

Society of Motion Picture and Television Engineers
Detroit Section Meeting Notice
September 2005

**TONIGHT'S PRESENTATION HAS BEEN
CANCELLED DUE TO ILLNESS OF THE SPEAKER.**

**We are attempting to arrange an alternate presentation.
Watch this website and your e-mail for updates.**

DATE: Tuesday, September 13, 2005

TIME: 7:30 PM

LOCATION: CBS/UPN Detroit
26905 W. 11 Mile Road
Southfield, Michigan
(248) 350-5050

SPEAKER: Tish Boyles
Morrow Technologies

SUBJECT: COFDM in ENG Transmissions: New Problems, New Solutions

What is COFDM? How do you manage it, control it, and deal with it? The transition to digital ENG necessitates changes not only to transmit and receive hardware, but also to the tools and methods utilized to monitor and maintain signal quality. Historically, the TV/monitor approach has been the industry-standard for analog transmissions; the remote spectrum analyzer will become the new standard for monitoring and control in the digital domain.

While COFDM is designed to work well in multi-path environments, interference can affect signal levels. COFDM signals are susceptible to the "Cliff Effect" and to over-saturation; both result in the failure of the receive chain to produce a useable signal. The "Cliff Effect" refers the drop off in reception resulting from marginal signal levels. When analog signals degrade, the picture quality degrades with an increase of sparkles or snow. However, digital

signals lack the corresponding degradation of picture quality; when the signal drops below the minimum threshold, the digital picture simply and abruptly disappears. Conversely, over-saturation occurs when the signal level exceeds the maximum threshold. This causes excessive inter-modulation or side band regrowth, preventing the receive chain from decoding the signal. In either situation, the picture quality does not give any indication of the proximity of the signal to the relative threshold until it's too late.

Tish Boyles is the Sales Manager for Morrow Technologies and has been in the Technology field for over 6 years. She worked with Allied Telesyn for a number of years in the networking market. She now is with Morrow Technologies in the test & measurement field. She has a degree in business with a focus on technology.

Managers' Dinner is at 5:30 PM at **Steak & Ale**, 27590 Orchard Lake Road (at 12 Mile), Farmington Hills. (248) 476-8440

Upcoming events

- **The Taste of NAB Roadshow**, Friday, September 16, 12:00 Noon, at Detroit Public Television's new facility in Wixom (Grand River and Napier Roads, one mile west of the Wixom Road/I-96 interchange). Visit <http://www.tech-notes.tv/2005/56-Detroit.htm> for more details.
 - **October 11 Section Meeting:** ENCO Systems will discuss developments in audio for television including uncompressed 5.1 surround audio servers
 - **November 8 Section Meeting:** Panasonic will present digital HD camera technology
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Guests and Non-Members are Welcome