

WHDG Comprehensive Engineering Exhibit

By this minor change application WHDG seeks, via the “one step” procedure, a change in channel only. This application is being filed contingent upon an application for WTRW, facility ID 164253.

The WHDG antenna is and will continue to be located 137 meters above ground on a tower described by antenna structure registration number 1034854. From this location, operation on the new channel, 247C1, will be fully spaced to all known applications, authorizations, and allocations with the exception of WGLQ to which spacing in accordance with section 73.215 is requested. To prevent prohibited contour overlap a directional antenna is to be utilized. Made part of this exhibit are spacing studies for the antenna and allocation location, as well as a map demonstrating the proposed operation will not cause prohibited contour overlap with WGLQ. Also made part of this exhibit is a map demonstrating that the community of license would receive 70 dBu signal from the allocation location.

The Proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, “Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation.” Calculations were made using the micro-computer program FM Model.

The proposed antenna system is a Shively 6810, 12- bay, full wave spaced antenna, mounted with its center of radiation 137 meters above ground level, and will operate with an effective radiated power of 100 Kilowatts in both the horizontal and vertical planes.. At 2 meters above ground, at 34 meters from the base of the tower, this proposal will contribute worst case, 10.6 microwatts per square centimeter, or 1.1 percent of the allowable ANSI limit for controlled exposure, and 5.5 percent of the allowable limit for uncontrolled exposure. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Allocation Location

ComStudy 2.2 search of channel 247 (97.3 MHz Class C1) at 45-26-21.5 N, 89-27-53.5 W.

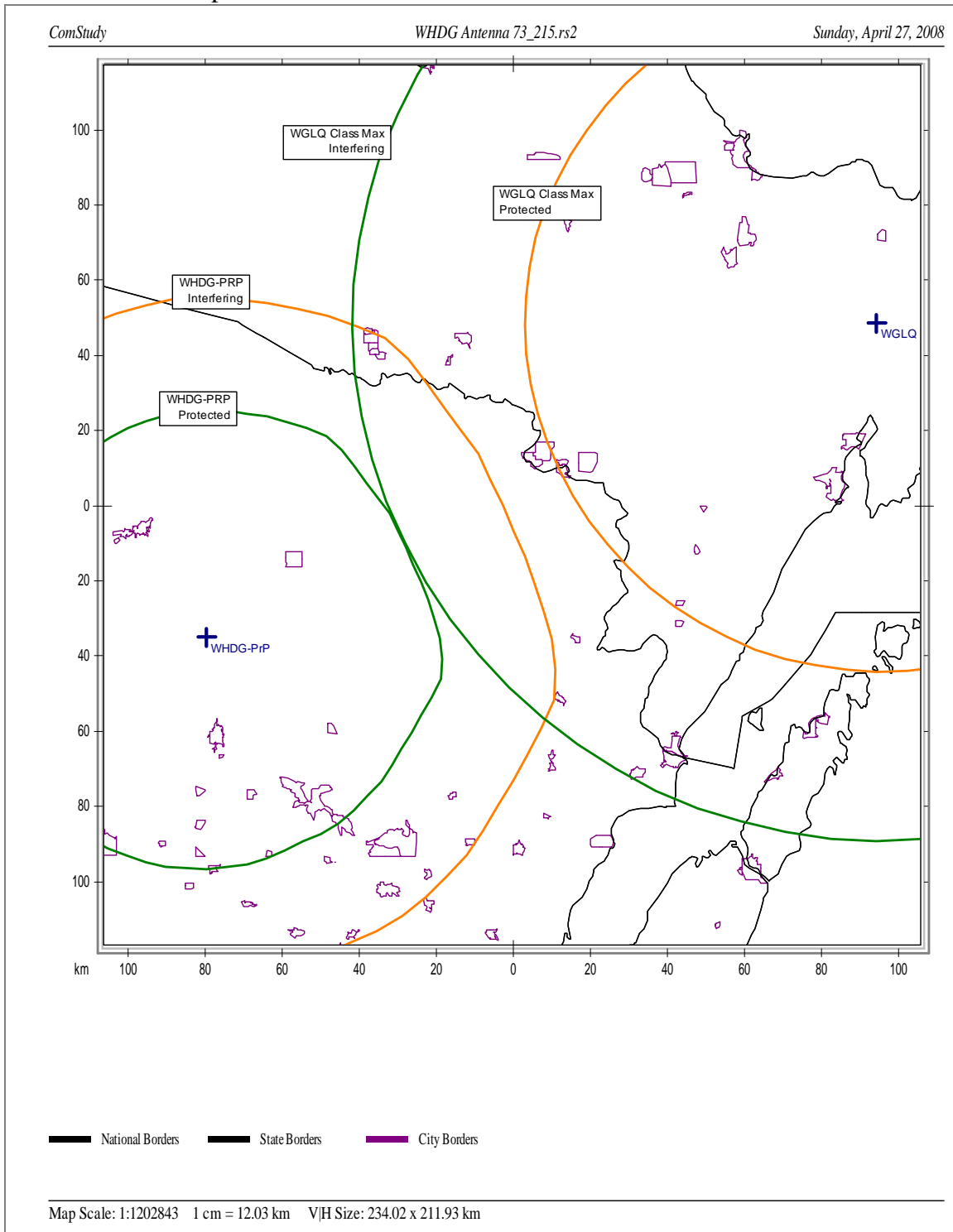
Callsign	State	City	Freq	Chanl	ERP_w	Class	Status	Dist_km	Sep	Clr
WHDG	WI	RHINELANDER	97.5	248	100000	C1	LIC	22.53	177	-154.5
WHDG	WI	RHINELANDER	97.5	248	0	C1	USE	22.26	177	-154.7
WBCV	WI	WAUSAU	107.9	300	100000	C	LIC	42.31	41	1.3
WGLQ	MI	ESCANABA	97.1	246	100000	C	LIC	210.43	209	1.4
WGLQ	MI	ESCANABA	97.1	246	0	C	USE	210.43	209	1.4
WBCV	WI	WAUSAU	107.9	300	0	C	USE	42.31	41	1.3
WGLQ	MI	ESCANABA	97.1	246	100000	C	APP	210.38	209	1.4
WLJY	WI	WHITING	96.7	244	0	C2	USE	93.45	79	14.5
WLJY	WI	WHITING	96.7	244	50000	C2	LIC	93.78	79	14.8
WQBW	WI	MILWAUKEE	97.3	247	15500	B	LIC	286.32	270	16.3
WQBW	WI	MILWAUKEE	97.3	247	0	B	USE	286.32	270	16.3
WSPT-FM	WI	STEVENS POINT	97.9	250	0	C1	USE	100.68	82	18.7
WSPT-FM	WI	STEVENS POINT	97.9	250	100000	C1	LIC	100.68	82	18.7
WCOW-FM	WI	SPARTA	97.1	246	0	C1	USE	197.34	177	20.3
WCOW-FM	WI	SPARTA	97.1	246	100000	C1	LIC	197.34	177	20.3
KDNW	MN	DULUTH	97.3	247	0	C2	USE	253.46	224	29.5
W244BU	WI	RHINELANDER	96.7	244	250	D	LIC	29.21	0	29.2
KDNW	MN	DULUTH	97.3	247	40000	C2	LIC	254.09	224	30.1

Antenna Location

ComStudy 2.2 search of channel 247 (97.3 MHz Class C1) at 45-22-50.0 N, 89-11-22.0 W.

Callsign	State	City	Freq	Chanl	ERP_w	Class	Status	Dist_km	Sep	Clr
WHDG	WI	RHINELANDER	97.5	248	100000	C1	LIC	0	177	-177
WHDG	WI	RHINELANDER	97.5	248	0	C1	USE	0.41	177	-176.6
WGLQ	MI	ESCANABA	97.1	246	100000	C	LIC	193.49	209	-15.5
WGLQ	MI	ESCANABA	97.1	246	100000	C	APP	193.45	209	-15.6
WGLQ	MI	ESCANABA	97.1	246	0	C	USE	193.49	209	-15.5
WBCV	WI	WAUSAU	107.9	300	0	C	USE	40.63	41	-0.4
WBCV	WI	WAUSAU	107.9	300	100000	C	LIC	40.63	41	-0.4
WQBW	WI	MILWAUKEE	97.3	247	0	B	USE	271.55	270	1.6
WQBW	WI	MILWAUKEE	97.3	247	15500	B	LIC	271.55	270	1.6
WSPT-FM	WI	STEVENS POINT	97.9	250	100000	C1	LIC	98.95	82	17
WSPT-FM	WI	STEVENS POINT	97.9	250	0	C1	USE	98.95	82	17

73.215 Contour Map



Map of 70 dBu Coverage from Allocation Location

