

Research Personnel

Thierry Bourbie graduated from the Ecole Polytechnique in Paris in 1975. The same year he obtained a D.E.A. (Engineer Degree) in nuclear physics from the University of Paris Orsay. In 1978 he graduated from the Ecole des Mines de Paris (as a member of the Corps des Mines); obtained a Maitrise (M.S. degree) in geology-geophysics from the University of Paris VII; and worked for the French Government on nuclear energy problems. He then joined the Institut Francais du Petrole, who is supporting his stay at Stanford. Thierry is a Ph.D. candidate in geophysics who has been working on wave propagation in rocks from a theoretical and experimental point of view for the Stanford Rock Physics Project. He is now involved in generating synthetic seismograms into the SEP.

Jon F. Claerbout received his education at M.I.T. (B.S. physics, 1960, M.S. geophysics, 1963, Ph.D. geophysics, 1967). He worked for United Electrodynamics (now Teledyne, Inc.) in 1963 and studied in Uppsala, Sweden, in 1964. He joined the geophysics faculty at Stanford University in 1967. From 1967 to 1973, he was a consultant to the Chevron Oil Field Research Company. He is an active member of the Society of Exploration Geophysicists, receiving the Best Presentation Award for a paper, "Extrapolation of Wave Fields," presented at the 1972 international SEG meeting, and receiving the Society's Medal Award in 1973 "in recognition of his outstanding and original pioneering work in seismic wave analysis." During the year 1972-73, he was a visiting research geologist at Princeton University and a visiting lecturer at Sydney University. His textbook **Fundamentals of Geophysical Data Processing** was published in 1976 and translated to Chinese (1979) and Russian (1981). In 1977, he was elected a Fellow of the American Geophysical Union. In 1979, he joined the MIT Corporation Advisory Committee to Earth Sciences. He is professor of geophysics at Stanford University and director of the Stanford Exploration Project. During the 1979-80 year he was on sabbatical leave at the Department of Geodesy and Geophysics, Cambridge University.

Robert W. Clayton received a B.A.Sc. in engineering science from the University of Toronto in 1973. He received a M.S. degree from the University of British Columbia in 1975. The thesis was on the deconvolution of suites of teleseismic earthquake recordings. He received a Ph.D. degree from Stanford University in 1981. His Ph.D. thesis is titled "Wave-field Inversion Methods for Refraction and Reflection Data". He is currently an acting instructor in the Department of Geophysics at Stanford University.

Alfonso González-Serrano received his B.S. (Licenciado) degree in oceanography from Universidad Autónoma de Baja California, México, in 1977, and a M.S. degree in geophysics from Stanford University in 1979. His B.S. thesis was a structural model for Todos los Santos Bay, using gravity and magnetics data. During the summer of 1980 he worked on Minimum Entropy Seismic Detection for Gulf Research and Development Company. He is currently a Ph.D. candidate in Geophysics and is recipient of a graduate scholarship from Consejo Nacional de Ciencia y Tecnología. His research interests are in velocity estimation and probabilistic dynamic systems in geophysics. He is a member of SEG and AAPG.

Dave Hale received a B.S. in physics from Texas A & M University in 1977. He then worked for Western Geophysical Company as a field seismologist in Venezuela and later as a research geophysicist in Houston. In the latter role, he implemented frequency domain methods of multichannel filtering and migration of seismic data and studied marine seismic sources with respect to wavelet processing techniques. In July of 1979, he joined the SEP and is currently working toward his Ph.D. in geophysics. Dave is a member of SEG.

Allan (Bert) Jacobs received a B.S. in physics from M.I.T. in 1977. He is now working toward a Ph.D. in geophysics at Stanford and holds a National Science Foundation Fellowship. During the summer of 1979 he worked on migration programs for Atlantic Richfield. Bert's research activities center around the problem of extracting physical parameters from seismic records.

George A. McMechan was an undergraduate in geophysical engineering at the University of British Columbia and did graduate studies in geophysics at the University of Toronto. Since 1973 he has been employed as a research seismologist by the Canadian federal government. His primary research interest to date has been in body wave inversion, especially for the upper mantle. While on sabbatical leave at Stanford (1979-80) he worked on inversion using wavefield techniques.

Walter D. Mooney received his B.S. (physics) from Cornell University in 1973 and his Ph.D. (geophysics) from the University of Wisconsin - Madison in 1979 where he wrote a thesis on seismic refraction measurements from Colombia, South America. During 1977 he was a research assistant at the Geophysical Institute, University of Karlsruhe, West Germany. Since 1979 he has been working at the U.S. Geological Survey, Menlo Park, where he has been engaged in seismic refraction investigations of continental structure.

Lawrence C. Morley received a B.Sc. in math and physics ('73) and an M.Sc. in geophysics ('75) - both from the University of Toronto. His master's research was on artificial source techniques in magnetotellurics. After M.Sc. graduation he worked with Chevron Geophysical in Calgary on seismic processing and field crews. He is currently a Ph.D. student in geophysics at Stanford.

Francis Muir is a senior research associate with Chevron at La Habra, where his special interests are seismic data acquisition, inversion theory and numerical methods. He is on leave of absence to Stanford as consulting professor in the Department of Geophysics for the 1981 winter quarter.

Richard Ottolini has been with the SEP since October 1977. He received a B.S. degree in earth and planetary sciences from M.I.T. in 1976 and an M.S. in geophysics from Stanford in 1978. He did reflection seismology research for GSI during the summer of 1977. He is interested in migration, the automated interpretation of geophysical data, deep continental seismic reflections and Chinese geophysics. During 1979 Rick spent six months studying at the Peking Language Institute, Peking, China. He is a Ph.D. candidate at Stanford, a member of SEG and AGU.

Chuck Sword received a B.S. in physics from Stanford University in physics in 1980. That summer he worked at Marathon Oil Company's Denver Research Center, where he helped process experimental marine data and implement a migration scheme. In September of 1980 he joined the SEP, and is currently working toward his Ph.D. in geophysics.

Jeff Thorson received a B.S. degree in geology from the University of Washington in 1973 and an M.S. degree in geophysics from the University of Houston in 1975. He has worked for Getty Oil Company as an interpreter and in the field as a company representative on various seismic surveys. He is a member of SEG and EAEG, and is the recipient of an N.S.F. graduate fellowship.

Mathew J. Yedlin received his Ph.D. degree in geophysics from the University of British Columbia in 1976. His thesis research involved the application of disk ray theory to anisotropic media. Post-doctoral research, during 1978-79, at both the University of Alberta and the Institute of Geological Sciences at Edinburgh concerned the development of ray-tracing techniques in arbitrarily anisotropic media. While on a post-doc at the SEP in 1980-81, Mat studied reflection processing.

SEP PHONE DIRECTORY

Pat Bartz	415-497-1703
Jon Claerbout	497-3717
Thierry Bourbie	497-2839
Rob Clayton	497-9580
Alfonso Gonzalez-Serrano	497-0463
Dave Hale	497-0253
Bert Jacobs	497-1319
Larry Morley	497-1250
Rick Ottolini	497-1250
Charles Sword	497-3719
Jeff Thorson	497-1319

Sponsors of the Stanford Exploration Project 1980-1981

AGIP S.p.A.

+Ing. Dino Fenati
Seas -Cont
P.O. Box 4174
20100 Milan
Italy

Amoco Production Research Co.

J.B. Cameron
+K.R. Kelly
P.O. Box 591
Tulsa, Oklahoma 74102
918-660-3000
*Heloise Bloxsom Lynn
P.O. Box 3092
Houston, Texas 77001
713-652-5222

ARAMCO Overseas Company

+Kieran J. Thompson
C/O G.S.I.
Canterbury House
Sydenham Road
Croydon, Surrey, CR9 2LS
England
01-686-0666

Atlantic Richfield Company

**Nick Carayannopoulos
Ed Neitzel
P.O. Box 2819
Dallas, Texas 75221
214-424-3511

British Petroleum Trading Limited

+D. Northwood
Britannic House
Moor Lane
London EC2Y 9BU
England
01-920-6773

Chevron Oil Field Research Co.

D.S. Tudor
Don C. Riley
+*Francis Muir, Chairman,
Steering Committee
P.O. Box 446
La Habra, California 90631
213-694-7000

Cities Service Company

+*Brian Dent
Box 3908
Tulsa, Oklahoma 74102
918-561-5393

Compagnie Generale de Geophysique

+Dominique Michon
B.P. 56
6, Rue Galvani-91301
Massy
France

CONOCO

Jerry Ware
Steve Hill
+Al Benson
Drawer 1267
Ponca City, Oklahoma 74601
405-767-3456

Digicon

Edward Prince
Philip S. Schultz
+John W.C. Sherwood
3701 Kirby Drive
Houston, Texas 77098
713-526-5611

Exxon Production Research Co.

+*John W. Dunkin
P.O. Box 2189
Houston, Texas 77001
713-965-4604

+Project Contact

*Members of Steering Committee

Geophysical Company of Norway A.S.

+Lars Sonneland
 Rektor Natvig-Pedersensvei 29
 Postboks 2508, Ullandhaug
 N-4001 Stavanger
 Norway
 045-55-000

Geophysical Service, Inc.

Danny Ong
 +Cam Wason
 MS 966
 P.O. Box 5621
 Dallas, Texas 75222
 214-238-3379

Getty Oil Company

+F.W. Lau
 David L. Mitchell
 Steven R. Rutherford
 Exploration and Production
 Research Center
 P.O. Box 42214
 10201 West Park
 Houston, Texas 77042
 713-972-1744

Gulf Research & Development Co.

+Mike Parkinson
 P.O. Drawer 2038
 Pittsburgh, Pennsylvania 15230
 412-665-6843

IBM

+Jeno Gazdag
 Palo Alto Scientific Center
 1530 Page Mill Road
 P.O. Box 10500
 Palo Alto, California 94304
 415-855-3143

Japan Petroleum Exploration Co., Ltd.

+Takeshi Ikawa
 Geophysical Headquarters
 6-1 Ohtemachi 1-Chome
 Chiyoda-Ku
 Tokyo 100
 Japan
 03-201-7571

Koninklijke Shell

A.J. Akveld
 +Martin Minderhoud
 Exploratie en Produktie
 Laboratorium
 Volmerlaan 6
 Rijswijk (ZH)
 The Netherlands

Marathon Oil Company

+Louis J. Shamey
 +Robert D. Mager
 Physics & Math Dept. Res. Div.
 Box 269
 Littleton, Colorado 80160
 303-794-2601

Mobil Research & Development Corp.

E.B. Loutherbak
 +Manus R. Foster
 +Ralphe Wiggins
 3600 Duncanville Road
 Box 900
 Dallas, Texas 75221
 214-333-6111

Occidental Exploration & Production Co.

+C.G. Fisher
 R.H. Vaughan
 5000 Stockdale Highway
 Bakersfield, California 93309
 805-395-8356

Petty-Ray Operations

+Wulf Massell
 John Whittlesey
 P.O. Box 36306
 Houston, Texas 77036
 713-774-7561

Phillips Petroleum

+B.O. Buell
 71C
 Phillips Research Center
 Bartlesville, Oklahoma 74003
 918-661-3171

Prakla-Seismos GMBH

+Dietrich Ristow
 Box 4767
 D-3000 Hannover
 Haarstrasse 5
 West Germany

Seismograph Service Corp.

+S.W. Schoellhorn
Box 1590
Tulsa, Oklahoma 74102
918-627-3330

SNEA (Elf Aquitaine)

+Claude Richard
Departement des Techniques
et Recherches Geophysiques
Tour Generale
5, Place de la Pyramide
Quartier Villon
92800 Puteaux
France

Sunmark Exploration Company

+Charles Barron
*Joe Sharp
David Dees
600 N. Central Expressway
Richardson, Texas 75080
214-699-3255

Superior Oil Company

+Louis Castro
T.A. Russell
12401 Westheimer
Houston, Texas 77077
713-497-1550

Teledyne Exploration

+Kevin M. Barry
5825 Chimney Rock Road
P.O. Box 36269
Houston, Texas 77036
713-666-2561

Texaco

Elmer Eisner
+R.J. Loofbourrow
P.O. Box 425
Bellaire, Texas 77401
713-666-8000

TOTAL (Compagnie Francaise
des Petroles)

G. de Lombreres
+C. Norotte
39 a 43 Quai Andre Citroen
75739 Paris Cedex 15
France
578-33-33

Union Oil Company of California

+*R.E. Helander
R.J. Stegemeier
P.O. Box 76
Brea, California 92621
714-528-7201

U.S. Geological Survey

+Donald Tompkins
345 Middlefield Road
Menlo Park, California 94025
415-323-8111

Western Geophysical Company

+Ken Lerner
*Walt Lynn
Aftab Alam
P.O. Box 2469
Houston, Texas 77001
713-789-9600