

# ATSC *Digital* Television

8-VSB Transmission System

*Fundamentals & Measurement Seminar*

Hosted by: **Milwaukee Public Television** 

And:  **Wisconsin Broadcasters Assoc & SBE CH 28** 

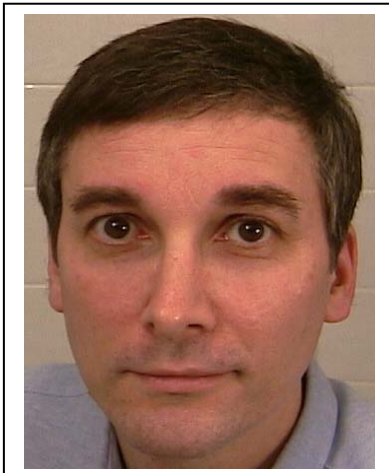
**Wednesday & Thursday, January 20 & 21, 2010**

8:30 am – 5:00 pm on 1/20/10; 8:30 a.m. to 5:00 p.m. on 1/21/10

**Milwaukee Area Technical College (MATC)**

700 West State Street (Room S114)

Milwaukee, WI 53233



Presented by

**Gary Sgrignoli**

DTV Transmission Engineer

**MSW**

Meintel, Sgrignoli, & Wallace

Phone: 847-259-3352

E-mail: gary.sgrignoli@IEEE.org

A 2-day seminar will be presented on the ATSC's digital television (DTV) vestigial sideband (VSB) transmission system *fundamental concepts & measurement methodologies*. This seminar is a combination of the *original* VSB Fundamentals and the VSB Measurements presentations. It is aimed at broadcasters, broadcast consultants, equipment manufacturers (broadcast, consumer, & test), translator/LPTV operators, and cable operators. This *updated* seminar will help you develop an understanding of 8-VSB transmission system basics as well as measurement techniques in the *laboratory*, at a *transmitter* site, and at remote *field* test sites. Practical test equipment information such as features, options, specs, & other performance requirements will be covered. Also included is *new* information on mobile/handheld DTV, Distributed Transmission, & recently learned information on DTV reception. Attendance at this seminar earns one SBE credit towards re-certification, and it can facilitate preparation for the SBE *VSB Specialist Certification* exam.

Sponsors:



*Sponsorship Available*

*Sponsorship Available*

The seminar will focus on the following topics:

- **Basic data communication & modulation theory review**
- **8-VSB Transmission System Review**
- **Introduction to FCC channel allocation factors (OET 69)**
- **Basic Measurement Concepts**
  - Power meters
  - Spectrum analyzers
  - Clock frequency & jitter analyzers
- **VSB LABORATORY Measurement Methodologies**  
Concepts, equipment requirements, specs, etc.
- **VSB TRANSMITTER Measurement Methodologies**  
Concepts, equipment requirements, specs, etc.
- **VSB FIELD Measurement Methodologies**  
Concepts, equipment requirements, specs, etc.

## Questions?

Contact: **Kevin Kukowski**  
MPTV

Phone: 414-297-7576

E-mail: [kukowskk@matc.edu](mailto:kukowskk@matc.edu)

Contact: **Kent Aschenbrenner**  
MPTV

Phone: 414.297.8561

E-mail: [aschenbk@matc.edu](mailto:aschenbk@matc.edu)

Contact: **Gary Sgrignoli**  
Meintel, Sgrignoli, & Wallace

Phone: 847-259-3352

Email: [Gary.Sgrignoli@IEEE.org](mailto:Gary.Sgrignoli@IEEE.org)

Time for **Q and A** will not only be *allowed*, but **encouraged** throughout the two-day Power Point presentation. In-depth (750<sup>+</sup>-page) seminar notes and reference material will be handed out to all attendees to take home. **Lunch** both days will be available at MATC cafeteria for a nominal charge. An **optional** evening measurement equipment demonstration at a VSB transmitter site is included. Dress will be *casual* & the discussion lively !!!

Cost is **\$75** when *pre*-registered; **\$85** at door

Make checks *payable* to: **Milwaukee Public Television**

This seminar is open to the public

**Hurry! Enrollment is LIMITED! RSVP soon !!!**

## Registration Form

Please enclose **\$75** for each registrant; Pre-registration through **Wednesday 1/13/10**.

List names below:

\_\_\_\_\_

Contact name

1) \_\_\_\_\_

2) \_\_\_\_\_

\_\_\_\_\_

Company

3) \_\_\_\_\_

4) \_\_\_\_\_

\_\_\_\_\_

Address

Method of payment:

\_\_\_\_\_

City

State

Zip

Check or money order enclosed *payable* to: **Milwaukee Public Television**

Total enclosed

\$ \_\_\_\_\_ .00

\_\_\_\_\_

Phone

Fax

\_\_\_\_\_

E-mail Address

(Registration will be verified by e-mail, whenever possible)

Mail Registration Form & Payment To:

Kent Aschenbrenner  
Milwaukee Public Television  
1036 North 8<sup>th</sup> Street  
Milwaukee, WI 53233-1409

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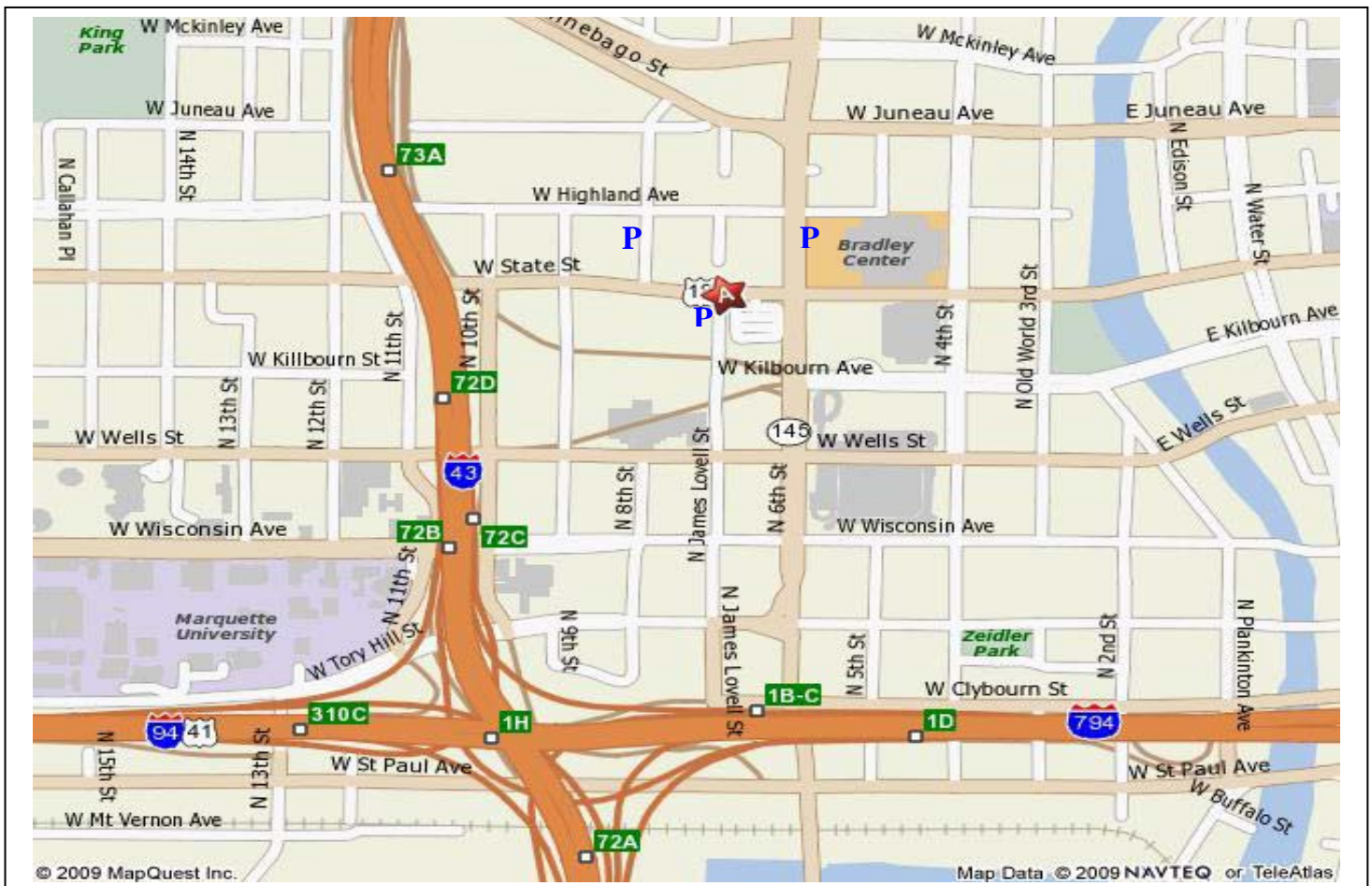
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Milwaukee, WI 53233



**Parking available at nearby parking garages (for a nominal charge)**

**8<sup>th</sup> Street & State Street** (43-02-36.78 N; 87-55-18.13 W)

**Bradley Center Parking Structure @ 6<sup>th</sup> Street just North of State Street** (43-02-37.44 N; 87-55-07.64 W)

**MacArthur Square Parking Structure @ 7<sup>th</sup> Street just South of State Street** (43-02-32.81 N; 87-55-13.46 W)

**MPTV Switchboard: 414-271-1036**

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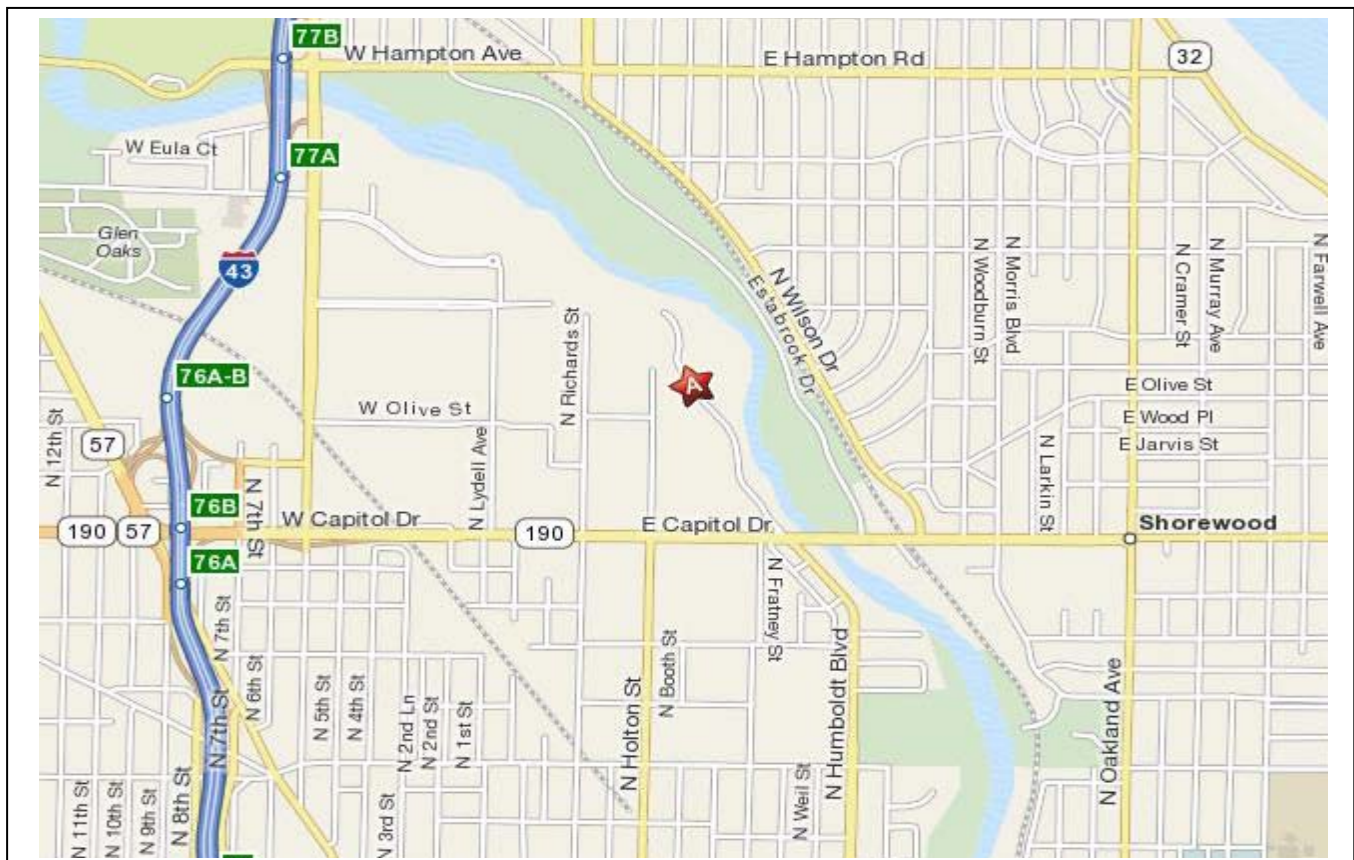
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## **Optional Transmitter Measurements Demonstration**

**Wednesday, January 20, 2010 at 7:00 pm**

**Including measurement equipment demonstrations  
using live VSB transmitter signals**

**MPTV Broadcast Transmission Facility  
4350 North Humboldt Blvd. (43-05-44.33 N; 87-54-17.29 W)  
Milwaukee, WI 53212**



**Free Parking available at Transmitter site**

Transmitter Phone #: **414-964-2513**