RockIEEE Overlook





Sitting in THE chair Darrell Sabatka, Section Chair

National Engineer's Week is just around the corner. Give Paul Meisel a call if you can volunteer a few hours in your school or your place of work. Don't forget the Engineer's Dinner. Jeff Wilson of Peterson Company has accepted the position of Pre-College Student Activities Committee Chair. Jeff already is in many of the schools and is the 1994 President of the Colorado Power Council. Welcome aboard Jeff!

We have been trying to increase our membership in the Denver Section. As of November 30, the Region 5 growth is 4.9% and the Denver Section is 4.0%. The membership drive started in August and runs through December 1993. I hope everyone gets involved this year in the 1994 IEEE Member Get A Member campaign. Call our new Membership Committee Chair, Heather L. Silseth for forms and additional information. Heather works at Raytheon Engineers & Constructors. Call her and welcome her aboard. She is a talented and excited individual. Welcome to the Executive Committee!

I would like to offer my personal congratulations and recognize two IEEE members who have been elevated to the grade of "Fellow" effective January 1, 1994. Fellow grade is the highest obtainable grade achieved by less than 0.25% of the membership. Gordon W. Day of Denver was awarded Fellow for technical contributions and leadership in lightwave measurements and optical fiber sensors. Thomas L.

Weaver, also from Denver, was awarded Fellow for leadership in advanced planning, design and applications of new technologies to enhance the efficiency and reliability of electric power delivery systems. It is a honor to have these new Fellows in the Denver Section.

Sidetones

Signal from/about the Membership

Welcome, happy to add Michael Meister to the Overlook group, Michael will substitute for Tim Davis as publisher. Tim is out of state on a consulting job. . The very best to a good friend, an IEEE member and former resident of Colorado, Ed Florman. Ed is 90 years young this month and has been living in Fairfax, VA. the past 30 years. His many accomplishments included speed of light measurements, early discovery of the jet stream, and testing telecommunication systems. He began his career as an electrician working nights in the steel mills. • Interested in Antennas and Propagation? May we suggest Ernie Smith's articles in the propagation corner in the IEEE A&P Magazine. There is always a good report of various meetings and pictures of familiar faces. • From comments in the December issue, we have formed a lasting impression of Beijing weather in August. • The Colorado-Wyoming Junior Academy of Science has just completed 35 years of service to high school students in the two states. We offer our congratulations to Elemer Bernath, Executive Secretary and others for giving their time and effort to this group. • John and Barbara Ziegler (303) 978-0735 have introduced Sci-Tech Academy, a 21st century school which uses state-of-the art technology to provide an optimum learning environment to all students. John has been associated with Lab 3000 in Englewood. • New time and frequency services paper from NIST, Boulder, paper no. 37-93, contact, Sarabeth Moynihan, (303) 497-3237. • The Denver Section on Oct. 2-6 will host the IEEE Industry Application Society Annual Meeting. Paul Meisel our past Section Chair will chair the conference. Paul is the past president of that society and has been chair of two other annual meetings. We all appreciate your personal effort Paul! • The Denver Section sends greetings to our Wyoming members in Wheatland, C. Detsch, in Guernsey, Mark Clingman, in Torrington, Arthur Hunter, in Rawlins, Rick Caldwell, in Encampment, William Walters, and in Medicine Bow, William Young.

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EMPLOYMENT SEMINAR MARCH 19, 1994 Details inside the Newsletter

Society Chapter Meetings

IEEE Electromagnetic Compatibility Chapter Meeting

Date: Tuesday, February 8, 1994, 7:00 pm Location: Woodward Governor Company

> 3800 North Wilson Loveland, CO

Come in the north Guard gate

Notes: The 1994 EMC Symposium Committee will be formed. We need people to head the Committee, volunteers to read their papers, and companies to spon sor the activities. If you would like to host a regular monthly meeting or have other ideas, please let us know.

For information call Ev Evans (303) 761-9447, George Trejo (303) 350-4113, or Eric Evans (303) 742-9447

Engineering in Medicine & Biology Chapter Meeting

Date: Wednesday, February 16, 1994, 7:00 pm Location: VALLEYLAB, Training Center,

> Pikes Peak Conference Room, 5920 Longbow Drive, Boulder, CO

From US 36, take the Foothills Highway north to the Diagonal. Go northeast to 63rd Street, turn south onto 63rd & another right onto Longbow Drive. Follow Longbow to the second VALLEYLAB sign. Follow the road to the "L" of the buildings (to the flagpoles) & enter the building through the doorway on the south side of the "L". Upon entering the Valley Galley, go down the stairs into the training center. The meeting rooms are on the left.

Speakers: Ken Taylor, Introduction

Mike Klicek, Electro-surgical Instruments
Bill Cimino, Ultrasonic Surgical Instruments

Reservations: Harry Valenta, (303) 690-9688

Joint Antenna & Propagation/Microwave Theory & Techniques/Geoscience & Remote Sensing

Chapter Meeting

Date: Thursday, January 27, 1994, 4:00 pm

Location: National Institute of Standards & Technology,

325 Broadway, Boulder, CO Speaker: Dr. David A. Hill, NIST

Topic: Aperture Excitation of Electrically Large Lossy

Cavitie.

ALSO

Date: Thursday, February 17, 1994, 4:00 pm Location: National Institute of Standards & Technology, 325 Broadway, Boulder, CO

Speaker: Dr. Ernest Smith, NASA Propagation Information Center, University of Colorado

Topic: NASA Propagation Program over the years

Joint Power Engineering & Industry Application Societies Chapter Meeting

Date: Thursday, February 17, 1994

6:00 pm Social, 6:30 pm Dinner, 7:00 pm Meeting

(Dinner optional @ \$13.00, Students free)
Location: Holiday Inn, S.E., I-225 and Parker Road
Speaker: Ben Parsaye, City of Colorado Springs

Electric T&D Dept.

Topic: Foundations used as a component of Substation

Grounding System

Laser & Electro Optics Society Chapter Meeting

Date: Thursday, February 17, 1994, 7:30 pm

Location: NIST, Room 1107 325 Broadway, Boulder, CO

Speaker: To be announced.

For more information call Bob Feverstein, (303) 492-7077

Joint Computer/Information Theory Society Chapter Meeting

Date: Thursday, February 17, 1994, 5:30-7:30 pm

Location: Storage Tek, Louisville, CO Excellence Conference Room,

Mathematica is a PC software system for math and other applications. This tutorial will examine the features of Mathematica that may be of use to electrical engineers, subject to time and audience interest. Dr. Wagner provides consulting on system performance analysis and operations research, as well as training and consulting in the use of Mathematica.

Speaker: David B. Wagner, PhD, University of Colorado, Boulder

Computer Science Department
Mathematica for Electrical Engineers

Reservations: No charge for attendance, however reservations are required. For information and reservations contact Bryce Chapman (303) 673-4762 or Shah Bhatti (303) 673-8915

RockIEEE Overlook

Conferences & Meetings

| Feb. 8-11 | North American ISDN Users' Forum (NIUF), Denver, Dawn Hoffman, (301) 975-2937 | May 12-13 | Industry 2000 Workshop, Denver, John Meredith, HP, (719) 590-1900 |
|------------|--|--|---|
| Feb. 10 | The Assoc. of Colorado Telecommunications | May 23-27 | International Microwave Symposium, MTT-S, |
| | Professionals, | | San Diego, CA Info., MTT-S Symposium 1994 |
| Samuel A | For Information call, (303) 628-6964 | THE PARTY NAMED IN | c/o LRW Associates, 1218 Balfour Dr, |
| Feb. 5-12 | 15th Annual IEEE Aerospace App. Conf., | | Arnold, MD 21012, USA |
| | Vail, Robert A. Profet, Trans-Spectrum Corp. | June 16-19 | NCA, |
| | 2408 Palm Ave., Manhattan Beach, CA 90266, | same a part to | Annual Convention, (Nat. Coal Assoc.) |
| | for information call (310) 545-9670 | 3.400-301,-5 | Colorado Springs, Katherine Kirkpatrick, |
| Feb. 15-17 | NCA/AMC, | | (202) 463-2651 |
| | Denver, Communications Conf, | June 18-23 | UTC (Utilities Telecommunications Council) |
| | (Nat. Coal Assoc.), (202) 463-2651 | | National Annual Meeting, Washington, D.C. |
| Feb. 20-26 | National Engineers Week, | | Rita Clark, (301) 621-7802 |
| | Paul Meisel, (303) 673-9930 | June 20-23 | The 6th Joint MMM-Intermag Conference, |
| Mar. 6-9 | ENTELEC, | Sheer Print | Albuquerque, NM, Amer. Institute of Physics & |
| | (Energy Telecom. & Elect. Assoc.) | | IEEE Magnertics Society, |
| | San Antonio, TX, Martha Fike, (214) 235-0655 | bate and road | William C. Cain, Read-Rite Corp., |
| Mar. 14-17 | AM/FM International, | Landstager Trans | (408) 956-3301 |
| W 1610 | Denver, Deidre Bourke, (303) 426-8333 | June 27- | Precision Electromagnetic Measurements, |
| Mar. 16-18 | INFOCOM, | July 1 | Boulder, CO, Call for papers, Gwen E. Bennett: |
| | Denver, Maclean Hunter Presentation, Inc., (303) 696-6100 | STATE OF THE STATE | (303) 497-3295, for information: Fred McGeha (303) 497-3246 |
| Mar. 29-31 | 3rd International Conf. on MCMs, | Sept. 8 | The Assoc. of Colorado Telecommunications |
| | Denver, (Multi-chip module), IEPS, | | Professionals, |
| | (708) 260-104 | | For information call, (303) 628-6964 |
| Apr. 8 | Society of Technical Communications (STC) | Sept. 12-14 | IEEE Petroleum & Chemical Industry Conf. |
| | Rocky Mtn. Chapter | | (PCIC), |
| | For Information call Mark Lee (303) 673-2043, | EXTENSION OF | Vancouver, Canada, Steve Hagemoen, |
| **** | after work hours (303) 460-8391 | | (604) 736-3381 |
| Apr. 13-15 | Rocky Mountain Health & Safety Conf., | Sept. 28-29 | T&D Maintenance Management, |
| | Denver, (303) 373-1937 | | Colorado Springs, Anita Lowell, (207) 623-3521 |
| Apr. 24-26 | IEEE Rural Electric Power Conference, | LEST LEE TOP | extension 2771 |
| | Colo. Springs, Don Werner (402) 636-2585 | Oct. ? | UTC Fall Technical Conference, |
| Apr. 25-27 | American Power Conference, | | Fort Collins, Mike Schmitz, (303) 299-5269 |
| | Chicago, IL, Robert W. Porter, (312) 567-3192 | Oct. 2-6 | IEEE Industry Application Society Annual |
| Apr. 26-27 | IEEE Wichita Conf. on Communications, | 29 1615 N | Meeting, |
| | Networking & Signal Processing, | Township law is | Denver, Chair: Paul Meisel, MagneTek, |
| | Wichita, KS, David Gilbert, (316) 522-4981, ext. | | (303) 673-9930, FAX (303) 673-9936 |
| | 354 | Oct. 25-27 | NRECA, '94 Regional Meeting, |
| May 1-3 | RMEL (Rocky Mtn. Electrical League) | | (National Rural Electric Cooperative), Denver, |
| | Estes Park, William Rosol, (303) 778-7536 | HANDE BY | Mary Smallwood, (202) 857-9553 |
| May 4-5 | Rocky Mtn. Technology Expo (ISA/ERA) | Nov. 10 | The Assoc. of Colorado Telecommunications |
| | Denver, Anita Wanberg, 202-8042 | | Professionals, |
| May 8-12 | 1994 IEEE Substations Committee Meeting, | PERSONAL PROPERTY. | For information call, (303) 628-6964 |
| | Los Angeles, CA, Don Laird / Wayne Block, | Sept. 10-14 | IEEE Petroleum & Chemical Meeting, |
| 11 | (213) 481-4764 or (213) 481-3427 | 1995 | Denver, Chairman, John Nelson, |
| May 9-10 | UTC Region VIII Annual Meeting, | | Nelson Engineering, (303) 431-7895 |
| MERINGAL . | Denver, George Stoll, (303) 571-2677 | July 27- | IEEE Power Engineering Summer Meeting, |
| May 12 | The Assoc. of Colorado Telecommunications | Aug. 2 | Denver, Chair: Gary Peterson, Public Service |
| | Professionals, | 1996 | Company of Colorado, (303) 329-1506 |
| | For information call, (303) 628-6964 | W. Contract | |

February 1994

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Engineers Seeking Employment Quality engineers available

The following IEEE members are seeking employment. If you have a position open or know of one please contact Marilyn Peterson at (303) 329-1615. Please give your name, address, phone number and the special identification code to Marilyn. She will have the member contact you directly.

1992 BSEE Graduate. Strong technical and computer background seeks engineering employment. Six years experience as field/bench technician and 5 years programming low and high level languages. (A2GO1)

Innovative Engineer. I am a solution oriented, technically current individual experienced in processing control monitoring, process characterization/improvement, continuous improvement, PLC, motor controls. Event driven real time programming background-DOS, OS/2, UNIX and others. Manufacturing R&D in machinery controls instrumentation. (A7G02)

MSEE. Experience with PLCs instrumentation controllers and power electronics. Developed 6805 controller for small machine. Three years supervision experience with large manufacturer. Prefer design or R&D position. Will relocate (A19W01)

Computer Science Ph-D. 30 years experience (14 years aerospace). Designed, implemented, managed and taught commercial application, scientific system and operating system development from single embedded microprocessor to some of the largest distribution supercomputer systems. (A22BOI)

B.A., Mathematics. 20 years experience software development, software management, project and program management. Strategic planning/process innovation. Perform SEI maturity assessments. State Government/Fortune 50 background. (A26B02)

BSEE. Two years of 3480 tape controller programming. SCSI-2, diagnostics. Others: Motorola 6800, VM/CMS, REXX, 'C'. GPIB bus. Also power systems and controls. (MA01Z01)

Human Factors. Experience, product and system development, assurance and manufacturing. Telecommunications; Videotex, Laboratory and field usability testing. Occupational Ergonomics. Enjoy diverse teams; strong presenter. Creative and practical. Take multiple roles. MA plus. (A28K01)

Professional engineer with BSEE and BSBA degrees. Experience Record: 9 years telecommunications, 7 years test, 3 years marketing, 1 year project engineering and a proactive supervisor. (JY24H01)

Masters level professional. I have 7 years Systems Engineering experience and am seeking an opportunity in product development or test in Biomedical Electronics, Control Systems or Communication Electronics. Willing to relocate (Au03H02)

BSEE. Problem solving and adaptable individual, seeking opportunities in product development for instrumentation or communications. Strong customer support and technical writing background. (SO4I01)

Software Development Manager. Know 2167A, TQM tools, SEI and ISO 9000. Managed development and system integration/ test on variety of hardware, language and DBMS in engineering and scientific application, planning, problem solving. (S04L02)

December BEEE. graduate.. Have substation control and protection experience. Seeking entry level engineering employment. Extensive computer experience. Vice-Chairman IEEE student chapter. Passed the EIT exam 4-93. (\$2880I)

Communications Application Engineer. Over twenty years in communication applications engineering with extensive project experience in designing, purchasing, and installing Data, Voice, Telemetry, SCADA and Pictorial networks over radio, telephone, cable, fiber and TWPR, microwave and satellite communications with network switching and management facilities. (001WO2)

Hardware/software Engineer. Over 10 plus years in computer hardware software experience as well as instrumentation seeks employment with environmental company. Knowledge of computer PLC based monitoring systems and sensors. (O01S02)

Positions Available

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Sales position open for an engineer with factory automation experience, including application of sensors, PLC's and general purpose control. The position is a Field Sales Engineer for a large, multi-national electrical manufacturer. Complete benefits package including company car. Ideal candidate would have a BSEE or BSME and several years experience selling industrial control products. Position located in the Denver field engineering facility. Please send resume and cover to Tony Thomas, 8466 E. Hinsdale Drive, Englewood, CO 80112.

Operations Team Engineer (6 positions)

Background: Electrical appliance, instruments, equipment, automotive, medical devices. Experience in: R & D engineering; manufacturing. Engineering salary range \$55,000-\$90,000. Location: Ohio (Company paid relocation). Top 50 benefits package. Fax resume to (813) 758-0547

Cellular Communications

Wanted: an industry standards representative for personal communications/microcellular systems. Represent industry leader at forums to develop standards in TIA and ANSI. Rep at TR46 and TR45.4 subcommittee. Manage tech standards in company and interpret market requirements. Five years experience technical standards, speech transmission. EE or Computer engineer. To \$75,000 plus bonus. Resume to McHale & Associates, 1001 4th Ave. Suite 3200, Seattle, WA 98154.

Electrical Design Engineer (Denver)

At least one year of experience, preferably with a consulting firm, Must have strong CAD experience, performing complex-based calculations. Salary depending on experience. Call Denise at (303) 425-8721.

Director of Engineering

Supervise manufacturing and design department of approximately 10 individuals. Extensive rf and microwave design and technology experience. Product development, scheduling budget planning experience essential. Excellent opportunity for versatile, experienced individual. Location, Westchester County, New York. Call Elizabeth Kangas Homsby, (203)834-1111, FAX (203) 834-2686.

Product Development Engineer Power Electronics

Position will be responsible for developing advanced technology control, driver and protection circuits and customer interface circuits for 400 Hz inverters up to 300 kVA. Candidates must have design experience in the field of power inverters and be familiar with all critical aspects related to the design of such products such as alternative pwm schemes, snubbers, harmonic distortion, voltage regulation, response time and stability issues and factors influ-

encing audible noise and EMI. Location Central Connecticut. Contact, Catherine A.H. Mathews, (203) 834-1111, FAX (203) 834-2686.

Variety of Positions

Computer Engineers, Field Engineers, LAN Systems, MultiMedia, Product Engineers, Network Hardware Development Engineers, Software Managers and more. Contact CONSERVA RESOURCES. INC., (718) 981-8343, Fax (718) 981-8864.

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Two years design or application experience in misxed signal components and micro controllers used for machinery. DSP experience a big plus. 10 to 15% traveling withing the U.S.A, BSEE, \$40k-50k, location Wilmington, MA, Contact Deborah Auaire at (508) 481-9500, FAX (508) 481-8519.

Telecommunications Engineers

Fiber optics, satellite, transmission systems, lightwave, facility development and data support: Contact Sid Wugalter at (602) 279-5544, FAX (602) 264-9856.

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THIS SEMINAR IS SPONSORED BY THE DENVER SECTION OF IEEE. THE SEMINAR WILL COVER ALL ITEMS WHICH YOU MUST DO TO GAIN REENTRANCE INTO THE EMPLOYMENT SECTOR, INCLUDING DETERMINATION OF YOUR CAPABILITIES. NETWORKING WILL BE DISCUSSED, AS WELL AS NO-COST BENEFITS AVAILABLE TO IEEE MEMBERS. IF YOU ARE PRESENTLY UNEMPLOYED, THIS SEMINAR IS IMPORTANT FOR YOU. RESERVATIONS MUST BE RECEIVED BY MARCH 11, 1994. SPACE IS LIMITED. RESERVATIONS WILL NOT BE ACCEPTED AT THE DOOR. THE COST OF THE SEMINAR IS \$20.00 PAYABLE IN ADVANCE. LUNCH AND BEVERAGE FOR BREAKS WILL BE PROVIDED.

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C/O PUBLIC SERVICE COMPANY OF COLORADO
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DENVER, COLORADO 80207

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February 1994 4 RockIEEE Overlook February 1994 5

ATTENTION!

Something's on fire in this column!

The Society of Manufacturing Engineers (SME) has a 24-hour electronic bulletin board, SME ON-LINE that posts new jobs every month for position, such as automation engineering manager, NC engineer, R&D shop manager, technical education manager, director of manufacturing, production team leader, and benchmarking engineer. SME-ON-LINE can communicate with computers at up to 14,400 bps. Communication software should be set to the highest speed the modem can handle. ANSI emulation, eight data bits, no parity & one stop bit (8,N,l). Dial (313) 271-3424 Ref: EMC Test & Design Magazine, page 14, December 1993

Better late, then never. At the MTT 1992 conference we visited and promised exhibitors from Colorado to mention them and acknowledge their support for IEEE activities. Bandgap, Broomfield; Carole E. Levers, Component Distributors, Inc, Englewood; Kathy Hazen, Coors Ceramics Company, Golden; Jack Gagnon, Explosive Fabricators, Inc., Louisville; John G. Banker, W.L. Gore & Associates, Inc., Lakewood; Ed Savitsky, Kaman Instrumentation Corp., Colorado Springs; Jackie L. Maddelena and Steve D. Parry,, RF Design, Englewood; Cindy Wieland, Picosecond Pulse Labs, Inc.; James R. Andrews and VARI-L Company, Inc., Denver; William G. Barrett and Mike Cronin. Thanks!!

Telecommunication History Group, Inc. 931 14th Street, Suite 1400
Denver, CO 80202 (303) 624-0228
Herb Hackenbury, Historian
Bob Cook, Archivist

Telephone Pioneer Museum

U S. West Museum
Denver Service Center
1005 17th Street - Main Lobby
(7 A.M. to 6 P.M., Weekdays, By Appointment Only)
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<u>Bob Pence</u> has formed the Pence Group and is available for speaking engagements. Bob is a excellent speaker and master at holding the attention of the audience. He has a variety of subjects and can be reached at (303) 972-3925.

The IEEE Conferences provide an important opportunity for the timely exchange of information among engineers and scientists the world over. The hundreds of technical meetings held each year cover the broadest spectrum of topics of an analytical and sociotechnical nature. Within the IEEE there are 36 societies that address technical subjects and yearly provide a forum for their membership participation. With your help, the Denver Section would like to bring more conferences and meetings to our area. Please let us know your interest so we may begin to work on the proposals and letters of intent.

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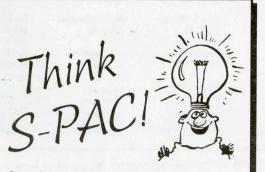
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Consider a Student Professional Awareness Conference (S-PAC) as your next student activity!

IEEE student members have successfully organized more than 300 g-PACs at colleges and universities across the United States since 1979.

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For more information on S-PACs, contact Ann Hartfiel at the IEEE-USA Office, 1828 L St, N.W., Washington, DC 20036-5104; telephone (202) 785-0017; fax (202) 785-0835. ◆



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Send business cards or copy and check to John Tary, 7739 Spring Drive, Boulder, Colorado, 80303-3036. Make checks payable to IEEE Denver Section. We will invoice if so desired.

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Executive Committee

Society Chapters. Bob Struthers, Raytheon Engineers and Constructors,

(303) 843-2235

Conferences: John Tary, Tary Associates, (303) 499-2164

Awards Gary Petersen, Public Service Company of Colorado,

(303) 329-1506

Student Fund: Edward Pitchkolan, (303) 740-2632

Nominations H. Paul Meisel, MagneTek Corporation Automation

Technologies, (303) 673-9930

Heather Silset, Raytheon Engineers and Constructors,

(303) 843-2816, FAX (303) 843-3641

Professional/Industrial Liaison: Tony Thomas, GE Micro Switch Control,

Inc., (303) 792 1673

Pre-College Student Activities: Jeff Wilson, Peterson Company, (303) 388-6322

Student Branch Activities. Dan Greco, (303) 363-7291

Black Hills Subsection

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Chair Sadrul Ula University of Wyoming Laramie, WY 82071 (307) 766-6268

RockIEEE Overlook

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