ERRATA:

Fundamentals of Geophysical Data Processing

1) p. 6, Exercise 2. should read: "If $x_t = \cos \omega_0 t$, where t takes on integral values, $b_t = (b_0, b_1)$, and....."

2) p. 38, last two lines:

next to last line: "$e^{i\omega_0}$" should be "$-e^{i\omega_0}$".

last line: "$e^{-i\omega_0}$" should be "$-e^{-i\omega_0}$".

3) p. 39, first line of text should read: "now $[1,-(2 \cos \omega_0)$....."

4) p. 40, equation (2-6-2) should read

$$\text{" } \bar{P}\left(\frac{1}{Z}\right)P(Z) = \frac{1/Z - 1/Z_0}{1 - 1/(Z\bar{Z}_0)} \frac{Z - 1/\bar{Z}_0}{1 - Z/Z_0} \text{ "}$$

5) p. 75, equation in Exercise 3. and line 2 of Exercise 4.: upper case "P" should be lower case "p".

6) p. 110, equation referenced in Exercise 1. should be "(6-1-25)".

7) p. 114, equation (6-3-3) should read " $E = \sum_{i=0}^{n} x_i^2$ ".

8) p. 118, equation (6-4-11): rightmost vector should be primed.

9) p. 119, seventh line from bottom of subroutine in Figure 6-1 should read "IROW=N-I" not "IROW=N-1".

10) p. 130, " f_n " in second line from bottom should be " f_m ".

11) p. 159, Figure 8-10, fifth line of program should read "DO 330 K=2,N".

12) p. 166, Exercise 2 should show dots over first "H" and second "E".

13) p. 166, Exercise 6: Second "=" should be "+".

14) p. 167, Exercise 7, "Hints," first line:

" $\nabla p - pg$ " should be " $-\nabla p - pg$ "

15) p. 167, Exercise 7, "Hints," third line: remove dot above "p".

16) p. 173, equation following equation (9-3-26): move term "cos θ" to numerator.

17) p. 237, second line of text: "P(x,z/2v)" should be "P(x,2z/v)".

18) p. 252, equations (11-3-12a and -12b): move four "Q" terms in denominators to level of numerators.

19) p. 261, equation (11-4-23): denominator should read " $e_0^- - e_0^+$ ".

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*by Jon F. Claerbout, 1976: New York, McGraw-Hill.

RESEARCH PERSONNEL

David Brown received his B.S. in physics and M.S. in geophysics from Stanford in 1977. When not visiting the SEP, he is a graduate students in applied mathematics at Caltech in Pasadena. He is a member of 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 1974, 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. In 1977, he was elected a Fellow of the American Geophysical Union. He is professor of geophysics at Stanford University and director of the Stanford Exploration Project. During 1979-80 he is on sabbatical leave at the Department of Geodesy and Geophysics, Cambridge University.

Robert W. Clayton received a B.A. degree in engineering science from the University of Toronto in 1973, and an M.S. degree from the University of British Columbia in 1975. His M.S. thesis was on the deconvolution of suites of teleseismic earthquake recordings. He is currently a Ph.D. candidate in the department of geophysics at Stanford University.

Alfonso Gonzalez-Serrano received his B.S. (Licenciado) degree in oceanography from Universidad Autonoma de Baja California, Mexico. His undergraduate thesis was a structural model for Todos los Santos Bay, using gravity and magnetics data. He is currently a graduate student at Stanford University in the Geophysics Department and is the recipient of a graduate scholarship from Cosejo Nacional de Ciencia y Tecnologia. 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. degree in physics from MIT. He is now working toward his Ph.D. in geophysics from Stanford and holds a National Science Foundation fellowship. During the summer of 1979 he worked on migration programs for Atlantic Richfield. Research interests include deconvolution, migration in laterally varying media, the stability of migration programs, and the direct inversion of seismic records to get velocity information.

Einar Kjartansson received a B.S. in physics and mathematical sciences from Denison University in 1976 and an M.S. in geophysics from Stanford University in January 1978. He was employed by the National Energy Authority of Iceland using electrical methods in the exploration for geothermal resources during the summers of 1975 and 1976. At Stanford he has been associated with both the Stanford Rock Physics Project (SRP) and SEP. His current research interests center around seismic wave attenuation. During 1977-78 he was the recipient of the Cecil and Ida Green Fellowship in geophysics. He is currently a Ph.D. candidate at Stanford University and is a member of SEG and AGU.

George 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, but he is currently studying reflection processing while on a sabbatical leave at the SEP.

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. Since August, 1979, he has been studying at the Peking Language Institute, Peking, China. He will return sometime in 1979 to continue work toward his Ph.D. at Stanford. He is a member of SEG and AGU.

Robert H. Stolt received his Ph.D. in high energy physics at the University of Colorado in 1970. His thesis research involved the physics of para particles. Post-doctoral research during 1970-71 at the University of Colorado concerned the development of a theory of composite particles. In July of 1971, he joined the Exploration Research Division of Continental Oil Co., where he now holds the title of theory group leader. During 1979-80 he is on leave from CONOCO to direct the Stanford Exploration Project.

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.

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