

NATIONAL WEATHER SERVICE SOUTHERN REGION SUPPLEMENT 09-2005

APPLICABLE TO NWSI 20-103

February 27, 2008

Training and Education

Training And Education, NWSPD 20-1

Forecaster Development Program Training, NWSI 20-103

***Guidelines For Publication Of Scientific And Technical Papers By Southern Region
Employees***

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Type of Issuance: Routine

SUMMARY OF REVISIONS: This Supplement supersedes Southern Region Supplement 09-2005, issued December 27, 2005, applicable with NWSI 20-103. The primary changes to this Supplement are:

Section 6.4 is modified to update the procedure for paying publication charges.

References to Scientific Services Division have been updated to refer to Science and Technology Services Division.

_____/s/_____
February 27, 2008

Bill Proenza
Director, Southern Region

Date

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1. Introduction. The purpose of this supplement is to establish policy and procedures to be followed in the NWS Southern Region concerning the writing, reviewing, and subsequent publication of Technical Attachments, Technical Memoranda, conference papers, and formal publications.

2. Policies and Procedures. This supplement establishes the following policy: any manuscript, electronic or printed, that is produced for publication and authored or co-authored by a NWS SR employee, will be submitted to the SR Science and Technology Services Division (STSD) for review to ensure scientific integrity and adherence to NWS policies and procedures. Participation in conferences by SR personnel for the purpose of reporting on research that was conducted on official duty or produced using government resources must also receive prior approval from SR STSD.

3. Overview

3.1 General Comments on Various Publication Media. Employees are encouraged to carry out local studies and investigations *and communicate the results of those efforts to others*. There are several ways the results can be documented. The method used depends on the scope of the investigation and the intended audience. The Science and Technology Services Division will assist as necessary in preparing such papers.

The easiest way to document a study is to write it informally and include it in the local office reference files or on the office Intranet. The documentation might include maps, analyses, interpretive discussions, satellite imagery, and so on. Form and content can vary.

More structured documentation is required for studies that will receive wider distribution or use. The reasons are simple: Readers expect to get quickly to the point of the study without wading through unnecessary discussion or pages of material. In addition, the costs of reproduction and distribution usually have to be kept to a minimum.

Four avenues of documentation and distribution are described in detail below. The first three (Technical Attachments, Technical Memoranda, and conference papers) are not formal publications *per se* because the review process is not rigorous. Since these papers have not been subject to critical peer review, most scientific or technical journals do not allow references to papers included in those media. These less formal publications serve an important purpose by informing a wide audience of a scientific investigation. The fourth avenue, *formal publication*, requires rigorous and time-consuming peer review. It is also the most expensive.

3.2 Style Comments. In all forms of written communication, it is the responsibility of the author to convey his/her message in a clear and concise manner. In addition, figures must be clean and legible. Color figures may be used liberally in electronic publications (Technical Attachments, Technical Memorandum, and Conference Preprints/proceedings). However, color figures in formal publications should be held to a minimum due to printing costs. Author(s) should realize all copyright laws are applicable to any figures, images, and/or photographs they obtain for inclusion in a publication. Any questions concerning copyrights should be forwarded to STSD.

Authors should adhere to the American Meteorological Society (AMS) manuscript style, which is described on the inside back cover of the AMS journals. The AMS guidelines for reference materials <http://www.ametsoc.org/pubs/refstyl.html> should also be followed. The complete AMS Author's Guide is available at:

http://ametsoc.org/PUBS/Authorsguide/pdf_vs/authguide.pdf.

3.3 The Role of Supervisors. Hydrologists-in-Charge (HIC) and Meteorologists-in-Charge (MIC) should encourage and support the development of local studies by members of their staff. If the studies warrant, supervisors should also encourage individuals to work toward wider distribution. The Science and Operations Officers (SOO) and Development and Operations Hydrologists (DOH) are the technical program leaders at their offices, and part of their job is to lead and encourage local studies, including appropriate documentation. The SOO or DOH should review and approve all manuscripts before they are submitted to STSD.

The HIC or MIC, or their designee, should submit the manuscript to STSD, after consulting with the DOH or SOO. Once a manuscript is submitted, STSD assumes the manuscript has been reviewed and approved by the submitting office.

3.4 The Role of STSD. The STSD can assist in all stages of the publication process. In the preparation phase, STSD can provide ideas, assist in acquiring data, help locate references and facilitate contact with others (university researchers, for example) that might provide assistance. In the review phase, STSD will critique all studies intended for Technical Attachments and Technical Memoranda, and provide clearance for more formal publication. The Chief of STSD is the authorizing official to determine payment for the publication. Aside from providing guidance and assistance, STSD's role is to ensure that all Southern Region studies present a professional and scientific appearance.

4. Technical Attachments

4.1 Purpose and Philosophy. Technical Attachments are distributed electronically as a part of Southern Region's *Southern Topics*. This publication is made available on the Internet and is available on the World Wide Web at <http://www.srh.noaa.gov/ssd/html/pubs.htm>.

A Technical Attachment is the appropriate medium for:

- Preliminary results of on-going research,
- Short case studies of hydrological or meteorological events,
- "For-your-information" subjects,
- Documentation of local techniques, or
- Subjects with limited direct operational applications.

A Technical Attachment is designed to provide a medium by which authors can *quickly* distribute information on the Internet to an interested audience, mainly operational meteorologists and hydrologists.

A Technical Attachment is afforded more freedom from intense review processes. It should be considered a very informal publication. The Technical Attachment will be reviewed for scientific

accuracy and technical correctness, but the level of scrutiny will be much lower than that of more formal types of publications.

4.2 Format. Technical Attachments should be no longer than eight pages, text and figures included. The short format is a result of the stated purpose (see above) and the necessity of maintaining a reasonable overall length for a quick relay of information to operational forecasters. Technical Memoranda should be considered for more detailed and longer studies.

No specific format is required for Technical Attachments, but STSD recommends manuscripts adhere to a format and style similar to that used in journals of the AMS. The AMS Style Guide (http://ametsoc.org/PUBS/Authorsguide/pdf_vs/authguide.pdf) should be followed for citing and listing references, use of abbreviations and units, symbols and equations, and so on. This will provide some measure of standardization among papers and greatly reduce the time and effort involved in editing papers.

Manuscripts provided to STSD should be produced electronically, in MS Word format. This will allow STSD to exchange comments and edits with the author. Photographs, figures, and tables should be imbedded logically in the text or at the end of the document.

4.3 The Review Process. A manuscript review is for the benefit of both the author and the reader. Reviewer critiques enhance an author's scientific knowledge and technical writing skills. The result is a readable and scientifically correct product for both the author and the readers.

The STSD will provide a final review of manuscripts sent through the MIC or HIC or their designee. Appropriate subject-matter experts outside STSD might also be asked to provide a review. Reviewers must keep in mind the purpose and philosophies of Technical Attachments when reviewing the manuscript. This review should take no longer than three weeks.

5. Technical Memoranda

5.1 Purpose and Philosophy. A Technical Memorandum is an informal publication of results that are not appropriate, or not yet ready, for formal publication. Technical Memoranda are placed on the Internet at <http://www.srh.noaa.gov/ssd/html/pubs.htm>.

A Technical Memorandum is the appropriate medium for:

- Results of work in progress,
- Detailed case studies of hydrological or meteorological events,
- Documentation of technical procedures and practices which should have interest or application beyond the local office area.

