

Engineering Exhibit
Fine Arts Radio, Inc.
Newport, Ohio

Fine Arts Radio was granted a permit to construct a translator at Athens, Ohio for station WMRT, Marietta, Ohio. WMRT is operated by Marietta College, and has a program of jazz and classical music. WMRT has spotty reception in the Athens area. Shortly after the grant of a construction permit for this Athens translator, NPR station WOUB-FM changed its programming schedule. The Ohio university station deleted almost all of its music programming from its schedule to concentrate on news and information programming.

Athens is a university town of some 20,000. After WOUB dropped its classical and jazz programming, considerable interest and support developed in Fine Art's translator proposal. This application proposes to modify the construction permit to specify a new site, and change the transmitting antenna and E.R.P. for better coverage.

The site proposed is a 140 foot (43 meter) guyed tower located on the near west side of the city of Athens. The Ohio Highway Patrol originally built the tower several years ago. It is now the property of Athens County and is used for Sheriff's radio and other emergency communications. The translator antenna will be mounted 50 feet above ground, some 16 meter AG, or at 42 meters AHAAT.

Interference Considerations: Since the grant of the construction permit for W247AP, Hocking Technical College, at Nelsonville, Ohio, received a construction permit for a low power FM on Ch. 248, 97.5 MHZ (BNPL-20010122AHH). That station's transmitter site is 15.8 KM northwest of the site proposed here. Under Section 73.807(d)(1), minimum separation for an LPFM station to first adjacent translators is to be 15 kilometers, where the projected 60 dbu translator contour is less than 7.2 KM. See Table 1, following, the proposed translator coverage

is less than 7.2 kilometers for 12 standard radials.

Since this proposal follows the grant of the permit for the LPFM, it would appear that 74.1204 would also apply. We assumed that the LPFM station is protected to the 60 dbu coverage contour. Since this proposal is on the lower first adjacent, then the translator must protect the LPFM 50/50 60 DBU against a signal greater than the projected 50/10 54 DBU. As demonstrated by Exhibit 1, the 54 DBU does not overlap the 60 DBU contour of the Nelsonville LPFM station.

Exhibit II demonstrates the 60 dbu contour of the translator from this new site. Both Exhibit I and II are derived from the Wellston USGS 1:100,000 topographic map.

Environmental Considerations: The transmit antenna, an SWR one bay c.p. antenna, will be mounted 50 feet above ground. Access to the site is limited to county employees and contractors; the site is not accessible to the general public. Nonetheless, at this low power, the RF exposure on the ground will not exceed the limits for a station of this class.

Table I
Athens, Ohio
W247AP

N. Lat. = 39 20 25 W. Lng. = 82 06 04
(Old Highway Patrol Tower)

HAAT and Distance to Contour - FCC Method - 30 Arc Sec.

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5	34-F1
000	239.1	50.9	0.0250	-16.02	1.000	5.23	24.49
030	266.9	23.1	0.0250	-16.02	1.000	3.95	18.55
060	250.0	40.0	0.0250	-16.02	1.000	4.57	21.55
090	239.5	50.5	0.0250	-16.02	1.000	5.21	24.40
120	253.7	36.3	0.0250	-16.02	1.000	4.34	20.47
150	267.2	22.8	0.0250	-16.02	1.000	3.95	18.55
180	263.7	26.3	0.0250	-16.02	1.000	3.95	18.55
210	224.5	65.5	0.0250	-16.02	1.000	5.89	27.64
240	238.8	51.2	0.0250	-16.02	1.000	5.25	24.57
270	243.6	46.4	0.0250	-16.02	1.000	4.97	23.34
300	251.8	38.2	0.0250	-16.02	1.000	4.45	21.02
330	236.0	54.0	0.0250	-16.02	1.000	5.39	25.24

Ave El= 247.90 M HAAT= 42.10 M AMSL= 290 M



W247AP (Prop.)

**Fine Arts Radio
W247AP
Exhibit I
Protection to C.P./ CH 248
Hocking College LPFM
At Nelsonville, Ohio**



