

## **Exhibit C**

Federal Communications Commission Washington, D.C. 20554	Approved by OMB 3060-0027 (January 2008)	FOR FCC USE ONLY
<b>FCC 301</b>		
<b>APPLICATION FOR CONSTRUCTION PERMIT FOR COMMERCIAL BROADCAST STATION</b>		FOR COMMISSION USE ONLY FILE NO. -
Read INSTRUCTIONS Before Filling Out Form		

**Section I - General Information**

Legal Name of the Applicant CADILLAC TELECASTING CO.		
Mailing Address PO BOX 282		
City CADILLAC	State or Country (if foreign address) MI	ZIP Code 49601 - 0232
Telephone Number (include area code) 2317753478		E-Mail Address (if available) JRNBOLEA@AOL.COM
FCC Registration Number:	Call Sign WFQX-DT	Facility ID Number 25396
Contact Representative (if other than Applicant) GREGG P. SKALL, ESQ.		Firm or Company Name WOMBLE CARLYLE SANDRIDGE & RICE PLLC
Mailing Address 1401 EYE ST., N.W. SEVENTH FLOOR		
City WASHINGTON	State or Country (if foreign address) DC	ZIP Code 20005 - 2224
Telephone Number (include area code) 2028574441		E-Mail Address (if available) GSKALL@WCSR.COM
If this application has been submitted without a fee, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114): <input type="radio"/> Governmental Entity <input type="radio"/> Other <input checked="" type="radio"/> N/A (Fee Required)		
<b>Application Purpose</b> <input type="radio"/> New station <input type="radio"/> Major Modification of construction permit <input type="radio"/> Minor Modification of construction permit <input type="radio"/> Major Amendment to pending application <input type="radio"/> New Station with Petition for Rulemaking or Counterproposal to Amend FM Table of Allotments <input type="radio"/> Major Change in licensed facility <input checked="" type="radio"/> Minor Change in licensed facility <input type="radio"/> Minor Amendment to pending application <input type="checkbox"/> N/A		
(a) File number of original construction permit:		
(b) Service Type:		<input type="radio"/> AM <input type="radio"/> FM <input type="radio"/> TV <input checked="" type="radio"/> DTV
(c) DTV Type:		<input type="radio"/> Pre-Transition <input checked="" type="radio"/> Post-Transition <input type="radio"/> Both
(d) Community of License: City: CADILLAC		State: MI
(e) Facility Type		<input checked="" type="radio"/> Main <input type="radio"/> Auxiliary
If an amendment, submit as an Exhibit a listing by Section and Question Number the portions of the pending application that are being revised.		[Exhibit 1]

**OTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.**

**Section II - Legal**

<p><b>Certification.</b> Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<p><b>Parties to the Application.</b></p> <p>a. List the applicant, and, if other than a natural person, its officers, directors, stockholders with attributable interests, non-insulated partners and/or members. If a corporation or partnership holds an attributable interest in the applicant, list separately its officers, directors, stockholders with attributable interests, non-insulated partners and/or members. Create a separate row for each individual or entity. Attach additional pages if necessary.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>(1) Name and address of the applicant and each party to the application holding an attributable interest (if other than individual also show name, address and citizenship of natural person authorized to vote the stock or holding the attributable interest). List the applicant first, officers next, then directors and, thereafter, remaining stockholders and other entities with attributable interests, and partners.</p> </div> <div style="width: 48%;"> <p>(2) Citizenship.</p> <p>(3) Positional Interest: Officer, director, general partner, limited partner, LLC member, investor/creditor attributable under the Commission's equity/debt plus standard, etc.</p> <p>(4) Percentage of votes.</p> <p>(5) Percentage of total assets (equity plus debt).</p> </div> </div> <p>[Enter Parties/Owners Information]</p>	
<p>b. Applicant certifies that equity and financial interests not set forth above are non-attributable.</p>	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A See Explanation in [Exhibit 2]
<p><b>Other Authorizations.</b> List call signs, locations, and facility identifiers of all other broadcast stations in which applicant or any party to the application has an attributable interest.</p>	<input type="checkbox"/> N/A [Exhibit 3]
<p><b>Multiple Ownership.</b></p> <p>a. Is the applicant or any party to the application the holder of an attributable radio joint sales agreement or an attributable radio or television time brokerage agreement in the same market as the station subject to this application?</p> <p style="text-align: right;"> <input type="radio"/> Yes <input checked="" type="radio"/> No                  [Exhibit 4]             </p> <p>If "YES," radio applicants must submit as an Exhibit a copy of each such agreement for radio stations.</p>	
<p>b. Applicant certifies that the proposed facility complies with the Commission's multiple ownership rules and cross-ownership rules.</p> <p>Radio applicants only: If "Yes," submit an Exhibit providing information regarding the market, broadcast station(s), and other information necessary to demonstrate compliance with 47 C.F.R. § 73.3555(a).</p> <p>All Applicants: If "No," submit as an Exhibit a detailed explanation in support of an exemption from, or waiver of, 47 C.F.R. § 73.3555.</p>	<input checked="" type="radio"/> Yes <input type="radio"/> No [Exhibit 5]
<p>c. Applicant certifies that the proposed facility:</p> <ol style="list-style-type: none"> <li>1. does not present an issue under the Commission's policies relating to media interests of immediate family members;</li> <li>2. complies with the Commission's policies relating to future ownership interests; and</li> <li>3. complies with the Commission's restrictions relating to the insulation and non-participation of non-party investors and creditors.</li> </ol>	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 6]
<p><b>Character Issues.</b> Applicant certifies that neither applicant nor any party to the application has or has had any</p>	

interest in or connection with: a. any broadcast application in any proceeding where character issues were left unresolved or were resolved adversely against the applicant or party to the application; or b. any pending broadcast application in which character issues have been raised.	<input checked="" type="radio"/> Yes <input type="radio"/> No  See Explanation in [Exhibit 7]
<b>Adverse Findings.</b> Applicant certifies that, with respect to the applicant and any party to the application, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to any of the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another government unit; or discrimination.	<input checked="" type="radio"/> Yes <input type="radio"/> No  See Explanation in [Exhibit 8]
<b>Alien Ownership and Control.</b> Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.	<input type="radio"/> Yes <input type="radio"/> No  See Explanation in [Exhibit 9]
<b>Program Service Certification.</b> Applicant certifies that it is cognizant of and will comply with its obligations as a commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.	<input type="radio"/> Yes <input type="radio"/> No
<b>Local Public Notice.</b> Applicant certifies that it has or will comply with the public notice requirements of 47 C.F.R. Section 73.3580.	<input checked="" type="radio"/> Yes <input type="radio"/> No
0. <b>Auction Authorization.</b> If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107 (d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.  <b>An exhibit is required unless this question is inapplicable.</b>	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A  [Exhibit 10]
1. <b>Anti-Drug Abuse Act Certification.</b> Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.	<input checked="" type="radio"/> Yes <input type="radio"/> No
2. <b>Equal Employment Opportunity (EEO).</b> If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
3. <b>Petition for Rulemaking/Counterproposal to Add New FM Channel to FM Table of Allotments.</b> If the application is being submitted concurrently with a Petition for Rulemaking or Counterproposal to Amend the FM Table of Allotments (47 C.F.R. section 73.202) to add a new FM channel allotment, petitioner/counterproponent certifies that, if the FM channel allotment requested is allotted, petitioner/counterproponent will apply to participate in the auction of the channel allotment requested and specified in this application.	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A

certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing DWELL SHORE	Typed or Printed Title of Person Signing CHIEF ENGINEER
Signature	Date 6/9/2008

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

**SECTION III-D - DTV Engineering**

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, items 1-13.

**Pre-Transition Certification Checklist:** An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

**Post-Transition Expedited Processing.** An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

<b>The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:</b>	
(a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input checked="" type="radio"/> No
(b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input checked="" type="radio"/> No
(c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input checked="" type="radio"/> No
(d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
(e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must submit the Exhibit called for in Item 13.	<input checked="" type="radio"/> Yes <input type="radio"/> No
Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	<input checked="" type="radio"/> Yes <input type="radio"/> No
The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.	<input checked="" type="radio"/> Yes <input type="radio"/> No
The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	<input checked="" type="radio"/> Yes <input type="radio"/> No

<b>SECTION III-D - DTV Engineering</b>
<b>TECHNICAL SPECIFICATIONS</b>
Assure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.
<b>TECH BOX</b>
Channel Number: DTV 32    Analog TV, if any 33
Zone: <input type="radio"/> I <input checked="" type="radio"/> II <input type="radio"/> III
Antenna Location Coordinates: (NAD 27) Latitude: Degrees 44 Minutes 8 Seconds 12 <input checked="" type="radio"/> North <input type="radio"/> South

Longitude:  
 Degrees 85 Minutes 20 Seconds 33  West  East

Antenna Structure Registration Number: 1002422  
 Not Applicable  Notification filed with FAA

Antenna Location Site Elevation Above Mean Sea Level: 519.5 meters

Overall Tower Height Above Ground Level: 393.3 meters

Height of Radiation Center Above Ground Level: 305 meters

Height of Radiation Center Above Average Terrain : 426 meters

Maximum Effective Radiated Power (average power): 175 kW

0. Antenna Specifications:

a. Manufacturer DIE Model TLP-24B(C)

b. Electrical Beam Tilt:  
 1 degrees  Not Applicable

c. Mechanical Beam Tilt:  
 degrees toward azimuth  
 degrees True  Not Applicable

Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

[Exhibit 42]

d. Polarization:  
 Horizontal  Circular  Elliptical

e. Directional Antenna Relative Field Values:  Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]  
 [Relative Field Values]

**10e. Directional Antenna Relative Field Values**

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:

Rotation (Degrees): 135  No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	1	10	0.996	20	0.981	30	0.955	40	0.92	50	0.876
60	0.826	70	0.771	80	0.714	90	0.661	100	0.615	110	0.583
120	0.569	130	0.571	140	0.586	150	0.607	160	0.627	170	0.64
180	0.645	190	0.641	200	0.631	210	0.613	220	0.592	230	0.579
240	0.57	250	0.579	260	0.61	270	0.65	280	0.699	290	0.759
300	0.817	310	0.869	320	0.914	330	0.951	340	0.975	350	0.993
Additional Azimuths		242	0.57	124	0.568						

Relative Field Polar Plot

	If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. <b>Exhibit required.</b>	[Exhibit 43]
1.	Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if Certification Checklist Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616?  If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.	<input checked="" type="radio"/> Yes <input type="radio"/> No  [Exhibit 44]
2.	If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if Certification Checklist item 3 is answered "No.")	[Exhibit 45]
3.	<p><b>Environmental Protection Act. Submit in an Exhibit the following:</b></p> <p>If Certification Checklist Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.</p> <p>By checking "Yes" to Certification Checklist Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.</p> <p>If Certification Checklist Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.</p>	[Exhibit 46]

**REPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.**

**SECTION III - PREPARER'S CERTIFICATION**

certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and find it to be accurate and true to the best of my knowledge and belief.

Name K. KHANNA	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 6/18/2008	
Mailing Address KHANNA & GUILL, INC. 105-A RICHMOND HIGHWAY		
City ALEXANDRIA	State or Country (if foreign address) VA	Zip Code 22309 -2425
Telephone Number (include area code) 37782550	E-Mail Address (if available) SID@KGICONSULTING.COM	

**WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).**

**Exhibits**

**Exhibit 44**  
**Description: ENGINEERING STATEMENT**

Attachment 44

Description
ENGINEERING STATEMENT

Exhibit 46

Description: ENGINEERING STATEMENT

Attachment 46

Description
EXHIBIT 46 - ENGINEERING STATEMENT

**JULES COHEN, P.E.**  
*Consulting Engineer*

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Exhibit No. 44

**ENGINEERING STATEMENT ON BEHALF OF  
CADILLAC TELECASTING CO.  
WFQX-DT, CADILLAC, MICHIGAN  
CHANNEL 32, MAX ERP 175 KW (DA), HAAT 426 METERS**

This Engineering Statement, prepared on behalf of Cadillac Telecasting Co., licensee of WFQX-DT, Cadillac, Michigan, is in support of an application for construction permit changing the operating channel, transmitter location and average effective radiated power of WFQX-DT.

The WFQX-DT transmission system is to be collocated with WWTV, and its antenna is to be mounted at the 305 meters above ground location on the existing tower. A directional antenna is to be employed with maximum average effective radiated power of 175 kilowatts.

Channel 32 use by WFQX-DT at the WWTV location is consistent with FCC rules. Spacing to other co-channel and adjacent channel stations exceed the minimum separations specified in Rules Section 73.623(d)(2) by substantial amounts.

**Memorandum to  
Nazifa Sawez**



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Seventh Floor  
Washington, DC 20005

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Direct Dial: (202) 857-4441  
Direct Fax: (202) 261-0041  
E-mail: gskall@wcsr.com

## MEMORANDUM

**TO:** Nazifa Sawez  
**FROM:** Gregg P. Skall  
**DATE:** November 5, 2008  
**RE:** WFQX-DT Channel 32 Petition

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In connection with the petition for rulemaking to change the WFQX-DT frequency to channel 32, and to move the transmitter site from Kalkaska to Cadillac, MI, the city of license, you have requested information regarding the gain and loss areas and population that will be incurred as a result of the move.

While we will address the gain and loss for WFQX-TV as a stand-alone DT facility, it is important to consider the combined coverage gains achieved by the coordinated allocation requests for WFQX-DT and co-owned WFUP-DT. As explained in the Petition, an additional 134,933 persons will be added to the viewing area just by returning to the Cadillac tower site using channel 32. That move alone makes the channel change worthwhile. Yet, to that must be added the coverage of WFUP on DT channel 45, resulting in service to an additional population of 177,275. Consequently, the total improvement in the stations' combined reach, after subtracting the overlap area, would be a population of 312,208 and their total reach will be 690,208 persons.

However, we have been requested to focus on WFQX-DT alone. In particular, since WFQX-DT is presently operating and licensed on channel 47 at Kalkaska, it would be useful to provide a statistical evaluation of the gain and loss of area and population that would be incurred by the proposed move of WFQX-DT to channel 32 at Cadillac, some forty miles to the south of the present Kalkaska site.

Attached as Figure 4A is an engineering analysis of the coverage area and population of WFQX-DT at the current and proposed locations. Table 1 shows the differences in area and population for DT coverage by staying on channel 47 or moving to channel 32. The theoretical area **not** overlapped by both the contours is as follows:

WFQX-DT	Area	Population
Kalkaska Ch. 47	1,470	14,896
Cadillac Ch. 32	10,881	250,025
Gain By Moving to 32	9,411	235,129
Loss By Staying on 47	-9,411	-235,129

Table 1

Thus, the move to channel 32, relocated at the city of license, Cadillac, will produce DT coverage to an additional 235,129 people over an area of 9,411 square kilometers. While there is a theoretical loss of service to 14,896 persons (8,988 to the west and 5,908 to the east of Kalkaska), that number is only 6% of the gain in population achieved when WFQX-DT is moved to channel 32 at Cadillac.

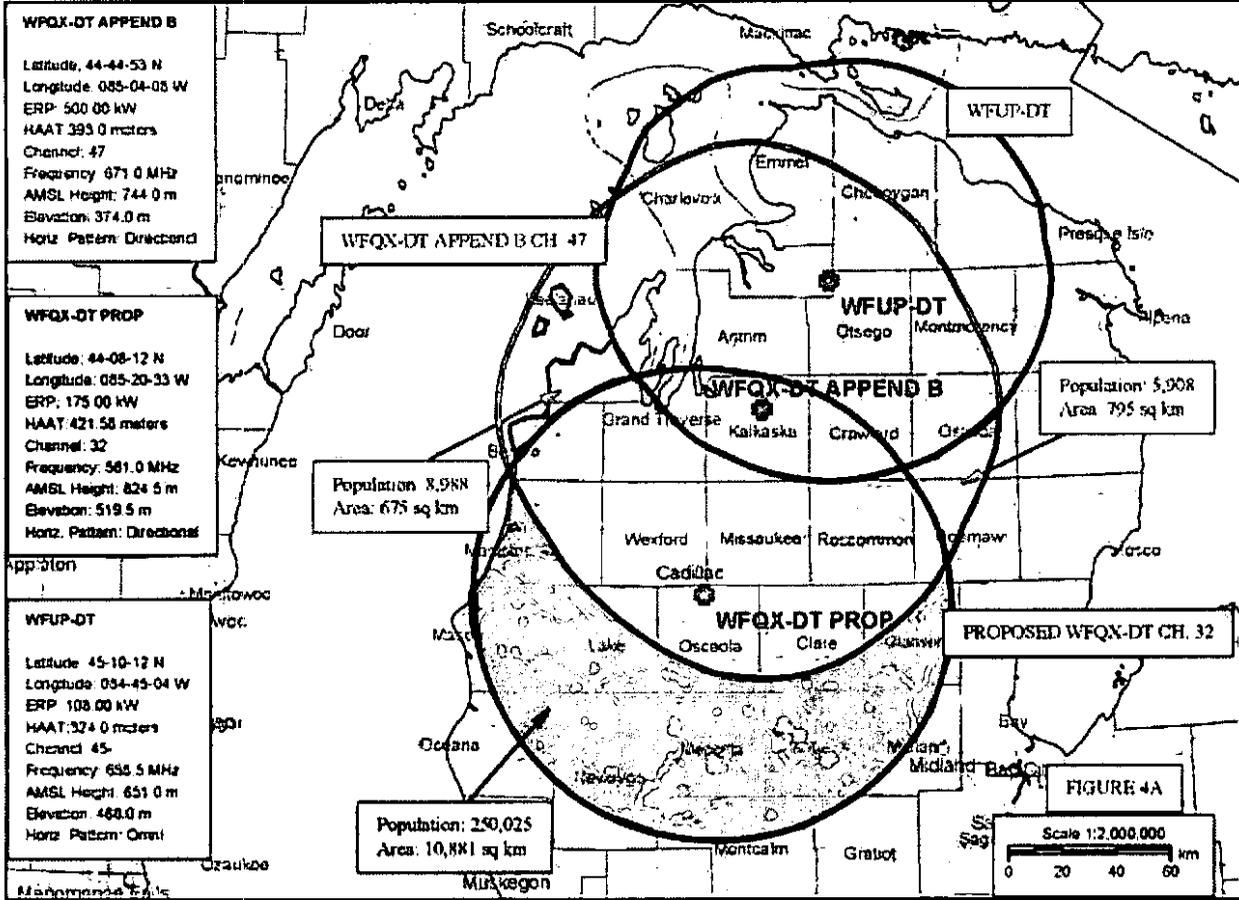
Exhibit 4A further illustrates the inefficiency that would result from leaving WFQX-DT at its Kalkaska location, as it would duplicate much of the service already authorized from WFUP-DT (which broadcasts mostly the same Fox and other programming). In comparison, relocation of WFQX-DT to Cadillac will eliminate most of this overlap in favor of substantial additional coverage to the Southern portion of the market.

Attached is a declaration of the Chief Engineer of both stations. Based on his considerable experience in serving the stations' coverage areas, addressing viewer technical concerns and interacting with local receiver retailers, he notes that there is little off-the-air DTV viewing of WFQX-DT, and so actual viewing loss resulting from the move from channel 47 at Kalkaska should be minimal compared to the overall population figures. He further affirms significant potential service losses once analog broadcasting ceases over WFQX-TV unless DTV operations are authorized at Cadillac.

Moreover, while 14,896 represents the *theoretical* loss of viewers, the reality is that they actually will receive the WFQX-DT signal. Attached as Figure 8 is a Longley-Rice study of channel 32 at Cadillac. It shows that the areas of population loss shown in Figure 4A actually are predicted to receive a 41 dBu signal as computed under Longley-Rice, as shown by the pink coverage area. Accordingly, there should be no actual loss of coverage and a great deal of coverage gained.

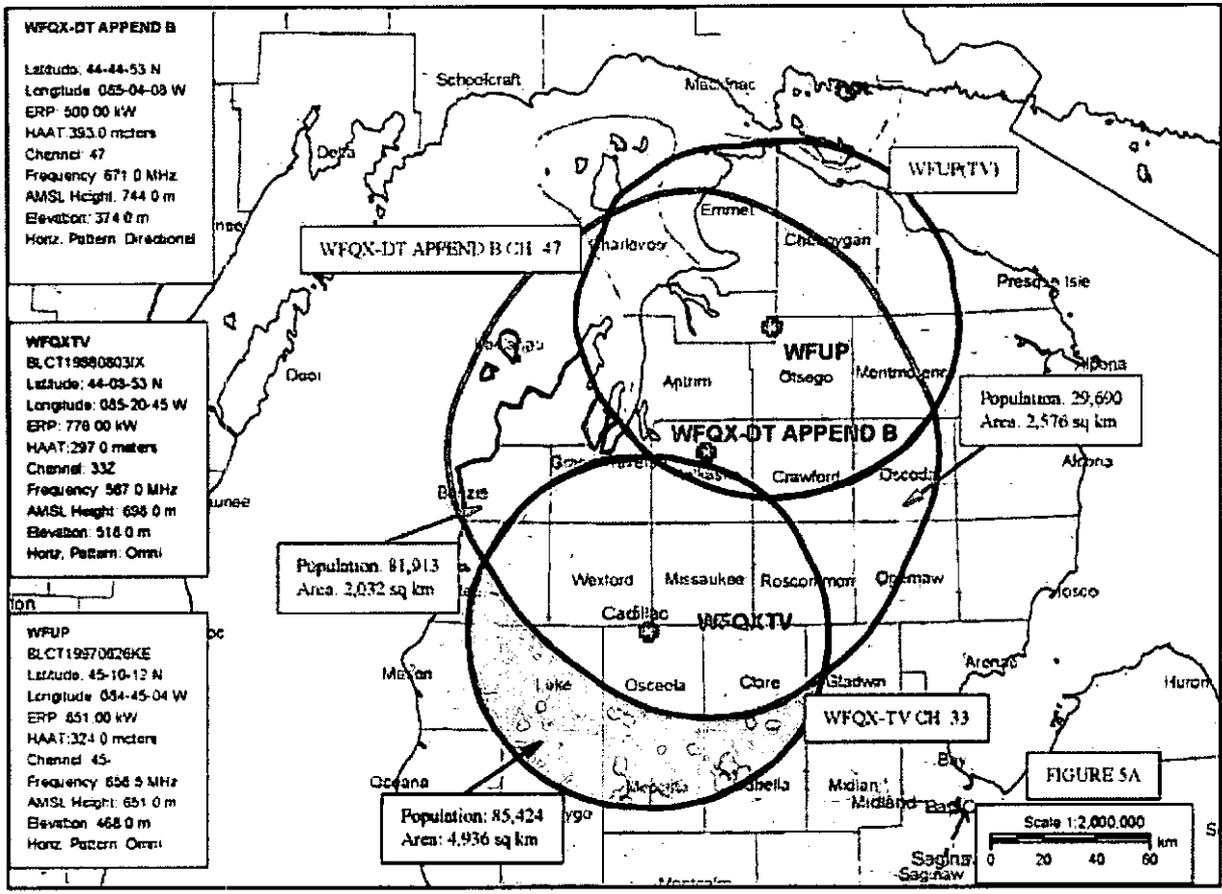
It is further significant that most of that *theoretical* loss area is also well covered by WFUP-DT when its predicted coverage area is computed with Longley-Rice. See Figure 9. Therefore, it may safely be assumed that most of those 14,896 viewers actually will have *two* choices of channels from nearly polar opposite directions for the WFQX-DT programming (which is also broadcast by WFUP-DT), and may choose among them for the best reception based on any particular terrain factors that apply to their own location.

Further, Figure 10 provides a graphical view to compare the loss area in Figure 5A (which depicts the analog coverage of WFQX-TV at the Cadillac site and WFUP-TV) with the loss area shown in Figure 4A. Figure 10 demonstrates that channel 32 at Cadillac is nearly as effective as the Kalkaska location in adding viewers to the areas east and west presently not covered by the analog signal of WFQX-TV. In reality, there will be no loss of viewers from the present analog coverage, and only a theoretical loss of viewers from the DT coverage of present channel 47.



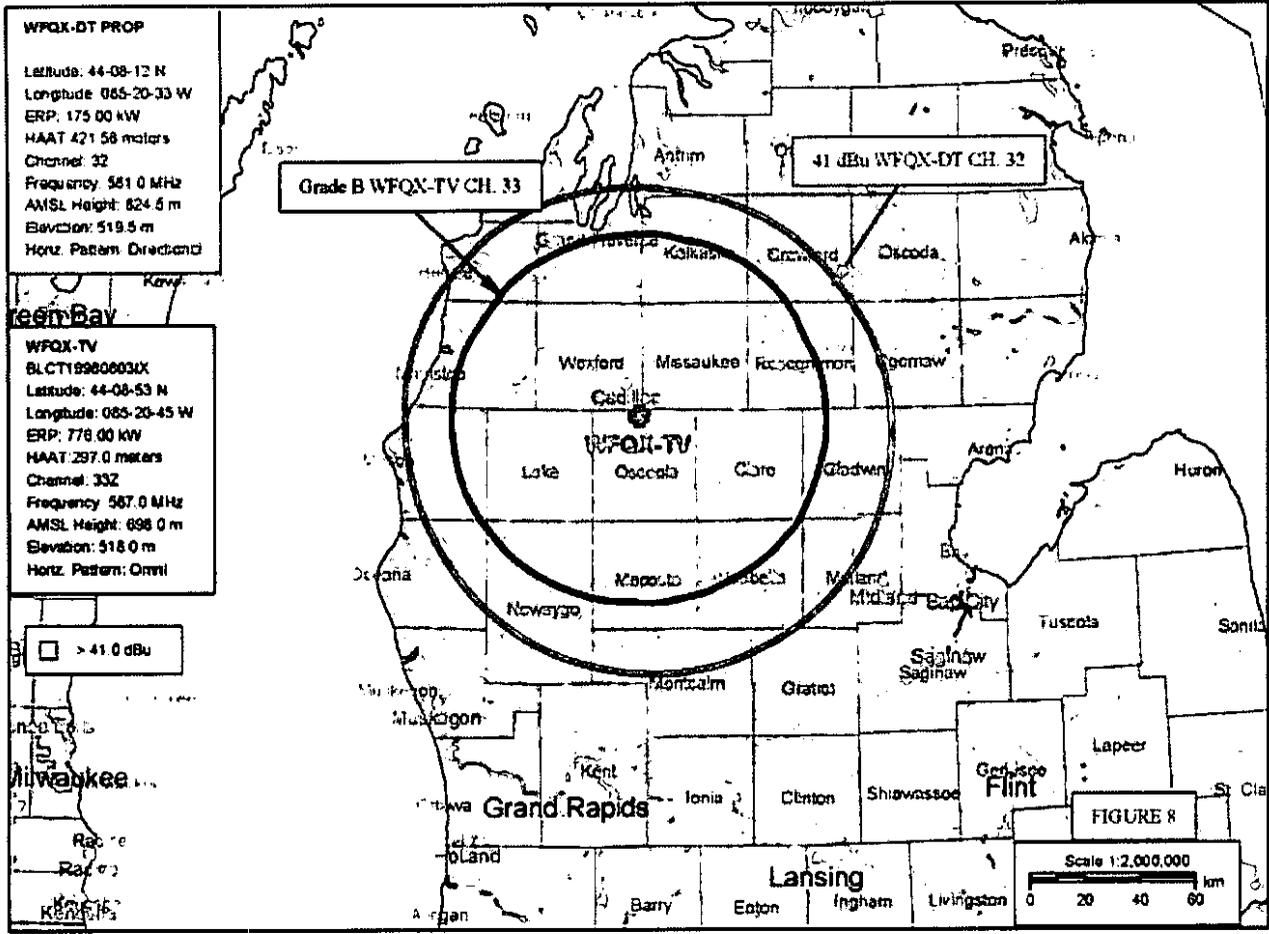
EMANNA & GULL, Inc. - Consulting Engineers

OCTOBER 2000



EMANNA & GULL, Inc. - Consulting Engineers

OCTOBER 2008







**STATEMENT OF LOWELL SHORE, CHIEF ENGINEER OF WFQX-TV**

I am Lowell Shore, Chief Engineer of television stations WFQX-TV Cadillac, Michigan and WFUP(TV), Vanderbilt, Michigan. By virtue of my position, I am familiar with the coverage area of the stations. I am also the person who responds to viewer technical concerns and I interact with local retailers of television receivers.

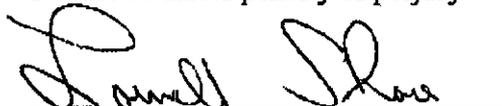
Based on my knowledge of the coverage area, and the potential for loss of service to existing viewers at the time of the DTV cutover, there is a risk of substantial loss of service to existing viewers if WFQX-DT were required to remain on DT channel 47 at Kalkaska rather than move to channel 32 at Cadillac.

Once the analog signal of WFQX-TV ceases operation, there will be a significant loss of over the air service to existing viewers and several smaller cable systems that cannot be reached by channel 47 operating from Kalkaska. The numbers have been documented in the engineering studies submitted by the licensee.

While there is a theoretical loss of service in pie shaped areas to the east and west of Kalkaska that are formed by the areas not within the predicted coverage areas of channel 32 and WFUP-DT channel 45, those areas are less significant. This is because our experience from the existing operation of channel 47 in those areas has led us to realize that there is very little actual off the air DTV viewing of channel 47 at this time, and therefore there will be very little loss of actual viewing of that channel. In fact, those areas will receive very adequate signals from both proposed channel 32 and authorized WFUP channel 45.

Based on my experience, the area will be best served by the combination of WFQX-DT channel 32 and WFUP-DT channel 45.

Submitted under penalty of perjury.

  
\_\_\_\_\_  
Lowell Shore, Chief Engineer

November 3, 2008

## **Engineering Statement**

ENGINEERING STATEMENT  
TO PROVIDE ADDITIONAL INFORMATION  
IN SUPPORT OF A PETITION FOR RULEMAKING  
TO SUBSTITUTE TV CHANNEL 32 FOR CHANNEL 47  
FOR THE PROPOSED DIGITAL TV OPERATION OF  
WFQX-DT, CADILLAC, MICHIGAN  
NOVEMBER 2008

This engineering statement has been prepared on behalf of Cadillac Telecasting Co. (“CTC”), to provide additional information in support of a Rulemaking Petition (“RM”) to substitute TV Channel 32 (578-584 MHz) for the allotted TV Channel 47 (668-674 MHz) for the digital television (DTV) operation of WFQX-TV, Cadillac, Michigan.

At present WFQX-TV, Facility ID Number 25396, is authorized to operate its analog TV facilities on Channel 33 with 776 kW effective radiated power (ERP) and 297 meters antenna height above average terrain (HAAT) using a non-directional TV antenna. The Commission has allotted TV Channel 47 for the DTV operation of WFQX-DT with 500 kW ERP and 393 meters HAAT. Cadillac believes TV Channel 32 is superior to Channel 47 for the station’s DTV coverage and is in the public interest. Therefore, CTC has filed a Rule Making petition (BPRM-20080620) to substitute TV Channel 32 for Channel 47 in the DTV Table of Allotments, Section 73.622 of the Commission’s rules. It is proposed to operate DTV Channel 32 with 175 kW ERP and 426 meters HAAT using a directional TV antenna.

CTC is providing additional information in support of its Rule Making petition to allot TV Channel 32 for the digital television operation WFQX-DT.

The attached map (Figure 11) shows the noise limited contours of WFQX-DT on Channel 47 and the proposed DTV Channel 32. Figure 11 also shows the noise limited contour of WFUP-DT, the sister station of WFQX-DT on Channel 45. Figure 11 indicates there are two small areas east and west (Area A and B) of the Channel 47

contour which would not be covered by either WFQX-DT on Channel 32 or WFUP-DT on Channel 45.

The noise limited contours of some of the DTV stations authorized near WFQX-DT and WFUP-DT have been computed and are shown on Figure 11. The authorized facilities of these DTV stations are listed in the attached Table I. All noise limited contours were computed according to Section 73.625 of the Commission's rules using computerized 3-second terrain database.

Figure 11 indicates there are two DTV stations (WBKB-DT and WCML-DT) which provide full coverage of Area A and three other DTV stations (WWTU-DT-90%, WCMV-DT-85% and WGTU-DT-30%) that serve part of Area A. Similarly, two DTV stations (WCMV-DT and WPBN-DT) serve all of Area B with two other DTV stations (WWTU-DT-90% and WGTU-DT-75%) serve part of Area B. The partial estimates of coverage are approximate.

As is the trend in the digital television industry, most of the DTV stations are providing multiple programming on their allotted TV channel. Therefore, it is highly likely that Areas A and B would have multiple choice of programming available from DTV stations other than WFQX-DT or WFUP-DT.

TABLE I

WGTO	8	0	DT	CP MOD	SAULT STE. MARIE	MI US	BMPCDT-
20080619AJZ	-			59279	15. kW	288. m	163.21 km 101.42 mi
26.95° TUCKER BROADCASTING OF TRAVERSE CITY, INC.							
WWTV	9	0	DT	CP MOD	CADILLAC	MI US	BMPCDT-
20080616ABO	-			26994	30. kW	497. m	71.34 km 44.33 mi
197.82° HERITAGE BROADCASTING COMPANY OF MICHIGAN							
WWUP-TV	10	0	DT	CP	SAULT STE. MARIE	MI US	BPCDT-
20080728ABV	-			26993	16.3 kW	370. m	164.39 km 102.15 mi
27.08° HERITAGE BROADCASTING COMPANY OF MICHIGAN							
WWUP-TV	10	0	DT	CP MOD	SAULT STE. MARIE	MI US	BMPCDT-
20080328ADZ	-			26993	20.7 kW	370. m	164.39 km 102.15 mi
27.08° HERITAGE BROADCASTING COMPANY OF MICHIGAN							
WBKB-TV	11	0	DT	CP MOD	ALPENA	MI US	BMPCDT-
20080521AAC	-			67048	20. kW	201.8 m	122.50 km 76.12 mi
91.80° THUNDER BAY BROADCASTING CORPORATION.							
WJRT-TV	12	0	DT	CP	FLINT	MI US	BPCDT-
20080610AAJ	-			21735	18.2 kW	286. m	187.10 km 116.26 mi
154.06° FLINT LICENSE SUBSIDIARY CORP.							
WZZM-TV	13	0	DT	CP	GRAND RAPIDS	MI US	BPCDT-
20080325AFK	-			49713	13. kW	324.3 m	173.54 km 107.83 mi
203.16° COMBINED COMMUNICATIONS CORP. OF OKLAHOMA, INC.							
WDCQ-TV	15	0	DT	LIC	BAD AXE	MI US	BLEDT-
20030922ABG	-			16530	200. kW	309. m	175.06 km 108.78 mi
139.53° DELTA COLLEGE							
WSMH	16	0	DT	CP	FLINT	MI US	BPCDT-
20051115ADO	-			21737	19.3 kW	348.1 m	187.02 km 116.21 mi
154.52° WSMH LICENSEE, LLC							
WSMH	16	0	DT	CP	FLINT	MI US	BPCDT-
19991028ACK	-			21737	895. kW	287. m	188.14 km 116.90 mi
154.08° WSMH LICENSEE, LLC							
WSMH	16	0	DT	CP MOD	FLINT	MI US	BMPCDT-
20080620AKL	-			21737	245. kW	365.5 m	187.02 km 116.21 mi
154.52° WSMH LICENSEE, LLC							
WCMV	17	0	DT	LIC	CADILLAC	MI US	BLEDT-
20050914AAI	-			9922	338. kW	393. m	0.00 km 0.00 mi
0.00° CENTRAL MICHIGAN UNIVERSITY							
WDCP-TV	18	0	DT	CP	UNIVERSITY CENTER	MI US	BPEDT-
20000217ABB	-			16528	50. kW	141. m	157.96 km 98.15 mi
146.28° DELTA COLLEGE							
WCMW	21	0	DT	CP	MANISTEE	MI US	BPEDT-
20080222ABG	-			9913	50. kW	93. m	126.03 km 78.31 mi
233.37° CENTRAL MICHIGAN UNIVERSITY							

KHANNA & GULL, Inc. - Consulting Engineers

WNEM-TV	22 0	DT	CP MOD	BAY CITY		MI US	BMPCDT-
20040721AMM	-		41221	1000. kW	275.3 m	172.60 km	107.25 mi
145.01° MEREDITH CORPORATION							
WCML	24 0	DT	CP	ALPENA		MI US	BPEDT-
20080222ABH	-		9917	106. kW	393. m	83.66 km	51.98 mi
58.37° CENTRAL MICHIGAN UNIVERSITY							
WCMU-TV	26 0	DT	CP MOD	MOUNT PLEASANT		MI US	BMPEDT-
20080619AFX	-		9908	450. kW	299. m	111.14 km	69.06 mi
185.90° CENTRAL MICHIGAN UNIVERSITY							
WGTV	29 0	DT	CP	TRAVERSE CITY		MI US	BPCDT-
20080619AJY	-		59280	68.4 kW	393. m	0.00 km	0.00 mi
0.00° TUCKER BROADCASTING OF TRAVERSE CITY, INC.							
WGTV	31 0	DT	LIC	TRAVERSE CITY		MI US	BLCDT-
20070821ADQ	-		59280	64.8 kW	393. m	0.00 km	0.00 mi
0.00° TUCKER BROADCASTING OF TRAVERSE CITY, INC.							
WTOM-TV	35 0	DT	LIC	CHEBOYGAN		MI US	BLCDT-
20040420AAI	-		21254	78. kW	168. m	115.33 km	71.66 mi
29.27° BARRINGTON TRAVERSE CITY LICENSE LLC							
WJRT-TV	36 0	DT	LIC	FLINT		MI US	BLCDT-
20020429AAZ	-		21735	860. kW	248. m	187.10 km	116.26 mi
154.06° FLINT LICENSE SUBSIDIARY CORP.							
WZZM-TV	39 0	DT	LIC	GRAND RAPIDS		MI US	BLCDT-
20050628AAD	-		49713	1000. kW	305.4 m	173.54 km	107.83 mi
203.16° COMBENED COMMUNICATIONS CORP. OF OKLAHOMA, INC.							
WBSF	46 0	DT	CP MOD	BAY CITY		MI US	BMPCDT-
20080620AGE	-		82627	70. kW	306. m	172.12 km	106.95 mi
144.99° BARRINGTON BAY CITY LICENSE LLC							
WFQX-TV	47 0	DT	LIC	CADILLAC		MI US	BLCDT-
20070214ACF	-		25396	500. kW	393. m	0.00 km	0.00 mi
0.00° CADILLAC TELECASTING CO.							
WAQP	48 0	DT	LIC	SAGINAW		MI US	BLCDT-
20060824ADS	-		67792	851. kW	287. m	188.14 km	116.90 mi
154.08° TCT OF MICHIGAN, INC.							
WPBN-TV	50 0	DT	LIC	TRAVERSE CITY		MI US	BLCDT-
20030721ACJ	-		21253	78. kW	230. m	48.80 km	30.32 mi
273.97° BARRINGTON TRAVERSE CITY LICENSE LLC							
WCMU-TV	56 0	DT	LIC	MOUNT PLEASANT		MI US	BLEDT-
20050914AAC	-		9908	400. kW	299. m	111.14 km	69.06 mi
185.90° CENTRAL MICHIGAN UNIVERSITY							
WCML	57 0	DT	LIC	ALPENA		MI US	BLEDT-
20050914AAF	-		9917	200. kW	393. m	83.66 km	51.98 mi
58.37° CENTRAL MICHIGAN UNIVERSITY							
WCMW	58 0	DT	LIC	MANISTEE		MI US	BLEDT-
20050914ABJ	-		9913	25. kW	93. m	126.03 km	78.31 mi
233.37° CENTRAL MICHIGAN UNIVERSITY							

