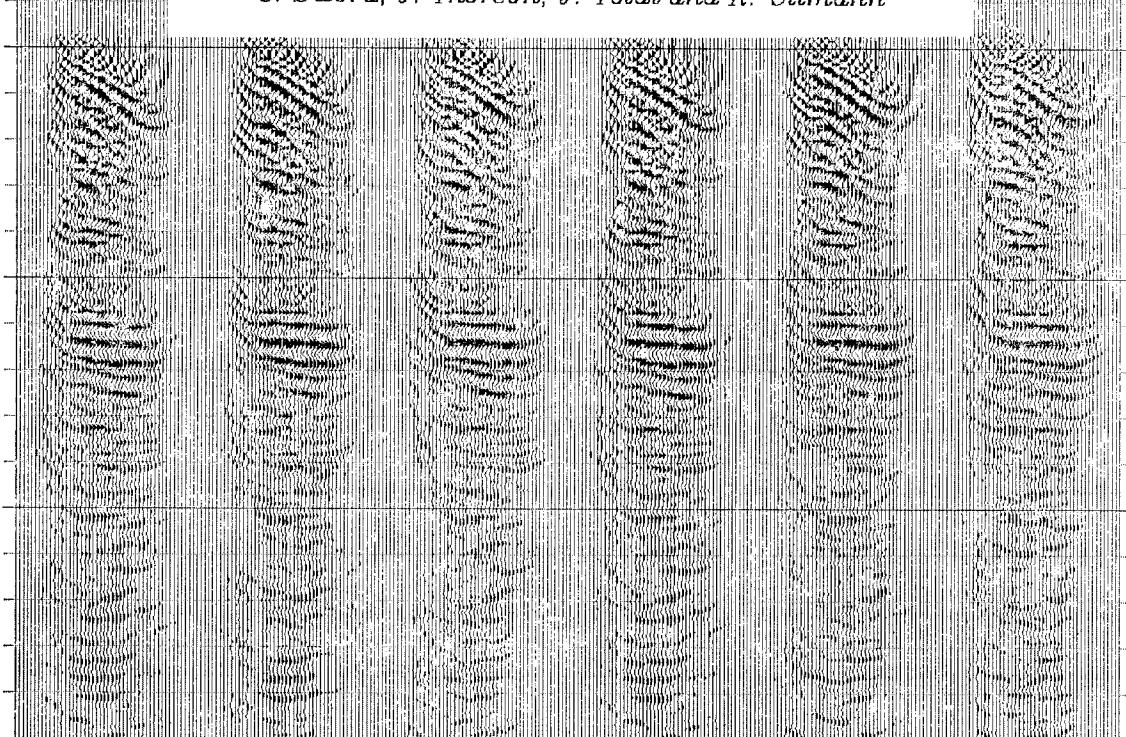


STANFORD EXPLORATION PROJECT

Report Number 30

May 1982

*By: J. Claerbout, A. Gonzalez-Serrano, D. Hale,
B. Harlan, A. Jacobs, R. Ottolini, J. Ronen, D. Rothman,
C. Sword, J. Thorson, J. Toldi and R. Ullmann*



Copyright © 1982

by the Board of Trustees of the Leland Stanford Junior University

Stanford, California 94305

Copying permitted for all internal purposes of the Sponsors of
the Stanford Exploration Project

SEP-30 --- TABLE OF CONTENTS

Migration Before Stack

<i>Claerbout J.F.</i> ,	Continuation of Moveout Corrected Radial Traces	1
<i>Jacobs A.</i> ,	Imaging Common Shot Gathers.....	7
<i>Hale D.</i> ,	Migration of Non-zero-offset Sections.....	29
<i>Ottolini R.</i> ,	Migration of Constant Offset Sections.....	43
<i>Sword C.</i> ,	Improvements in Constructing Seismic Images Using CDR	63

Migration and Stacking Techniques

<i>Thorson J.R.</i> ,	Weighting and Extrapolation Schemes for Stacking	77
<i>Ronen J.</i> ,	Stolt Migration; Interpolation Artifacts.....	95
<i>Harlan B.</i> ,	Avoiding Interpolation Artifacts in Stolt Migration	103
<i>Toldi J. and Hale D.</i> ,	Data Dependent Absorbing Side Boundaries	111

Decon, Q, and Separation

<i>Claerbout J.F.</i> ,	Envelope Sensing Decon.....	121
<i>Hale D.</i> ,	Q-adaptive Deconvolution	133
<i>Claerbout J.F.</i> ,	Imperfectly Separable Models	159

Velocity Estimation

<i>Gonzalez A. and Claerbout J.F.</i> ,	Linear Velocity Spectrum.....	169
<i>Gonzalez A.</i> ,	Modified Radial Coordinates for RMS Velocity Estimation.....	197
<i>Ottolini R.</i> ,	Enhancing Velocity Analysis by Prestack Partial Migration of Radial Trace Sections.....	201
<i>Jacobs A. and Claerbout J.F.</i> ,	Throw Away Your Paper Sections	207

Love and Shear Waves

<i>Sword C.</i> , "Sideways Continuation" of Dispersive Waves	211
<i>Sword C.</i> , Some Thoughts on Looking for S-P Conversions.....	219

Hardware

<i>Sword C. and Thorson J.R.</i> , Description of the SEP Computer Facilities	225
---	-----

Imaging the Earth's Interior

<i>Claerbout J.F.</i> , 0.1 Title Page	233
<i>Claerbout J.F.</i> , 0.2 Contents.....	235
<i>Claerbout J.F.</i> , 0.3 Titles and Headings	237
<i>Claerbout J.F.</i> , 0.4 Preface.....	239
<i>Claerbout J.F.</i> , 0.5 Introduction.....	243
<i>Claerbout J.F.</i> , Chapter 1: Introduction to Imaging	247
<i>Claerbout J.F.</i> , Chapter 2: Wavefield Extrapolation by Finite Differences.....	280
<i>Claerbout J.F.</i> , Chapter 3: Offset, Another Dimension	317
<i>Claerbout J.F.</i> , Chapter 4: The Craft of Wavefield Extrapolation	355
Research Personnel.....	387
SEP Phone Directory.....	390