



The Spectrum

Newsletter of the Rocky Mountain Chapter

December 2006

Holiday Edition

Board of Directors

Congratulations to our newly elected Rocky Mountain Chapter Board members. These candidates have been voted to serve as board members in the Rocky Mountain Chapter of the SCTE.

***Dave Krook
Joe Thomas
Sherisse Hawkins
Steve Murphy***



David Krook
Director of Network
Operations/LMC
Comcast



Joe Thomas
Director of Sales
Engineering
Tropic Networks



Sherisse Hawkins
Sr. Director, STB Development
Time Warner Cable Advanced
Technology Group



Steve Murphy
Compliance Manager
Comcast - West Division

By agreeing to serve, the Board pledges to support the telecommunications industry and the participants of the Rocky Mountain Chapter of the SCTE.

Thank you all for your vote and for your involvement in the society.

2007 Elected Board of Directors

<u>Name</u>		<u>Company</u>	<u>Phone Number</u>
Alan Babcock	ABabcock@jonesncti.com	Jones / NCTI	303-797-9393
Dave Krook	David_Krook@cable.comcast.com	Comcast	303-603-2095
Joe Thomas	jthomas@tropicnetworks.com	Tropic Networks	303-953-1386
Lauri Smith	Lauri_Smith@cable.comcast.com	Comcast	720-267-7563
Nick Segura	Nick.Segura@chartercom.com	Charter Comm.	303-669-3705
Pat Wike	Pat_Wike@cable.comcast.com	Comcast	303-603-5052
Rex Kohart	Rex_Kohart@cable.comcast.com	Comcast	303-603-5053
Sherisse Hawkins	sherisse.hawkins@twcable.com	Time Warner	720-279-2810
Steve Murphy	Steve_Murphy@cable.comcast.com	Comcast	720-267-3038

'Friends' of the Board

<u>Name</u>	<u>Company</u>	<u>Phone Number</u>
Frank Eichenlaub	Scientific Atlanta, A division of Cisco	303-790-6659
Dave Robinson	EquiVision	303-722-8920
Randy Bailey	Comcast	719-457-4690
Jim Garcia	Comcast	719-457-4517
Robert Kostelny	DTI	303-995-6689
Jay Oldenburg	Times Fiber Comm.	303-220-9206
Rey Cole	Arris.	559-292-5337
Richard Covell	TTSI	303-646-5050
Hugh Long	Comcast	720-267-3026
Mark Thompson	CommScope	303-773-3003
Jim Feola	James Associates	303 841-3391
Jim Stewart	Comcast	303-603-5687

2007 UPCOMING SEMINARS and TESTING OPPORTUNITIES!

Our chapters annual strategic planning session to determine content and dates for upcoming 2007 seminars will be conducted in two weeks; your feedback from 2006 events will be used.

All 2007 Event details will be distributed by email and published to our website in January; Please note that our first event of the year is already scheduled:

Seminar Notice **Digital Measurements & Troubleshooting** **January 18th 2007**

- What?** Digital Signal Measurements and Troubleshooting
- CATV digital signal Measuring
 - Measurement techniques, common problems, and symptoms.
 - Overview, practice and problem diagnosis utilizing Constellation, BER, MER and other troubleshooting techniques.
- Who?** Tony Holmes, Senior Staff Engineer –Trilithic, and Applications Engineer from TBD
- When?** Thursday - Jan 18th, 2007
8:30 AM to 9:00 AM Morning registration
9:00 AM to 12:00 PM Morning Seminar
12:00 PM to 1:00 PM Lunch on your own
*The afternoon Session is a repeat of the morning session

1:00 PM to 1:30 PM Afternoon registration
1:30 PM to 4:00 PM Afternoon Seminar
- Where?** **Comcast Lab facility**
515 4h Street
Fort Lupton, CO
(north of Brighton & east of Longmont Colorado)
- How Much?** **Free** for current Local Chapter Participants and for current Nat'l SCTE Members
(National membership card verification required).
\$10 for Non-Local Chapter Participants; this includes 1-year access to all Chapter training seminars and events. Lunch is provided.

Please contact **Alan Babcock** or **Frank Eichenlaub** with any questions.

Alan Babcock (303) 209-1374 Ababcock@jonesncti.com ,

Frank Eichenlaub frank.eichenlaub@sciatl.com

Also, visit our website at: <http://chapters.scte.org/rockymtn/>

Tech Forum

Jim Stewart

Welcome back to “The Tech’s Forum”. This section of the SCTE newsletter features articles and tips for technical personnel of the CATV Industry. Ideas and articles for “The Tech’s Forum” are always welcome. If you would like to contribute please contact me at jim_stewart2@cable.comcast.com.

In the next several editions of “The Tech’s Forum”, the testing and analysis of digital signals in an HFC network will be discussed. The identification of coherent interference using the constellation display of a digital analyzer will be covered in this edition.

As explained in the last Tech’s Forum, Quadrature Amplitude Modulation uses combinations of phase shifts and amplitude shifts to represent information. The constellation display is a graphical representation of those amplitude and phase combinations. The patterns of the dots in the constellation can be used to help diagnose digital signal transmission problems.

Coherent interference can be identified by looking for dots in the clusters of the constellation display that appear to form circles (Figure 1).

Figure 1: Coherent Disturbance

Coherent disturbance can be caused by poor CTB/CSO, other beats or ingress. In the next edition of “The Tech’s Forum”, we will continue to discuss the identification of digital transmission problems using the constellation display.

