



**RF RADIATION CALCULATIONS
IN ACCORDANCE WITH OET BULLETIN 65**

TOWER COORDINATES: 44°-55'-14"; 89°-41'-28"
MULTI-STATION TOWER SITE
RIB MOUNTAIN (WAUSAU), WISCONSIN

February, 2004

Station	Frequency (MHz)	ERP (KW) (Visual for TV)	Antenna Height AGL(m)	Power Density (mW/cm²)	% FCC Public Exposure Max.
WHRM-DT	533	200	192	0.007404	2.08
WAOW-DT	563	900	190	0.034030	9.07
WSAW-DT	629	110	180	0.004640	1.11
WSAW-TV	177	316	180	0.006664	3.33
WHRM-TV	509	1380	176	0.030457	8.98
WAOW-TV	189	316	175	0.007055	3.53
WIFC(FM)	95.5	100*	136	0.003536	1.77
WDEZ(FM)	101.9	100*	136	0.004497	2.25
WHRM(FM)	90.9	82*	136	0.002296	1.15
W52DU	701	10	51	0.006262	1.34
TOTAL					34.61

* Circularly polarized

Notes:

The power densities were calculated at a point two meters above ground at the base of the tower. For the TV and DTV stations, Equation (9) or (10) of OET Bulletin 65, or Equation (2) of Supplement A of OET 65 was used.

The three FM stations share one master panel antenna, an ERI 1083 10-bay. The spacing between bays of this antenna is 92 inches, which is 0.7085 wavelength for WHRM, 0.7444 wavelength for WIFC, and 0.7943 wavelength for WDEZ. The FM Model program from OET was used to calculate the RF exposures resulting from this antenna at each FM frequency, assuming EPA Type 1 vertical plane pattern.

The aural ERP for the analog TV stations was assumed to be 10% of visual. A downward radiated field of 20% was used for all TV and DTV stations, and 30% was used for W52DU.