Journal of the American Helicopter Society

AHS Journal Manuscript Specifications (For final submissions to the Journal)

Length

Final manuscripts for the *Journal* must be a concise as possible and, unless approved by the Associate Editor or Editor-in-Chief, should not exceed a maximum length of 44 pages of US letter size (8" x 11"). The text must be double-spaced, 12-point type, including abstract, references, appendices, equations, figures, tables, footnotes and any other supporting materials. Recommended fonts are Roman and Times Roman. A rule of thumb is that one figure or a table counts as one page toward the page count. Technical Notes are limited to the equivalent of nine double-spaced pages. Technical Notes must also comply with the general manuscript specifications given in this document.

Organization

The elements of the manuscript will be arranged in the following order: title, abstract, notation (nomenclature), introduction, main text (including figures, tables and equations), conclusions, appendices (optional), acknowledgments (optional) and references. A nomenclature section should always be provided unless the manuscript uses relatively few symbols, in which case the symbols can be defined in the text. All mathematical and other nonstandard symbols should be clearly identified as such.

Title

The title should be brief and concise (maximum of 12 words is allowed). Clever and catchy titles that might be appropriate for informal presentations at the Forum are not generally appropriate for archival publications. Avoid the use of acronyms, symbols, abbreviations, and punctuation marks (hyphens, slashes, colons and question marks). The use of acronyms in the title are particularly discouraged.

Author(s) Name

Place the author(s) full name below the manuscript title and include the author(s) official title, company affiliation, and simple address (city and state) on three lines below each author(s) name. Include an e-mail address. Do not include salutations, academic degrees, superfluous organizational levels within the company affiliation, or a full mailing address.

Source Footnote

If the paper was originally presented at an AHS Forum or a Specialist's Meeting, or was the recipient of an AHS or other award (i.e., the Nikolsky, Lichten, Cheeseman or Gessow awards), then this information is placed in a footnote at the bottom of the first page and should include the name of the meeting, the location and the date, for example, "Presented at the American Helicopter Society 52nd Annual Forum, Washington, D.C., June 4–6, 1996." or "This paper received the American Helicopter Society 1996 Robert L. Lichten Award."

Abstract

An abstract of no more than 150 words is required for all papers. It should consist of a single paragraph. It should be a summary of the work contained in the paper and should be complete in itself. It should not refer to figures in the paper nor should it cite any of the references. The abstract should indicate the subject dealt with in the paper and should clearly state the objectives of the investigation. Newly observed facts

and conclusions based on the content of the paper must be briefly stated. Readers should not have to read the paper to understand the abstract. Neither the abstract (nor the conclusions, see below) should contain equations, symbols, acronyms or any discussion of proposed future research.

Notation

A notation (nomenclature) is required for all submitted manuscripts. This section becomes optional <u>only</u> if a few symbols or if simple equations are used. In this case, the symbols should be defined in the text when they are introduced. If more than a few symbols or equations are used, a notation section should be included. It should be a list and must define all of the symbols used (including units). Place symbols in alphabetical order: English first, Greek next, the subscripts and superscripts. Do not define acronyms in the nomenclature. These should be defined in the text immediately after they are first introduced. All symbols should have units that are defined in a separate column next to the symbol. The metric or dual system (metric and English) should be used.

Introduction

The introduction should introduce the subject matter, provide some background, including a brief assessment of prior work by others (citing relevant references), and an explanation of how the paper contributes to the field. This section is not a summary of the paper and it must not contain conclusions. The introduction tells the reader what has been done on this subject in the past, what needs to be done, and how the present results relate to past work and present needs.

Main Text

Organize the main text under logical headings and subheadings. Do not number headings. Main headings are centered on the page, are set in bold-face type, and each word is capitalized. Subheadings begin at left margin above the text, are set in bold-face type, but only the first letter is capitalized. Sub-subheadings are set at the left margin on the first line of the paragraph and are set in italic type followed by a period. Use the third person voice. Avoid jargon, slang and commercialism. Use acronyms and footnotes sparingly. Use simple English prose in paragraph form wherever possible. Use parentheses and indented lists of numbered items sparingly. If a sequence of items needs to be set off by itself use the following examples as a guide:

For lists of items that are complete and/or multiple sentences, use numbers with only the first line indented. An example of a list is as follows:

- 1) This is an example of the first item on a list, but note that only the first line of each item on the list is indented.
 - 2) Item two follows item one.
 - 3) Item three, and any other items follow until the end of the list.

Alternatively, for lists of items given in sentence fragments, use numbers within the paragraph. An example is as follows: 1) Item one, 2) Item two, 3) Item three. The second type of list is preferred, and most lists will be converted to the this form by the typesetter.

Equations

Unless only a few equations are used, all equations should be numbered in the order that they are introduced in the main text. All equations must be referred to in the main text by their number. Examples would be: "As shown in Eq. (2), the measurements etc. etc..." or "Equation (2) shows the measurements etc. etc...". All Equations and/or symbols must be presented in a suitable form that can be understood, and for final copies of the manuscript clarity for the typesetter is essential to avoid typographical errors. Any special or non-standard symbols should be clearly identified. Variables are always italicized except for

multi-letter designations, which are not. For example, L for linear would be italicized but NL for nonlinear would be Roman. The symbol Re would be italicized because it is a variable. Greek math symbols are not italicized. The use of bold face symbols to denote vectors is discouraged.

Figures

Final figures must be provided in either Postscript or TIFF format. Other file formats will not be accepted by the publisher. The final figure will be typeset from the same electronic file provided by the author. Each figure must be numbered in sequence and must have a caption below the figure. A list of captions should be typed double-spaced on a separate sheet (not counted toward page limit). Overly lengthy captions containing legends or otherwise are discouraged. Each figure must be cited in numerical order in the text. Example of figure citations would be: "As shown in Fig. 4, the predictions etc. etc..." or "Figure 2 shows the predictions etc. etc. ...". In the Journal, most figures will be reduced to a single column width of about 3.25 inches (73 mm). At this reduced size all information on the figures must be readily legible. Axes, tick marks, and leaders should be no smaller than 6 points (2 mm) at the reduced scale. Plotted curves should normally be 1 point in thickness. Symbols sizes should be 6 point or larger at the reduced scale. If a legend is required, then symbols or line types in the legend must be identical to those in the figure. Lettering on the figure must be at least 6 points at the reduced scale. Figures with data require appropriate labeling of all axes, including units. Figures should not include information that can better be placed in the caption. In some cases, figures may be included at double-column width. The same rules for line thicknesses and type size also apply at this reduction. Figures should be provided in black & white or grayscale. The Journal will publish figures in color, but the extra costs of production must be borne by the author. Grayscale images of those originally produced in color often do not reproduce well in the final paper and their use should be limited. However, grayscale can work successfully if care is taken to insure that only a few levels of gray are included, generally six or less.

Tables

The number of tables should be kept to a minimum. Each table should be simple and laid out with horizontal rules but no vertical rules. The top and bottom of each table is set off with a double rule. Beneath the column headings, a single rule is used to set off the tabulated numbers. Table footnotes should be placed under the bottom double rule and should be indicated by letters a, b, c, d, etc. Each table must have a number and a caption and should be cited in numerical order in the text. The methods of citing tables are the same as those for citing figures. Each table should be provided on a separate sheet and a list of table captions should be typed double-spaced on a separate sheet (not counted toward page limit).

Conclusions

The most important results of the paper should be summarized as a concise list of numbered items. Conclusions should be supported by development in the main text and no new material should be introduced in this section. If the paper did not result in specific conclusions, then the section may be entitled Concluding Remarks, or Recommendations, with brief summary comments as appropriate. No references or equations must be cited in the conclusions section.

Appendices

An appendix or appendices should be included only for highly specialized data, derivations, and so forth. Appendices should not be used to define symbols. The appendices should be numbered if more than one is used. Each appendix must be cited in the main text.

Acknowledgments

If used, one or more acknowledgments to contributors, a sponsor or technical monitor should be placed at the end of the paper, before the references section. Also include any research or project support/funding sources here.

References

All reference material should be grouped in the final section of the paper, numbered, and placed in the order cited in the text. The references should be cited in the text as: "This approach is discussed in Ref. 2. etc, etc.,..." or "Johnson (Ref. 3) showed that..." or "Reference 3 discusses the approach etc. etc.,..." Do not use the superscript citation style, such as "Johnson¹ showed that...". Only cite material that will be readily available to the reader. Do not include classified material, internal company memoranda, or reports that would be unavailable to the reader through normal library on on-line bibliographic retrieval sources. Do not include a reference section and a bibliography. Use the following styles for references:

For a book the book title should be italicized. Include the names of all authors with initials (the use of *et al.* is not acceptable for use in the reference list). The publisher and place of publication should be stated. Inclusive page numbers and/or chapter number should always be included. Examples are:

¹Johnson, W., *Helicopter Theory*, Princeton University Press, Princeton, NJ, 1980, pp. 808–813.

²Leishman, J. G., *Principles of Helicopter Aerodynamics*, Cambridge University Press, New York, NY, 2000, Chapter 10.

For a section in a book the following style should be used:

³Friedmann, P. P., and Hodges, D. H., "Rotary-Wing Aeroelasticity with Application to VTOL Vehicles," *Flight-Vehicle Materials, Structures, and Dynamics*, edited by A. K. Noor and S. L. Venneri, Vol. 5, Part II, Chap. 6, American Society of Mechanical Engineers, New York, NY, 1993, pp. 299–391.

For a journal reference the title of the journal is italicized. All authors must be stated (again, do not use *et al.* for multiple authors). The volume, number and page numbers of the article must be given. The following style should be used:

⁴Chopra, I., "Dynamic Stability of a Bearingless Circulation Control Rotor Blade in Hover," *Journal of the American Helicopter Society*, Vol. 30, (4), Oct. 1985, pp. 40–47.

⁵Marchman, J. F., III, and Uzel, J. N., "Effect of Several Wing Tip Modifications on a Trailing Vortex," *Journal of Aircraft*, Vol. 9, (9), 1972, pp. 684–686.

For a report, the following style should be used:

⁶Carpenter, P. J., and Friedovich, B., "Effect of a Rapid Blade-Pitch Increase on the Thrust and Induced-Velocity Response of a Full-Scale Helicopter Rotor," NACA TN 3044, 1953.

⁷Johnson, W., "A Comprehensive Analytical Model of Rotorcraft Aerodynamics and Dynamics, Part I: Analytical Development," NASA TM 81182, 1980.

For a conference paper, the paper number (where available) and proceedings volume information must be given. For AHS meetings, the location of the meeting should be given. Examples of this style are:

⁸Sadler, S. G., "A Method for Predicting Helicopter Wake Geometry, Wake-Induced Inflow and Wake Effects on Blade Airloads," American Helicopter Society 27th Annual Forum Proceedings, Washington, DC, May 1971.

⁹Brentner, K. S., and Jones, H. E., "Noise Prediction for Maneuvering Rotorcraft," Paper AIAA 2000–2031, 6th AIAA/CEAS Aeroacoustics Conference Proceedings, Lahaina, HI, June 12–14, 2000.

Manuscript Package

The corresponding author must send the final manuscript package (after the review has been completed and a revision has been requested) to the Associate Editor in charge of the review process. A checklist of items to be included is given in a companion document. Authors must not send the final package to the Editor-in-Chief. All requirements for revisions that are stipulated by the editorial staff must be complied with at this stage. The final package will generally include detailed written responses to reviewer comments, stating what has been done to comply with the comments or why not (a rebuttal). The Associate Editor will then make a preliminary decision and recommendation on whether to publish the manuscript. The final decision on publication of the paper lies with the Editor-in-Chief.