Research Personnel

Kamal Al-Yahya received a B.S. degree in physics from the University of Petroleum & Minerals, (Dhahran), 1980; joined ARAMCO after graduation and with an ARAMCO scholarship attended U.C., Berkeley, 1981-1983, receiving an M.S. in engineering geoscience. Still under ARAMCO sponsorship, he is now a Ph.D. student at Stanford and a member of the SEG.

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. During the 1979-80 year he was on sabbatical leave at the Department of Geodesy and Geophysics, Cambridge University. He is professor of geophysics at Stanford University and director of the Stanford Exploration Project.

Joe Dellinger received a B.S. degree in mathematics and another in geophysics from Texas A & M university in 1983, under Mobil and Amoco scholarships. After spending a summer working for Mobil DRD, he is now working toward a Ph.D. in geophysics at Stanford as a member of the SEP group under an NSF scholarship.

Yves Dezard graduated from the Ecole Polytechnique in Paris in 1982. The same year he worked for the Compagnie Francaise des Petroles on modeling and inversion of electromagnetic data. He joined the Institut Francais du Petrole at the end of 1982 and is working toward an advanced engineering degree in Geophysics. Yves's research concerned the prestack migration algorithms. His stay in Stanford is supported by the Compagnie Francaise des Petroles.

John Fawcett obtained a B.Sc. with Honors in Physics and Applied Mathematics from the University of Victoria in 1979. He obtained his Ph.D. in Applied Mathematics at the California Institute of Technology in 1983. His thesis was entitled: " I. Three Dimensional Ray-Tracing and Ray-Inversion in Layered Media II. Inverse Scattering and Curved Ray Tomography With Applications to Seismology". His thesis advisor was Professor Herbert Keller of the Department of Applied Mathematics, but he also worked under the supervision of Professor Robert Clayton of the Department of Planetary and Geological Sciences. He is currently a Post-Doctorate Fellow with Professor Joseph Keller's applied mathematics group at Stanford. His computational work is done with the SEP facilities and he is a participant in the SEP seminars.

Paul Fowler studied at Reed College and Portland State University, receiving a B.S. degree in mathematics and earth sciences in 1981. During 1982 he worked as a seismologist for the U.S. Army Corps of Engineers. He is currently working toward a Ph.D. in geophysics at Stanford and is the recipient of an NSF graduate fellowship. He is a student member of SEG, EAEG, AGU, and SSA.

William Harlan received a B.S. in geophysics from Texas A & M University in 1981, under a scholarship from the SEG. During the summer of 1980, he worked as a seismic interpreter for Conoco in Midland, Texas. After graduation, he became a Conoco researcher, constructing an interactive three-dimensional ray-tracing package for the modeling and migration of horizon maps. In 1981 he joined the SEP as a Ph.D. candidate at Stanford. His research includes the application of estimation theory to the extraction of rock parameters from sparse and noisy data. Bill is participating in a student exchange program and is working at the Institute Français du Pétrole, under the supervision of Dr. Patrick Lailly.

Patrick Lailly works at the Institut Français du Pétrole and as is a co-author of an article in this SEP report. He received his engineering degree from the University of Toulouse in 1972, a diploma from the University of Paris in 1973, and a doctorate degree in applied mathematics from the University of Paris in 1976. He was a researcher at I.N.R.I.A. from 1973 to 1980, dealing with the forward and inverse problems in exploration seismology. Since 1980 he has been at the I.F.P. where he is the group leader for modeling and inversion in the Geophysics and Instrumentation Department. He teaches wave propagation in the earth at the University of Paris and the Ecole Nationale Supérieure du Pétrole et des Moteurs.

Stewart A. Levin received a B.A. in Mathematics from Princeton in 1975 and an M.S. in Mathematics in 1978 from Stanford. From 1979-1982 he worked at Western Geophysical, Houston, as a Senior Research Geophysicist. He joined the SEP in September 1982.

Zhiming Li received a B.S. in geophysics from the East-China Petroleum Institute in 1982. His thesis included (1) Maximum Entropy Deconvolution and (2) the Relationship between Partial Correlation Coefficients and the Reflection Coefficients. Before coming to Stanford, he was a graduate student of the Peking Graduate School of E.C.P.I. He is currently a Ph.D. student and a member of SEP, SEG.

Peter Mora received a B.Sc. degree in geophysics (1978) and a B.Sc. Honours degree (1979) from the University of Adelaide, Australia. His Honours thesis involved 2D ray tracing to study moveout functions and interval velocities. He worked for Esso, Australia, as a geophysicist and programmer and later consulted to Delhi Petroleum developing forward modeling software including ray tracing and finite difference schemes. He is currently a Ph.D. student in geophysics at Stanford, working with the SEP.

Francis Muir studied mathematics at Balliol College, Oxford, from 1943 to 1950. In 1954 he joined Seismograph Service Limited where he was employed in research and as a field geophysicist on reflection and refraction crews in the U.K., Algeria, Niger, Nigeria, Papua and Australia. He joined West Australian Petroleum in 1962 as a field supervisor and staff geophysicist, and transferred to Chevron Oil Field Research Company in 1967 where he was senior research associate at the time of his retirement at the end of 1983. Francis was a consulting professor at Stanford for two quarters in 1978, a further quarter in 1981, and is holding that position for the first two quarters of 1984. In July 1984, he will devote his energies to building up a consulting and applications software development practice.

Richard Ottolini received a Ph.D. degree from Stanford (SEP-33) in 1983.

Joshua (Shuki) Ronen received a B.Sc. in physics and in geology from the Hebrew University at Jerusalem in 1981. During his B.Sc. studies he worked as a research assistant in the Physics Department and spent a summer at the Geology Department in the Hebrew University. He is now working toward a Ph.D. in geophysics at Stanford.

Daniel Rothman received an A.B. in applied mathematics from Brown University in 1979. He then worked for Western Geophysical Company as a research geophysicist in Houston, Texas, and London, England, developing and testing a variety of seismic data processing algorithms. In March, 1982 he joined the SEP and is currently working toward his Ph.D. in geophysics. Dan is a recipient of a fellowship from the Amoco Foundation. He is a member of SEG, EAEG, and AGU.

Chuck Sword received a B.S. in physics from Stanford University 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. He joined the SEP in September 1980 and is working toward a Ph.D. in geophysics. During the summer of 1982 he worked at Chevron Research in La Habra. While there he worked on computer graphics for the interpretation of seismic data and studied some forward-modeling methods. In September he left for nine months of study at the Gubkin Institute of Petrochemical and Gas Industry in Moscow. Chuck is expected back next summer to continue his work toward a 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 has been the recipient of an N.S.F. graduate fellowship.

John Toldi received a B.S. in physics and an M.S. in geophysics from Stanford University in 1978. He then worked for Chevron Geosciences, Houston, in seismic data processing and later in a programming and evaluation group. In January 1982 he joined the SEP and is currently working toward a Ph.D. in geophysics.

Ronald Ullmann received his B.S. in geophysics from Texas A & M University in 1981. During the summer of 1980, he worked for the Oklahoma Division of Getty Oil Company as an assistant geophysicist. The summer of 1981 he worked at Chevron Oil Field Research Company in La Habra, California, where he wrote computer programs to compute seismic wave velocities in saturated, porous rocks. He was a member of the SEP from September 1981 until December 1983.

Marta Jo Woodward received a B.A. in chemistry from the University of California at San Diego in 1974 and an M.B.A. from the University of Santa Clara in 1981. From 1978 through 1982 she worked for the U.S. Geological Survey in Menlo Park. She has been a graduate student in geophysics at Stanford since 1982 and a member of the SEP since September 1983.

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