

# History of Open-File Report 99-23

## February 1999. Original release of Open-File Report 99-23, Version 1.0

The original document simply comprised the full program manual for HYPOELLIPSE as configured at the end of 1998. It did not include any source code or sample runs of the program.

## April 2012. Release of Version 1.1

The original document was revised to clarify and amplify some parts of the program manual and was supplemented with additional material:

### Revisions to Version 1.0

#### Chapter 1. Introduction to HYPOELLIPSE

Section 1.1. Added reference to initial publication of HYPOELLIPSE. Deleted link to program source code on expired webpage. Source code is now available as part of this document in both UNIX and PC/DOS versions.

Section 1.2. Added changes made to program in February 1999 and February 2000.

#### Chapter 2. HYPOELLIPSE Users Guide

Section 2.2.3.6. Added sentence to end of first paragraph clarifying which velocity model will be used by each station.

Section 2.2.5.5. Added sentence to end of paragraph clarifying station code to be used.

#### Chapter 4. Magnitude Determinations

Section 4.2.1. Added figure with caption at end of section.

#### Chapter 6. Generating Travel-Time Tables with Program TTGEN

Section 6.1. Added phrase to original paragraph clarifying that TTGEN generates a travel-time table for a flat-earth model. Added paragraph and figure discussing the distance range over which a flat-earth model is a suitable approximation.

#### Chapter 10. References

Added initial publication of HYPOELLIPSE (Lahr, 1979) and publications mentioned in new discussion in Chapter 6 on applicability of a flat-earth velocity model.

### Additions to Version 1.0

Overview providing introduction to document and relating historical context for origin and evolution of HYPOELLIPSE

Quick-start pdf manual (8 pages)

Program source codes for both UNIX and PC/DOS platforms

Control, input and output files for test and sample program runs on both platforms.

UNIX source code for TTGEN, a program for creating local (flat-earth) travel-time tables

Files to compile and run TTGEN and to illustrate a sample run