

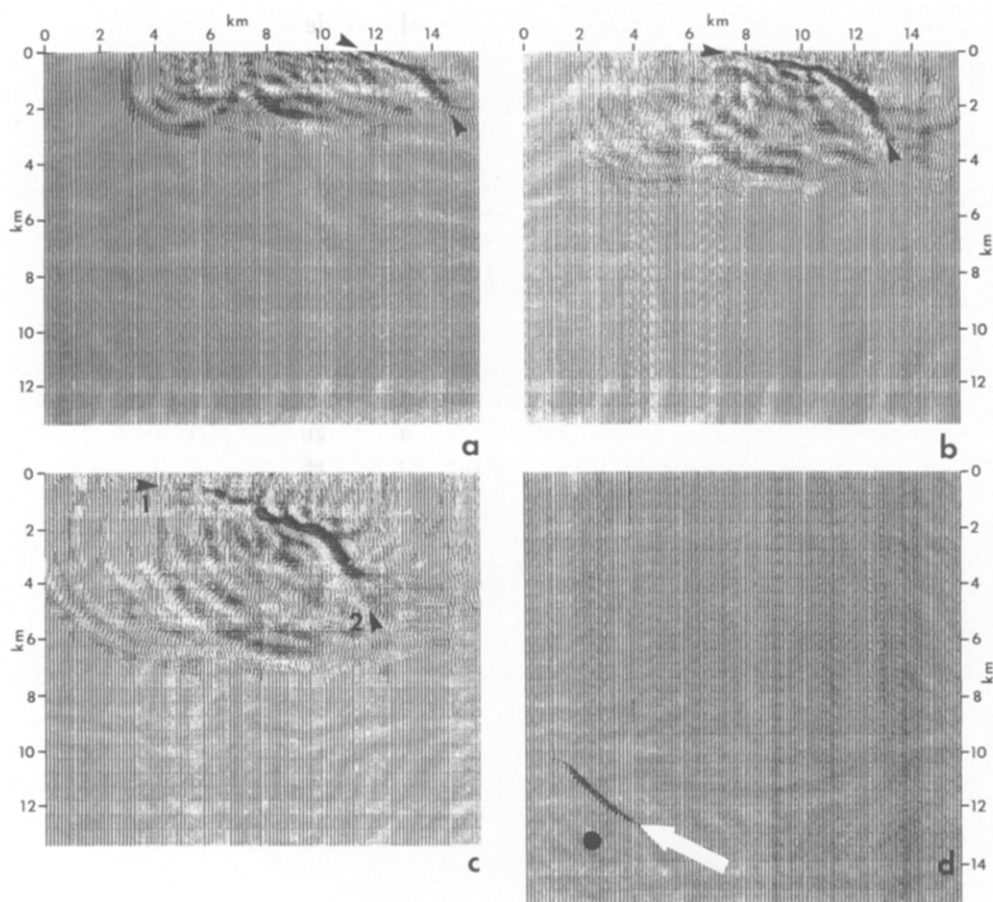
ERRATA

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IMAGING OF EARTHQUAKE SOURCES IN LONG VALLEY CALDERA, CALIFORNIA, 1983

BY GEORGE A. McMECHAN, J. H. LUTGERT, AND W. D. MOONEY

On page 1013, the lower part of Figure 4d was blackened out during the final printing. As this is a key figure whose clarity is important to the evaluation of the method, it is here reproduced in its entirety.



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NONLINEAR EARTHQUAKE LOCATION: THEORY AND EXAMPLES

BY CLIFFORD H. THURBER

The equations for the steps leading up to the final expressions for the second-order partial derivatives contain a number of typographical errors, many of them obvious; the final expressions themselves are correct, however. The corrected equations are shown below:

$$t = \frac{1}{V_0} [(x_1 - x_0)^2 + (y_1 - y_0)^2 + (z_0 - z_1)^2]^{1/2}$$

$$\begin{aligned}\frac{\partial t}{\partial x_1} &= - \frac{\sin \theta \cos \phi}{V_0} \\ \frac{\partial t}{\partial y_1} &= - \frac{\sin \theta \cos \phi}{V_0} \\ \frac{\partial t}{\partial z_1} &= - \frac{\cos \theta}{V_0}\end{aligned}\tag{12}$$

$$\begin{aligned}\frac{\partial t}{\partial x_1} &= \frac{1}{V_1} \frac{(x_1 - x_c)}{[(x_1 - x_c)^2 + D_1^2]^{1/2}} \\ \frac{\partial t}{\partial z_1} &= \frac{1}{V_1} \frac{D_1}{[(x_1 - x_c)^2 + D_1^2]^{1/2}}\end{aligned}\tag{17}$$

$$\frac{\partial t}{\partial x_1} = \frac{1}{V_0} \frac{(x_c - x_0)}{[(x_c - x_0)^2 + D_0^2]^{1/2}}\tag{18}$$

$$\begin{aligned}\frac{\partial^2 t}{\partial z_1^2} &= \frac{1}{V_0 S_1} \cos \theta_0 \left(\cos \theta_1 - \sin \theta_1 \frac{\partial x_c}{\partial z_1} \right) \\ \frac{\partial^2 t}{\partial x_1 \partial z_1} &= \frac{1}{V_0 S_1} \sin \theta_1 \cos \theta_0 \left(1 - \frac{\partial x_c}{\partial x_1} \right)\end{aligned}\tag{19}$$

$$\frac{\partial x_c}{\partial x_1} = \frac{V_0 S_0 \sin^2 \theta_1}{V_0 S_0 \sin^2 \theta_1 + V_1 S_1 \sin^2 \theta_0}\tag{22}$$

I thank Steve Roecker for pointing out most of these errors.