Preface

We aspire to new standards for reproducible research. Alas, this paper report does not yet meet the standards, but we hope the follow-on electronic report does meet them. Here is the definition of our standards: Each figure caption will terminate with one of the three marks, [R], [CR], and [NR]. These mean

R means we consider the figure to be Reproducible from the programs, parameters, and data, included in the electronic document, and that the figure was destroyed and rebuilt by a global build command run by someone other than the author. Also, the SEP staff has made some attempt to destroy intermediate results so the figure was not rebuilt in a trivial manner.

CR denotes Conditional Reproducibility. The author certifies that the commands are in place to reproduce the figure if certain resources are available. SEP staff have not attempted to verify the author's certification. To find out what the required resources are, you need to press the caption pushbutton which will show you the contents of the author's disclaimer file (named NAME.warning) which tells you what nonstandard resource you need. For example, you might need a large or proprietary data set. You might need a super computer, or you might simply need a large amount (hour or more) of time on a workstation. We define the "standard resource" to be a UNIX workstation with Fortran, C, X-Window system, and the software on our CD-ROM.

NR denotes Non Reproducible. This class of figure is considered non reproducible. Figures in this class are scannings and artist's drawings. Outputs from proprietary software systems should be labeled NR unless the auther certifies it CR meaning that the author certifies that our disk contains absolutely complete instructions on how to reproduce the plot using the proprietary system described in the NAME.warning file.

Captions contain a pushbutton (box containing words). The words identify the the figure name and point to the file-system location of programs, data, and warning file. Additionally, in the electronic report, the pushbutton if pressed, will initiate some kind of dialog, however humble, with the software.

This paper report is printed at the time we are grappling with the Conditionally Reproducible concept and we have not yet put it into practice. Hopefully, the captions in the follow-on electronic document will fully implement the goals stated above.

Jon Claerbout, Martin Karrenbach, & Dave Nichols