

DECEMBER 2004

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4
5	6	7	8 Tech Breakfast Rock Physics SIG	9 GSH Board	10	11
12	13	14	15	16 SIPES Luncheon GSH Auxiliary	17	18
19	20	21	22	23	24	25  Merry Christmas
26	27	28	29	30	31	

The Geophysical Society of Houston Newsletter (ISSN 1082-0817) is published monthly except for June and July by the Geophysical Society of Houston, 10575 Katy Freeway, Suite 290, Houston, TX 77024. Subscription to this publication is included in the membership dues of \$25 annually. Periodicals postage paid in Houston, Texas.

POSTMASTER: Send address changes to Geophysical Society of Houston Newsletter, 10575 Katy Freeway, Suite 290, Houston, TX 77024.

GEOPHYSICAL SOCIETY OF HOUSTON

10575 KATY FREEWAY, SUITE 290
HOUSTON, TX 77024

ADDRESS SERVICE REQUESTED

Periodicals
U.S. Postage
PAID
Houston, Texas



Geophysical Society of Houston

VOL. 39, NO. 4

NEWSLETTER

December 2004

Technical Breakfast

Date: Wednesday, December 8, 2004

Time: 7:00 am, Breakfast, no food allowed in the Visionarium
7:30 am, Presentation in Visionarium

Location: Paradigm
820 Gessner, Suite 400
Houston, TX 77024

Web Site: www.paradigmgeo.com

Directions: From the Katy Freeway-Exit Gessner and proceed south across Kingside Ln. and Barryknoll. Turn left into parking garage and park on Level "F". Follow covered walk-way to Two Memorial City Plaza, marked "Paradigm".

Reservations: GSH 713-463-8920 Email: Joan@hgs.org
Reservations are recommended (not required, but affects Paradigm's breakfast order). For further information, please contact Scott Wallace at 713-917-6783 or email wallace@dawson3d.com

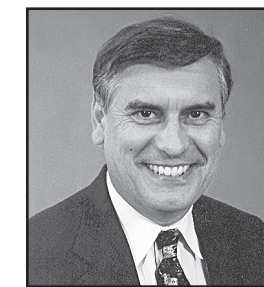
Title: **Noise and Multiple Attenuation whilst Greatly Preserving the Amplitude Integrity of Primaries.**

Speaker: **Tony Rebec**, *Integrated Services, Paradigm Geophysical*

Abstract:
There is perhaps no greater frustration to the seismic interpreter than to have signal obscured by noise. This is a common occurrence and many noise attenuation algorithms have been developed to address it. Most methods attempt to separate the desirable signal from the undesirable noise, usually by making use of some transform into a domain where the signal or noise is modeled mathematically, and the signal and noise can be separated.

Most historical noise suppression methods stop at separating noise and signal. That is, the signal model itself is the output of the noise attenuation program. Some go slightly further by

Technical Breakfast continued on page 10



Tony Rebec

President's Column

Mighty Mini-Mentors

John F. Parrish, 1st Vice President

I never had a "mentor." At least, I never had a mentor in the classic sense-a single individual who guided and groomed me to promote my career or advancement. Nevertheless, I do not consider myself a self-made man of science. Many, many individuals have guided my actions by giving me advice, suggesting alternatives, or simply taking me to lunch. I was not active in the SEG or my local geophysical section for the first decade of my career as a geo-scientist at Shell.

My first "Mighty Mini-Mentors" were members of the Southeastern Geophysical Society in New Orleans, LA. I was merely an onshore party-chief and spent a significant portion of time in the field during the late 1970's. Whenever I was in town, my mini-mentors dragged me out of my office and insisted that I go to the society's lunches. In particular, Gene Brumbaugh (later the SEG President 1982-83) drafted me to be a session monitor for the SEG Annual Meeting in New Orleans. I worked hard and felt like I was part of an historic team promoting the SEG ideals. I have been an active member of SEG and my local section ever since.

As GSH members, we all need to do what the SGS did for me. Many small nudges in the right direction can give our younger geoscientists considerable momentum. Bring an

President's Column continued on page 13.

Happy Holidays

Register for DISC on
January 13

See page 5

Inside This Issue

Geophysical Auxiliary	3	Museum News	9
Distinguished Instructor Short Course..	4	Book Report	10
DISC Registration	5	Sightings	13
Rock Physics SIG	8	Membership Report	15
Tennis Tournament Results	9	Calendar of Events	16

GEOPHYSICAL SOCIETY OF HOUSTON

Joan Henshaw, Office Manager • 10575 Katy Freeway, Suite 290 • Houston, TX 77024 • Office Hours 8 a.m. - 5 p.m.

Phone: (713) 463-9477 • Fax (713) 463-9160

email: joan@gshtx.org • website - <http://www.gshtx.org>

GSH Board of Directors = GSH Executive Committee + SEG Section Representatives

		PHONE	FAX	E-MAIL
PRESIDENT	Steve Danbom	713/937-7530		steve.danbom@worldnet.att.net
Corp. Relations	Roy E. Clark, Jr.	281/654-5651	281/654-5891	roy.e.clark@exxonmobil.com
Historian	Art Ross	281/360-9331		artross@airmail.net
Honors & Awards	Roy E. Clark, Jr.	281/654-5651	281/654-5891	roy.e.clark@exxonmobil.com
Museum	Tom Fulton	281/242-1806		etinsl@alltel.net
Nominating	Steve Danbom	713/937-7530		steve.danbom@worldnet.att.net
Scholarship Liaison	Art Ross	281/360-9331		artross@airmail.net
PRES.-ELECT.	Pat Peck	713/461-7178	713/461-2788	pat.peck@oildata.com
Academic Liaison	Dale Sawyer	713/348-5106	713/784-7906	dale@rice.edu
Advisory	Lee Lawyer	281/531-5347		llawyer@prodigy.net
Employment Ref.	Sam LeRoy	281/556-9766	281/556-9778	earthview@aol.com
Finance	Keith Matthews	281/275-7578		kmatthews@fairfield.com
Office	Dave Agarwal	281/920-4450	281/920-1576	dave0836@aol.com
Volunteers	Jerry Donalson	713/464-6188	713/464-6440	jdonalson@seismicmicro.com
FIRST VP	John Parrish	281/300-2570	281/859-6362	1st_Vice_President@gshtx.org
Continuing Education	John Parrish	281/300-2570	281/859-6362	1st_Vice_President@gshtx.org
Speakers	John Parrish	281/300-2570	281/859-6362	1st_Vice_President@gshtx.org
Tech Breakfasts	Scott Wallace	713/917-6783		wallace@dawson3d.com
Tech Luncheons	John Parrish	281/300-2570	281/859-6362	1st_Vice_President@gshtx.org
Tech Committee	Karl Seibert	281/578-9712 *111		karl@3dgeo.com
SIGS				
Data Processing	Ray Abma	281/366-4604		abmar1@bp.com
	Karl Seibert	281/578-9712 *111		karl@3dgeo.com
Potential Fields	Dale Bird	281/463-3816	281/463-7899	dale@birdgeo.com
Rock Physics	Keith Katahara	713/759-1770	713/356-1800	keith@spinexp.com
	Tad Smith	832/351-8980		tad_smith@veritasdgs.com
SEC. VP	George Marion	713/408-0147		george@seisborg.com
Annual Meeting	Jim Moulden	832/636-8665		jim_moulden@anadarko.com
Awards Banquet	Steve Davidson	281-529-3210	281-293-0641	steve@kelman.com
Golf Tournament	George Lauhoff	281/275-7623	281/275-7550	glauhoff@fairfield.com
Salt Water Tournament	Bobby Perez	281/240-1234	281/240-4997	r_perez@seismicventures.com
Shrimp Peel	Lee Shelton	832/351-8814		Lee_Shelton@veritasdgc.com
Sporting Clays	Alan Foley	713/526-6680		alanfoley@aol.com
Tennis Tournament	Joe Jones	281/438-5626		hjones7318@houston.rr.com
SECRETARY	Paul Schatz	713/975-7434		paul.schatz@int.com
Directory	Laura Self	713/952-7526	713/952-6784	eargle4@aol.com
GSH Membership	Claire Bresnahan	713/880-5910		cmbresn@attglobal.net
Ladies Auxiliary	Luann Cefola	281/759-7338		lcefola@earthlink.net
OTC Rep.	Alf Klaveness	713/468-5123	713/468-5123	none
SEG Membership	Mike Fenton	713/215-7452		mike_fenton@oxy.com
TREASURER	Seth Berman	281/275-7506	281/291-0567	seth_quake@yahoo.com
EDITOR	John Sumner	713/666-7655		sumnergeo@earthlink.net
Assistant Editor	Fernanda Araujo	713/431-6126		fernanda.v.araujo@exxonmobil.com
Company Contacts	Scott Sechrist	281/856-8029	281/856-7445	acoustic@airmail.net
Electronic Pub	Scott Sechrist	281/856-8029	281/856-7445	acoustic@airmail.net
Photography	John Sumner	713/666-7655		sumnergeo@earthlink.net
Publicity	Scott Sechrist	281/856-8029	281/856-7445	acoustic@airmail.net
Web Site	Dave Agarwal	281/920-4450	281/920-1576	dave0836@aol.com
PAST PRES.	Roy E. Clark, Jr.	281/654-5651	281/654-5891	roy.e.clark@exxonmobil.com
PRIOR PAST PRES.	Dan Ebrom	281/366-3011	281/366-7561	ebromda@bp.com
SEG SECTION REPS.	Claire Bresnahan	713/880-5910		cmbresn@attglobal.net
	Lee Lawyer	281/531-5347		llawyer@prodigy.net
	Dave Agarwal	281/920-4450	281/920-1576	dave0836@aol.com
ALTERNATE SEG REPS	Bill Gafford	281/370-3264		geogaf@hal-pc.org
	Art Ross	281/360-9331		artross@airmail.net
	Tom Fulton	281/242-1806		etinsl@alltel.net
	Frank Dumanoir	281/275-5527	713/393-4801	dumanoir@nutecenergy.com

TDS TYRRELL DATA SERVICES, INC.

Steve M. Tyrrell
President

Pre-Processing for the Geophysical Business Since 1986



9804 Whithorn Dr. • Houston, TX 77095
Office: (281) 855-3662 • Cell: (713) 703-0706 • Fax: (281) 858-9337
E-mail: tds@ispwest.com

TDS TYRRELL DATA SERVICES, INC.

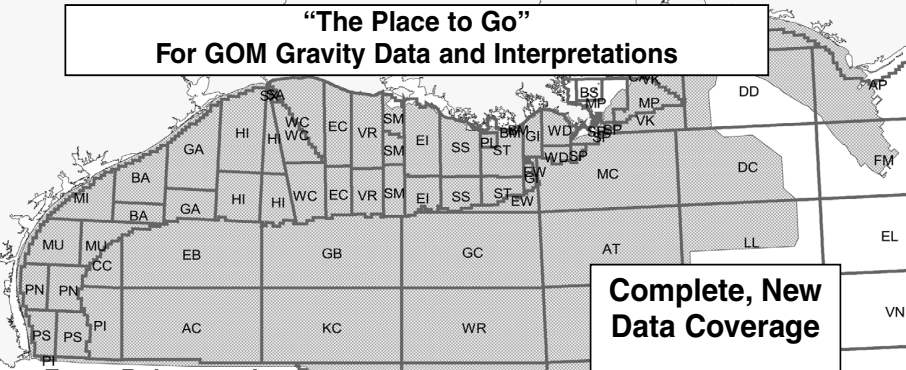
Peggy Percival
Operations Manager

Pre-Processing for the Geophysical Business Since 1986

9804 Whithorn Dr. • Houston, TX 77095
Office: (281) 855-3662 • Fax: (281) 858-9337
E-mail: tds@ispwest.com

**"The Place to Go"
For GOM Gravity Data and Interpretations**



Complete, New Data Coverage

PSDM Support 3D Modeling

Fugro Robertson Inc. (Formerly Fugro-LCT)
GRAVITY AND MAGNETICS
Brian Anderson - Dave Schwartz
Tel: 713-369-6100 www.fugro-lct.com

Membership Report

Effective
November 22, 2004

Active

Javaid Durrani, Consultant

Nigel Forcer, PGS

Rachel Masters, Fugro

Greg Raskin, ChevronTexaco

Paul Valasek, ConocoPhillips

Associate

Ian Gordon, ConocoPhillips

Mike McKinney, Unit Petroleum

United States Postal Service
Statement of Ownership, Management, and Circulation

1. Publication Title: Geophysical Society of Houston Newsletter

2. Publication Number: 112-602

3. Filing Date: 10-8-04

4. Issue Frequency: Monthly except July

5. Number of Issues Published Annually: 11 issues

6. Annual Subscription Price: 25.00

7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and ZIP+4):
10575 Katy Freeway, # 290
Houston, Harris, Texas 77024-1097

8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer):
Houston Texas 77024-1097

9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank):
Publisher (Name and complete mailing address):
Geophysical Society of Houston Houston, Texas
10575 Katy Freeway # 290 77024-1097
Editor (Name and complete mailing address):
John Sumner Houston, Texas
3305 Langley 77005
Managing Editor (Name and complete mailing address):
None

10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.):
Full Name Complete Mailing Address:
Geophysical Society of Houston 10575 Katy Freeway, # 290
Houston, Texas 77024-1097

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box: None
Full Name Complete Mailing Address:

12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one)
The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes:
 Has Not Changed During Preceding 12 Months
 Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)

PS Form 3526, October 1999 (See Instructions on Reverse)

13. Publication Title: Geophysical Society of Houston Newsletter

14. Issue Date for Circulation Data Below: September 2004

15. Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)	1700	1658
(1) Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541 (Include advertiser's proof and exchange copies)	476	480
(2) Paid In-County Subscriptions Stated on Form 3541 (Include advertiser's proof and exchange copies)	1170	1153
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Non-USPS Paid Distribution	0	0
(4) Other Classes Mailed Through the USPS	0	0
c. Total Paid and/or Requested Circulation (Sum of 15b(1), (2), (3), and (4))	1646	1633
d. Free Distribution by Mail (Samples, complimentary, and other free)		
(1) Outside-County as Stated on Form 3541	9	5
(2) In-County as Stated on Form 3541	9	9
(3) Other Classes Mailed Through the USPS	0	0
e. Free Distribution Outside the Mail (Carriers or other means)	11	3
f. Total Free Distribution (Sum of 15d and 15e)	20	12
g. Total Distribution (Sum of 15c and 15f)	1666	1645
h. Copies not Distributed	25	10
i. Total (Sum of 15g and h)	1700	1658
Percent Paid and/or Requested Circulation (15c divided by 15g times 100)	98.27%	99.08%
16. Publication Statement of Ownership <input checked="" type="checkbox"/> Publication required. Will be printed in the <u>December</u> issue of this publication. <input type="checkbox"/> Publication not required.		
Signature and Title of Editor, Publisher, Business Manager, or Owner: <u>Joan Henshaw, Office Manager</u>	Date: <u>10-8-04</u>	

17. I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

Instructions to Publishers

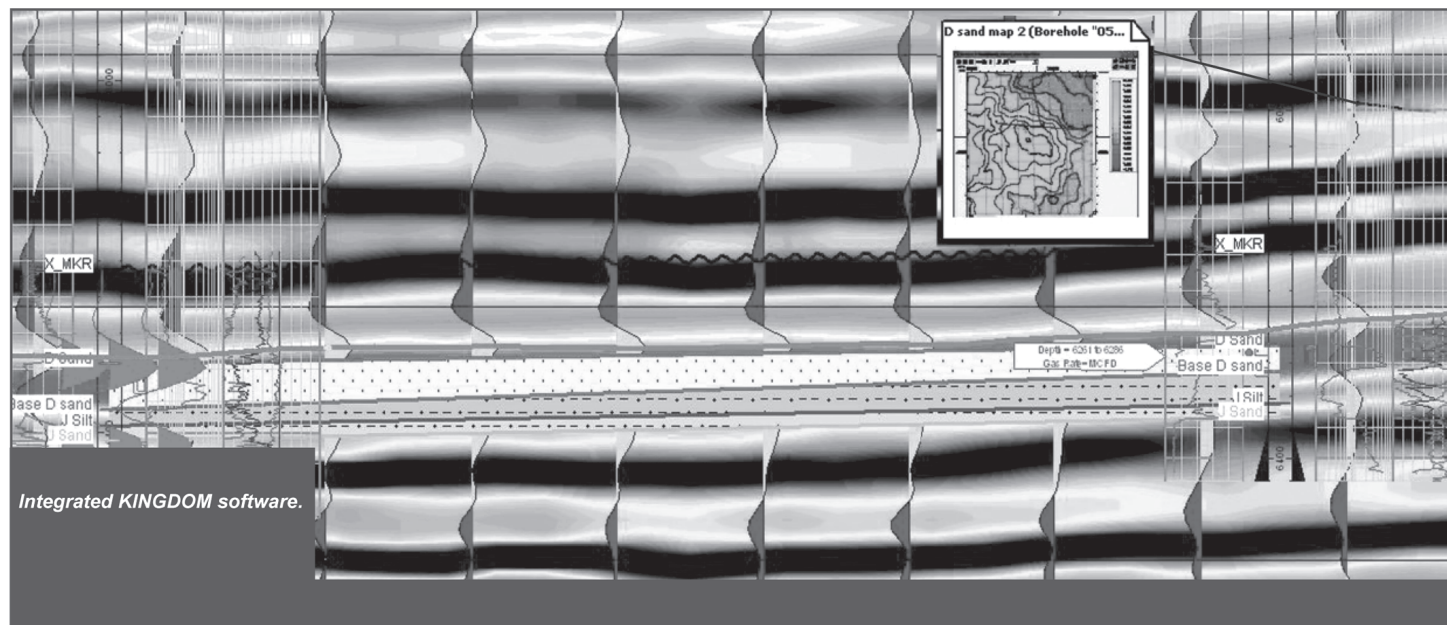
- Complete and file one copy of this form with your postmaster annually on or before October 1. Keep a copy of the completed form for your records.
- In cases where the stockholder or security holder is a trustee, include in items 10 and 11 the name of the person or corporation for whom the trustee is acting. Also include the names and addresses of individuals who are stockholders who own or hold 1 percent or more of the total amount of bonds, mortgages, or other securities of the publishing corporation. In item 11, if none, check the box. Use blank sheets if more space is required.
- Be sure to furnish all circulation information called for in item 15. Free circulation must be shown in items 15d, e, and f.
- Item 15h, Copies not Distributed, must include (1) newsstand copies originally stated on Form 3541, and returned to the publisher, (2) estimated returns from news agents, and (3) copies for office use, leftovers, spoiled, and all other copies not distributed.
- If the publication had Periodicals authorization as a general or requester publication, this Statement of Ownership, Management, and Circulation must be published; it must be printed in any issue in October or, if the publication is not published during October, the first issue printed after October.
- In item 16, indicate the date of the issue in which this Statement of Ownership will be published.
- Item 17 must be signed.
Failure to file or publish a statement of ownership may lead to suspension of Periodicals authorization.

PS Form 3526, October 1999 (Reverse)

Complete

Seismic

Integration



KINGDOM Software

SMT offers **geoscience computer software** to the upstream E&P industry. SMT is committed to providing software with broad **functionality**, that is **logical to learn and to use**, is **truly integrated**, and is **flexible in it's operation**.

KINGDOM geoscience interpretation software functions off of **one single executable**. This means that with the click of just one application the interpreter can instantly operate each of SMT's geoscience modules.

There is broad **functionality** within KINGDOM. Modules include:

- 2d/3dPAK - seismic interpretation
- EarthPAK - geological interpretation
- VuPAK - 2D and 3D interpretation and visualization
- Rock Solid Attributes - advanced 3D post-stack seismic attribute generation
- SynPAK - synthetic seismogram generation
- TracePAK - post-stack seismic data analysis and processing
- ModPAK - geophysical/geological subsurface model generation
- PAKnotes - knowledge-based management



Editor's Note

To insure your information reaches the GSH society members in a timely manner it must appear in the appropriate newsletter issue. Please note the following deadlines and plan your function's publicity strategy accordingly. Items must be received on or before the corresponding deadline date. Materials can be sent to John Sumner at sumnergeo@earthlink.net with a copy sent to Fernanda Araujo at fernanda.v.araujo@exxonmobil.com. If you have any questions please call John Sumner at 713/666-7655 or Fernanda Araujo at 713/431-6126.

2005 GSH Newsletter Deadlines

Issue January 2005
 Deadline..... December 7, 2004

Issue February 2005
 Deadline..... January 11, 2005

Announcements

Rock Physics SIG
 December 8, 2004

Technical Breakfast
 December 8, 2004

SIPES Luncheon
 December 16, 2004

Auxiliary

The Geophysical Auxiliary of Houston - Update!

The Geophysical Auxiliary of Houston invites the wife of any present or past member of the GSH or SEG, the widows of former members of the GSH and SEG, and women members of these organizations to join us and become a member for 2004-2005. Our Membership Chairperson, Kathi Hilterman, wants to hear from you! We are busy planning several events for your enjoyment and yearly dues are only \$15.00. We are looking forward to a great year and would welcome you to join us. Call now and don't miss out! Call Kathi at 713-467-2599 or GSH Liaison, Luann Cefola at 281-759-7338 for a membership application and information on how to join.

On Wednesday November 10, Auxiliary members and friends enjoyed a special Fall Event as we took a trip to the Brookwood Community. We were treated to a tour of the Brookwood facility and a lovely dining experience. We enjoyed a delicious gourmet lunch at the Brookwood Café with a menu of chicken mushroom crepes, fresh vegetables and a lovely selection of desserts. In anticipation of the holidays many of our members took the opportunity to browse the gift shop and the wonderful selection of decorative handcrafted items. We want to thank Co-Chairpersons Emilie Fulton and Susan Graul for making this a wonderful event.

December finds the GAH membership invited to join the Geological Auxiliary for a luncheon at the Lakeside Country Club on December 16th. Entertainment will be provided by "The Ivory Touch". Cost will be about \$27 per person. The Geological Auxiliary will be mailing invitations to all of the GAH members for this event.

Our Winter Luncheon and Fashion Show will be held at the scenic Houston Racquet Club on January 18th. Come join us for delicious food and our own members modeling the latest spring fashions from Chico's. Contact Chairperson, Kathi Hilterman at 713-467-2599 for more information.

The Geophysical Auxiliary annual Spring Brunch will be held on Sunday, March 13 at Lakeside Country Club. Members, spouses and guests will enjoy the lovely surroundings, an elegant buffet and be entertained by a group from the Country Playhouse performing from "Compleat Works...Shakespeare". You don't need to know anything about Shakespeare to enjoy this irreverent fast paced romp through his plays. Please contact Chairperson Georgeann Massell at 281-353-7894 for more information.

No. of Issues:	1/8 pg.	1/4 pg.	1/2 pg.	full page
1	\$125	\$200	\$400	\$750
2	\$208	\$335	\$660	\$1250
3	\$278	\$448	\$880	\$1670
4	\$348	\$560	\$1100	\$2090
5	\$425	\$680	\$1360	\$2515
6	\$490	\$782	\$1565	\$2935
7	\$560	\$895	\$1790	\$3355
8	\$630	\$1008	\$2016	\$3780
9	\$700	\$1120	\$2240	\$4200
10	\$735	\$1175	\$2350	\$4400

GSH Advertising Rates

Business Cards:
 \$125 for 10 issues

To reserve your advertisement space or for more information contact Lilly Hargrave at: 713/463-9477 or email: lilly@gshtx.org.

**Distinguished Instructor Short Course
Houston, January 13, 2005
Hilton Americas Houston, 1600 Lamar**



Paul Weimer

The Distinguished Instructor Short Course (DISC) is an eight-hour, one-day short course on a topic of current and wide-spread interest. Sponsored by both the SEG and EAGE, it is presented at over 20 locations each year around the world. Established in 1998, the DISC has attracted almost 10,000 participants in its four-year history.

Selection as the DISC instructor is viewed as a major honor and recognition of excellence by the SEG and EAGE. The instructor is a prominent geophysicist whose work and presentation appeal to a wide audience ranging from students to professionals near the end of their careers.

The DISC is videotaped each year. Copies are distributed as a service to student sections, and are available for purchase by the SEG and EAGE membership and the general public.

Petroleum Systems of Deep-Water Settings

by Paul Weimer
University of Colorado

Overview

This course provides geophysicists with a broad overview of the petroleum systems of deep-water settings. The course design allows geophysicists to quickly integrate the information into their daily workflow. The material presented is approximately the 80-85th percentile of available information. Lectures will be complemented by extensive references to key publications that geophysicists may use to follow up. This course emphasizes the geologic aspects of deep-water deposits.

Summary

The course will start with an overview of the geology of deep-water systems, past, present and future. This review will cover the recent trends in deep-water in terms of drilling results, and introduce the elements of petroleum systems-reservoirs, traps, seals, source rock, migration, and timing.

The key characteristics of the key reservoir elements in turbidite systems are: a) sheet sands (layered and amalgamated), b) channel fill, c) thin beds (overbank), and (d) slides and debris flows. The seismic stratigraphic expression of these systems is present in 2D, shallow 3D, and depth 3D, and integrated with the wireline log expression and information from outcrops, cores, and biostratigraphy. Examples from several producing basins around the world illustrate these points. The production history and the reservoir challenges in developing each of these fields is discussed.

Participants are introduced to the basic occurrences of turbidite systems in a sequence stratigraphic framework. Examples show how to modify the basic model for each kind of basin setting (structural setting, faults, and salt), high frequency sequences, sediment delivery systems, and the effects of grain sizes on turbidite systems. Carbonate and lacustrine systems are also discussed.

Many different kinds of basins produce from turbidite systems. A review of these basins shows the different tectonic settings and associated structural styles. The review also demonstrates that most reservoirs are pure stratigraphic traps or combined traps. A review of seals, source rocks and modeling principles gives the geophysicist practical techniques for understanding deep-water systems.

The course concludes with a summary of what is important in the exploration for and development of deep-water systems. The application of these techniques to each geophysicist's current projects is key, as is the difference between frontier exploration and exploration in mature basins with deeper potential. Examples from 3 or 4 basins distributed globally illustrate the principles. These examples will also demonstrate that there is deep-water potential in most basins globally.

Biography

Paul Weimer has been a professor at the University of Colorado at Boulder since 1990. He holds the Bruce D. Benson Endowed Chair in Geological Sciences, and serves as Director of the Energy and Minerals Applied Research Center. His research has focused primarily on the petroleum systems of deep-water continental margins.

Dr. Weimer has published more than 100 papers on a variety of topics: sequence stratigraphy, biostratigraphy, reservoir geology, petroleum systems, 3-D seismic interpretation, structural geology and tectonics. In 1998, a special edition of the AAPG Bulletin was dedicated to the research done at the University of Colorado by Dr. Weimer and colleagues on the petroleum geology of the northern deep Gulf of Mexico.

Dr. Weimer has also co-edited eight books, focusing on petroleum systems of deep-water, sequence stratigraphy, 3D seismic interpretation, and North Alaska Geology. He is currently writing a book for AAPG on the petroleum geology of deep-water deposits.

Dr. Weimer served as an AAPG Distinguished Lecturer in 1998-1999, and was the Esso Australia Distinguished Lecturer in 2001. He received his BA with Honors in Geology from Pomona College in 1978, and his MS degree from the University of Colorado in 1980. He worked as an exploration geoscientist for Sohio Petroleum (later BP) in San Francisco, CA, from 1980-1984. He received his PhD in 1989 from The University of Texas at Austin. He worked with Mobil Oil in Dallas, TX, from 1988-1990 as a research and exploration geoscientist.

Sightings



Some scenes from the Technical Breakfast and the Technical Luncheon



President's Column continued from page 1.

associate to a GSH luncheon. Suggest that everyone in your company attend the *Distinguished Instructor Short Course* (DISC 2004) January 13, 2005. As a quick aside, register for the DISC with the form in this Newsletter or online at gshtx.org. The course provides geophysicists with a broad overview of the petroleum systems of deep-water settings. The course design allows geophysicists to quickly integrate the information into their daily workflow. The material presented is approximately the 80-85th percentile of available information. Lectures will be complemented by extensive ref-

erences to key publications that geophysicists may use to follow up. This course emphasizes the geologic aspects of deep-water deposits.

Not everyone will accept your invitation the first time-but keep asking-month after month. You do not have to adopt or continuously mentor the careers of your associates. Recognize that your mini-mentoring will consist of many small nudges and that those nudges can have a tremendous effect on someone. Eventually, you will find another you or me to be an influential leader or future SEG or GSH officer.

According to the SEG history, the total membership was 14,172 during the 50th anniversary year in 1980. The Annual Meeting registration was 12,319, an attendance record that has never been broken. At next year's 2005 Annual Meeting IN HOUSTON, we will celebrate the society's 75th anniversary. Start your many small nudges now to get enough momentum to surpass any previous records.

I have confidence that GSH members can serve as the Mighty Mini-Mentors of the Houston area for the new century.

Prestack Depth

Deep Plays Require Prestack Depth

Prestack Time

The Power and Expertise to Image in Time and Depth

Highly experienced personnel
Diverse technical backgrounds
Leading technology software
Strong support organization



Houston Denver www.fairfield.com (800) 231-9809 dataprocessing@fairfield.com

SEG/EAGE DISTINGUISHED INSTRUCTOR SHORT COURSE

Petroleum Systems of Deepwater Settings
By Dr. Paul Weimer

Thursday January 13, 2005
Hilton Americas Houston
1600 Lamar, Houston, Texas 77010

Presentation: 8:00am - 4:30pm
Registration opens at 7:00am
Breakfast at 7:15 am; Lunch at 12:00 noon

DEADLINE: Thursday December 16, 2004
Prepaid late registrations will be placed on a space available wait list
Registration is limited to the first 400 (Register early!!!)

Important: Please complete a separate form for each registrant

Name: _____

Company Name: _____

Street Address: _____

City, State, Zip: _____ Country: _____

Phone: _____ Fax: _____ Email: _____

SEG Member? Yes No Geophysical Society of Houston Member? Yes No

Cost: **(Check ONE)**

- Member of SEG and GSH - includes breakfast, lunch and course manual **\$130**
As a courtesy we will accept members of HGS or members of other SEG sections as if GSH member.
- SEG student member (include member number or completed application) **\$25**
SEG Student membership dues provided for by Halliburton Energy Services, Inc.
- Member of SEG but not GSH — \$25 will be applied toward GSH membership **\$155**
- Member of GSH but not SEG — \$70 will apply toward SEG Associate Membership **\$200**
- Member of neither GSH nor SEG - Please complete both applications **\$225**

**If you have paid the non-GSH member DISC rate, a GSH membership form will be available for you to complete at registration.*

**If you have paid the non-SEG member DISC rate, SEG will mail you a paid membership application.*

AMOUNT ENCLOSED: \$ _____

Send to: GSH, 10575 Katy Freeway, Suite 290, Houston TX, 77024

Payment by credit card:

CARD: _____ Mastercard _____ Visa _____ American Express

PRINTED NAME AS IT APPEARS ON CARD: _____

ACCOUNT NUMBER: _____

EXPIRATION DATE: _____ Signature: _____

DATE: _____

BILLING ADDRESS: _____

If paying by credit card, you may fax to GSH at 713-463-9160

A Paradigm Shift

... in Service Performance

Comprehensive Geophysical Services from the Pre-Stack Imaging Leader

- Visualization-centric time and depth imaging, AVO and inversion
- Exclusive use of Paradigm industry-leading technologies, backed by global R&D resources
- Worldwide network of Service Centers offering global experience with local expertise
- On-target turnaround with powerful computing resources (over 20 Tflops, including Linux-based blade systems)
- Quality solutions (ISO 9001) on hundreds of successfully completed projects worldwide
- Extended capacity through acquisition of Core Lab Reservoir Technologies Division



With so much at stake, why settle for less?



Please visit us at www.paradigmgeo.com or call:

USA +1 713 393 4800	Canada +1 403 750 3535	Latin America +55 21 3084 3898	Europe/Africa/Middle East +44 1483 758 000	CIS/Russia +7 095 933 4440	Asia Pacific +60 3 2163 8111	China +86 10 6465 4870
------------------------	---------------------------	-----------------------------------	---	-------------------------------	---------------------------------	---------------------------

Introducing **TGS IMAGING™** Formerly NuTec Energy Services

TGS Imaging™ remains the smart choice for high-end seismic processing and imaging services. We are expanding capacity with increased investment in technology and manpower, while continuously adding new features to our PRIMA™ software. If that wasn't enough, we'll be working on our own data as well - redefining again the value and service you can expect from your seismic company.

TGS Imaging™: **A Knowledge of Depth, A Depth of Knowledge.**

www.tgsnopec.com

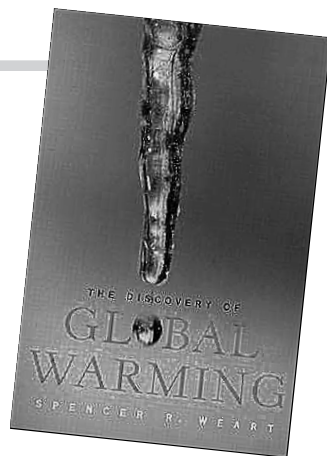


Book Report

By John Sumner

Discovery of Global Warming

by Spencer R. Weart



Could a slender book on scientific discovery be a thriller, a whodunit? For decades we assumed that the climate was simply there, in the same way that the sun rises in the east. Sure, some years might be colder or hotter or wetter or drier than others, but in the end we assumed that it all evened out and that climate didn't really change all that much over the long haul. That is not the case, as this book details.

The author follows 100 years of geophysical research on climate. He draws from literally hundreds of papers: meteorology, oceanography, ice chemistry, solar physics, pollution studies, and greenhouse gases (both

naturally occurring and manmade). If that isn't enough, he has all those references and more available at a website, www.aip.org/history/climate/.

It was only in the mid 1800s (thanks to Louis Agassiz) that it was finally accepted that only a few thousands years ago vast, thick sheets of ice covered northern Europe and North America. Close on the heels of this knowledge came the desire to understand the cause of the Ice Ages. From an idea proposed in 1896 that industrialization could affect the weather, this book takes us to the conclusion in the last decade that climate can change dramatically over a period of just a few years.

Weart lays out the sophisticated and believable results of geophysical models that incorporate greenhouse gases and particulate pollution into a Global Climate Model. A final chapter covers conclusions from the IPCC (Intergovernmental Panel on Climate Change) and the refusal of the US to play any part in mitigation of the causes.

ISBN 0-674-01637-8
\$14.95 / £9.95 / E13.90

Technical Breakfast continued from page 1.

adding back a percentage of the original input data. Here we will show an amplitude friendly technique to attenuate noise and multiples, by taking a new approach that adds back an estimate of the signal removed during the signal modeling, rather than adding back a percentage of the original data.

This is a fundamental shift in noise suppression strategies. It is an approach which is very flexible in that it can incorporate a variety of application domains, filtering tools, and new technologies and ways of modeling data. It is an approach which greatly improves signal preservation, making quantitative AVO and rock property analysis much more reliable. It is a robust amplitude-preserving way to precondition data for pre-stack migration, avoiding migration artifacts and costly reruns. The primary amplitudes after this new approach are trustworthy, making pre-stack migration with AVO now a realistic option.

Biography:

With over 35 years in the seismic arena Tony Rebec has experience in the full spectrum of activities from seismic data acquisition through to reservoir characterization. He received his bachelor of science joint honors degree in geology and mathematics from London University.

Tony's career started in 1967 with Geophysical Services Incorporated (GSI) at their facility

in England as a processing seismologist. In 1967 he accepted a position as quality control geophysicist in marine acquisition working in and around Africa, Australia and the Far East. After 2 years he was promoted to area quality control geophysicist for the marine operations in EAME with the prime responsibility for field data integrity. Returning to processing in England he was promoted to group leader and processing party chief prior to being appointed as processing manager for a joint venture in Stavanger, Norway between Statoil and the Norwegian Petroleum Directorate. This joint venture was later merged with the Geophysical Company of Norway to form GECO. On returning to England he was made responsible for all Shell UK's processing in Europe as a processing supervisor and worked on the first 3-D surveys processed in the North Sea.

In 1978 he was promoted to a staff position at GSI's headquarters in Dallas, Texas where he was responsible for worldwide training in marine acquisition and processing. In 1980 he joined Marion Bone's 3D interpretation and reservoir studies group where he was accountable for marine projects. Responsibilities included hands-on 3-D training schools for clients, interpretation projects, geophysical reservoir studies and the development of an early 3-D interactive interpretation system and 3D visual-

ization technologies. This group evolved into an integrated studies group for reservoir description and 3-D reservoir monitoring for which he was the operations manager. In 1990 the Dallas facility was relocated to Houston under Halliburton Geophysical Services (HGS) where he was instrumental in setting up Halliburton's reservoir description group. He was appointed to the worldwide Halliburton team for the promotion of horizontal drilling technologies where he was a keynote speaker for geophysics. He was then promoted to marketing manager for land and marine processing for HGS. In 1994 Western Geophysical purchased the assets of HGS and he was positioned as technical marketing and sales manager for marine processing with specific focus on depth imaging until joining The Coherence Technology Company (CTC) in 1995. At CTC he was VP for worldwide marketing and sales until it was acquired by Core Laboratories in 1999 where he continued as VP for business development. In 2004 the Reservoir Technologies Division of Core Laboratories was acquired by Paradigm where he now consults for their Technical Marketing Services.

He is a 35 year plus member of the SEG and EAGE and has delivered numerous presentations on various aspects of 3-D reservoir geophysics and interpretation to the industry.

REPROCESS NOW

Your Prospect is Waiting!

3D IMAGING

SEISMIC PROCESSING

Pre-Stk Time / Depth Migration	Inversion	AVO Modeling
High Resolution Signal Processing	Discontinuity Volumes	Reservoir Characteristics

For more information about any solution listed or one you're interested in call us.

www.3DImaging.net (361) 882-8400

Daniel C. Huston
Holly Hunter Huston



HUNTER 3-D Inc.
3-D Seismic, 3-D Gravity/Mag
Hampson-Russell AVO/Inversion
(713) 981-4650 hunter3d@wt.net
www.hunter3dinc.com



Petrophysics, Inc.
8552 Katy Freeway, Suite 140 - Houston, Texas 77024
713-468-2333 / Fax 713-468-1918
Joe Smith, President
jsmith@petrophysics.com

HANS SHELINE
President - MS, MBA, CPG, LPG



VERINOVA
CONSULTING & CUSTOMIZED TRAINING;
PROSPECT GENERATION & EVALUATION; FIELD VALUATION
& DEVELOPMENT; SEISMIC ATTRIBUTES; INTERPRETATION;
NEW TECHNOLOGY; NEW BUSINESS DEALS & LBOs

Phone: 281-565-5305 PO Box 16161
Email: sheline@verinova.com Sugar Land, TX
Webpage: www.verinova.com 77496-6161

Boone Exploration, Inc.

Lynn D. Boone
President

J.C. Carlisle
Vice President

21 Wire Road
P.O. Box 8660
Huntsville, TX 77340

Phone: 936-295-4066
Fax: 936-295-4042
Email: jcc9551@aol.com

HARDIN

Your Personal Processor

Hardin International Processing, Inc.
5300 Democracy Drive, Suite 100
Plano, Texas 75024
Bus: 972-312-9221 x110
Cell: 214-695-1126
Fax: 972-312-9226
www.hardinintl.com Email: wsass@hardinintl.com

Scanning/Plotting/Reproductions
Color/Black&White
Well logs, Seismic Sections, Maps
Digital Files, 105's, 35mm

color reflections
ARROW GRAPHICS

Robert Black
3773 Richmond
Houston, Texas 77046
713-331-4505

INTERACTIVE
INTERPRETATION & TRAINING, INC.

HOUSTON, TEXAS, U.S.A.

Geophysical Interpretation on Workstations
Exploration & Development - Worldwide 2D/3D
11767 Katy Freeway, Ste 430, Houston, TX 77079 Tel: 281-920-4450 Fax: 281-920-1576
it@ilandt.com <http://www.ilandt.com>

The WorkStation Place
SMT AT OUR PLACE, SMT AT YOUR PLACE AND...
SMT TO GO

... Affordable interpretation workstation services

Stephen G. Starr
16360 Park Ten Place, Suite 102 ... Houston, Texas 77084
281 492-1856 ... voice ... 281 398-6669 ... fax
[sstarr9711@aol.com](mailto:ssstarr9711@aol.com)

I-INC.

Create Ideas To Create Cash Flow

S. V. Hrabar, Ph.D.
P.O. Box 925809
5005 Georgi Lane
Houston, TX 77292-5809

713-683-0638
shrabar@wt.net

SPECIAL INTEREST GROUPS

ROCK PHYSICS SIG

- Date:** December 8, 2004
- Time:** 5:30 p.m.
- Location:** Visualization Center
Veritas DGC, Inc.
10300 Town Park Dr.
Houston, TX 77072
- Contacts:** Keith Katahara (keith@spinexp.com)
Tad Smith (tad_smith@veritasdgc.com)
- Reservations:** Log onto GSHTx.org to make your reservations, or call the GSH at 713-463-9477 / Email joan@gshtx.org
Walk-ins welcome.
- Title:** *Fluid property discrimination from the inversion of AVO attributes*
- Speaker:** **Brian Russell**, Hampson-Russel Software

Abstract:

This paper draws together material from rock physics, AVO, and seismic amplitude inversion to discuss how fluid effects can be discriminated from matrix effects using pre-stack seismic data. The theory of both Biot and Gassmann for porous, fluid-saturated rocks is first used to derive a general formula for fluid property discrimination given that both the P and S impedances are available. This formula allows us to decompose the P and S impedances into a fluid term and a rigidity term. We show that this formulation does not depend explicitly on which set of physical parameters are used: the Lamé constants and density, or the bulk and shear moduli and density. This method can therefore be thought of as a generalization of the lambda-mu-rho (LMR) approach.

The AVO and amplitude inversion techniques are discussed to show how this technique can be implemented using pre-stack seismic data. We first give an overview of AVO attribute

analysis, discussing how the use of pre-stack seismic data allows us to extract at least two independent attributes from our data. Although there are many choices for these attributes, we use the AVO technique to extract P and S reflectivity attributes. We next use amplitude inversion to transform these reflectivity sections into P and S impedances. These impedance sections are then transformed to fluid and matrix terms using the transform previously described. The techniques are illustrated using a shallow gas-sand example from Alberta and a well log example from Eastern Canada.

Biography:

Brian Russell holds a B.Sc. in Geophysics from the University of Saskatchewan, a M.Sc. in Geophysics from Durham University, UK, and a Ph.D. in Geophysics from the University of Calgary. He started his career with Chevron in 1976, and worked in both Calgary and Hous-

ton as an exploration geophysicist. He subsequently worked for both Technica and Veritas in Calgary before co-founding Hampson-Russell Software in 1987 with Dan Hampson. Since 2002, Hampson-Russell has been a fully owned subsidiary of VeritasDGC. Brian is currently Vice President of Hampson-Russell, and is based in Calgary. He is actively involved in both geophysical research and training, and presents courses on seismic technology throughout the world.

Brian was President of the Canadian SEG in 1991, received the CSEG Meritorious Service Award in 1995, the 1999 CSEG Medal, and honorary membership in 2001. With SEG, Brian served as chairman of The Leading Edge editorial board in 1995, technical co-chairman of the 1996 Denver annual meeting, and as President in 1998. In 1996, Brian and Dan Hampson were jointly awarded the SEG Enterprise Award.

GSH Tennis Tournament Report



Joe Jones and Bill Steiner did a masterful job organizing the GSH Tennis Tournament on the afternoon of October 22 at the Chancellors Club. They were aided in forming the brackets; with 32 players it was relatively easy to make an even division between the A and B brackets.

This was Joe's final season as honcho of the Tournament. He says that he has been doing it for so many years that he can't recall when he started doing it, although it may have been prior to global warming!

**Thanks to all the tournament sponsors:
ChevronTexaco, Indel Davis, System Development, Inc., Veritas & WesternGeco**

Tournament Results:

A Bracket:
1st Place
Forest Carpenter & Xavier Casillas

2nd Place
Ruben Pascual & Bob Davis

3rd Place
Andy Newton & Marlene Walker

Consolation
Jim Blackwell

B Bracket
1st Place
Andy Clifford & Tom Ritter

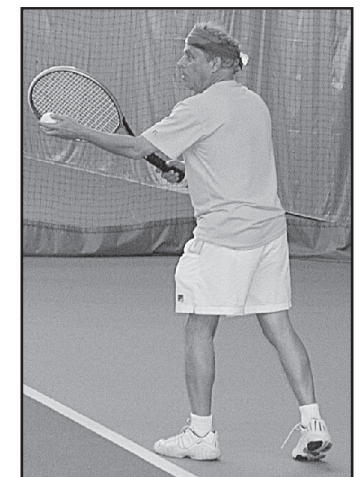
2nd Place
Sue Rezaei & Joe Loman

3rd Place
Mark Niles & Ray Garcia

Consolation
George Fluke



Scenes from GSH Tennis Tournament . . .



Museum News *By Tom Fulton*



The GSH Museum has recently taken delivery of both a base station Magnetometer, a Ruska portable #4835, a tripod and a cut-away seismometer - all in excellent condition from Dick Baile. Also, a call and

visit to Turhan Taner resulted in the trunk of my car being full of a dozen boxes of files - advertisements and technical papers - many from the '80s. I particularly noted a number from SSC friends.

Other trivia noted. Craig Ferris started the SEG Museum Committee in '85. The Oct. '79 GSH News Letter indicates that C.C. Hutchinson at that time had chaired the GSH Museum Committee for 20 years.