

## INTERFERENCE ANALYSIS

An analysis was performed pursuant to the requirements of Sections 73.622(f), and 73.623(c) of the Commission's Rules for an interference showing, with an application for modification of a DTV station.

Section 73.623 (c) (2) of the Commission's Rules requires that the proposal :

Demonstrate that the requested change would not result in more than an additional 2 percent the population served by another station being subject to interference; provided, however, that no new interference may be caused to any station that already experiences interference to 10 percent or more of its population or that would result in a station receiving interference in excess of 10 percent of its population. This is the *de minimis* standard.

CBS proposes to use a directional antenna, as specified in Section V-D Item 9(c) of this application, mounted at 628 meters height of radiation center above mean sea level (RCAMSL). CBS has analyzed the resulting interference to stations potentially affected by the proposed station and finds that an ERP of 3.7 kW will satisfy the *de minimis* standard.

As shown in Appendix A, nine stations are potentially affected by this proposal. Analysis of interference to all affected stations shows that the proposal meets the *de minimis* standard. The limiting station to additional increase in power for WBBM-DT is WISC-TV, Channel 3, in Madison, WI. Appendix A contains the complete analysis of interference to WISC-TV and CBS has available the complete analysis for all the affected stations.

This proposal will increase the population lost to WISC-TV by additional interference from DTV from 5.77 percent to 7.62 percent, an increase of 1.85 percent. It therefore satisfies the *de minimis* standard, because the additional population lost is under 2 percent, and the total population lost to interference by DTV is under 10 percent of its population.

The calculations were performed by CBS using Longley-Rice DTV maximization software available from Techware, Inc., Chantilly, VA, on a DEC Unix based computer. The software is designed to comply with FCC OET Bulletin No. 69 and deemed consistent with the software used by the Commission.

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## APPENDIX A

### TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 10-25-2001 Time: 16:04:24

Record Selected for Analysis

WBBM USERRECORD-01 CHICAGO IL US  
Channel 03 ERP 3.7 kW HAAT 448.3 m RCAMSL 00628 m  
Latitude 041-53-56 Longitude 0087-37-23

Cell Size for Service Analysis 2.0 km/side  
Distance Increments for Longley-Rice Analysis 1.00 km

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Start of Interference Analysis

Channel	Call	City/State	ARN
03	WBBM	CHICAGO IL	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
1 02	WBBM-TV	CHICAGO IL	0.0	LIC	BLCT	-19900813KE
2 02	WWMY-TV	KALAMAZOO MI	189.9	PLN	DTVPLN	-DTVP0003
3 03	WCIA	CHAMPAIGN IL	211.0	LIC	BLCT	-2374
4 03	WAVE	LOUISVILLE KY	425.7	LIC	BLCT	-19900727KH
5 03	WWMY	KALAMAZOO MI	189.9	LIC	BLCT	-2070
6 03	WISC-TV	MADISON WI	202.7	LIC	BLCT	-19950810KF
7 04	WANE-TV	FORT WAYNE IN	222.2	CP	BPCDT	-19991018AAQ
8 04	WANE-TV	FORT WAYNE IN	222.2	PLN	DTVPLN	-DTVP0011
9 04	WTMJ-TV	MILWAUKEE WI	134.5	LIC	BLCT	-2083

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Analysis of Interference to Affected Station 6, Total scenarios = 2

### Scenario 1, Affected station 6

Results for:	Before Analysis	
3N WI MADISON	BLCT	19950810KF LIC
	POPULATION	AREA (sq km)
within Noise Limited Contour	1361880	31612.4
not affected by terrain losses	1319363	30669.5
lost to NTSC IX	258911	5186.1
lost to additional IX by DTV	78568 (5.77%)	838.2
lost to all IX	337479	6024.3

Potential Interfering Stations Included in above Scenario 1

2N WI GREEN BAY	BLCT	2011	LIC
3N IA MASON CITY	BLCT	2518	LIC
3N IL CHAMPAIGN	BLCT	2374	LIC
3N MI ESCANABA	BLCT	19991015ACB	LIC
3N MI KALAMAZOO	BLCT	2070	LIC
3N MO KIRKSVILLE	BLCT	19910507KG	LIC
4N IL ROCK ISLAND	BLCT	19821107KF	LIC
4N WI MILWAUKEE	BLCT	2083	LIC
3A IL CHICAGO	DTVPLN	DTVP0009	PLN

After Analysis

Results for: 3N WI MADISON	BLCT	19950810KF	LIC	
		POPULATION		AREA (sq km)
within Noise Limited Contour		1361880		31612.4
not affected by terrain losses		1319363		30669.5
lost to NTSC IX		258911		5186.1
lost to additional IX by DTV		103830	(7.62%)	1067.9
lost to all IX		362741		6254.0

Potential Interfering Stations Included in above Scenario 1

2N WI GREEN BAY	BLCT	2011	LIC
3N IA MASON CITY	BLCT	2518	LIC
3N IL CHAMPAIGN	BLCT	2374	LIC
3N MI ESCANABA	BLCT	19991015ACB	LIC
3N MI KALAMAZOO	BLCT	2070	LIC
3N MO KIRKSVILLE	BLCT	19910507KG	LIC
4N IL ROCK ISLAND	BLCT	19821107KF	LIC
4N WI MILWAUKEE	BLCT	2083	LIC
3A IL CHICAGO	USERRECORD01		APP

Scenario 2 Affected station 6

Before Analysis

Results for: 3N WI MADISON	BLCT	19950810KF	LIC	
		POPULATION		AREA (sq km)
within Noise Limited Contour		1361880		31612.4
not affected by terrain losses		1319363		30669.5
lost to NTSC IX		258911		5186.1
lost to additional IX by DTV		78568	(5.77%)	838.2
lost to all IX		337479		6024.3

Potential Interfering Stations Included in above Scenario 2

2N WI GREEN BAY	BPCT	20010409AAZ	APP
3N IA MASON CITY	BLCT	2518	LIC
3N IL CHAMPAIGN	BLCT	2374	LIC
3N MI ESCANABA	BLCT	19991015ACB	LIC
3N MI KALAMAZOO	BLCT	2070	LIC
3N MO KIRKSVILLE	BLCT	19910507KG	LIC
4N IL ROCK ISLAND	BLCT	19821107KF	LIC
4N WI MILWAUKEE	BLCT	2083	LIC
3A IL CHICAGO	DTVPLN	DTVP0009	PLN

After Analysis

Results for: 3N WI MADISON	BLCT	19950810KF	LIC	
		POPULATION		AREA (sq km)
within Noise Limited Contour		1361880		31612.4
not affected by terrain losses		1319363		30669.5
lost to NTSC IX		258911		5186.1
lost to additional IX by DTV		103830	(7.62%)	1067.9
lost to all IX		362741		6254.0

Potential Interfering Stations Included in above Scenario 2

2N WI GREEN BAY	BPCT	20010409AAZ	APP
3N IA MASON CITY	BLCT	2518	LIC
3N IL CHAMPAIGN	BLCT	2374	LIC
3N MI ESCANABA	BLCT	19991015ACB	LIC
3N MI KALAMAZOO	BLCT	2070	LIC
3N MO KIRKSVILLE	BLCT	19910507KG	LIC
4N IL ROCK ISLAND	BLCT	19821107KF	LIC
4N WI MILWAUKEE	BLCT	2083	LIC
3A IL CHICAGO	USERRECORD01		APP

END OF ANALYSIS

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