MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

MIL-STD-847B
7 November 1983
SUPERSEDING
MIL-STD-847A
31 January 1973

MILITARY STANDARD

FORMAT REQUIREMENTS FOR SCIENTIFIC AND TECHNICAL REPORTS

PREPARED BY OR FOR THE DEPARTMENT OF DEFENSE

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SELECTED
JUN 5 1984

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REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION	1b. RESTRICTIVE MARKINGS

2a. SECURITY CLASSIFICATION AUTHORITY	3 DISTRIBUTION/AVAILABILITY OF REPORT
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	Approved for public release; distribution unlimited.

4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
MIL-STD-847B	

6a. NAME OF PERFORMING ORGANIZATION	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
Defense Technical Information Center	DTIC-TID	

6c. ADDRESS (City, State, and ZIP Code)	7b. ADDRESS (City, State, and ZIP Code)
Alexandria, VA 22314	

8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO

11 TITLE (Include Security Classification) Format requirements for Scientific and Technical Reports prepared by or for the Department of Defense.

12. PERSONAL AUTHOR(S)

13a. TYPE OF REPORT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 1983 November 7	15. PAGE COUNT 37

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT ☐ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION
22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code) 22c. OFFICE SYMBOL

DD FORM 1473, 84 MAR   83 APR edition may be used until exhausted.   SECURITY CLASSIFICATION OF THIS PAGE
All other editions are obsolete.

DEPARTMENT OF DEFENSE

WASHINGTON, DC   20301

Format Requirements for Scientific and Technical Reports Prepared
by or for the Department of Defense

MIL-STD-847B

    1.   This military standard is approved for use by all Departments
and Agencies of the Department of Defense.

    2.   Beneficial comments (recommendations, additions, deletions) and any
pertinent data which may be of use in improving this document should be addressed
to: Administrator, Defense Technical Information Center, Alexandria, Virginia
22314 by using the self-addressed Standardization Document Improvement Proposal
(DD Form 1426) appearing at the end of this document or by letter.

FOREWORD

This standard implements for the Department of Defense the "Guidelines to Format
Standards for Scientific and Technical Reports Prepared by or for the Federal
Government" developed by the Federal Council for Science and Technology,
Committee on Scientific and Technical Information (COSATI), Panel on Operational
Techniques and Systems. Its provisions are mandatory for in-house, contractor,
or grantee reports according to the Defense Acquisition Regulation (DAR) and the
Department of Defense Directives and Instructions.

CONTENTS

CONTENTS

CONTENTS

FIGURES

APPENDIX

CONTENTS

FORMAT REQUIREMENTS FOR SCIENTIFIC AND TECHNICAL REPORTS
PREPARED BY OR FOR THE DEPARTMENT OF DEFENSE

1. SCOPE

1.1 **Purpose.** This standard establishes format requirements for scientific and technical reports, including the DD Form 1473, Report Documentation Page, prepared by or for the Departments and Agencies of the Department of Defense. Its provisions are mandatory for in-house, contractor, or grantee reports according to the Defense Acquisition Regulation (DAR) and the Department of Defense Directives and Instructions. Its purpose is to aid the dissemination and secondary distribution of reports; to reduce the costs of preparing, storing, retrieving, reproducing, and distributing such reports; and to aid the interchange of scientific and technical information with the research and development community.

1.2 **Responsibility.** The primary responsible DoD office (monitoring office) is responsible for ensuring compliance with this standard, including the completion of the DD Form 1473, Report Documentation Page, in all scientific and technical reports prepared for or by DoD organizations.

1.3 **Application.**

1.3.1 Forms of reports. This standard applies to scientific and technical reports (for definition see paragraph 3.1, Technical report) under the DoD scientific and technical information program in any of the following forms:

1.3.1.1 Manuscript copy. Text and illustrations suitably assembled for review and editing.

1.3.1.2 Printer's copy (camera-ready copy or reproducible copy). A set of text and illustration pages that has been corrected, laid out, and approved for printing.

1.3.1.3 Printed copy. A report that has been duplicated or printed and is ready for distribution.

1.3.1.4 Microform. A report produced or reproduced in miniature.

1.3.2 Excluded documents.

1.3.2.1 Letter reports, manuals, catalogs, and computer printouts. This standard does not apply to letter reports, operating and maintenance training manuals, catalogs, administrative or fiscal reports, or reports consisting only of computer printouts. Text produced by word processing techniques is considered to be normal text, not computer printout.

1.3.2.2 Intelligence reports. Format of intelligence reports prepared by or for the Defense Intelligence Agency is specified by DIA Manual 75-1, "Scientific and Technical Intelligence Production," and is excluded from the scope of this standard.

1.3.2.3 Preprints, reprints, books, theses, and dissertations. Journal article preprints, reprints, commercially published books or chapters of books, theses, or dissertations submitted in lieu of a technical report are excluded from compliance with the provisions of this standard. The Report Documentation Page, DD Form 1473, shall be made a part of each copy of any publication which is submitted to the Department of Defense.

1.3.2.4 Waiver of requirements. The Commanding Officer, Technical Director or equivalent, of the organization responsible for conducting or monitoring the work set forth in the report (for example, the Naval Surface Weapons Center) may grant a waiver of the requirements contained herein except for the inclusion of DD Form 1473 (see 5.3.1) security markings, and front and back covers. Such waivers will be granted on a case by case basis.

2. REFERENCE DOCUMENTS

2.1 Regulatory documents. The issues of the following documents in effect on the date of invitation for bids or requests for proposal form a part of this standard to the extent specified herein. Contracts may be amended to incorporate the most recent changes to these documents.

(a) DoD Directive 4120.3-M, "Defense Standardization and Specification Program Policies, Procedures and Instructions." (USDRE) (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(b) DoD Directive 4120.18, "Metric System of Measurement." (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(c) DoD Directive 5010.22, "The Management and Conduct of Studies and Analyses." (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(d) DoD Directive 5100.36, "Defense Scientific and Technical Information Program." (USDRE) (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(e) DoD Directive 5200.1-R, "Information Security Program Regulation." (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(f) DoD Directive 5200.20, "Distribution Statements on Technical Documents." (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(g) DoD Directive 5220.22-M, "Industrial Security Manual for Safeguarding Classified Information." (Available to Navy activities from: Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120; to Army and Air Force activities from: Commanding Officer, U.S. Army AG Publications Center, 2800 Eastern Blvd., Baltimore, MD 21220; to others from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

(h) DoD Instruction 5330.1, "Printing, Binding and Related Equipment Programs." (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(i) DoD Instruction 7935.1, "DoD Automated Data Systems Documentation Standards." (Available from the Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.)

(j) "Defense Acquisition Regulation." (Available from Managing Editor, DAR Committee; Room 3D776, The Pentagon, OSD (I&L) PR; Washington, DC 20301.)

(k) Government Printing and Binding Regulations." (Available from the Joint Committee on Printing, U.S. Congress, Committee Room S-151, U.S. Capitol, Washington, DC 20510.)

(l) Government Paper Specification Standards." (Available from the Joint Committee on Printing, U.S. Congress, Committee Room S-151, U.S. Capitol, Washington, LC 20510.)

(m) AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
ASTM-E380 (also numbered as ANSI Z210.1 and IEEE Std 268), "Standard for Metric Practice, DoD Index of Specifications and Standards." (Available to DoD from: The Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120; to others from: ASTM, 1916 Race St., Philadelphia, PA 19103.)

(n) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
ANSI Y10.20-1975, "Mathematical Signs and Symbols for Use in Physical Sciences and Technology." (Available to DoD from: The Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120; to others from: The American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017.)

2.2 **Implementary documents.**

(a) Air Force

AFR 5-1
AFR 6-1
AFR80-45, "Distribution Statements on Technical Reports."
AFSC Regulation 80-20
AFSC Supplements

3

      (b) Army

          AR 70-31, "Standards for Technical Reporting," also Changes.

      (c) Navy

          SECNAVINST 3900.29B, "Standard Format Requirements for
            Scientific and Technical Reports."
          NAVMATINST 5200.29, "Distribution Statements on Technical
            Reports."

      (d) Command or Laboratory Implementing Standards and Instructions.
          Local Government (DoD) agencies' technical report style guides or
          format instructions and changes are a part of this standard.
          Where such style guides conflict with this standard, MIL-STD-847B
          requirements take precedence.

      (Copies of specifications, standards, and publications required by
contractors should be obtained from or through the contracting officer.)

    2.3 <u>Other publications</u>. The following documents form a part of this
standard to the extent specified herein. Unless otherwise indicated, the issue
in effect on date of invitation for bids or request for proposal shall apply.

      (a) "U.S. Government Printing Office Style Manual." (Available from
          Supt. of Documents, U.S. Govt. Printing Office, Washington, DC
          20402.)

      (b) "Abstracting Scientific and Technical Reports of Defense Sponsored
          RDT&E." Defense Technical Information Center, AD-667 000.
          (Available from the National Technical Information Service,
          Springfield, VA 22151.)

      (c) "Metric Editorial Guide," 3rd Edition, 1978, ANMC-78-1, American
          National Metric Council, 1625 Massachusetts Ave., N.W.,
          Washington, DC 20036.)

      (d) "Guidance for Describing Information Interchange Formats,"
          FIPS-PUB-20. (Available from the Standards Administrative
          Office, Institute for Computer Sciences and Technology, National
          Bureau of Standards, Washington, DC 20234.)

      (e) "Software Summary for Describing Computer Programs and Data
          Systems," FIPS-PUB-30. (Available from the Standards
          Administrative Office, Institute for Computer Sciences and
          Technology, National Bureau of Standards, Washington, DC 20234.)

      (f) "Guidelines for Documentation of Computer Programs and Automated
          Data Systems," FIPS-PUB-38. (Available from the Standards
          Administrative Office, Institute for Computer Sciences and
          Technology, National Bureau of Standards, Washington, DC
          20234.)

(g) "Guide for the Presentation in the Primary Literature of Numerical Data Derived from Experiments." Report of Committee on Data for Science and Technology (CODATA) Task Group. CODATA Bulletin No. 9, September 1973.

(h) "Technical Report Number." American National Standard ANSI Z39.23-1974(R1980). (Available from American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

(i) "Publication Manual of the American Psychological Association." (Available from American Psychological Association, 1200 Seventeenth St., N.W., Washington, DC 20036.)

3. DEFINITIONS

3.1 Technical report. A technical report encompasses the evaluated relevant facts on a study or phase of a study of a particular art, science, profession, or trade, and stands as a permanent official record in a formal document. This document is placed in a numbered series within each organization. The prime purpose of a technical report is to disseminate the results of activity and to foster the exchange of information.

3.2 Funding (sponsoring) organization. The activity under whose funding the work is performed, whether it is done in-house or by contract. This organization may be the same as the monitoring organization, or it may delegate the monitoring responsibility to another organization. Joint funding is determined by advance agreement.

3.3 Monitoring organization. The activity which assumes the responsibility for administering a project, contract, or grant. It may be either an office, a group, or a committee representing more than one activity, service or agency. This activity may fund a project or it may be delegated this responsibility by another organization. In the case of joint sponsorship, the monitoring organization is determined by advance agreement. This activity may be the same as the funding (sponsoring) organization.

3.4 Performing organization. The institution or corporate (committee) body preparing the report, or deemed responsible editorially/contractually for its content.

4. GENERAL REQUIREMENTS (Not applicable)

5. DETAILED FORMAT REQUIREMENTS

5.1 Elements of a report. Although a report may not contain all of the following elements, those used will appear in the following order with the abstract appearing only on the Report Documentation Page, DD Form 1473:

5.1.1 Front matter.   Front cover (required)
                        Report Documentation Page, DD Form 1473 (required)
                        Summary
                        Preface (Foreword)
                        Acknowledgments
                        Table of contents
                        List of figures
                        List of tables

5.1.2 Body of report. Introduction
                        Main text
                        Conclusions
                        Recommendations

5.1.3 Reference material. References
                            Bibliography
                            Definitions (Glossary)
                            List of abbreviations, acronyms, and symbols
                            Index
                            Appendixes
                            Distribution list

5.1.4 Back cover (required)

5.2 **Front cover.**

5.2.1 Outside front cover. Self covers or separate covers may be used in accordance with paragraph 5.9.4. Include on the cover the information shown in the following paragraphs plus special markings, such as security classification, classified by line, downgrading and declassification information and special access statements. Military Services regulations for marking classified information shall be followed. (See DoD 5200.1-R, DoD 5220.22-M, and the respective Service implementing regulations.) Various layouts and type faces may be used, provided related items are grouped as indicated in Figure 1 for unclassified reports and Figure 2 for classified reports.

5.2.1.1 Group I. Report number. Each report will carry a unique alphanumeric designation, or report number, in the upper left-hand corner (or right-hand corner, when the issuing organization must consider other in-house requirements) of the cover using an alphanumeric designation in accordance with the Standard Technical Report Number (STRN) for example: AFOSR/TR-81/0494; ANSI Z39.23-1974 (Reference 2.3(h)).

5.2.1.2 Group II

(a) Title and subtitle. Display the title prominently (with its security classification if the document is classified) and indicate clearly and briefly the subject of the report. Set subtitle, if used, in smaller type or otherwise subordinate it to the main title. When a report is prepared in more than one volume, repeat the primary title and use subtitles to identify specific volumes.

I

Report Number ————————— Report FML/RD-81/100

II
Title ———————— HEAT TREATMENT EFFECTS ON CAST GOLD ALLOY

Subtitle (if any) ———————— Preheated furnace or salt bath at 500 K
produces optimum hardness and structural
uniformity

Author(s) ———————— John R. Doe
Performing ———————— ABC Laboratories, Inc.
organization   405 Main Street
name and address   Zedburg, TN 37000

Date ———————— 1 April 1981

Type of report ———————— Interim Report for First Quarter 1980
and period of   Contract Number (Optional)
time covered

Distribution Statement

III

Funding (Sponsoring) ———————— Prepared for
organization name   DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
and address   1400 Wilson Boulevard
Arlington, VA 22209

Monitoring organization ———————— AIR FORCE GEOPHYSICS LABORATORY
name and address   L. G. Hanscom Field
(if different   Bedford, MA 01730
from above)

Note: This example is reduced in size. The sequence and the placement of the
data are preferred as shown; other layouts are acceptable.

Figure 1.   Example of unclassified report cover.

This page is unclassified

```
I
                    ┌─────────────────────────────────────────────────────┐
    Report number───┼──AFATL/TR-81/21                                      │
                    │                                                      │
 Classification of──┼──────────────────────── SECRET                      │
        document    │                                                      │
                    │                                                      │
    II              │                                                      │
                    │                                                      │
      Title and─────┼── Range Improvements in Air-to-Air                   │
 Subtitle (if any)  │   Technology (RIAAT)(U)                              │
                    │                                                      │
     Author(s)──────┼──John R. Doe                                         │
                    │                                                      │
     Performing─────┼──XYZ Aircraft Company                                │
    organization    │  41 South Street                                     │
  name and address  │  Plaintown, WA  23487                                │
                    │                                                      │
         Date───────┼── JANUARY 1983                                       │
                    │                                                      │
  Type of report────┼──FINAL REPORT FOR PERIOD JULY 1981-OCTOBER 1982      │
    and period of   │                                                      │
    time covered    │                                                      │
                    │                                                      │
Classified by line──┼── Classified by DD254 dtd 2/29/82                    │
                    │   F33615-78-C-2600-Task VI                           │
                    │   Declassify On: 31 December 2002                    │
                    │                                                      │
                    │        ┌──────────────────────────────┐             │
                    │        │  Distribution Statement       │             │
                    │        └──────────────────────────────┘             │
                    │                                                      │
                    │       ┌─────────────────────────────────┐           │
                    │       │ Special Access Restrictions      │           │
                    │       │ (For example:  International      │           │
                    │       │ Traffic in Arms Regulations       │           │
                    │       │ Statement                         │           │
                    │       └─────────────────────────────────┘           │
    III             │                                                      │
                    │                                                      │
Funding (Sponsoring)┼── AIR FORCE ARMAMENT LARORATORY                      │
  organization name │   AIR FORCE SYSTEM COMMAND*UNITED STATES AIR FORCE*  │
      and address   │   EGLIN AIR FORCE BASE, FLORIDA                      │
                    │                                                      │
 Classification of──┼─────────────────────── SECRET                       │
        document    │                                                      │
                    └─────────────────────────────────────────────────────┘
```

Note: This example is reduced in size. The sequence and the placement of the
       data are preferred as shown; other layouts are acceptable.

Figure 2. Example of a classified report cover.

(b) Author(s). Give the complete name(s) of the author(s) in conventional order (for example, John R. Doe, or if the author prefers, J. Robert Doe).

(c) Performing organization name and address (For definition, see 3.4). For contractor and grantee produced reports, give the full mailing address including name, city, state, and ZIP Code. List no more than two levels of an organizational hierarchy.

(d) Date. Each report will carry a date consisting of at least the month and year of publication.

(e) Type of report and period covered. Denote whether the document is a final, summary, annual, or progress report, or a special publication. Also include the time period during which the work was performed (dates of coverage).

(f) Contract number (optional). Number under which the work was performed.

(g) Distribution statement. A valid distribution statement (Reference 2.1(f)) must appear on the cover.

5.2.1.3 Group III

(a) Funding (sponsoring) organization (For definition, see 3.2). The name and mailing address, including ZIP Code, will appear in the lower portion of the front cover. The words "Prepared for" will be placed immediately above the activity's name on all contractor or grantee reports.

(b) Monitoring organization (For definition, see 3.3). The name and mailing address, including ZIP Code, will appear below the funding activity's name when the administrative responsibility for a project, contract, or grant lies with another activity.

5.2.2 Inside front cover. A review and approval statement and special notices such as reproduction limitations, unauthorized disclosure notations, legal and supersedure information, safety precautions, sponsor's disclaimers, compliance with special regulations, or report disposition instructions will be included here.

5.3 Front matter.

5.3.1 Report Documentation Page, DD Form 1473. (See Figure 8.) Include a completed and reproducible DD Form 1473, Report Documentation Page, as the first right-hand page after the cover in each report. (See Reference 2.1(j), paragraph 4-113.) The DD Form 1473 is used instead of a title page. Instructions for its completion are given in Figure 8. Accurate completion of this form will assist users in accessing the report.

9

5.3.2 Summary. A summary may be included to explain the reason for the initiation of the work, and to outline principal conclusions and recommendations. A summary may be used to give more information on the content of the report than can be presented in the abstract entered on the DD Form 1473.

5.3.3 Preface (Foreword). Use a preface to show the relation of the work reported on to associated efforts, to acknowledge any significant assistance received, and to give credit for the use of copyrighted material. Start the preface on a new page.

5.3.4 Acknowledgments. If acknowledgments are not included in the Preface because of number or in-house policies, these may be listed on a separate page following the Preface.

5.3.5 Table of contents. Table of contents are seldom used in a report of eight pages or less. If used, list principal headings in the order of their appearance in the report and the page numbers on which the headings occur. Start the table of contents on a new right-hand page. Use capital letters for the major section headings and references, bibliography, appendixes and glossary headings. Use upper and lowercase letters for all subheadings.

5.3.6 List of figures. Include a list only if there are at least five entries, or if author(s) consider it essential. List figure number, caption and page number for each figure. The caption of the figure should be a brief phrase which clearly identifies it and should be set off from any following explanatory material by a period. This brief phrase is the caption that should be cited exactly in the List. Start the list of figures on a new page. Use upper and lowercase letters for the captions on the list.

5.3.7 List of tables. Include a list only if there are at least five entries, or if author(s) consider it essential. List table number, title and page number for each table. The title of the table should be a brief phrase which clearly identifies it. This brief phrase is the title that should be cited exactly in the List. Use upper and lowercase letters for the title on the list.

5.4 Body of report.

5.4.1 General. Start the first section on a new right-hand page. Start each succeeding section on a new page (either right- or left-hand). When sections and reports are extremely short, succeeding sections need not start on new pages, but should follow the preceding section immediately.

5.4.2 Introduction. The first section of the report is usually an introduction which provides background information and work objectives.

5.4.3 Main text. The main text (middle sections) of the report describes work procedures, apparatus involved, tests performed, results achieved, and related matters as appropriate.

5.4.4 Conclusions and recommendations. The final sections of the report usually present conclusions on results obtained and recommendations for the future.

5.4.5 Headings. Headings will stand out from the text with their relative importance apparent. They may be prepared on a standard typewriter or on composing equipment. Typical heading styles are illustrated in Figure 3. Other type styles may be used as long as the headings stand out and relative importance is apparent.

5.4.6 Numbering systems. Number headings and paragraphs only when needed for clarity because of the length or complexity of the report or the need for extensive referencing. If numbering is used it should be limited to three levels and the numbers should be separated by decimals.

5.5 Reference material.

5.5.1 Footnotes, references and bibliography.

5.5.1.1 Footnotes. Footnotes are comments on or explanations of the text and may be marked by asterisks, daggers, crosshatches or other acceptable designators. Place footnotes at the bottom of the page on which they are cited.

5.5.1.2 List of references. References are made to specific books, journals, reports, interviews, and similar documentation used by the author. In the back of the report make a numbered list of all the references used throughout the report. Cite them consecutively by number as they are cited in the text of the report. (See Figure 4 for various examples of suggested formats.)

5.5.1.3 Bibliography. A bibliography consists of entries not directly connected with any specific portion of the text, but is supplied as supplementary information. The bibliography follows the list of references and includes authors, titles, sources, identifying numbers, publication dates, and applicable security classifications.

5.5.2 Appendixes. When two or more appendixes are used, designate them Appendix A, Appendix B, etc. If only one appendix is included in the report it is "the Appendix." Number figures, tables, and equations with the letter designation of the appendix in which they fall. When they are part of "the Appendix," they are designated as A-1 or A.1. Decimals or dashes may be used but the numbering shall be consistent throughout the report. Title appendix and start each appendix on a new right-hand page.

5.5.3 Definitions (Glossary). Define unusual terms either in the text or as footnotes the first time they are used in the text. When many such terms are used list them in alphabetical order with definitions in a glossary.

5.5.4 Abbreviations, acronyms and symbols. Define abbreviations, acronyms, and symbols when first introduced in the text, placing them in parentheses immediately following. Thereafter, use the short form. If they are numerous, include a list of definitions with other unusual or technical terms.

5.5.5 Index. If an index is included, make it as complete as the nature of the report and its probable usage requires.

11

<div align="center">FIRST-ORDER HEADING</div>

SECOND-ORDER HEADING

<u>Third-Order Heading</u>

<u>Fourth-Order Heading.</u>   Text of paragraph follows on the same line as the fourth-order heading.

<div align="center">I.   FIRST-ORDER HEAD</div>

1. SECOND-ORDER HEAD

   a. <u>Third order head</u>--Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

   (1) <u>Fourth order head</u>--Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

   (a) <u>Fifth order head</u>--Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

METHODS ———————— *First-order head*

Third-order head

Macroplankton ———————— *Second-order head*

<u>Sampling</u>—The larger and more sparse macroplankton were sampled .....
....

METHODS ———————— *First-order head*

Macroplankton ———————— *Second-order head*

SAMPLING ———————— *Third-order head*

   The larger and more sparse macroplankton were sampled ....
....

Figure 3. <u>Four examples of headings.</u>

JOURNAL ARTICLE:

> Bleakney, W. and Stoner, R., "The Attenuation of Spherical Shock Waves in Air." Journal of Applied Physics, Vol. 19, No. 7, pp. 882-85, July 1948.

BOOK:

> Schaefer, H.F., Electronic Structure of Atoms and Molecules, Addison-Wesley Publishing Co., Cleveland, Ohio, 1972.

DoD TECHNICAL REPORT:

> Tyler, G.A., Fried, D.L., and Myers, G.C., Advanced Wavefront Analysis, AFWL-TR-82-112, Air Force Weapons Laboratory, Kirtland Air Force Base, N. Mex., December 1982.

CONTRACTOR IN-HOUSE REPORT:

> Fried, D.L., Adoption of Thick Chopper Wavefront Sensor Hardware for Operations as a Shewing Interferometer, Report No. TR-323, Optical Sciences Company, Placentia, Calif., January 1979.

REFERENCE BOOK/PAMPHLET:

> American National Standard Mathematical Signs and Symbols for Use in Physical Sciences and Technology, ANSI Y10.20-1975, The American Society of Mechanical Engineers, New York, N.Y., 1976.

UNPUBLISHED DISSERTATION:

> Rojwithya, C., Peak Responses of Randomly Excited Multi-Degree of Freedom Structures, Ph. D. Dissertation, Civil Engineering Department, The University of New Mexico, Albuquerque, December 1980.

UNPUBLISHED PAPER:

> Baum, C.E., Electromagnetic Topology: Basic Concepts and Relation to Graph Theory, Paper presented at 24th Midwest Symposium on Circuits and Systems, Albuquerque, N. Mex., Jun 1981.

PERSONAL COMMUNICATION:

> Horowitz, J.B., Telephone communication concerning current research on pulsed laser hot-spot tracking, Project Officer, Laser Development Division, Advanced Radiation Technology Office, Air Force Weapons Laboratory, Kirtland Air Force Base, N. Mex., 17 March 1982.

MEMORANDA:

> U.S. Department of Defense, Memorandum by Undersecretary of Defense William J. Perry on the use of metric dimensions in technical reports, studies, and position papers, Washington, D.C., 4 June 1979.

COMPUTER PROGRAM:

> CLINGER, Computer Science Department, University of Texas at Austin, 1979.

Figure 4. Examples of references.

5.5.6 Distribution list. A distribution list may be included at the end of the report.

5.6 Figures.

5.6.1 General. Treat figures consistently throughout a report. Prepare them so that details and callouts (labels) will be clearly reproducible after final reduction for reproduction and further microproduction. Crop or mask photographs to eliminate insignificant detail. Do not add a border frame or use background tones in line drawings unless they contribute substantially to clarity. For printers copy, submit only high quality line copy and only original photographs or matted halftone negatives when practical. Hand lettering is unacceptable.

5.6.2 Captions (not legends, see 5.6.8). Designate the figure by the word "Figure" and a consecutive number. Figures included in appendixes should be numbered as noted in paragraph 5.5.2. Place and underline the caption under the figure following the figure number in a type which will be clear and suitable for the figure in hand. If a list of figures is included, the caption should be brief and clearly identify the figure; it should appear exactly the same in the list (See 5.3.6).

5.6.3 Placement. Locate figures as near as possible after the first text reference except in special situations, such as a report containing only a few text pages and many figures. In such cases, place the figures in numerical sequence in the back of the report. Unless it is not possible to do so and maintain readability, place figures so that they may be viewed without turning the page sideways. If this is not possible, place the figures sideways so that they can be seen by rotating the page clockwise.

5.6.4 Callouts (Labels). When practical, place callouts horizontally, unboxed, and near the item called out as shown in Figure 5. Make callouts consistent in size and typeface throughout a report. Use capitals or lettering of at least 8-point or 1/10-inch high in a final reproduced size.
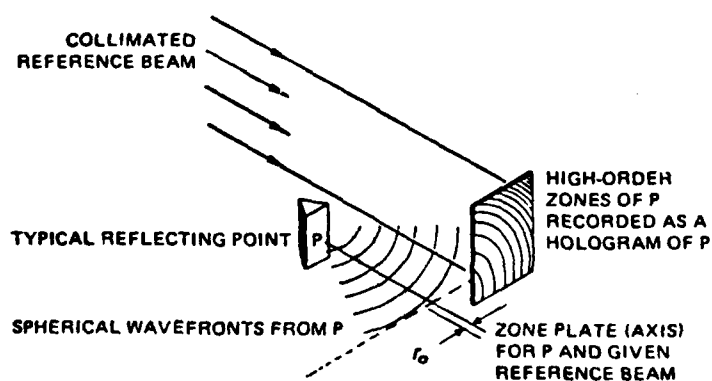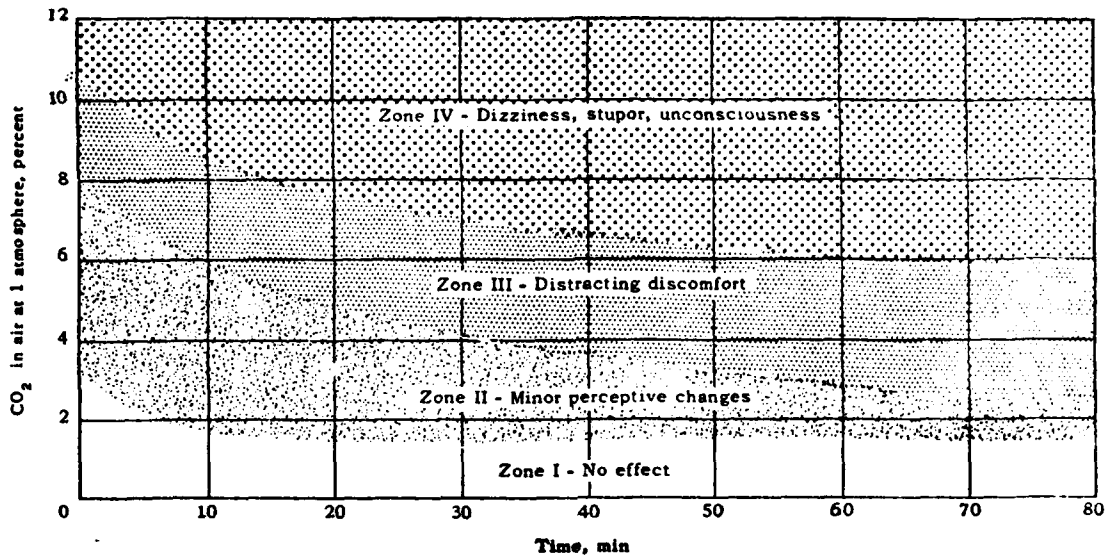

Figure 5. Placement of callouts.

14

5.6.5 Use of color. Color will not be used in figures unless specifically authorized by the funding (sponsoring) organization as the only means of presenting data clearly. Use screens, crosshatching, reverses, dots, or similar techniques as effective substitutes for color. (See Figure 6.)
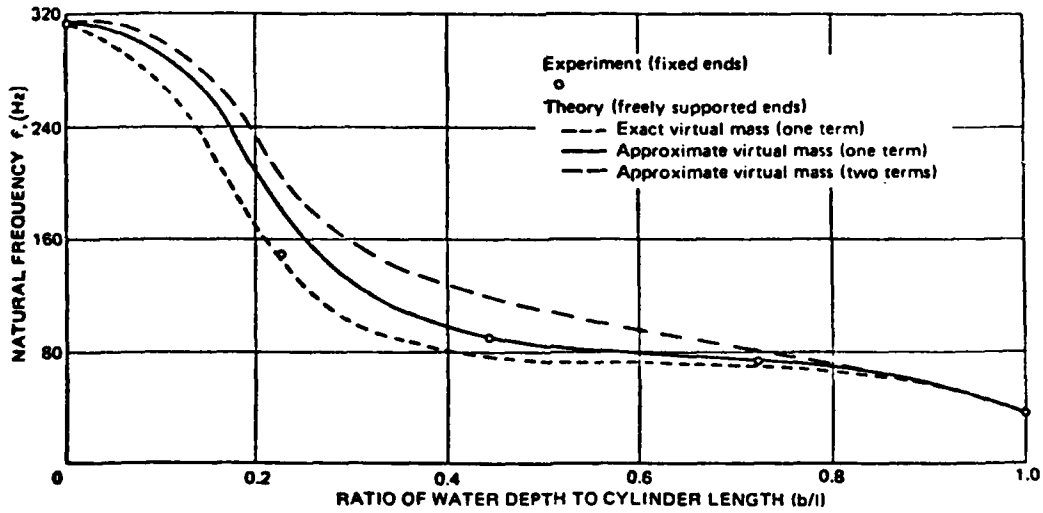
Screening

Coding

Figure 6. Examples of substitutes for color.

15

5.6.6   *Foldouts.* Use foldouts only when they cannot be avoided, the face of the foldout is odd-numbered as one right-hand page; the reverse is left blank and even-numbered. The first page of text after a foldout is always an odd-numbered right-hand page. If the report contains an even-numbered number of foldouts they may be placed back-to-back with the following first page of text being odd-numbered.

5.6.7   Numbering. In order to refer to figures in the text, the figure must be numbered. Number figures in the text consecutively in the order in which they are introduced in the text, using Arabic numerals, preceded by the abbreviation "Fig." for example, Fig. 1 or Fig. 2. For figures in appendixes, designate the first figure in Appendix A as Fig. A-1, the first figure in Appendix B as Fig. B-1, etc.

5.6.8   Legends. Except when the figure is self-explanatory, a descriptive legend should be used to explain symbols, hatching, coding, etc., (see Figure 6), so that the figure can stand alone and be understood without reference to the text. Make the legends part of the figure, but not part of the caption (See 5.6.2).

5.7   Tables.

5.7.1   General. Tables should be as simple as possible so that the reader can easily grasp the meaning of the data. Avoid vertical and horizontal lines wherever spacing can be used effectively. Use letters and numbers in tables that will be at least 8-point or 1/10-inch high in the final printed report. Titles may be presented in a type suitable for the table. (See 5.4.5.) Printout sheets of electronically tabulated data that are used for direct reproduction should have sharp and unbroken letters and numbers. (See Figure 7.)
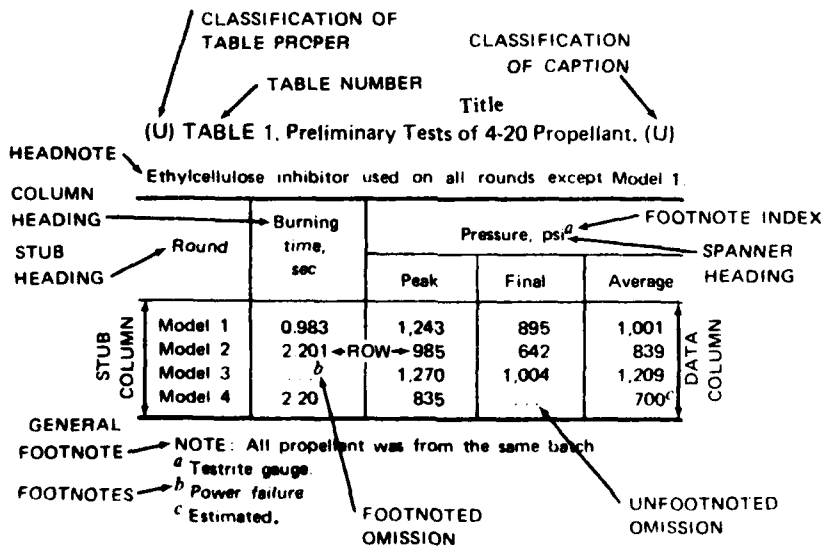

Figure 7.   Typical table layout.

5.7.2 Placement. Locate tables as close as possible following their first text reference. When a report contains only a few text pages and many tables, place the tables in numerical sequence in the back of the report. Place tables so that they may be viewed without turning the page sideways. If this is not possible, place the table sideways so that the top is at the left side of the page and it can be read by rotating the page clockwise.

5.7.3 Columns and column headings. Give applicable units of measure or degree in the column heading of tables. Do not repeat in the columns. When tables continue on two or more pages, note the continuation and repeat the column headings and rules on each page. Column headings need not be repeated on the second page when a long table is placed sideways on facing pages.

5.7.4 Numbering. Number tables in the text consecutively in Arabic numerals, preceded by the word "TABLE." Tables within appendixes should be numbered in a manner consistent with the appendix. (See 5.5.2.)

5.7.5 Title (Caption or Heading). Above each table center the table number (TABLE 1) and a brief, descriptive title which can be used for identification in a list. (See 5.3.7.) Include any following explanatory material as a headnote (See Figure 7) which starts on the second line below the title.

5.8 Equations.

5.8.1 General. Use machine or transfer-type composition when available. When necessary, identify symbols after first use in order to simplify reading from any type of microform, otherwise include symbols in a separate list. Make opening and closing parentheses, brackets, and braces the same height as the tallest expression they enclose. Separate the numerator from the denominator with a line as long as the longer of the two. Center both numerator and denominator on the line. (See references 2.1(n) and 2.3(a).)

5.8.2 Placement. Indent or center a displayed equation immediately following the first text reference made to it. Break equations before an equal, plus, or multiplication sign. Align a group of separate but related equations by the equal signs and indent or center the group as a whole. Place short equations not part of a series or not identified by number in the text rather than display them.

5.8.3 Numbering. Number equations which are part of a series or which are referred to in the text consecutively in Arabic numerals in parentheses at the right margin, on the last line of the equation; align the numbers. Equations within appendixes should be numbered in a manner consistent with the appendix. (See 5.5.2.) In long or complex reports which are numbered by paragraphs, the equations should be numbered accordingly. (See 5.4.6.) In all cases referenced equations should be easily located in the report.

5.9 Production.

5.9.1 Composition.

5.9.1.1 Type size. The size of type for the main text shall provide for printer's copy in which letters and numbers are preferably the equivalent of 10-point type.

5.9.1.2 Typed copy. Type all camera-ready or printers copy in black ink with original black ribbon on opaque white paper. Minor pasteups are allowed. Print in the main text must be uniform in color and size. Varying densities are not allowed.

5.9.1.3 Line spacing. Use single or 1 1/2 spacing for reports prepared by typewriter for camera-ready copy, except when double spacing is necessary to assure clarity of equations or symbols. Use 1 1/2 or double spacing for manuscripts.

5.9.1.4 Margins. Use margins of at least 3/4 inch on all sides of text pages.

5.9.1.5 Columns. Prepare text pages with a single column, not necessarily justified on the right margin, unless the funding (sponsoring) organization authorizes justification or use of more than one column.

5.9.1.6 Page numbering and usage. Number all front matter as designated in paragraph 5.1.1 by Roman numerals - Report Documentation Page should be i and ii. The body of the report, as designated by paragraph 5.1.2 and following, should be numbered consecutively at the bottom center in Arabic numerals. Separate volumes may be numbered independently. In special cases when the report is complex or voluminous, it may be numbered by section, chapter, etc. Odd-numbered pages will be right-hand pages; even-numbered pages will be left-hand pages. Use both sides of the sheet to the maximum extent possible.

5.9.1.7 Typewriter ribbons. Use black ribbon to type reproducible copy. Carbon ribbon is preferred.

5.9.2 Source of printing. Contractors or grantees shall not become prime sources of printing for departments or agencies unless so authorized by the Joint Committee on Printing. Printing shall conform to the requirements of the "Government Printing and Binding Regulations."

5.9.3 Image, quality, workmanship. Filled-in or broken letters, illegible text or illustrations (including lettering) and similar imperfections cannot be used. Only printed reports that are of high image quality that will reduce 24 times into microform, duplicate into microform, and then enlarge to original image size on paper copy are acceptable. The Report Documentation Page, DD Form 1473 will be the printed copy, as will any computer-generated copy will be of the same quality as the text (carbon or photo- copies are not acceptable). When word processing techniques are used, the final printer's copy must be run on a character printer that will produce copy at least as good as that of a standard office typewriter.

5.9.4 Cover size, stock, color and ink. Printed reports may have self-covers cut to page size or separate covers. If separate covers are used, GPO standard 100- or 130-pound basis weight Vellum (or comparable quality) is preferred. (See reference 2.1(k).) Color coding of covers for security reasons is the option of the organization preparing the report. Do not use dark colored cover stock. The colors recommended are the following GPO property numbers which apply to 100-pound vellum stock: White, Venice blue (light)-921, Killarney green (light)-941, Canary yellow -930, Peach tan -923, Pink -191. Black ink will be used on covers. Do not use covers with windows.

5.9.5 Text page size, stock, color and ink. Printed reports shall be 8 1/2 x 11 inches in size. Use black ink on JCP (Joint Committee on Printing) white Offset Book paper of 80 or 100 pound (or comparable quality) stock for text pages. (See "Government Paper Specification Standards.")

5.9.6 Binding. The binding of reports is the responsibility of the primary responsible government agency or monitoring DoD organization or its designate. Bind reports in accordance with security, safety and cost requirements as specified by these organizations. (See references 2.1(h) and 2.1(k).)

5.9.7 Decorative features and advertising. Use only simple organizational symbols or logos to the extent that they do not infringe on the space needed for the necessary information that is to be placed on the cover. These may be DoD symbols or contractor symbols or both, used and placed in accordance with the requirements of the primary responsible government organization under whose sponsorship the report is to be generated.

Custodians:
    Army - AM
    Navy - NM
    Air Force - 01

Preparing activity:
DLA - DD

Review activities:
    Army - AR, CE, MI, ME, AV,
        MR, GL, AD
    Navy - SH
    Air Force - 20, 04, 13, 15
    Other - NV, OM, DS, NS, DC

MISC-OD11

User activities:
    Army - CU, AI
    Navy - NRL, NWC
    Air Force - 12, 03, 11, 17, AEDC
    Other - AVRADCOM, NSRDC, NSWC,
        ONR, DARPA

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION		1b. RESTRICTIVE MARKINGS			
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT			
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)		5. MONITORING ORGANIZATION REPORT NUMBER(S)			
6a. NAME OF PERFORMING ORGANIZATION	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION			
6c. ADDRESS (City, State and ZIP Code)		7b. ADDRESS (City, State and ZIP Code)			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8c. ADDRESS (City, State and ZIP Code)		10. SOURCE OF FUNDING NOS			
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO	WORK UNIT NO
11. TITLE (Include Security Classification)					

12. PERSONAL AUTHOR(S)

13a. TYPE OF REPORT	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Yr., Mo., Day)	15. PAGE COUNT

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB. GR.	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS ☐	

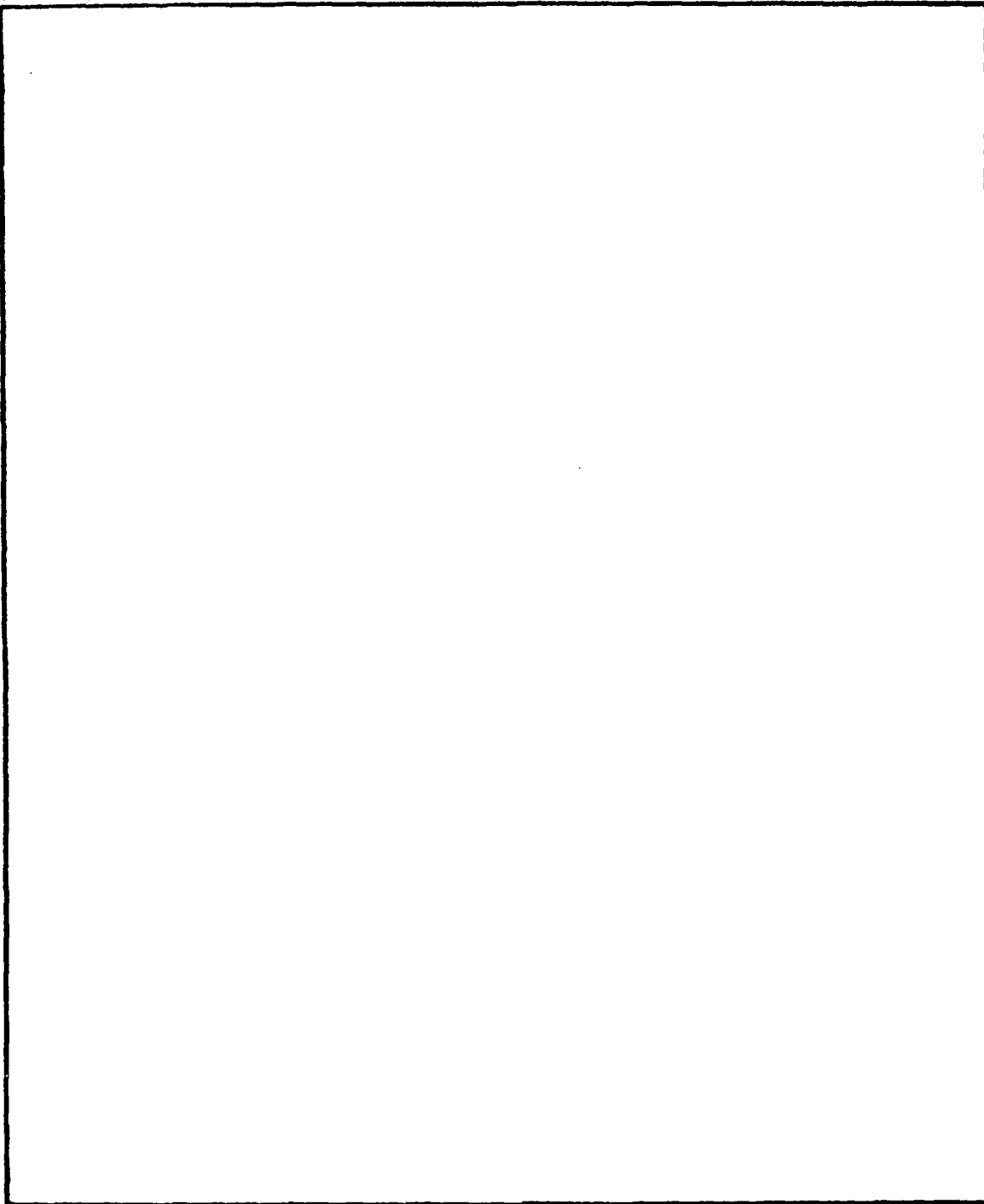| 22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE NUMBER (Include Area Code)	22c. OFFICE SYMBOL

DD FORM 1473, 83 APR   EDITION OF 1 JAN 73 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE

Figure 8.   Report Documentation Page, DD Form 1473 (1 of 2)

SECURITY CLASSIFICATION OF THIS PAGE

Figure 8. Report Documentation Page, DD Form 1473 (2 of 2)

APPENDIX

INSTRUCTIONS FOR PREPARATION OF

REPORT DOCUMENTATION PAGE

(REvised Version of DD Form 1473)

10. SCOPE

10.1 <u>Responsibility</u>. This appendix is a mandatory part of this military standard. The primary responsible DoD office (monitoring office) will be responsible for completion of the Report Documentation Page, DD Form 1473, in all technical reports prepared by or for DoD organizations.

10.2 <u>Classification</u>. Since this Report Documentation Page, DD Form 1473, is used in preparing announcements, bibliographies, and data bases, it should be unclassified if possible. If a classification is required, identify the classified items on the page by the appropriate symbol.

20. COMPLETION GUIDE

20.1 <u>General Information</u>. The accuracy and completeness of all information provided in the DD Form 1473, especially classification and distribution limitation markings, are the responsibility of the authoring or monitoring DoD activity.

Because the data input on this form will be what others will retrieve from DTIC's bibliographic data base or may determine how the document can be accessed by future users, care should be taken to have the form completed by knowledgeable personnel. For better communication and to facilitate more complete and accurate input from the origination of the form to those processing the data, space has been provided for the name, telephone number and office symbol of the DoD person responsible for the input cited on the form. These are to be noted in Block 22.

All information on the DD Form 1473 should be typed.

Only information appearing on or in the report, or applying specifically to the report in hand should be reported. If there is any doubt, the block should be left blank.

Some of the information on the forms (e.g., title, abstract) will be machine-indexed. The terminology used should describe the content of the report or identify it as precisely as possible for future identification and retrieval.

<u>SPECIAL NOTE</u>: UNCLASSIFIED ABSTRACTS AND TITLES DESCRIBING CLASSIFIED DOCUMENTS MAY APPEAR SEPARATELY FROM THE DOCUMENTS IN AN UNCLASSIFIED CONTEXT, E.G., IN DTIC ANNOUNCEMENT BULLETINS AND BIBLIOGRAPHIES. THIS MUST BE CONSIDERED IN THE PREPARATION AND MARKING OF UNCLASSIFIED ABSTRACTS AND TITLES.

The Defense Technical Information Center (DTIC) is ready to offer assistance to anyone who needs and requests it. Call Data Base Input Division (AUTOVON) 284-7044; Com 202-274-7044.

20.2 <u>Security Classification of the Form</u>. In accordance with DoD 5200.1-R, Information Security Program Regulation, Chapter IV Section 2, paragraph 4-200, classification markings are to be stamped, printed, or written at the tops and bottom of the form in captial letters that are larger than those used in the text of the document. See also DoD 5220.22-M, Industrial Security Manual for Safegurading Classified Information, Section II, paragraph 11a(2). This form should be unclassified, if possible.

20.3 <u>Block 1.a.</u> Report Security Classification. Designate the highest security classification of the report. (See DoD 5200.1-R, Chapters I, IV, VII, XI, Appendix A.)

   <u>Block 1.b.</u> Enter the restricted marking or warning notice of the report (e.g., CNWDI, RD, NATO).

20.4 <u>Block 2.a.</u> Security Classification Authority. Enter the commonly used markings in accordance with DoD 5200.1-R, Chapter IV, Section 4, paragraph 4-400 and 4-402. Indicate classification authority.

   <u>Block 2.b.</u> Declassification/Downgrading Schedule. Indicate specific date or event for declassification or the notation "Originating Agency Determination Required" or "OADR." Also insert (when applicable) downgrade to: _____ on _____, (e.g., "Downgrade to Confidential on 6 July 1983). (See also DoD 5220.22-M, Industrial Security Manual for Safeguarding Classified Information, Appendix II).

NOTE: Entry must be made in Blocks 2.a. and 2.b. except when the original report is unclassified and has never been upgraded.

20.5 <u>Block 3.</u> Distribution/Availability Statement of Report. Insert the statement as it appears on the report. If a limited distribution statement is used, the reason must be one of those given by DoD Directive 5200.20, Distribution Statements on Technical Documents. The Distribution Statement should provide for the broadest distribution possible within limits of security and controlling office limitations.

20.6 <u>Block 4.</u> Performing Organization Report Number(s). Enter the unique alphanumeric report number(s) assigned by the organization originating or generating the report from its research and whose name appears in Block 6. These numbers should be in accordance with ANSI STD 239.23-74 "American National Standard Technical Report Number." If the Performing Organization is also the Monitoring Agency, enter the report number in Block 4.

20.7 <u>Block 5.</u> Monitoring Organization Report Number(s). Enter the unique alphanumeric report number(s) assigned by the Monitoring Agency. This should be a number assigned by a Department of Defense or other government agency and should be in accordance with ANSI STD 239.23-74 "American National Standard Technical Report Number." If the Monitoring Agency is the same as the Performing Organization enter the report number in Block 4 and leave Block 5 blank.

20.8 <u>Block 6.a.</u> Performing Organization. For in-house reports, enter the name of the performing activity. For reports prepared under contract or grant, enter the contractor or the grantee who generated the report and identify the appropriate corporate division, school, laboratory, etc., of the author.

<u>Block 6.b.</u> Enter the office symbol of the performing organization.

<u>Block 6.c.</u> Enter the address of the performing organization, list city, state and ZIP code.

20.9 <u>Block 7.a.</u> Monitoring Organization - Name. This is the agency responsible for administering or monitoring a project, contract, or grant. If the monitor is also the performing organization. leave Block 7.a. blank. In the case of joint sponsorship, the monitoring organization is determined by advanced agreement. It can be either an office, a group, or a committee representing more than one activity, service or agency.

<u>Block 7.b.</u> Enter the address of the monitoring organization. Include city, state and ZIP code.

20.10 <u>Block 8.a.</u> Funding (Sponsoring) Organization - Name. Enter the full official name of the organization under whose immediate funding the document was generated, whether the work was done in-house or by contract. If the Monitoring Organization is the same as the Funding Organization, leave Block 8.a. blank.

<u>Block 8.b.</u> Enter the office symbol of the Funding (Sponsoring) Organization.

<u>Block 8.c.</u> Enter the address of the Funding (Sponsoring) Organization. Include city, state and ZIP code.

20.11 <u>Block 9.</u> Procurement Instrument Identification Number (Contract, Grant, or other Funding Instrument). For a contractor or grantee report, enter the complete contract or grant number(s) under which the work was accomplished. Leave this block blank for in-house reports.

20.12 <u>Block 10.</u> Source of Funding (Program Element, Project, Task Area, and Work Unit Number(s)). These four data elements relate to the DoD budget structure and provide program and/or administrative identification of the support for the work being carried on. Enter the program element, project, task area, work unit number, or their equivalents that identify the principal source of funding for the work required. These codes may be obtained from the applicable DoD forms such as the DD Form 1498 (Research and Technology Work Unit Summary) or from the fund citation of the funding instrument. If this information is not available to the authoring activity, these blocks should be filled in by the responsible DoD Official designated in Block 22. If the report is funded from multiple sources, identify only the Program Element and the Project, Task Area and Work Unit Numbers of the principal contributor.

20.13 <u>Block 11.</u> Title and Its Security Classification. Enter the title in Block 11 in initial capital letters exactly as it appears on the report. Titles on all classified reports, whether classified or unclassified, must be immediately followed by the security classification of the title enclosed in parentheses. A report with a classified title should be provided with an unclassified version if it is possible to do so without changing the meaning or obscuring the contents of the report. Use specific, meaningful words that describe the content of the report so that when the title is machine-indexed, the words will contribute useful retrieval terms.

If the report is in a foreign language and the title is given in both English and a foreign language, list the foreign language title first, followed by the English title enclosed in parentheses. If part of the text is in English, list the English title first followed by the foreign language title enclosed in parentheses. If the title is given in more than one foreign language, use a title that reflects the language of the text. If both the text and titles are in a foreign language, the title should be translated, if possible, unless the title is also the name of a foreign periodical. Transliterations of often used foreign alphabets (see paragraph 20.25 of MIL-STD-847B) are available from DTIC in document AD-A080 800.

20.14 <u>Block 12.</u> Personal Author(s). Give the complete name(s) of the author(s) in this order: last name, first name and middle name. In addition, list the affiliation of the authors if it differs from that of the performing organization.

List all authors. If the document is a compilation of papers, it may be more useful to list the authors with the titles of their papers as a contents note in the abstract in Block 19. If appropriate, the names of editors and compilers may be entered in this block.

20.15 <u>Block 13.a.</u> Type of Report. Indicate whether the report is summary, final, annual, progress, interim, etc.

<u>Block 13.b.</u> Period of Time Covered. Enter the inclusive dates (year, month, day) of the period covered, such as the life of a contract in a final contractor report.

20.16 <u>Block 14.</u> Date of Report. Enter the year, month, and day, or the year and the month the report was issued as shown on the cover.

20.17 <u>Block 15.</u> Page Count. Enter the total number of pages in the report that contain information, including cover, preface, table of contents, distribution lists, partial pages, etc. A chart in the body of the report is counted even if it is unnumbered.

20.18 <u>Block 16.</u> Supplementary Notation. Enter useful information about the report in hand, such as: "Prepared in cooperation with..." "Translation at (or by)..." "Symposium..." If there are report numbers for the report which are not noted elsewhere on the form (such as internal series numbers or participating organization report numbers) enter in this block.

20.19 Block 17. COSATI Codes. This block provides the subject coverage
of the report for announcement and distribution purposes. The categories are to
be taken from the "COSATI Subject Category List" (DoD Modified), Oct 65,
AD-624 000. A copy is available on request to any organization generating
reports for the DoD. At least one entry is required as follows:

> Field - to indicate subject coverage of report.
> Group - to indicate greater subject specificity of information in
> the report.
> Sub-Group - if specificity greater than that shown by Group is required,
> use further designation as the numbers after the period (.)
> in the Group breakdown. Use only the designation provided
> by AD-624 000.
> Example: The subject "Solid Rocket Motors" is Field 21, Group 08,
> Subgroup 2 (page 32, AD-624 000).

20.20 Block 18. Subject Terms. These may be descriptors, keywords, posting
terms, identifiers, open-ended terms, subject heading, acronyms, code words, or
any words or phrases that identify the principal subjects covered in the report,
that conform to standard terminology and exact enough to be used as subject index
entries. Certain acronyms or "buzz words" may be used if they are recognized
by specialists in the field and have a potential for becoming accepted terms.
"Laser" and "Reverse Osmosis" were once such terms.

If possible, this set of terms should be selected so that the terms individually
and as a group will remain UNCLASSIFIED withou losing meaning. However, priority
must be given to specifying proper subject terms rather than making the set of
terms appear "UNCLASSIFIED". Each term on classified reports must be immediately
followed by its security classification, enclosed in parentheses.

For reference on standard terminology the "DTIC Retrieval and Indexing
Terminology" DRIT-1979, AD-A068 500, and the DoD "Thesaurus of Engineering and
Scientific Terms (TEST) 1968, AD-672 000, may be useful.

20.21 Block 19. Abstract. The abstract should be a pithy, brief (preferably
not to exceed 300 words) factual summary of the most significant information
contained in the report. However, since the abstract may be machine-searched,
all specific and meaningful words and phrases which express the subject content
of the report should be included, even if the word limit is exceeded.

If possible the abstract of a classified report should be unclassified and consist
of publicly releasable information (Unlimited); but in no instance should the
report content description be sacrificed for the security classification.

NOTE: AN UNCLASSIFIED ABSTRACT DESCRIBING A CLASSIFIED DOCUMENT MAY APPEAR
SEPARATELY FROM THE DOCUMENT IN AN UNCLASSIFIED CONTEXT, E.G., IN DTIC ANNOUNCEMENT
OR BIBLIOGRAPHIC PRODUCTS. THIS MUST BE CONSIDERED IN THE PREPARATION AND MARKING
OF UNCLASSIFIED ABSTRACTS.

For further information on preparing abstracts, employing scientific symbols,
verbalizing, etc., see paragraph 2.1(n) and 2.3(b) in MIL-STD-847B.

20.22 Block 20. Distribution/Availability of Abstract. This block must be completed for all reports. Check the applicable statement either "unclassified/unlimited" or "same as report," or if the report is available to DTIC registered users "Abstract available to DTIC users."

20.23 Block 21. Abstract Security Classification. To ensure proper safeguarding of information, this block must be completed for all reports to designate the classification level of the entire abstract. For CLASSIFIED abstracts, each paragraph must be preceded by it security classification code in parentheses.

20.24 Block 22.a.b.c. Give name, telephone number and office symbol respectively of DoD person responsible for the accuracy of the completion of this form.

20.25. Transliteration of Foreign Alphabets.

	å	ae	ö	ø	ü	β
Danish		X		X		
Finnish	X		X			
German	X		X		X	X
Icelandic		X	X			
Norwegian		X		X		
Swedish	X		X			
USE	ae	ae	oe	oe	ue	ss

GREEK			RUSSIAN			GERMAN		
A α	alpha	a (ă)	А а	a	(ă)	𝔄 a		(ă)
B β	beta	b (b)	Б б	b	(b, p)	𝔄 ä		(ä, ĕ)
			В в	v	(v, f)	𝔅 b		(b, p)
Γ γ	gamma	g (g)	Г г	g	(g, k)			
Δ δ	delta	d (d)	Д д	d	(d)	ℭ c		(k, ts, s)
E ε	epsilon	e (ĕ)	Е е	e	(ya, ĕ, yó, yô, yĕ, ĕ)	𝔈𝔥 ᴄ𝔥		(x)
			Ж ж	zh	(zh, sh)	𝔇 b		(d, t)
Z ζ	zeta	z (z)	З з	z	(z)	𝔈 e		(ă, ĕ)
H η	eta	ē (ē)	Ии Йй	i, ĭ	(ĕ, y)	𝔉 f		(f)
Θ θ	theta	th (th)	I i	i	(ĕ)	𝔊 g		(g, x, k)
			К к	k	(k)	𝔥 𝔥		(h)
I ι	iota	i (ĕ)	Л л	l	(l)			
			М м	m	(m)	𝔍 i		(ĕ, ĭ)
K κ	kappa	k (k)	Н н	n	(n)	𝔍 j		(y)
			О о	o	(ô, ŏ)	𝔎 f		(k)
Λ λ	lambda	l (l)	П п	p	(p)	𝔏 ĺ		(l)
M μ	mu	m (m)	Р р	r	(r)			
			С с	s	(s)	𝔐 m		(m)
N ν	nu	n (n)	Т т	t	(t)	𝔑 n		(n)
Ξ ξ	xi	x (ks)	У у	u	(oo)	𝔒 o		(ô, ŏ, ö)
			Ф ф	f	(f)			
O o	omicron	o (ŏ)	Х х	kh	(k)	𝔒 ö		(ü)
Π π	pi	p (p)	Ц ц	ts	(ts)	𝔓 p		(p)
			Ч ч	ch	(ch, tsh)	𝔔 q (k)	Only in qu, pron. kv	
P ρ	rho	r, rh (r)	Ш ш*	sh	(sh)	𝔑 r		(r)
			Щ щ	shch	(shch)	𝔖 ŝ f		(z, s)
Σ σ ς	sigma	s (s)	Ъ ъ	•	—	𝔖𝔠𝔥 f𝔠𝔥		(sh)
			Ы ы	y	(wĕ, ŭĕ, ĭ)			
T τ	tau	t (t)	Ь ь	e, —, '†	(ĕ, —)	𝔗 t		(t)
T υ	upsilon	y, u (ū, oo)	Ѣ ѣ	ye	(yĕ, ĕ)	U u		(oo, ŏo)
			Э э	e	(ĕ)	Ü ü		(ü)
Φ φ	phi	ph (f)	Ю ю	yu	(yoo [u])	𝔙 v		(f, v)
X χ	chi	ch (k, x)	Я я	ya	(yä, yä, ĕ)	𝔚 w		(v)
			Ѳ ѳ	f	(f)	𝔛 x		(ks)
Ψ ψ	psi	ps (ps)	Ѵ ѵ	y	(ĕ)	𝔜 ÿ		(ă, ĭ, ü)
Ω ω	omega	ō (ō)	* marks nonpalatalization † marks palatalization			𝔷 ᴈ		(ts)

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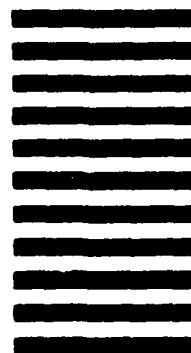
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