



# **AHS INTERNATIONAL**

## **FORMAT REQUIREMENTS FOR SPECIALISTS' MEETINGS TECHNICAL PAPERS**

The requirements that follow help ensure that your paper will be well formatted for inclusion in the Proceedings of the Specialists' Meeting.

Meeting the date requested for receipt of your paper is very important. If your paper arrives late, you risk its not being included in Technical Specialists' Meeting Proceedings.

Note: Even though the document which authors create may exist only in electronic format and never actually be printed on paper, in these guidelines it will still be referred to as a "paper." The word "printed" should be interpreted as how the image of the document will look on either an electronic display or a piece of paper.

### **Hints for Paper Preparation**

When preparing your paper: Write it ... THEN format it.

Write the paper being fully aware of ultimately required formatting ... but don't spend unwarranted time formatting and reformatting as you are writing and rewriting.

Look at your final paper on someone else's computer screen.  
Be sure it looks the way you want it to look.

Print your final paper from someone else's computer on a black & white printer. If possible, make it into a PDF. Be sure it looks the way you want someone else to see it.

Before you come to the meeting, be sure to look at your presentation using an LCD projector. What looks good on a computer screen may not be readable when projected.

### **Top-Level Format Requirements**

- The paper should be formatted for printing on 8.5-inch by 11-inch paper. (European-sized pages should NOT be used. The use of electronic publishing should minimize the impact of this requirement.)
- Margins should be at 0.75 inches (top, bottom, and sides).
- A standard proportional font (such as Helvetica or Times) should be used throughout the paper.
- The font size in the title block is at the discretion of the author, but should never be less than 10 point. All of the rest of the paper should be 10 point.
- The title block and abstract should be centered across the width of the first page.
- Except for the Title Block, fully justified text throughout the paper is preferred.

- The body of a paper should be single-spaced and in two columns of equal width (with a 0.20 inch "gutter" between columns).
- The first page must include a Copyright Statement. The statement should be a footnote at the bottom of and within the left column.
- Elements of the paper plus the sections and subsections within the body of the paper should NOT be numbered or lettered.
- The titles for the elements of the paper plus the sections and subsections may be in bold or underlined, but should not be both.

## Organization

The paper should consist of the following elements. Except for the "Source Footnote," the elements should be arranged in exactly the following order:

- Title Block
- Source Footnote
- Abstract**
- Notation** (optional)
- Introduction**
- Main Body (including text, figures, tables, and equations)
- Conclusions**
- Appendix or Appendices** (optional)
- Acknowledgments** (optional)
- References**

When included in a paper, an element listed in **bold** should start with exactly the name shown.

## Description of Elements

### **Title Block:**

The Title Block should consist of the title itself and information on each author.

Title: The title should be brief and concise. Clever and catchy titles that are appropriate for informal presentations are not generally appropriate for archival publications. Avoid unnecessary acronyms, symbols, abbreviations, and punctuation (hyphens, slashes, colons and question marks).

Author Information: Place the author's(s) full name(s) below the title and include e-mail address, official title, employer, and simple address (city and state [and country for non-US authors]) on three separate lines below the author's(s) name. For multiple authors with the same employer, formatting approaches that minimize repeating the same information are encouraged (e.g., a block for the organizational name and address with names of authors evenly distributed above it, and footnotes for individual titles). Do not include academic degrees, sub-levels within the organization, or the full mailing address.

**Source Footnote:**

A footnote should be placed at the bottom of the left column of the first page to show the source of the paper. It should include the specific conference, the location, and the date. The second line should indicate copyright. Please refer to the example below:

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Presented at the American Helicopter Society Future Vertical Lift Aircraft Design Conference, January 18-20, 2012, San Francisco, California. Copyright © 2012 by the American Helicopter Society International, Inc. All rights reserved.

**Abstract:**

An abstract of approximately 150 words is required. It should consist of a single paragraph only. It should be a summary, not an introduction, and be complete in itself. It should not contain any numerical references to figures or references contained in the paper. The abstract should indicate the subject covered in the paper and should state the objectives of the investigation. Newly observed facts and conclusions must be stated in summary form. Readers should not have to read the paper to understand the abstract. The abstract should be centered across the width of the first page.

**Notation**

This section is optional if only a few symbols or simple equations are used. In this case, the symbols should be defined in the text when introduced. If more than a few symbols or equations are used, a Notation section should be included. It should list and define the symbols used (including units). Place the symbols in alphabetical order, English first, Greek next, and then subscripts. The metric and dual system (metric and English) should be used if possible. If used, this section is the first section in the two-column format.

**Introduction**

The introduction should introduce the subject, 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. It is not a summary. The introduction tells what has been done, what needs to be done, and how the present results relate to past work and present needs.

**Main Body**

Organize the main body under logical headings and subheadings. Do not number the headings. Main headings are centered on the page, subheadings begin at the left margin above the text, and sub-subheadings are set at the left margin on the first line of the paragraph. Use third person. Avoid jargon, slang and commercialism. Use acronyms and footnotes sparingly. Use simple English prose in paragraph form wherever possible.

**Equations**

Unless only a few are used, all equations should be numbered in the order introduced and referred to in the text by number. Equations and/or symbols may be presented in any suitable form; however, clarity for the printer is essential. Special symbols should be identified.

## Placement of Figures and Tables

Figures and tables should be inserted in the Main Body. Each figure or table should be placed as soon after its reference in the text as is practical. If including them within the Main Body proves too difficult, grouping all Figures together and then all of the Tables together after the last section of the Main Body is acceptable. Note that Figures and Tables should all be within the Main Body or all after the Main Body.

## Figures

Illustrations and graphics used in figures must be clear and sharp. Converting to PDF files can sometimes affect the resolution of images: If you do the conversion to PDF, carefully review the conversion of all images. Lettering should be large enough to be legible, at least 1/16" high. If needed for clarity, selected figures can be double column width. Illustrations/figures showing plotted data should have axes labeled with appropriate names and units. Symbol keys should be included to identify plotted lines and data when needed. Additional information or parameter values related to a figure should generally be placed in the figure caption rather than on the figure itself. Each figure must be numbered and have a caption.

## Tables

The number of tables should be kept to a minimum. Each table must have a number and a caption and should be cited in numerical order in the text. Tables should be simple and arranged in the following format. Type a double line at the top and bottom of each table and a single line under the column headings. Table footnotes should be placed under the bottom double line and should be indicated by the letters a, b, c, d, etc. The following example is given for illustrative purposes only:

Table 1. Comparison of Vibration Data

Flight Condition	OH-58D		UH-1		CH-58B 1	
	2P	4P	2P	4P	6P	12P
Ground run	—	—	.3	.11	.46	.02
Hover	.12	.17	.16	.26	.55	.04
Climb	.13	.21	.27	.40	.40	.05
Transition	—	—	.34	.34	.80	.09
Level Flight <sup>a</sup>	.21	.35	.28	.35	.40	.03

<sup>a</sup>Velocity of 120 kn

## 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 Concluding Recommendations, with brief summary comments as appropriate.

## **Appendices**

Should be used for highly specialized data, derivations, etc. They should be lettered (A, B, C, ...) if more than one is used. Each appendix must be cited in the main text.

## **Acknowledgments**

If used, this should be placed at the end of the paper, before the references.

## **References**

All reference material should be grouped in the final section of the paper, numbered, and placed in the order cited in the text. Reference only that material which is readily available to the reader. Do not include classified material, internal company memoranda, or reports unavailable to the reader. Use the following style:

Book — Johnson, W., *Helicopter Theory*, Princeton University Press, New Jersey, 1980, pp. 808-813.

Periodical — Chopra, I., "Dynamic Stability of a Bearingless Circulation Control Rotor Blade in Hover," *Journal of the American Helicopter Society*, Vol. 30, (4), October 1985.

Report — Straub, F., "Study to Eliminate Ground Resonance Using Active Controls," *NASA CR 166609*, October 1984.

Meeting Paper — Esculier, J., and Bousman, W., "Calculated and Measured Blade Structural Response of a Full-Scale Rotor," *American Helicopter Society 42nd Annual Forum Proceedings*, Washington, DC, June 1986.

## **Clearance for Publication and Presentation**

Your paper and presentation must be cleared by your organization or agency prior to submission for publication and presentation. It is the author's responsibility to determine and acquire the appropriate types and levels of clearances -- internal and external -- for the paper to be published and presented. For example, in the U.S., clearance typically includes vetting through a public release approval process for Government personnel and company approval for public release of internally-generated material for others. Obtaining such clearance may take time -- particularly if your paper has authors from more than one organization. In order to avoid surprises, it is suggested that you immediately initiate the action to get guidance from your organization (and that of the organizations of your co-authors, if any) on the steps that must be accomplished. Getting a clearance can easily take four to six weeks ... or more. Start early.

Note that AHS Specialists' Meetings are open to all interested parties of all nationalities and all organizations. Therefore, absolutely no classified or otherwise restricted material will be published or presented in conjunction with the meetings.

## **Assignment of Copyright Ownership**

The Assignment of Copyright Ownership must be received prior to the meeting. The technical chair of the meeting will furnish you with the form. Follow the meeting chair's instructions. It can also be submitted by fax (703-739-9279), emailed to [staff@vtol.org](mailto:staff@vtol.org) or sent by regular mail to AHS International, 217 N. Washington St., Alexandria, VA 22314-2538.

The copyright laws require written transfer of copyright. This transfer protects you from unauthorized use of your presentation and gives the AHS permission to publish your paper.

Please sign the release where indicated. In the case of multiple authors only one signature is required. It is not necessary for each author to sign. In the case of a "work made for hire," an authorized representative of your employer should sign the release. If you are a U.S. government employee, you may still sign the form because you are only signing to the extent transferable, or you may include a separate letter of explanation from a representative of your government agency or department. A copyright release, or letter of explanation, is required for each paper. Government employees may also use the following copyright statement in the bottom left of the first page: "Presented at the (Meeting Name), (Place), (Date). This is a work of the U.S. Government and is not subject to copyright protection in the U.S."

# Guidelines for Electronic Projection at Meetings

## ***Before you present it, project it! ... Don't just view it.***

Before you come to the meeting, you should electronically project your presentation.

It may look great on your computer screen,  
but colors and font sizes may look unacceptably different when projected.

## **Introduction**

Each session room will be equipped with an LCD projector connected to a computer running the Windows XP (or newer) operating system. If speakers have a special audio-visual request, they must advise the Program Chair well in advance of the meeting.

## **File Formats**

The only acceptable file formats for presentations are Microsoft PowerPoint 2003 or later and Adobe Acrobat 5.0 or later.

Presenters must bring the file(s) for their presentation to the meeting on one of the allowable forms of removable electronic media. Allowable forms are:

- CD (must be turned in with either a protective sleeve or a case)
- USB Flash Drive

All storage media must be readable by Windows XP.

Do **NOT** send or e-mail your presentation to AHS Headquarters.

Before arriving at the meeting, those who develop their presentation under an operating system other than Windows should transfer the file to a computer running Windows XP with Microsoft PowerPoint 2003 for Windows and test the conversion. If you wish to present using your own laptop, please advise the Meeting Chair. Your Meeting Chair will inform you as to when you must deliver your presentation to be included in the Specialists' Meeting Proceedings.

## **Every chart should:**

- a. Carry the message in as concise, condensed, and technically correct manner as possible.
- b. Be legible from the back row. (Assume the distance to be 75 feet.)
- c. Standardize the typeface throughout and use bold face characters. In general,
  - All upper case is **ONLY** acceptable for the title
  - "Sentence case" is recommended for the body of the presentations (i.e., first letter of first word of a line is capitalized; everything else in lower case).
  - "Title case" is also acceptable (i.e., first letter of all words [except short words like "a", "the", "and"] is capitalized; all other letters are lower case).

In general, a figure or plot that is clearly legible in a paper is not acceptably legible when projected. Some simplification and clarification of a printed figure is almost always required to ensure first-class legibility when projected.

- a. Two or more figures should not be incorporated in one image. (This could be acceptable only if lettering and line thickness are correspondingly increased).
- b. Use contrasting colors: Yellow letters on a blue or black background; orange letters on a blue or black background; or white letters on a black, green or blue background.
- c. A hard copy placed on the floor should be legible from a standing position. This assessment should be done by an individual other than the author.
- d. A chart should not be "filled." It is strongly recommended that you use a maximum of seven words per line and no more than seven lines per chart. The chart should only be a prompt for the speaker and not text for the speaker or audience to read.
- e. Letters and numerals should be large. The smallest lettering that can be read easily is 1:40 of the height of the frame (0.187" within a 10" × 7.5" frame). Under no circumstances should the lettering be less than 1:50 of the frame height (0.15").

Some additional recommendations for chart preparation are as follows:

- Avoid vertical legends (and Y-axis labeling).
- Multiple lines on a graph should be individually labeled, not cross-checked to a legend.
- Avoid charts with complex equations. Very few in the audience will follow without first understanding the background and notation, which requires more time than is available.
- It is effective to use a concise title at the top of each chart. The title can be a declarative statement which tells the audience what they should learn from the image.
- A "bumper sticker" is sometimes effective (i.e., a boxed statement at the bottom of a chart which is a very concise statement of the major point that you want the viewer / reader to remember after viewing the chart).

## **Delivery**

Presentations are planned on a 30-minute cycle (25 minutes for the presentation and five (5) minutes for questions). The 30-minute cycle must be observed in accordance with the published program to allow audience migration between sessions. A speaker who appears as if he or she may run over their time will be warned and, if necessary, stopped to preserve the schedule.

## **Be sure to:**

- Deliver only selected parts of your written paper. Limit selection so that your oral presentation is compatible with allotted time.
- Prior to leaving for the meeting, conduct a dry run in front of your colleagues to rehearse timing, delivery and content. The presenter is also strongly encouraged to rehearse the presentation at least once using electronic projection. It cannot be emphasized enough how this has proven to be an invaluable exercise for both the presenter and the audience.
- Use the available lavalier (lapel) microphone. Attach it along your "centerline." If you put it on one side or the other, be sure it is the side to which you expect to most often turn your head (e.g., the side nearest the screen).
- Stand at the podium and face your audience at all times.
- Speak loudly and clearly enough to be heard in the back row.
- Refer only to abbreviated notes of your presentation. It is helpful to create a prompter which includes reduced sized copies of your charts. Use your prompter as an outline to your presentation speech.
- When introducing a plot or graph on an image, briefly describe the abscissa and ordinate axes, before you get into an interpretation of the results.
- Avoid commercialism and sales nuances.
- Use a pointer only when necessary to direct attention to specific points on your image. When using the light pointer, be sure to turn it off when it is not in use to avoid distraction. Use both hands if necessary to steady the pointer.
- Finish in the allotted time or less, to leave time for questions and answers.

## **Do not:**

- Turn your back to the audience and address your speech to the screen.
- Read your speech or your charts verbatim. (Avoid a monotonous, uninteresting delivery.)