file will be maintained.

Community needs of Crozet will be met by the station's programming. WMRA currently broadcasts local, regional, national

enhanced by the addition of a news stringer in Crozet. Moreover, WMRA will transmit public service announcements for Crozet and the surrounding region. JMU also plans to provide coverage of significant events in Crozet and surrounding areas, including coverage of cultural events, political campaigns, and election results.

Of course, JMU will maintain a public inspection file in the city of Crozet as well as provide for toll-free or collect call telephone access from Crozet to the main studio at WMRA in Harrisonburg.

For these reasons, JMU believes that the proposed satellite operation will best meet the need for public radio service in the Crozet area at this time by assuring its availability to thousands more listeners on a dependable basis.

Exhibit # E4
James Madison University
Crozet, Virginia

October, 1991

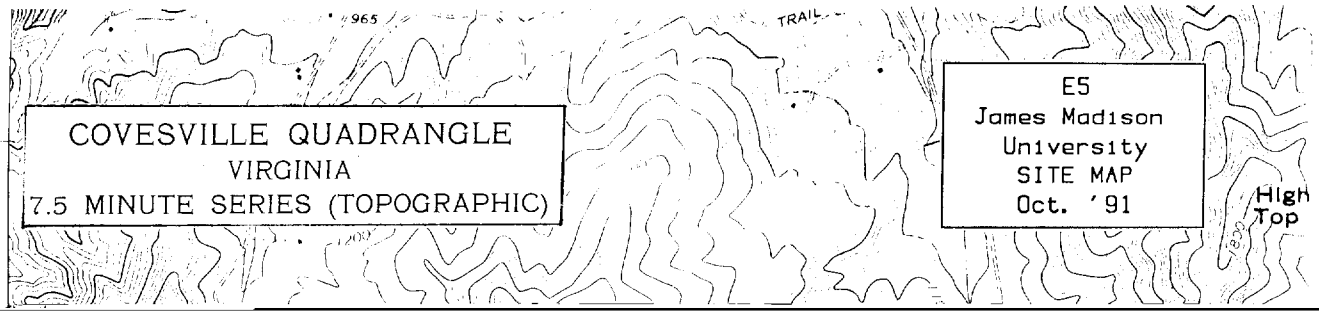
Co-location Exhibit

The proposed facility will be co-located on an existing tower with WXWT927, a .145 kW E.R.P. business-band radio station on 463.575 MHz.

Considering the large frequency displacement between the proposed FM station and WXWT927, little or no interaction is expected. The applicant, James Madison University, is aware of its responsibility to correct any interference it may cause to WXWT927 at its own expense.

The applicant is also aware if its responsibility to similarly correct interference through traditional means, such as traps and antenna reorientation, any interference it may cause within the 115 dBu interference contour which travels 200 meters.

There are no AM, FM or television stations within ten kilometers which may cause receiver induced inter-modulation.

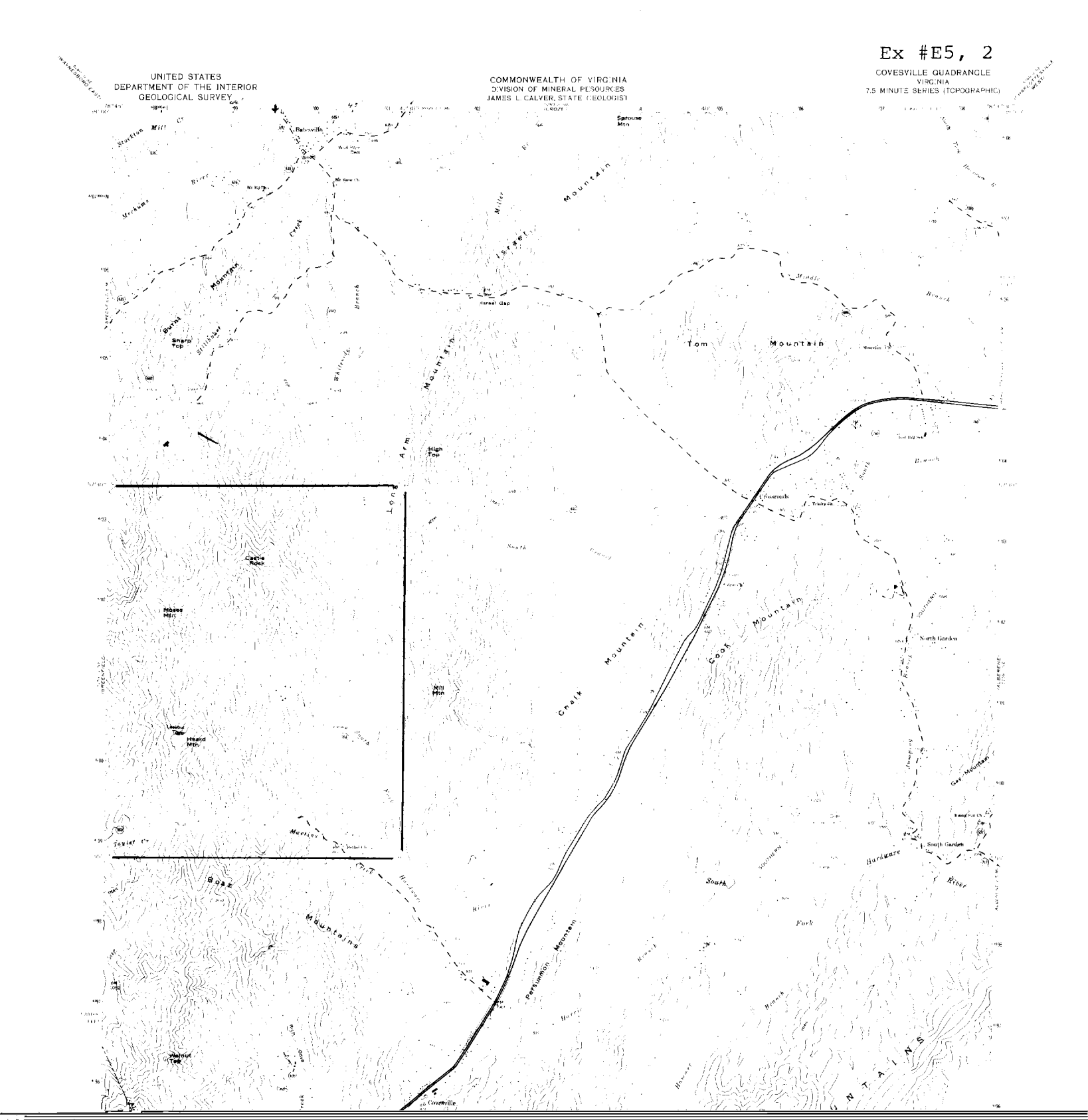

965
TRAIL
4204
COVESVILLE QUADRANGLE
VIRGINIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
E5
James Madison
University
SITE MAP
Oct. '91
High
Top

Ex #E5, 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COMMONWEALTH OF VIRGINIA
DIVISION OF MINERAL RESOURCES
JAMES L. CALVER, STATE GEOLOGIST

COVESVILLE QUADRANGLE
VIRGINIA
7.5 MINUTE SERIES (TOPOGRAPHIC)



Ex # E6

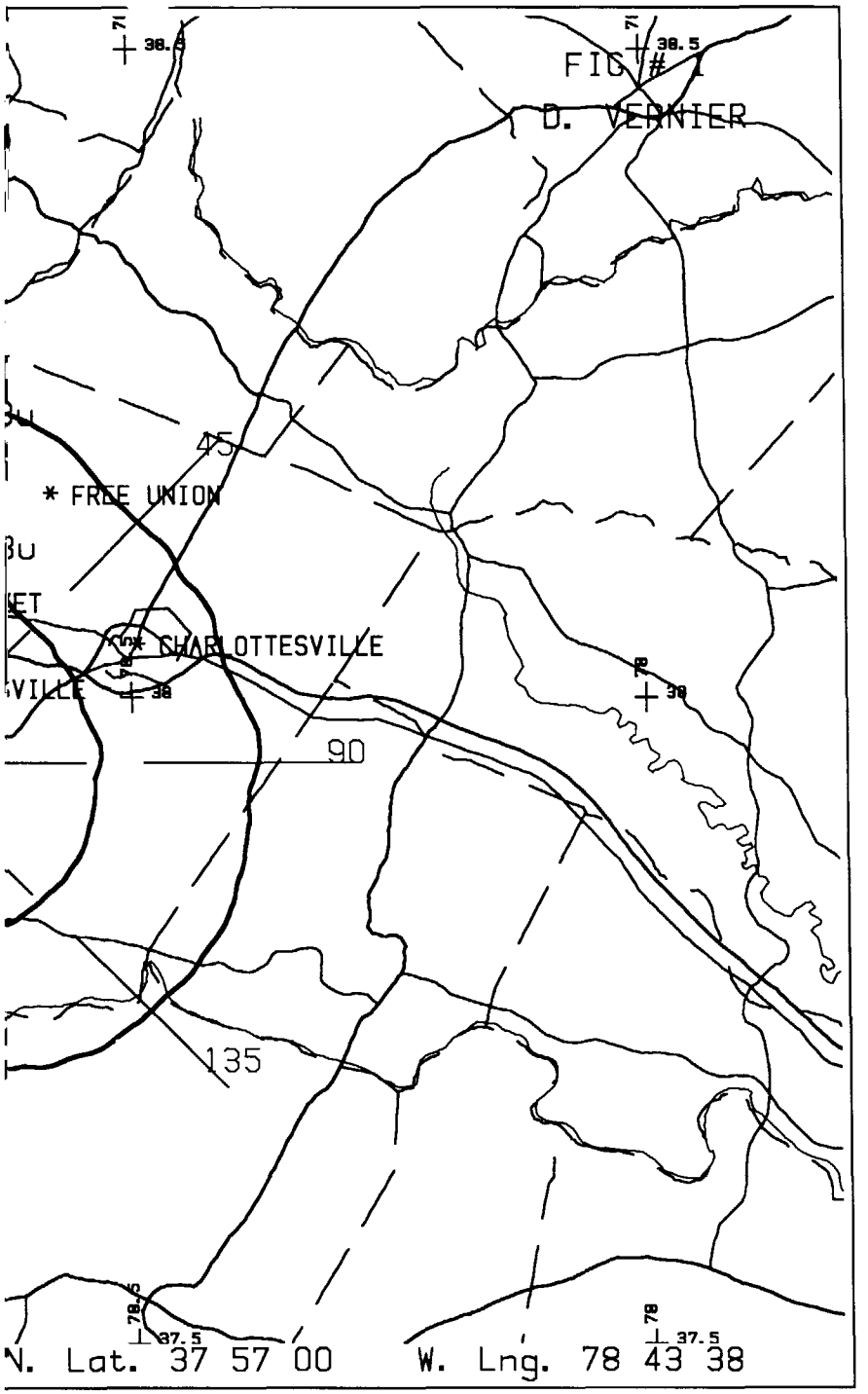
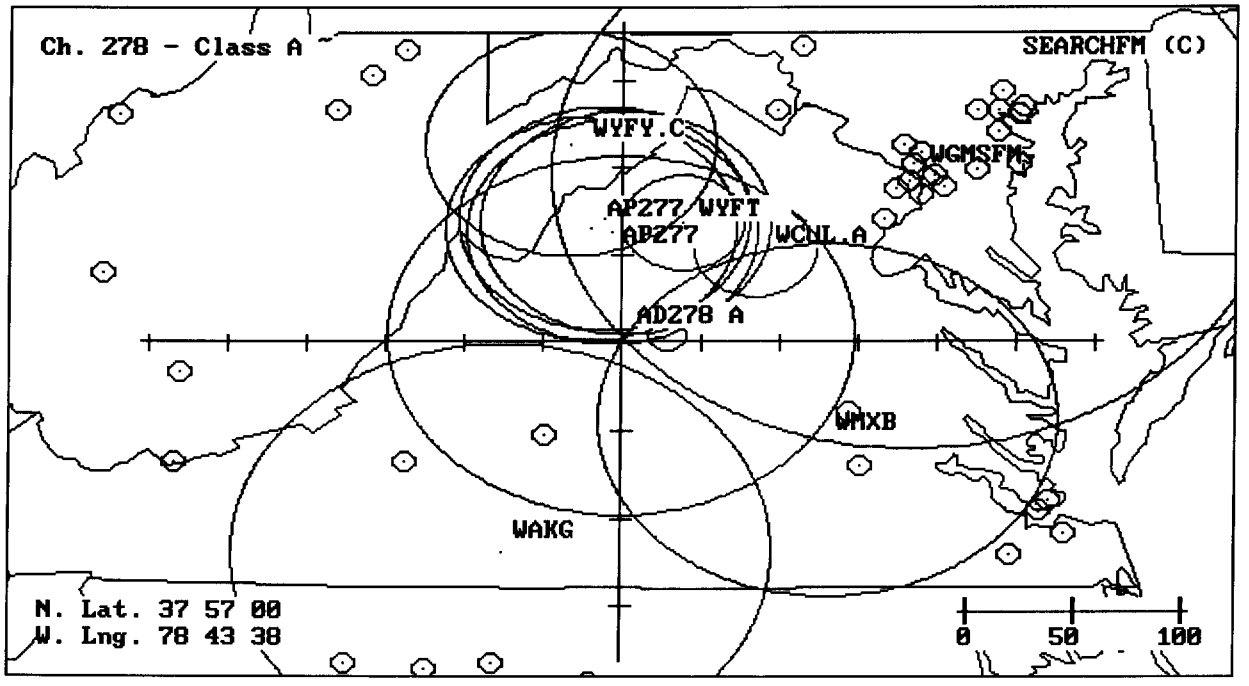


FIG # 1
D. VERNIER
* FREE UNION
CHARLOTTESVILLE
45
90
135
38.5
38
37.5
N. Lat. 37 57 00
W. Lng. 78 43 38

DOUG VERNIER BROADCAST CONSULTANT
1600 PICTURESQUE DR. CEDAR FALLS IA. 50613




James Madison University

Search 10-11-91 Data 08-28-91

Current rules spacings

CHANNEL 278 -103.5 MHz

| CALL / TYPE | CH# / LAT | CITY / LNG | STATE / PWR | BEAR' / HT | D-KM / D-Mi | R-KM / R-Mi | MARGIN (KM) |
|---|---|---|---|---|---|---|---|
| AD278 | 278A | Crozet | VA | 350.4 | 3.94 | 114.5 | -110.56 * |
| AD | 37 59 06 | 78 44 05 | 0.000 kW | 0M | 2.5 | 71.2 | |
| | Commissions Staff | | | | | | |
| >Site Restricted 9.7Km South-Alternate channel | | | | | | | |
| AP277 | 277A | New Market | VA | 355.6 | 70.85 | 71.5 | -0.65 * |
| AP CN | 38 35 11 | 78 47 21 | 3.000 kW | 100M | 44.0 | 44.4 | |
| | Oscar Haynes | | | BPH891026MQ | | | 900626 |
| WMXB | 279B | Richmond | VA | 115.8 | 112.62 | 112.5 | 0.12 < |
| LI CY | 37 30 31 | 77 34 37 | 20.000 kW | 256M | 70.0 | 69.9 | |
| | Radio Ventures I, L.P. | | | BLH831117BF | | | |
| WGMSFM | 278B | Washington | DC | 52.5 | 179.84 | 177.5 | 2.34 < |
| LI DCN | 38 56 09 | 77 05 33 | 46.000 kW | 155M | 111.8 | 110.3 | |
| | Classical Acquisition Partner | | | BLH880104KE | | | |
| >Authorization 9-21-88-Granted Facilities for WGMSFM | | | | | | | |
| WGMSFM | 278B | Washington | DC | 52.5 | 179.84 | 177.5 | 2.34 < |
| CP DCN | 38 56 09 | 77 05 33 | 44.000 kW | 158M | 111.8 | 110.3 | |
| | Classical Acquisition Partner | | | BPH900205IG | | | 921011 |

DOUG VERNIER BROADCAST CONSULTANT
1600 PICTURESQUE DR. CEDAR FALLS IA. 50613

CLASS A

| CALL / TYPE | CH# / LAT | CITY / LNG | STATE / PWR | BEAR' / HT | D-KM / D-Mi | R-KM / R-Mi | MARGIN (KM) |
|---|---|---|---|---|---|---|---|
| AP277 | 277A | New Market | VA | 348.2 | 74.69 | 71.5 | 3.19 |
| AP CN | 38 36 31 | 78 54 07 | 2.100 kW | 166M | 46.4 | 44.4 | |
| | Commonwealth Audio Visual Ent | | | BPH891026MT | | | 900626 |
| ALOPEN | 277A | New Market | VA | 1.0 | 75.86 | 71.5 | 4.36 |
| AL N | 38 38 00 | 78 42 42 | 0.000 kW | 0M | 47.2 | 44.4 | |
| | 88-520 | WO= 890926 | | | | | 891026 |
| >Site Restricted-Effective 9-25-89 | | | | | | | |
| AP277 | 277A | New Market | VA | 354.0 | 79.11 | 71.5 | 7.61 |
| AP CN | 38 39 32 | 78 49 16 | 6.000 kW | 100M | 49.2 | 44.4 | |
| | John D. Bomberger | | | BPH891026MC | | | 900626 |
| >Amended 900126 | | | | | | | |
| WUVA | 224A | Charlottesville | VA | 79.8 | 22.00 | 9.5 | 12.50 |
| LI CN | 37 59 06 | 78 28 51 | 0.220 kW | 274M | 13.7 | 5.9 | |
| | WUVA, Inc. | | | BLH790608AC | | | |
| WAKG | 277C1 | Danville | VA | 203.5 | 146.27 | 132.5 | 13.77 |
| LI CN | 36 44 28 | 79 23 05 | 100.000 kW | 199M | 90.9 | 82.3 | |
| | Piedmont Broadcasting Corpora | | | BLH900904KB | | | |
| WYFT | 280A | Luray | VA | 20.5 | 81.51 | 30.5 | 51.01 |
| LI CN | 38 38 17 | 78 24 06 | 3.300 kW | 91M | 50.7 | 19.0 | |
| | Bible Broadcasting Network, I | | | BMLH900420KG | | | |
| WYFT.A | 280A | Luray | VA | 20.5 | 81.51 | 30.5 | 51.01 |
| AP CN | 38 38 17 | 78 24 06 | 6.000 kW | 92M | 50.7 | 19.0 | |
| | Bible Broadcasting Network, I | | | BPED900112IA | | | |
| >Application Dismissed 900320-Petition For Reconsideration Fld 90041 | | | | | | | |
| WYFY.C | 279A | Fisher | WV | 348.2 | 128.69 | 71.5 | 57.19 |
| CP CN | 39 05 05 | 79 01 47 | 6.000 kW | 100M | 80.0 | 44.4 | |
| | Bible Broadcasting Network, I | | | BPED900103MD | | | 920908 |
| >Commercial Channel Operating Educational | | | | | | | |
| WCUL.A | 276A | Culpeper | VA | 47.4 | 87.71 | 30.5 | 57.21 |
| AP CN | 38 29 04 | 77 59 22 | 3.300 kW | 91M | 54.5 | 19.0 | |
| | Culpeper Broadcasting Corp. | | | BMLH891212KG | | | |
| WCUL | 276A | Culpeper | VA | 47.4 | 87.71 | 30.5 | 57.21 |
| LI CN | 38 29 04 | 77 59 22 | 3.000 kW | 91M | 54.5 | 19.0 | |
| | Culpeper Broadcasting Corp. | | | BLH5325 | | | |

R.F. RADIATION COMPLIANCE STATEMENT
Exhibit # E8
Channel 278

Oct. 1991

Based on the formulas expressed in the OST Bulletin, No. 65, Oct. 1985, "Evaluating Compliance with F.C.C. Specified Guidelines for Human Exposure to Radio Frequency Radiation", published by the Federal Communication's Office of Science and Technology and applying both the element and field patterns of the proposed type 3, E.R.I. antenna energized such that it produces .27 kW effective radiated power, circularly polarized, from a center of radiation of 21 meters above ground (19 meters above a average person's head) it can be determined that a maximum R.F. radiation level of 1.5 microwatts per square centimeter will exist, at 2 meters above the ground level. This is .15 percent of the maximum ANSI standard for FM non-ionizing radiation at 103.5 MHz.

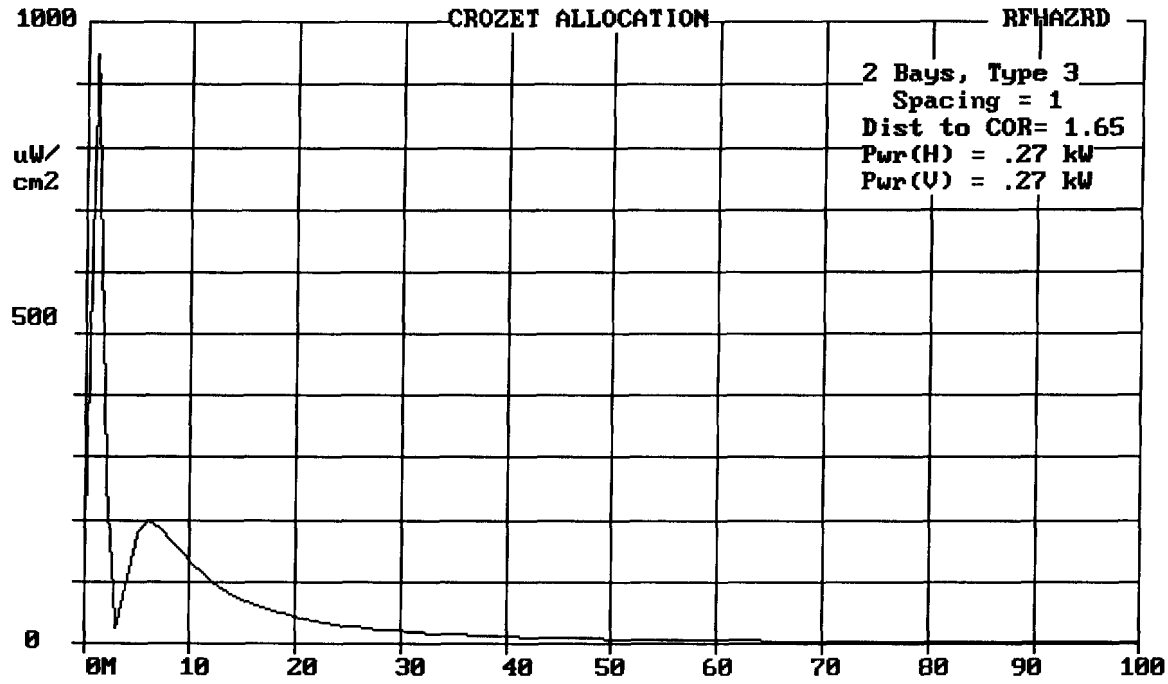
The proposed tower also holds the antenna of business band radio station WXWT927, which, when one considers its 145 watts E.R.P. and frequency in use, contributes, under worst case, 4.12 microwatts/sq centimeter which is .261 percent of the maximum at the frequency in use.

Together both transmitters contribute well under the maximum A.N.S.I. standard. Consequently, the proposed FM station and the existing business band radio installation will be in compliance with the Commission's rules regarding exposure to workers or the general public to levels of radio frequency radiation in excess of the American National Standard Safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 KHz to 100 GHz. (ANSI 95.1-1982)

A graph is attached as page two of this exhibit which shows the level of non-ionization radiation at a distance which exhibits a near maximum exposure to a tower worker. The graph shows the maximum level of non-ionization radiation occurs at points closer than 1.65 meters (5.4 feet) of the antenna. In the event workers enter within six feet of the lowest bay of the proposed antenna or within six feet above the highest bay, applicant will cease transmitting until the area is cleared. This distance was determined using both the element and array field patterns as derived for the antenna in use from the E.P.A. study "Engineering Assessment of the potential Impact of Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services."

The tower will have climb guards to prevent intruders from climbing the tower to a point where exposure above the maximum A.N.S.I. standard would take place.

Doug Vernier


CROZET ALLOCATION
RFHAZRD
2 Bays, Type 3
Spacing = 1
Dist to COR= 1.65
Pwr(H) = .27 kW
Pwr(V) = .27 kW
1000
uW/
cm2
500
0
0M
10
20
30
40
50
60
70
80
90
100