



## NAB Satellite Training Covers Theory, Operations, and Controlling Satellite Transmission Costs for DTV

If you are concerned about getting the best performance from your satellite links and also keeping your satellite transmission costs reasonable, the NAB Satellite Uplink Operators Seminar can help you. The seminar to be held at NAB Headquarters on September 29 – October 2 can teach you techniques to give you the best performance and keep your station's costs under control.

Sidney Skjei of Skjei Telecom conducts the seminar for NAB. Mr. Skjei (shown in the photo to the right) has over 35 years experience in engineering and developing a wide range of hardware and software telecommunications products, systems and services and is highly knowledgeable in all major satellite communications market areas: global, U.S. domestic and military.

You can check out a short video piece featuring satellite seminar instructor Sidney Skjei on the NAB365 Thought Leadership Channel at:

<http://nab365.bdmetrics.com/spc-8-10720/nab365-tv.aspx>.



The seminar provides in-depth information on the theory of satellite communications, regulatory requirements, and all operational aspects of the ground equipment for uplink and downlink facilities – applicable to distributing signals for both analog and digital television. With broadcasters in mind, Mr. Skjei specifically covers satellite news gathering topics including vehicle design and safety considerations. He also feels it is useful for satellite operators to have a basic understanding of other parts of the broadcast system. Digital television (DTV), of course, have increasing importance through all parts of the broadcast television chain, from production to distribution to the home, so the seminar provides significant background information on

these topics. The Compressed Digital Television and Transmission section of the seminar covers the theory of digital video, with an introduction to compression techniques and systems, concentrating on MPEG-2 but also including new technologies such as MPEG 4 Part 10 (AVC) and JPEG 2000, both of which may be used for digital video backhaul and distribution before advanced codecs are introduced for broadcast transmission. The various SDTV and HDTV formats used in DTV are also discussed, with detailed analysis of how these are carried in satellite transmission systems.

The increased bandwidth requirements of HDTV can lead to higher satellite transmission costs. Mr. Skjei discusses how these can be reduced using new techniques enabled by advanced codecs such as MPEG-4 AVC and the recently introduced DVB-S2 second-generation transmission standard from DVB.

In addition to classroom instruction, students will receive hands-on training on an SNG truck provided by Tribune



SNG Truck provided for June 2008 Seminar by DCI, Washington, DC

Broadcasting. On the following day there is an all day field trip to SES Americom Satellite Operations Facility in Woodbine, Maryland.

## Comments from Prior Seminar Attendees

Over the past 17 years, NAB has trained over 500 engineers and technicians from radio and television stations, universities and satellite services from across the U.S and abroad. Here are just a few of these comments:

"This seminar provides excellent coverage of the material. I feel that this seminar has better prepared me for my new job."

*Patrick Innes, PBS, Alexandria, VA*

"I believe the seminar offers something for all levels of experience in the field and allows for a sharing of information and experiences with members of all sections of the broadcast industry."

*Timothy Mazzacua, Discovery Communications, Sterling, VA*

"I thought this was a wonderful seminar. It gave me just what I was looking for and then some. Taking this course helped me straighten out misconceptions and misinformation. I had been given during my original training."

*Kristin Paciorkowski, Videolink, Boston, MA*

"I enjoyed the seminar and learned a lot! The class is great and Sidney Skjei is a great instructor. I am not a technical person and only have basic satellite knowledge. I found the class to be interesting and informative and I was able to follow the discussion most of the time. The textbook is full of great information and I'm sure I will be using it as a reference in the future. I highly recommend this seminar!"

*Cynthia Caezza, PBS, Alexandria, VA*

"I would highly recommend this course to anyone in the industry. It would be hard to believe that anyone would not benefit immensely from it!"

*James Charles, EWTN, Irondale, AL*




Students Tour PBS Satellite Operations Center

continental breakfast and lunch. Space is limited so if you don't want to miss an opportunity go to [NAB's Web site](#) or call NAB Science & Technology at (202) 429-5346 for additional information.


The training is designed to instruct students in the proper technical and operational practices that will ensure safe, successful and interference free satellite transmissions. The seminar fee is \$1,250 (NAB members) and \$1,550 (all others). The seminar fee includes a Satellite

Uplink Handbook,


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**NAB Engineering Handbook, 10th E -- The Definitive Resource for Engineers**



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## The AFD Ready Initiative



AFD Ready is an initiative created by television broadcasters to insure uniform and optimum program delivery of television broadcasts after the analog shutdown on February 17, 2009. Through this initiative, participants will work to increase awareness of AFD and promote its use throughout the television industry.

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More information on the initiative including technical information and whitepapers, industry links and a list of AFD Ready ATSC receiver/down-converter devices is now available at [www.nab.org/AFDReady](http://www.nab.org/AFDReady).

## **ATSC Digital Television Transmission Systems 8-VSB Fundamentals Seminar** **Wednesday, September 24, 2008 – KNME, Albuquerque, N.M.**

The 1-day 8-VSB Fundamentals seminar, conducted by Gary Sgrignoli, will help you develop a fundamental understanding of the digital VSB transmission system and its performance attributes as well as current practical application information. The seminar includes an optional site visit to KNME's DTV Tx site on Sandia Crest. For additional information contact the instructor Gary Sgrignoli, Meintel, Sgrignoli & Wallace at 847 259 3352 or [Gary.Sgrignoli@IEEE.org](mailto:Gary.Sgrignoli@IEEE.org) or Jim Gale, KNME-DT, 505 277 2049, [jgale@knme.org](mailto:jgale@knme.org).

