MANUSCRIPT STYLE

A manuscript must be submitted as a double-spaced, continuously line-numbered Word document. The first page of the manuscript must include the paper’s title, a complete list of authors, and each author’s affiliation and mailing address. The body of the manuscript must include an abstract, in-text citations to any figures, tables, and supplemental files in chronological order, a references cited section, and figure and table captions.

Authors are responsible for providing manuscripts in which approved geological and other scientific terminology is used correctly and which have no grammar or spelling errors. Authors must check their manuscripts for accuracy and consistency in use of capitalization, spelling, abbreviations, and dates. You may elect to have a peer, freelance editor, or English editing service look over your paper prior to submission; a list of resources is available here.

Please feel free to use this manuscript template in .doc format as a base for your submission. GSA heading styles can be found in this template.

Abstract
A brief and objective abstract of no more than 250 words should present in capsule form the paper’s content and conclusions. A topic sentence should give the overall scope and should be followed by emphasis on new information. Omit references, figure or table callouts, and criticisms.

Organization
Precisely define the contribution at the outset and present it clearly in the fewest words possible (but avoid jargon), so that the reader may get a maximum of facts and ideas in a minimum of time. State the purpose, give a minimum of background, concisely present the data that led to the conclusions, clearly differentiate fact and inference, and present justifiable conclusions and, perhaps, further implications of the conclusions. Assume that the publication's readers are familiar with the general literature and need not be told basic principles; therefore, give only minimal background and reference material.

The manuscript should provide descriptions of methods and/or laboratory techniques sufficient for a reader to understand the way in which the data were collected. (More detailed methods, if appropriate, can be provided in an appendix or as supplementary information.) Do not describe standard methods in detail if references to the methods can be cited. Please avoid statements of future work or claims of priority.
Heading Styles

INTRODUCTION [FIRST LEVEL HEADING, BOLD, ALL CAPS]
This Is a Second Level Heading [Bold, Each Word Capitalized]
This is a Third Level Heading [Bold Italic, Each Word Capitalized]
This is a fourth level heading. It runs into the paragraph. [Bold Italic, Indented, Sentence Capitalization]
This is a fifth level heading. It also runs into the paragraph. [Italic, Sentence Capitalization, Indented]

Units of Measure

Use the International System of units (metric) in captions, illustrations, and text. Where English measurements are necessary, follow metric with English in parentheses.

Footnotes

Avoid footnotes and parenthetical statements. Textual footnotes that are deemed necessary should be numbered consecutively with superscripts and also typed double-spaced.

Captions

Make captions precise and explain all symbols and abbreviations used. Type captions in consecutive order, double-spaced. Do not put captions and figures on the same page.

Sample Locations

Authors must provide positional information on all locations where data have been collected, including sample sites and transect locations.

Journal editors expect that specific locations—in decimal degree format, with the associated projection information (e.g. WGS84 or NAD 27)—will be provided in data tables and/or figure captions, as appropriate, in addition to graphical representation on maps, so that all data, whether placed in a Supplemental file or submitted to a data repository, have locational metadata.

We recognize that sometimes (for example, in the case of proprietary data or sensitive mineral or fossil locations) it may not be appropriate to provide precise location information. In such rare cases, authors should explain the situation in their cover letter to the Science Editor, and provide as much location information as is possible.

If location information is imprecise or unknown (for example, in the case of archived samples in museum or other collections), authors should provide the current location of the material and any available information on provenance.

A basic location figure must be included with the manuscript where understanding the geospatial context of the research is necessary for evaluating the presented science; detailed sample locations can be provided in a supplementary file.

Appendixes

Title all appendixes (for example, APPENDIX 1. SAMPLE DESCRIPTIONS). Place appendixes at the end of the text before the References Cited.

References Cited

All references mentioned in the text, figures, captions, tables, and appendixes must be listed in the References Cited section. Click here for a printable reference guide with examples. Please note, regarding citations of sources from pre-print servers: GSA does not consider manuscripts that have not been formally accepted as equivalent to scientific advances published within the peer-reviewed literature. As such, GSA
discourages the citation of such works. Final decisions on allowable citations are in the purview of the editors.

**Mathematical Expressions**
Identify mathematical symbols -- for example, "lower-case alpha," "upper-case beta," "vector," "zero," "oh," "one," "el." Underline all variables (except vectors) to indicate that they are to be typeset in italics. Define your use of symbols in the text the first time each appears. Mathematical expressions and equations in text follow this format:

The relations of displacement, uplift, and rotation for this model are

\[
\sin = \frac{H}{L_0} \quad (1)
\]

and

\[
S = L_0 - L_1 \cos \phi = L_1 (1 - \cos \phi), \quad (2)
\]

where \( \phi \) is the angle of rotation, \( H \) is the amount of uplift, \( L_1 \) is the limb length, and \( S \) is the amount of displacement.

**Suggested Resources**


