

# **MAPPING EMIGRANT TRAILS MANUAL**

**Prepared by the  
Mapping and Marking Committee**

**Fifth Edition  
(Revised and Expanded)  
June 2014**

**Published by the  
Oregon-California Trails Association  
P.O. Box 1019  
Independence, MO 64051-0519  
816-252-2276  
[octa@indepmo.org](mailto:octa@indepmo.org)  
[www.octa-trails.org](http://www.octa-trails.org)**

**© Copyright 1993,1994,1996,2002, 2014  
By Oregon-California Trails Association  
All Rights Reserved**

(This page intentionally blank)

## PREFACE

Since first published in 1993, OCTA's *Mapping Emigrant Trails* (MET) Manual has been in use for over two decades. The original concept for an emigrant trail mapping manual, and a preliminary edition, came from OCTA member Tom Hunt. MET also is indebted to John Latschar of the National Park Service, and an OCTA member, for first recommending the use of trail classification categories. Subsequently, Don Buck guided the MET Manual, as editor and principal contributor, through several revisions and expansions (1994, 1996, & 2002). Along the way, numerous OCTA mappers and researchers contributed to these improvements or critiqued the various revisions. To name the more prominent, Randy Brown, Leslie Fryman, Andy Hammond, David Johnson, Michael Scialfa, Richard Silva, Rose Ann Tompkins, and Don Wiggins.

Over the decade since the Fourth Edition of MET in 2002, advances in technology such as satellite-based geo-positioning systems and computer-based mapping software, along with new thinking on additional ways to document and classify historic trails, brought about the need for a substantial fifth revision of MET. To meet this need, Dave Welch, chair of OCTA's Mapping and Marking Committee, organized a mapping conference held in late October of 2012 on the University of Utah campus in Salt Lake City. The National Trails Intermountain Region Office sponsored the conference.

This conference resulted in organizing teams around mapping topics that culminated in a number of individual but related components. These components, in turn, morphed into lettered parts (Part A, Part B, Part C, etc.) with associated appendices. The sum total of these parts became the current Revised Fifth Edition of MET. To reach a larger audience, all of these component parts and their related appendices are available online at OCTA's website ([octa-trails.org](http://octa-trails.org)). A hardcopy version of this revised MET Manual will be available at OCTA's headquarters.

Much of the Revised Fifth Edition is a result of collaborative efforts. Dave Welch formed a publication guiding team, with Don Buck and John Winner, to steer the revised MET Manual to completion. Those OCTA members active in the various teams were Bob Black, Don Buck, Jere Krakow, Jim & Denise Moorman, John Murphy, Dee Owens, Larry Schmidt, Dave Welch, Bruce Watson, Lloyd Johnson and John Winner. Kimberly Finch of the National Park Service designed the outside covers.

Over the past two decades, the MET Manual has gained widespread use and acceptance not only by OCTA's trail mappers but also by other trail associations and public land-use agencies involved in protecting and preserving emigrant trails. With the publication of the Revised Fifth Edition of MET, the intent is to carry on that tradition of mapping excellence.

## INTRODUCTION

The first edition of OCTA's *Mapping Emigrant Trails* (MET Manual) was published in 1993. It quickly became the standard for historic trails research by OCTA members and other trail organizations. Federal and state agencies have adopted the methodology for their work locating, classifying, and protecting trails. Underlying the MET Manual was the premise that locating and documenting historic emigrant trails with measured confidence was the first step toward preserving those trails.

The revised MET Manual updates some of the original material, eliminates some dated information, and relegates other items to appendices. The most significant changes are the addition of whole new information categories that, along with the original core materials, have been formatted into nine lettered "Parts" (A through H). In addition, thirteen appendices have been created, some revisions of previous appendices, for ready reference. The purpose of formatting MET into "Parts" is to create essentially standalone sections that allow the researcher and mapper to focus on their area of interest. A brief description of each "Part" follows.

- **Part A**, "Investigative Procedures and Trail Classifications," is basically the first fifteen pages of the 1993 MET Manual, expanded and updated. It describes research principles and methods and provides guidelines for field verification. Importantly, some emigrant trail classification categories and amplifying explanations were improved. Descriptions and definitions have been refined as a result of lessons learned over the years, but they remain essentially the same as in the earlier manual.
- **Part B**, "Overview of GPS and Mapping Software" is provided for those who are new to mapping and would like to know more about the technologies employed. As a background, it provides a short history of trail mapping. The Global Positioning System (GPS) is then described followed by a discussion of the maps that we use (General Land Office survey maps and various USGS maps). A general description of mapping software is then presented along with an introduction to the Terrain Navigator Pro (TNP) mapping software. This is not an instruction manual for either GPS or mapping software.
- **Part C**, "Planning and Executing a Mapping Project" is a "how to" guide for a mapping project. It covers the basics of organizing a project, conducting research and field work, and mapping using TNP. Trail marking techniques and standards are described.

- **Part D**, “Setting Classifications” introduces new material that permits the setting of trails to be classified in a manner similar to that use for the trails themselves. The methodology focuses on the identification and evaluation of intrusions (buildings, storage tanks, roads, etc.) into the historic setting from a particular point on the trail.
- **Part E**, “Photo Documentation of Trails” provides a “how to” description of the procedure for documenting a site through multiple photographs with return visits to record the status over time.

In the near future, three additional MET publications are planned.

- **Part F**, “Trail Archaeology” reviews OCTA’s archaeology policy, applicable laws and regulations and methods for conducting field research. This is an important reference document that provides guidelines for field work to insure that the trails and associated sites and artifacts remain for the future researchers.
- **Part G**, “Use of Aerial and Satellite Images” demonstrates how these important resources can be used for both research and documentation. TNP includes aerial images and access to Google. Other Internet resources are also summarized.
- **Part H**, “National Register Nominations” describes the procedure for preparing and submitting a National Register of Historic Places nomination. This is an important tool for protecting trail resources.

Thirteen appendices provide additional information on subjects touched upon in the main text. The appendices are:

- Appendix 1: Documentary Sources for Overland Trails
- Appendix 2: Examples of the Composite Trail Description Method
- Appendix 3: Public Land Survey System
- Appendix 4: Trail Terminology
- Appendix 5: Plotting on USGS Topographic Maps
- Appendix 6: NHT Condition Category Definitions
- Appendix 7: Universal Transverse Mercator (UTM) Grid
- Appendix 8: Internet Map Sources
- Appendix 9: OCTA Policies
- Appendix 10: Artifact Research/Identification Resources

Appendix 11: Artifact Recording Forms

Appendix 12: Using and Plotting Magnetic Compass Directions

Appendix 13: Terrain Navigator Pro Basics

With this update we encourage all to take the first step toward becoming involved in mapping the historic trails. Mapping requires diverse skills that cover a wide-range of physical capabilities, but there is something for everyone. “Learning by doing” is a fundamental aspect of OCTA’s mapping programs.