Naval Ocean
Systems Center

Technical Document 1545
September 1989

STI Handbook

STI HANDBOOK:

Guidelines for Producing, Using, and Managing Scientific and Technical Information at NOSC

September 1989

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Publications Branch
Technical Information Division

Approved for public release; distribution is unlimited.

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ADMINISTRATIVE INFORMATION

This document was prepared in response to requests for guidelines for preparing and managing scientific and technical information at the Naval Ocean Systems Center. The document was prepared by the Technical Information Division using in-house funding.

Released by
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Under authority of
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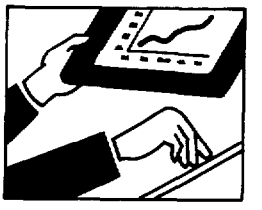

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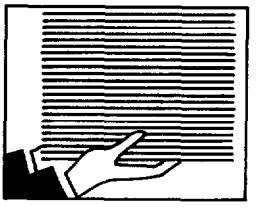

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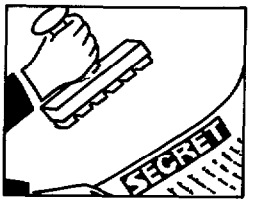

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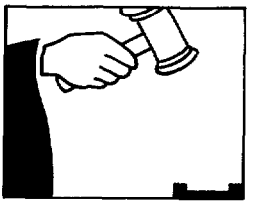

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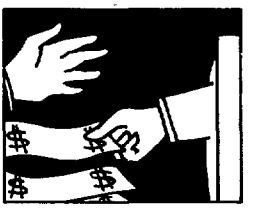

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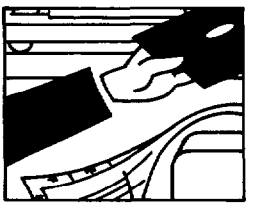

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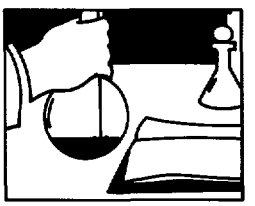

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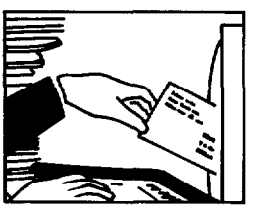

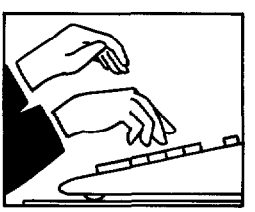

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INTRODUCTION

Purpose of Handbook

Numerous and complex regulations govern scientific and technical information (STI). To help you understand these regulations and how they impact your work, personnel in the Technical Information Division (TID) have prepared this handbook. These regulations—NOSC's, the Navy's, and DoD's—have been explained in the context of how STI is managed at NOSC.

The information in this handbook is based on the concept that technical information is part of the entire RDT&E process. You, as a scientist or engineer, are involved with STI from the conceptual phase of your project until its transfer as an operational system.

As a NOSC scientist or engineer, you are faced daily with decisions to make concerning your work. You are responsible for the quality of your work and responsible for the accuracy of the information that you produce. Some of these decisions involve scientific and technical information. It is the purpose of this handbook to provide you with a reference that can help.

Overview of NOSC's STI Program

NOSC operates its scientific and technical information program (STIP) to

Assist NOSC scientists and engineers in their work.

Ensure that scientific and technical information (STI) that they generate provides maximum contribution to the advancement of science and engineering.

Permit timely, effective, and efficient conduct and management of DoD research, engineering, and studies.

Eliminate unnecessary duplication of resources and efforts.

Encourage and expedite the exchange and use of STI.

To accomplish these goals, Center management has established a variety of STI services, for example, technical libraries and publications and presentation assistance. Although most STI functions and services are located in the Technical Information Division, other services are in the Public Affairs Office, Information Security Office, Office of Legal Counsel, Management Assistance Office, and with the Program Directors for Research and Technology. These groups coordinate their services so that the Center's technical personnel can accomplish their work and the Center can effectively manage its work.

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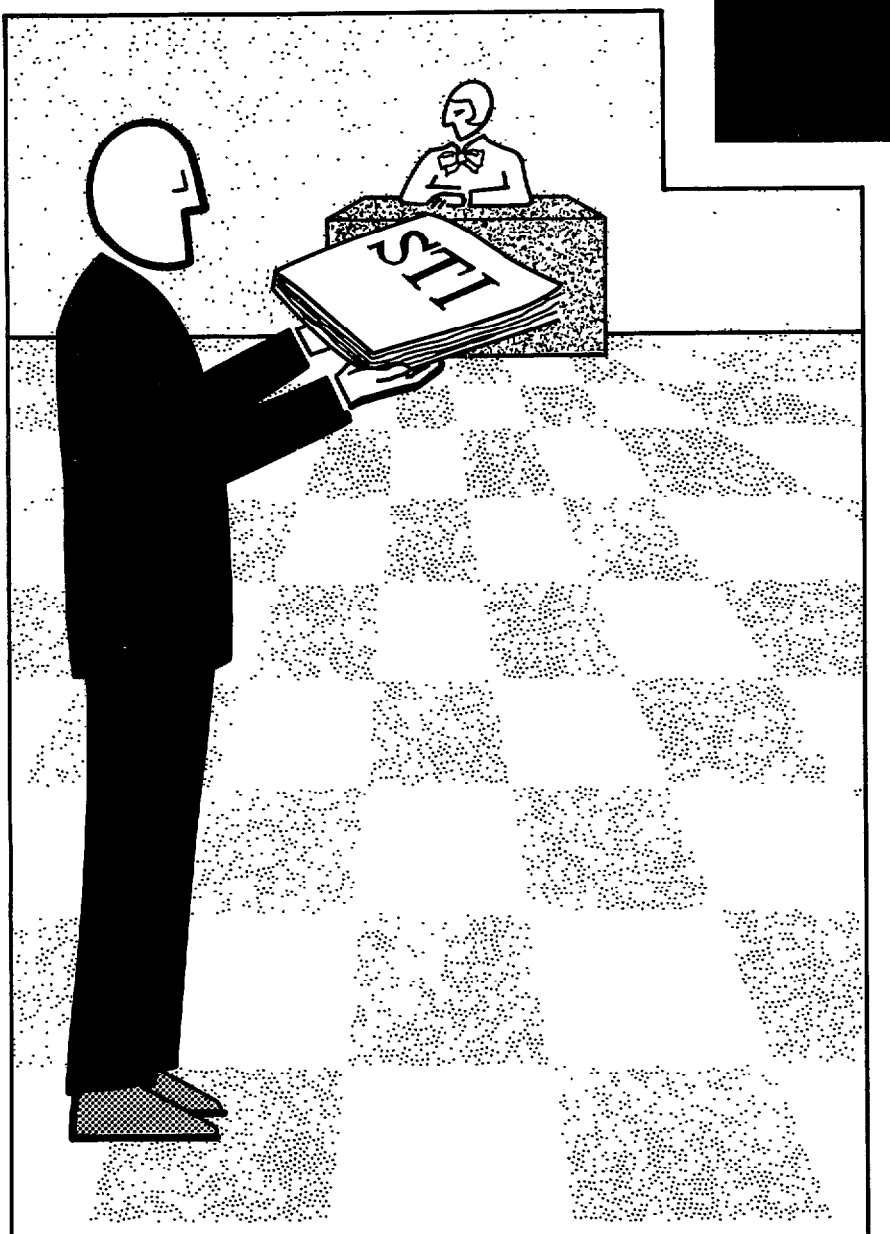

Publishing Scientific and Technical Information

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Publishing Scientific and Technical Information

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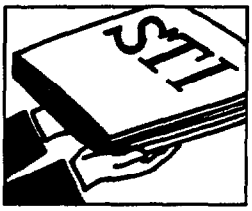


PART 1

PUBLISHING THE RESULTS OF YOUR WORK

What are the Center's requirements for publications? What does NOSC consider a formal publication? How do publications affect the Center? Why does the Center require publications? How do I get something published at NOSC? When is a publication required? How are journal articles and presentations brought into the Center's publication process? What types of publications does NOSC have?

What Does NOSC Require?

NOSC requires that the results of the Center's work be published; this publication can be a formal NOSC-numbered publication, an article in the open literature, or a presentation. The result of this process is a "formal" publication that the Publications Branch can report to the Defense Technical Information Center (DTIC). (DTIC is DoD's database for results of government-sponsored research, development, test, and evaluation. For more information about DTIC, see part 5 of this chapter.)

The Center's four basic requirements in the publications area are as follows:

> The results of work performed by, or under the guidance of, NOSC must be reported. These results include both work done by NOSC employees and work done by NOSC contractors (both industry and academia).
>
> Both positive and negative results of NOSC work must be published.
>
> Publications must be completed within 6 months of the conclusion of the work or within 6 months of a significant scientific or technological observation.
>
> The publications must be "formal" rather than "informal." The distinction between "formal" and "informal" is quite simple: It is whether the publication can be retrieved from, or is announced in, a database accessible to DoD employees. For NOSC employees, this database is the Defense Technical Information Center.

What Is a Formal Publication?

DEFINITION. NOSC defines a formal publication as written material that can be retrieved from, or has been announced through, the Defense Technical Information Center. This means that either the publication is available through DTIC to qualified users (subject to distribution

restrictions and security procedures) or that DTIC has announced the publication's availability at NOSC.

TYPES OF FORMAL PUBLICATIONS

NOSC Publications. Formal NOSC publications (figure 1) fall into the following categories and are defined in part 2 of this chapter:

NOSC technical report (TR)
NOSC technical document (TD)
NOSC technical manual (TM)
System-command-numbered technical manual

Open Literature. NOSC defines the open literature as journals or books that are published by commercial sources and have a worldwide distribution. For most NOSC scientists and engineers, publication in the open literature is either an article in a journal or a chapter or section in a handbook or textbook.

Presentations. For the presentation to be considered formal, it must be made at a recognized meeting, conference, or symposium; in addition, there must be a resulting publication which contains the information made in your presentation. For example, your information could be published in the proceedings of a conference, meeting, or symposium.

What Is an Informal Publication?

DEFINITION. NOSC considers publications such as NOSC technical notes, project documents, memoranda, or correspondence as informal publications. These are not formal publications because they cannot be retrieved through DTIC and have not been announced by DTIC.

CONVERSION INTO FORMAL PUBLICATIONS. Informal publications can be converted into formal NOSC publications at the request of the originating technical code. All that is necessary is to call the Publications Branch which, based on the material that needs to be converted, will provide the required assistance. Conversion can often be done at minimal cost with little paperwork.

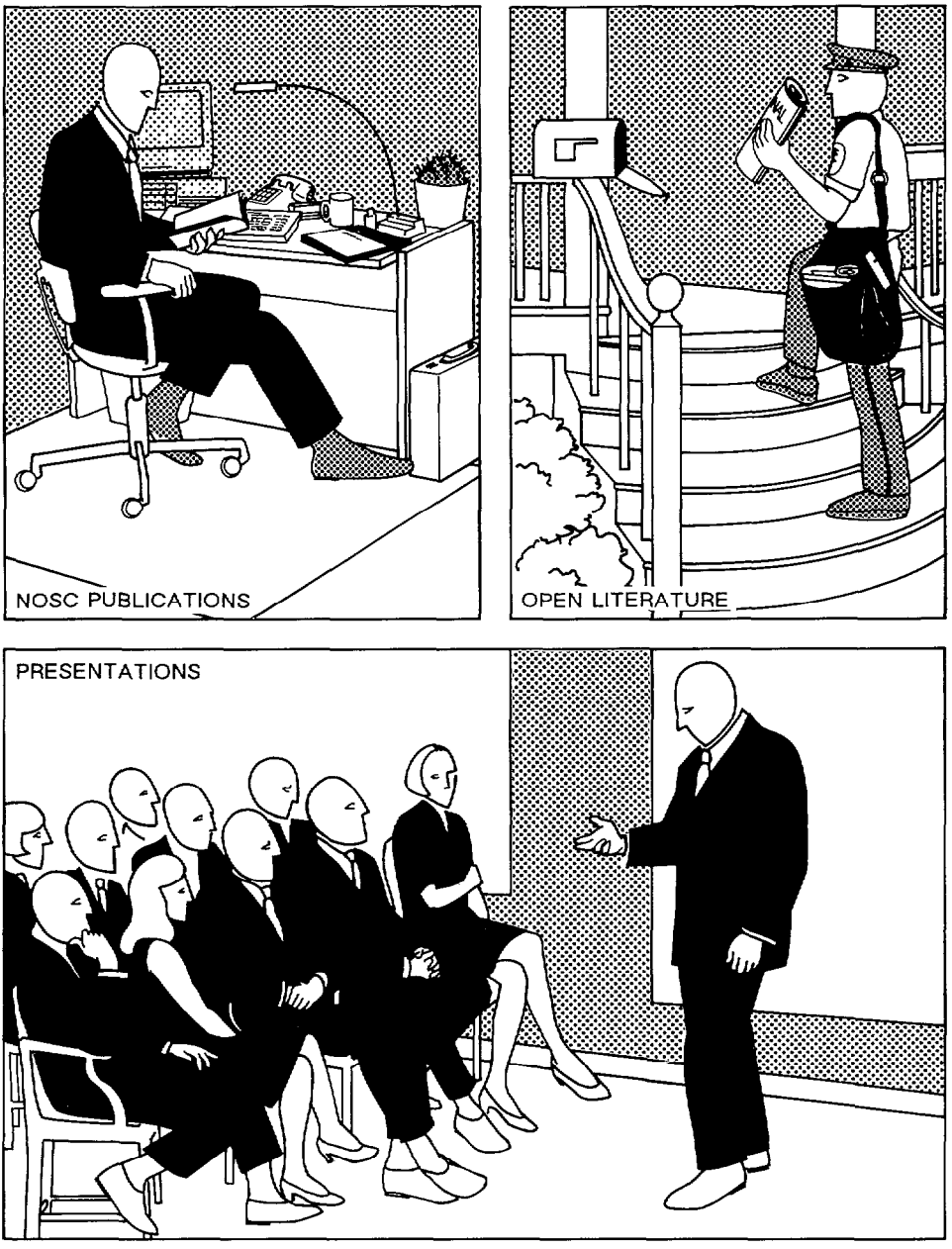


Figure 1. Types of formal publications.

What Types of Information Belong in a Formal Publication?

Any information that can be used outside the project office should be published as a formal NOSC publication. Generally, this includes information that

Increases knowledge of natural phenomena and the environment.

Solves problems in the physical, behavioral, social, and management sciences.

Expands knowledge in scientific areas.

Extends theoretical, practical, and useful applications of basic designs, ideas, and scientific concepts.

Documents the procedures and results of subjecting systems, items, material, personnel, or techniques to simulated or actual operational conditions to determine characteristics, suitability, and compliance with specific requirements.

Provides values, appraisals, or results relevant to strengths, weaknesses, feasibility, potential, and military worth of efforts, concepts, or hardware.

Why Are Publications Necessary?

Although publications are required for many reasons, the more important are the following:

INFORMATION IS A PRODUCT OF NOSC. Since NOSC is a research, development, test and evaluation (RDT&E) center, one of its main products is information. We perform basic and applied research, we develop software and weapons systems, and we test and evaluate equipment and systems. One of the basic "products" of this work is information—whether it is a research report, a specification, a safety plan, a drawing, or a technical manual.

Specifically, NOSC is required to

Ensure that all significant scientific or technological observations, findings, recommendations, and results derived from DoD endeavors, including those generated under contracts or grants that are pertinent to the DoD mission and contribute to the DoD or national scientific or technological base, are recorded as technical documents. (DoD Directive 3200.12 and SECNAVINST 3900.43.)

CORPORATE IDENTITY. Publications also contribute to the "corporate" identity of the Center. Professional publications that are technically accurate, complete, and timely reflect the image of the Center. They are

often the only products seen by high-level military personnel and Congressional groups.

PROFESSIONALISM. Formal publication of technical work is a fundamental precept in the scientific and engineering profession. As such it attests to the professionalism of performance—the professionalism of the Center, as well as the professionalism of the scientist or engineer.

What are the Benefits of Publishing?

Your publication provides value to the Center, assists the scientific and engineering community (government, industry, and academia), and increases your stature as a scientist or engineer (figure 2). For example, consider the following benefits:

The results of your scientific and technical work are made known to other qualified scientists and engineers. These people include not only your peers at NOSC, but also those in other government agencies, industry, and academia. This information exchange occurs when your publication is announced by DTIC, published in the open literature, or discussed at a meeting.

Duplication of work is eliminated. Because the results of your work are available to other scientists and engineers, they will not duplicate work that you have completed or are in the process of doing. They will also learn from your successes and failures.

An audit trail of how public funds were spent is provided. Because the Publications Branch has reported your publication to DTIC, a permanent record is maintained of the results of NOSC's expenditure of public funds.

Results of NOSC work are included at DTIC, which helps NOSC fulfill obligations imposed by DoD and the Navy.

Publications affect your professional stature as a scientist or engineer. At NOSC, part of the scientist or engineer's professional stature is determined by his or her publications. In fact, formal publications are considered a part of the performance rating and promotion process of not only scientists and engineers, but also of the supervisors and managers.

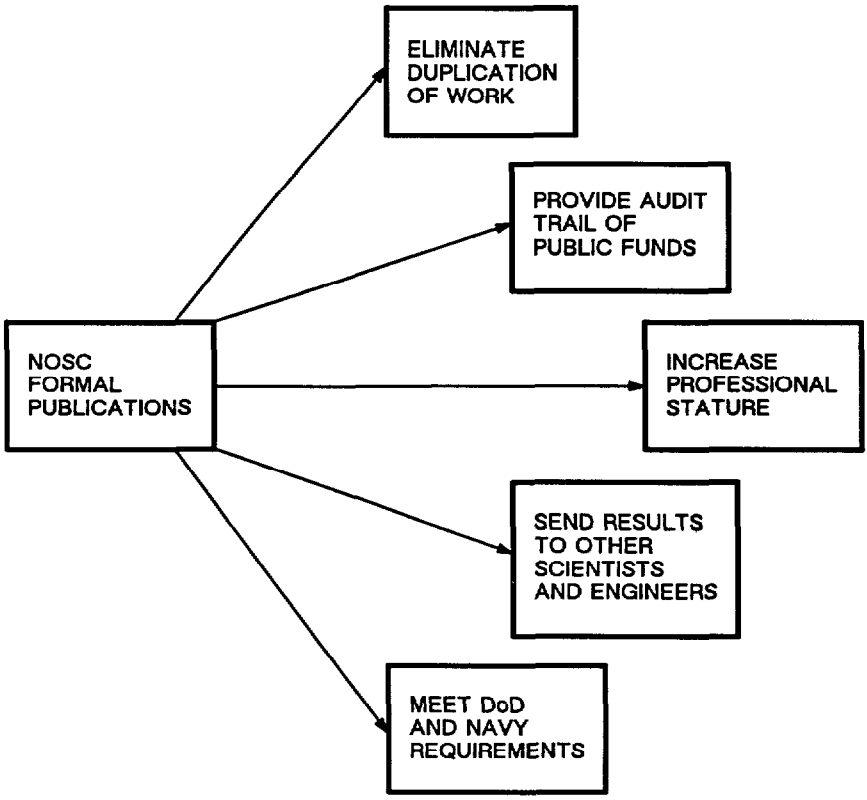


Figure 2. Benefits of formal publications.

What Are My Responsibilities?

As a NOSC employee, your responsibilities regarding technical publications include the following:

As a scientist or engineer:

To publish the results of your work—both positive and negative.

To budget for your publications.

As a contracting officer's technical representative:

To ensure that the results of contract work are published. (Acquisition regulations require that contractors provide publications, consistent with the objectives of the effort involved, as a permanent record of the work accomplished under the contract.)

To review publications delivered by the contractor to determine if the publications should be sent to DTIC.

To include applicable data item descriptions (DIDs) for publications in the contract.

To ensure that contractors are aware of their responsibilities.

As a manager or supervisor:

To ensure that your scientists and engineers publish the results of their work and that of their contractors.

As a project manager:

To ensure that the results of your project are published.

To budget and fund publications.

To coordinate your project's publications with the Publications Branch.

What Publishing Option Should I Use?

As stated above, Center employees have three methods of publication: NOSC's publication series, the open literature, or presentations accompanied by a published paper. As all three are announced via DTIC, any method will allow you to meet your formal publication requirements.

The decision as to which publishing option to use (figure 3) is based upon the following factors:

If the work is classified or if the work is unclassified with a limited distribution statement (distribution statements B through F and X), you must publish by using either the NOSC publication series or presentations made at classified meetings, symposia, or conferences.

If the work is unclassified and unlimited in distribution (distribution statement A), you can publish by using the open literature, the NOSC publication series, or a presentation. The decision is left to you and your supervisors.

How Does NOSC Provide Information to DTIC?

The Publications Branch sends your NOSC publication, open-literature article, or presentation article to DTIC.

Unless specifically restricted, all NOSC-numbered publications, except for technical notes, are automatically sent to DTIC as part of the primary distribution process. In cases where the information must be closely controlled, we provide DTIC with only a Report Documentation Page

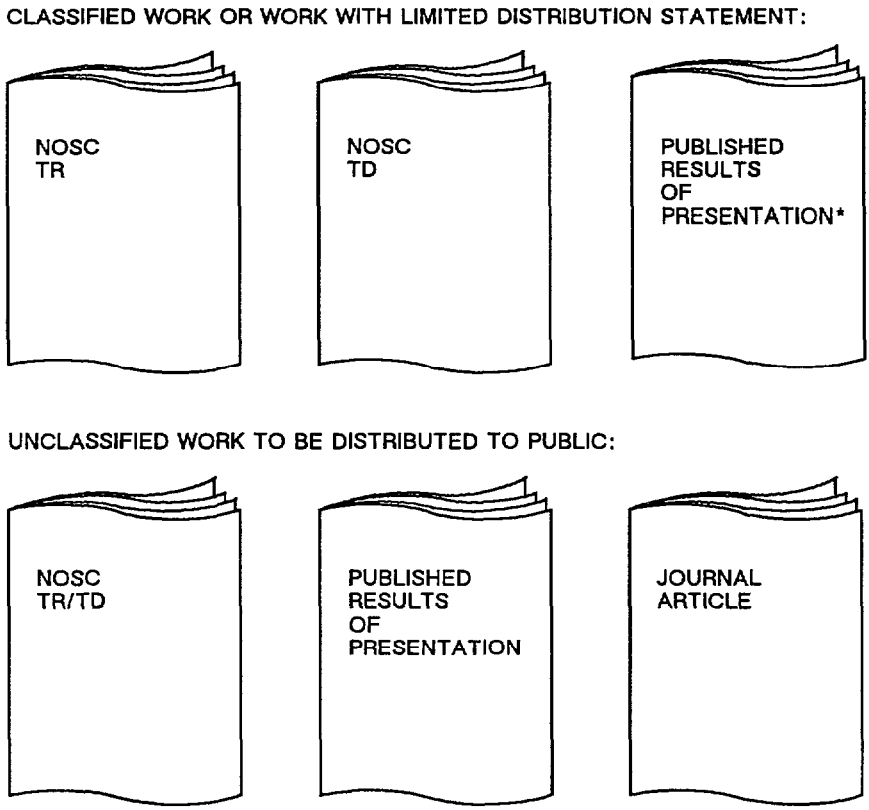


Figure 3. Selection of publishing options.

(SF 298*). (These publications are usually assigned distribution statement F.) DTIC announces to its users only the availability of the limited publication; it does not provide copies. All requests are referred to the controlling agency, usually NOSC for our publications, where the controlling technical code decides if the requester can have a copy. This process allows us to meet our obligation to announce the results of our work while, at the same time, maintaining control of the distribution.

For open-literature articles and presentations, the procedure is as follows: Using information from the routing-and-approval sheet, the Publications Branch contacts the NOSC author to determine if the submission has been accepted and published. If it has been published, the author provides publications personnel with the administrative information concerning funding and, if available, a reprint. Publications personnel then fill out the SF 298 and submit it to DTIC.

* *SF 298 replaces DoD Form 1473.*

How to Get an Article Published

ROUTING AND APPROVAL. The procedures for publishing in the open literature or in a NOSC publication or for making a presentation are quite simple. After you finish writing your manuscript, you simply fill out the the appropriate routing-and-approval form, NOSC Form 5605 or NOSC Form 5720 (see figures 4A and 4B). The specific routing process depends upon the classification of the information. Specifically,

If the information is classified, this form is signed by your branch and division heads and the Information Security Office.

If the information is unclassified, the form is signed by your branch and division heads, the Information Security Office, and the Public Affairs Office.

In addition, the Office of Legal Counsel reviews journal articles and presentations for inclusion of information that should be patented.

PUBLICATION TYPES

Open Literature or Presentation. If your submission is for the open literature or a presentation, you have two options: After completion of the routing-and-approval form, you can directly submit the article to the publisher or you can take the article to the Publications Branch. If you follow the latter practice, the article will be edited and composed before you submit it to the publisher.

NOSC Publication. If your submission is intended for a NOSC publication, send the manuscript and completed routing-and-approval form to the Publications Branch for processing.

Where to Get Help at NOSC

To decide if information should be published: The Publications Branch or your immediate supervisor.

To determine what publishing option should be used: The Publications Branch.

To obtain writing, editing, composition, and printing services for all publications: The Publications Branch.

To convert an informal publication into a formal publication: The Publications Branch.

To include reports as data deliverables in a NOSC contract: The Data Management Office or the Publications Branch.

To determine the correct routing for approval of publication: The Publications Branch, the Public Affairs Office, or the Information Security Office.

To send information to DTIC: The Publications Branch.

ROUTING AND APPROVAL – NOSC PUBLICATIONS NOSCINST 5600.2E

1 ATTACH THIS FORM TO INFORMATION TO BE PELEASED
2 ATTACH COVER SHEET IF INFORMATION IS CLASSIFIED

PUBLICATION CATEGORY

- ☐ Technical Report
- ☐ Technical Document (NOSC author)
- ☐ Technical Document (Contractor)
- ☐ Technical Note
- ☐ Technical Manual
- ☐ Other

AUTHOR/COTR INFORMATION
NAME — DATE
PHONE — CODE — USER ID
DATE DISTRIBUTION REQUIRED

REVIEW SIGNATURES (Signature certifies that publication has been reviewed and reviewer agrees with recommended distribution statement and MCT determination.)
AUTHOR — DATE
DATE
DATE
BRANCH HEAD — DATE
DIVISION HEAD — DATE
INTELLIGENCE OFFICE (1) — DATE
INFORMATION AND PERSONNEL SECURITY GROUP — DATE
PUBLIC AFFAIRS (2) — DISTRIBUTION STATEMENT ASSIGNED — DATE
PUBLICATIONS BRANCH — DATE

(1) Optional. Required only if intelligence data or NWP used to prepare publication
(2) Unclassified publications only

RELEASING INFORMATION
CLASSIFICATION LEVEL OF PUBLICATION
DOWNGRADING/DECLASSIFICATION *(If classified publication)*
RECOMMENDED DISTRIBUTION STATEMENT *(classified AND unclassified publications)*
MCT YES ☐ NO ☐
(List MCTL sections reviewed)

PUBLICATION INFORMATION
TITLE
SPONSOR
CONTRACT NO *(If applicable)*
SUBTITLE
JO FOR PUBLICATIONS SERVICES
PROGRAM ELEMENT TASK WORK UNIT ACCESSION NUMBER
JO WORK PERFORMED UNDER

SPECIAL INSTRUCTIONS OR ADDITIONAL REMARKS

NOSC-SD 5605/12 (Rev 1-89)

Figure 4A. Routing-and-approval form for NOSC publications (NOSC Form 5605).

NOSCINST 5720 2A

UNCLASSIFIED

UNCLASSIFIED TECHNICAL INFORMATION RELEASE

See instructions on back for completeing this form
Submit one copy of material with one copy of this form

FROM	EXT	CODE	DATE CLEARANCE NEEDED

1 Release is requested for the attached material This paper is related to NOSC Project No _____

The following systems commands sponsor codes are cognizant _____

2 THE SPONSOR IS AWARE OF AND HAS APPROVED THIS RELEASE ☐ YES ☐ NO

TITLE OF MATERIAL

TYPE OF RELEASE

☐ PROFESSIONAL PAPER ☐ CONTRACTOR RELEASE ☐ PRESENTATION SPEECH ☐ BROCHURE ☐ OTHER TYPE PUBLICATION OR RELEASE

MEETING *(If presentation or speech)*	PLACE AND DATE OF MEETING

NAME OF PUBLICATION *(If applicable)*

3 It is my opinion that the subject matter in this material has no information or military application requiring classification
4 To the best of my knowledge this material does not disclose any trade secrets or suggestions of outside individuals or concerns which have been communicated to NOSC in confidence
5 THIS MATERIAL ☐ DOES ☐ DOES NOT INCLUDE MILITARILY CRITICAL TECHNOLOGY *(NOSCINST 5510 4)*
6 DISTRIBUTION STATEMENT ____ IS RECOMMENDED *(See reverse)*

SIGNATURE (Author s) _____ DATE _____

Signature below certifies that this material has been reviewed for security appropriate distribution statement proprietary information and infringement on contractor work

SIGNATURE *(Branch Project or Group Head)*			CODE	DATE
Contains Military Critical Technology ☐ Yes ☐ No	DISTRIBUTION STATEMENT ____ IS RECOMMENDED *(See reverse)*	SIGNATURE *(Division Project or Group Head)*	CODE	DATE
SIGNATURE *(Legal Counsel for Patents)* REVIEWED FOR PATENTABLE SUBJECT MATTER			CODE 0012	DATE
SIGNATURE *(Information Security Group)*		DISTRIBUTION STATEMENT ____ IS RECOMMENDED *(See reverse)*	CODE 152	DATE
SIGNATURE *(Public Affairs Officer)**			CODE 032	DATE

COMMENTS

*NOTE To avoid premature disclosure of unclassified patentable technology with high commercial potential, the Technology Transfer Coordinator will receive copies of completed route sheets for review

(Public Affairs will route to Technology Transfer Coordinator)

DISTRIBUTION STATEMENT ____ IS ASSIGNED	SIGNATURE *(By direction of the Commander)*	DATE

NOSC SD 5720/1 (REV 4 67) All previous editions are obsolete

NOTE Please comply with paragraph 4 on reverse side

Figure 4B. Routing-and-approval form for open literature and presentations (NOSC Form 5720).

PART 2

NOSC PUBLICATION SERIES

What types of publications does NOSC issue? How are they approved? What can I do with a journal reprint? How are publication numbers issued? Can I use review copies and preliminary copies? How are errata sheets used? How can I issue a revision? What is meant by certification of an official publication?

Types of NOSC Publications

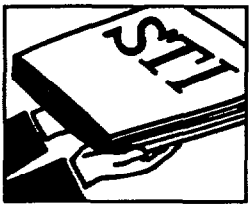
SUMMARY OF SERIES. NOSC-numbered publications (table 1) are divided into the following series:

Technical Report (TR)
Technical Document (TD)
Technical Manual(TM)
Technical Note (TN)
Retrievable Manuscript (RM)

Table 1. NOSC publications series.

Series	Subject Matter	Official Publication	Format	Distribution	Distributing Code	Copies to DTIC
Technical Report	Specific scientific or engineering effort	Yes	Specific format	On- and off-Center	Publications Branch	Yes
Technical Document	Software, engineering, or administrative information	Yes	Depends on subject matter	On- and off-Center	Publications Branch	Yes
Technical Manual (Category I)	Hardware & software operation & maintenance instructions	Yes	Depends on subject matter	On- and off-Center	Publications Branch	Yes
Technical Manual (Category II)	Hardware operation & maintenance instructions	Yes	Specific format	On- and off-Center	Publications Branch	No*
Technical Note	Informal or transitory technical information†	No	No specific format — option of issuing code	On-Center	Issuing Code	No
Retrievable Manuscript	Any subject matter	No	No specific format	None	Publications Branch	No

*Sent to Navy Publications and Forms Center
†Cannot be used for operation and maintenance instructions



The simplest way to categorize the above series is to consider them as formal or informal publications (table 2).

Table 2. Comparison of formal and informal publications.

Formal Publications TR, TD, TM	Informal Publications TN	Informal Publications RM
Number assigned by Publications Branch	Number assigned by Publications Branch	Number assigned by Publications Branch
Formal review cycle	Formal review cycle	No review required
Sent to DTIC	Cannot be sent to DTIC	Cannot be sent to DTIC
Distributed off-Center	Off-Center distribution is only to sponsor	No off-Center distribution
Formal distribution statement	Disclaimer statement	Statement limits distribution to issuing code

Formal NOSC Publications. Formal publications include NOSC technical reports (TRs), technical documents (TDs), and technical manuals (TMs). Formal publications have the following characteristics:

They have a NOSC number which is assigned by the Publications Branch.

They have a formal distribution statement (A through F or X). (See appendix A for listing of distribution statements.)

They are formally reviewed (figure 5):

If the information is classified, the routing-and-approval form is signed by your branch and division heads and the Information Security Office.

If the information is unclassified, the form is signed by your branch and division heads, the Information Security Office, and the Public Affairs Office.

In addition, journal articles and presentations are reviewed by the Office of Legal Counsel for inclusion of information that should be patented.

Their distribution may include off-Center addresses (other than the sponsor).

They are included in the Defense Technical Information Center (DTIC), DoD's database for government-sponsored research, development, test, and evaluation work.

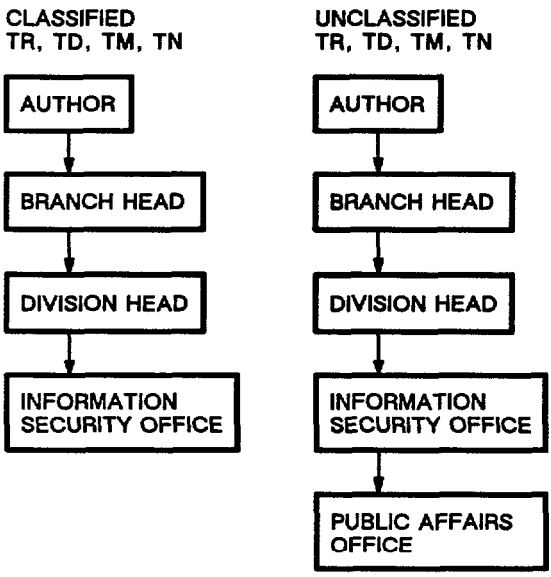
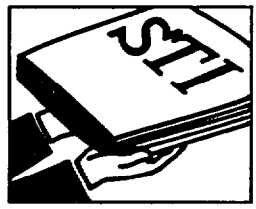


Figure 5. Routing and approval of NOSC-numbered publications.

Informal Publications. The informal publications series, technical notes (TNs), also has a NOSC number and goes through a similar review process (figure 5). However, TNs do not carry a formal distribution statement, are never released to the public, are not included in DTIC, and the only off-Center distribution permitted is a copy to the sponsor. These publications are informal working papers and should only be used when your results are preliminary or you need to make a progress report to your sponsor. (Table 1 compares the TN series to the other NOSC publication series.)

The Center also has made provisions for preserving manuscripts that cannot be published for reasons of incompleteness, lack of current relevance, or sponsor concerns. These manuscripts are included in the retrievable manuscript (RM) series and are placed in the Publications Branch's vault. They are not made available for distribution to anyone without permission of the cognizant code.

TECHNICAL REPORT. A technical report (TR) presents the results of an effort undertaken by NOSC toward an objective defined by a sponsor. The report can be a final, summary, or progress report, and the subject matter is usually categorized as RDT&E.



Technical reports have specific format and content requirements, and are formal, Center-approved publications. All technical reports, both classified and unclassified, are formally reviewed and have a formal distribution statement (A through F or X).

Technical reports are usually distributed to DTIC (for sensitive information, only an SF 298 is provided), the sponsor, and NOSC. Additional distribution depends upon the distribution statement and the author's requests.

TECHNICAL DOCUMENT. The technical document (TD) series covers the types of publications that are not considered as technical reports, i.e., they do not report the results of a specific scientific or engineering effort. The subject matter is usually categorized as software, engineering, or administrative. Included are publications such as brochures, proposals, reliability plans, safety plans, viewgraph compilations, conference proceedings, computer programs, engineering change proposals, and specifications. This series is also used by the Center to issue publications that have been prepared by NOSC contractors.

A specific format or content is not required, yet TDs are considered formal, Center-approved publications. All TDs are formally reviewed and carry a formal distribution statement (A through F or X).

TDs are usually distributed to DTIC (for sensitive information, only an SF 298 is provided), the sponsor, applicable information analysis centers, and NOSC. Additional distribution depends upon the distribution statement and the author's requests.

TECHNICAL MANUAL. At NOSC the technical manual (TM) series includes manuals prepared for both hardware and software. TMs describe specific equipment, weapons, or systems, and provide instructions for installation, operation, maintenance, overhaul, and/or personnel training. Category I manuals include manuals prepared prior to milestone II, i.e., prior to full-scale development; manuals prepared in support of research and development (R&D) systems for NOSC or sponsor use; and all software manuals. Category II manuals include all manuals developed for fleet or service use.

Specific format and content requirements exist for TMs, and they are considered as formal, Center-approved publications. All manuals are formally reviewed, and all carry a formal distribution statement (A through F or X).

Category I manuals are usually provided to DTIC (for sensitive information, only an SF 298 is provided), the sponsor, and NOSC. Additional distribution depends on the distribution statement and the author's requirements. Category II manuals are provided to fleet users, the sponsor, NOSC, and the Navy Publications and Forms Center. Additional distribution depends on the distribution statement and the author's requirements.

TECHNICAL NOTE. A technical note (TN) contains informal or transitory information. It is a working paper that does not represent official NOSC policy.

No specific format or content requirements exist for TNs. Although they are formally reviewed, TNs cannot be assigned a formal distribution statement. Instead, all TNs are marked with a disclaimer designating them as working papers.

TNs are provided only to the sponsor and NOSC. No distribution is made to DoD databases.

RETRIEVABLE MANUSCRIPT. Retrievable manuscripts (RMs) include manuscripts that are numbered and identified as part of a special collection held by the Publications Branch. These manuscripts contain information that for reasons of incompleteness, lack of current relevance, or sponsor concerns could not be published, but must be preserved.

Review procedures are not required for RMs. They cannot be released without approval of the cognizant technical code, including release to NOSC employees.

Journal Articles, Published Presentations, and NOSC Publications

If you have had a journal article published or a presentation published in the proceedings of a symposium, you can reissue the information as a NOSC technical document. The publication does not have to be rerouted, but you must provide the Publications Branch with a copy of the original routing-and-approval form.

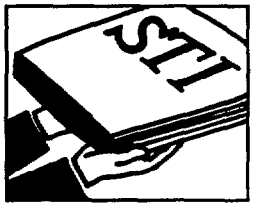
The Publications Branch will prepare a cover and SF 298 for the publication. The SF 298 will provide information on the original source of publication. The article will not be re-edited, and a reprint of the article will be used as camera-ready copy.

Review Copies

When an urgent requirement for the information in a TR, TD, or TM (categories I and II) precludes complete publication processing, the Publications Branch will issue a limited number of review (or preproduction) copies. The words "review copy" appear on the cover of the publication. Review copies are not issued for technical notes.

These publications must have a distribution statement on the cover and, if the publication is classified, must have all components properly marked. (See chapter V, part 4, for instructions on marking publications.)

Distribution is made by the releasing technical code, and all control is maintained by the releasing code.



When the final printed copies are available, they will be distributed by the Publications Branch to all recipients of the review copies.

Preliminary Copies

For technical reports and technical documents, a preliminary copy differs from a review copy in that the former contains preliminary information while the latter is simply an early, or preproduction, copy of final information. For technical manuals (categories I and II), the difference is either that the information in the manual has not been validated or verified or that the equipment is still undergoing design change. However, the important thing for you to remember is that the purpose of all preliminary copies is to give you the capability to respond to an urgent need for the publication by using what information is available at the time. Preliminary copies are not issued for technical notes.

The words "preliminary copy" must appear on the cover of all preliminary publications, and the administrative information must clearly explain the nature of the publication and the reason for its issuance in preliminary form.

These publications must have a distribution statement on the cover and, if the publication is classified, must have all components properly marked. (See chapter V, part 4 for instructions on marking publications.)

Distribution is made by the releasing technical code, and all control is maintained by the releasing code.

When the final printed copies are available, they will be distributed by the Publications Branch to all recipients of the review copies.

Errata Sheets

If errors are found in a published technical report, technical document, or category I technical manual, an errata sheet (a list of errors with corrections) can be issued. You, as the author, determine if the extent and nature of the errors are such that an errata sheet is necessary. The Publications Branch will prepare the camera-ready copy of the errata sheet, which will include the following information:

Identification of the publication, including the publication number, author, and date.

The page, paragraph number, and line of each error.

The exact wording of the correction.

The errata sheet is printed and distributed by the Publications Branch. Errata sheets do not need to be sent through the review-and-approval cycle.

Errata sheets are not issued for category II technical manuals or for technical notes.

Change Pages

Category II technical manuals are updated or corrected by means of change pages; change pages are reprinted pages that are suitable for incorporation by removal of old pages and insertion of new pages. Change numbers are assigned in sequence, beginning with 1, against the original issue or current revision of the manual.

Change pages do not need to be sent through the review-and-approval cycle.

Revisions

A revision of a publication (TR, TD, categories I and II TMs) is a reissue of a complete publication. It is prepared, issued, and identified in the same manner as the publication that it supersedes, except that the publication number is followed by the term "revision 1" (or the appropriate number) and a new cover date is added. Each revision incorporates all outstanding changes from the previous issue.

Revision numbers are assigned in numerical order for each succeeding revision. The revision number "1" is assigned to the first revision.

Revisions of publications must be sent through the appropriate routing-and-approval cycle for assignment of the correct distribution statement, review for critical technology, and determination of classification.

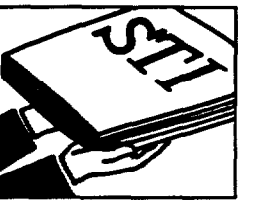
Assignment of Publication Numbers

The Publications Branch issues and controls the numbers for the NOSC publications series. For all series, numbers are not assigned until the manuscript is in the Publications Branch. Numbers are not given to contractors or to technical codes.

Technical publications that have been prepared under NOSC contract and will be sent to the Defense Technical Information Center are issued numbers under the NOSC technical document series.

Technical manuals are assigned either a NOSC TM number or a systems-command number. NOSC TM numbers are assigned to category I manuals, and systems-command numbers are assigned to category II manuals.

In special instances, you can use your sponsor's publication identification number in conjunction with a NOSC publication number.



Review of Official Publications

Certain publications, such as flyers and brochures, must be reviewed prior to publication for

> Necessity, current applicability, adequacy, judiciousness of purpose and good taste, and to ensure their consonance with existing law and with national and DN policy (SECNAVINST 5600.16A).

SECNAVINST 5600.16A is primarily aimed at publications such as flyers, pamphlets, and brochures. The most important effect of this instruction is that these publications must carry a certification of review. NOSC uses the following statement which is signed by the Center's Chief Staff Officer:

> Reviewed and approved by _____
> Chief Staff Officer, NOSC (date)

The Publications Branch will coordinate this review with the Chief Staff Officer. However, before this certification can be done, the publication must have gone through the normal routing-and-approval cycle.

Where to Get Help at NOSC

To determine which publications series to use: The Publications Branch.

To determine the classification of a publication: The Information Security Office and your branch and division heads.

To decide if information in a publication is export-controlled: The Program Director for Technology.

To have preliminary copies or review copies of a publication prepared: The Publications Branch.

To have an errata sheet prepared: The Publications Branch.

To have a brochure prepared: The Publications Branch.

To have a retrievable manuscript stored: The Publications Branch.

To have change pages for a manual prepared: The Publications Branch.

To have a publication number assigned: The Publications Branch.

PART 3
REVIEW OF NOSC PUBLICATIONS

What information must be reviewed at NOSC? What reviews are required for NOSC-numbered publications? What reviews are required for journal articles and presentations? How do I technically review a publication? How do I decide what distribution statement to use? How do I determine if export controls are required?

What Publications Should Be Reviewed?

All classified and unclassified publications that will be distributed outside the Center to other than a sponsor must be formally reviewed. At a minimum, this means that articles submitted for publication in a journal, presentations (both those with and without an accompanying article), and NOSC-numbered publications must be reviewed.

What Is the Review Process at NOSC?

PURPOSES OF REVIEW PROCESS. The review process at NOSC serves the following purposes:

To check for technical adequacy and accuracy.

To verify the classification level of the publication and, if the publication is classified, to make sure that all components are properly marked and all warning notices are included.

To select the appropriate distribution statement.

To determine if export-controlled information has been included in the publication.

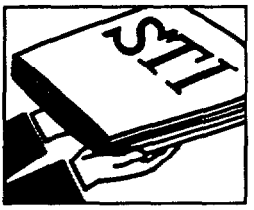
Reviews by different Center codes are required for different types of publications (figures 6 and 7). The basis for determining what codes review what information is based on the classification level of the information:

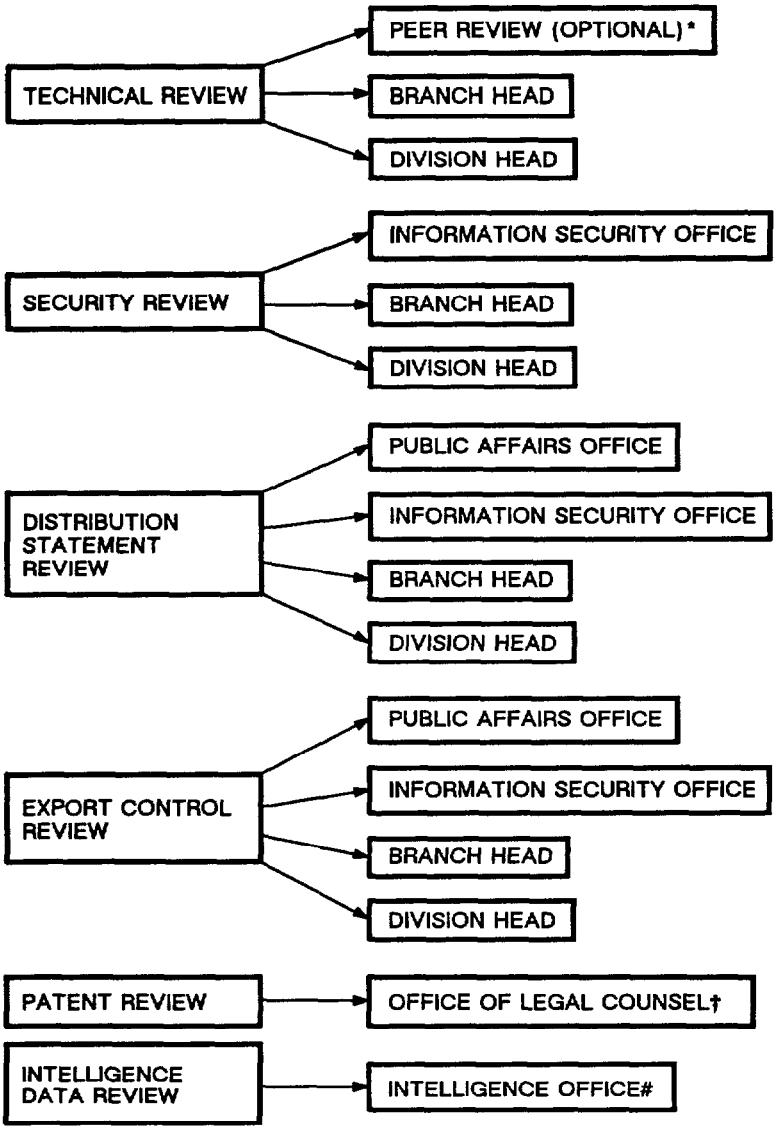
If the information is classified, reviews by your branch and division heads and the Information Security Office are required.

If the information is unclassified, reviews by your branch and division heads, the Information Security Office, and the Public Affairs Office are required.

In addition, the Office of Legal Counsel reviews journal articles and presentations for inclusion of information that should be patented.

NOSC Forms 5605 and 5720 are used to meet these review requirements.





*Optional review at discretion of author or branch or division head.
†Reviews for open literature and presentations to be printed in proceedings.
#Reviews only if intelligence sources used to prepare publication.

Figure 6. Types of reviews and reviewing offices.

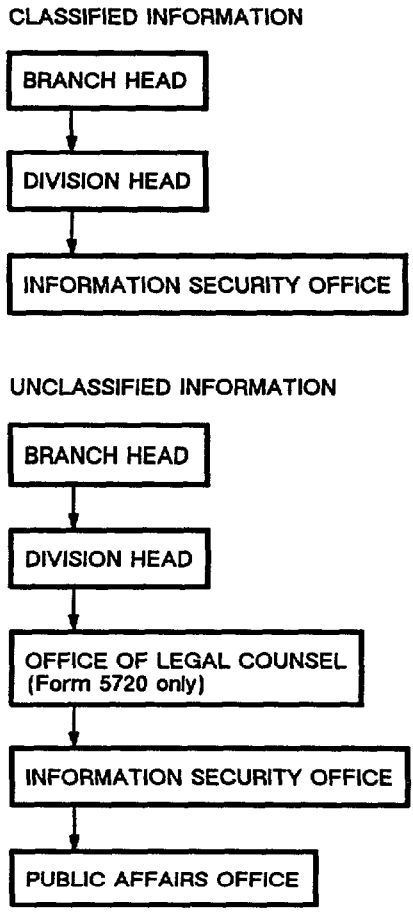


Figure 7. Required review for release of presentations, NOSC publications, and journal articles.

TECHNICAL REVIEW. Technical reviews are usually done by your branch and division heads. At times, however, they will ask for an independent review of the publication. They usually do this by asking a NOSC scientist or engineer to review the publication.

You can also arrange to have your publication technically reviewed by asking a NOSC scientist or engineer to review the publication before you give it to your branch head.

SECURITY REVIEW. As the author, you must make the initial determination concerning classification, i.e., is the publication unclassified, confidential, or secret. Your decision is then reviewed by your branch and division heads.

In deciding if the information in your publication is classified, be especially concerned with information related to

- Performance and capabilities
- Specifications
- Vulnerabilities
- Procurement and production plans and schedules
- Operations

If you are in doubt about the classification level, contact the Information Security Office for assistance.

If you determine, and your branch and division heads concur, that the publication is classified, the publication is reviewed by the Information Security Office. The purpose of security's review is to ensure that all components are properly marked, that the correct classification source is cited, and that the declassification or review information is correct. If you have used multiple sources to classify the publication, you must include a list of these sources with your manuscript.

The Public Affairs Office does not review classified information.

DISTRIBUTION STATEMENT REVIEW. As the author, you make the initial determination as to who should have access to the document. This decision then forms the basis for selection of the correct distribution statement. (See chapter V, part 1, "Distribution Statements.")

In making this decision, you first determine if the information can be released to the public. Public release is the act of making information available to the public without any restrictions. This means that the information is removed from control of the Navy; the information is in the public domain where it can be appropriated by anyone, including foreign nationals or representatives of foreign industries or governments. To help determine if work performed under 6.1 and 6.2 funding categories can be released to the public, remember that basic research developed in government research-and-development centers can usually be released to the public until the "state of emergence" is evident. This phrase means that the transition from basic research (funding category 6.1) to exploratory development (category 6.2) with specific military applications has been made.

If the information cannot be released to the public, you must determine the extent of its availability without additional approval of the controlling organization. (The controlling organization for NOSC work is usually NOSC; however, the sponsor may at times want to control the

distribution.) Formal distribution statements allow you to limit access to any of the following groups:

U.S. government agencies (distribution statement B)

U.S. government agencies and their contractors (distribution statement C)

Department of Defense and U.S. DoD contractors (distribution statement D)

Department of Defense components (distribution statement E)

In addition, you can completely limit access to the publication and require that all requests for the publication be approved by the controlling organization (distribution statement F).

If the publication is unclassified and contains export-controlled technical data, you can use a special statement that limits distribution only to U.S. government agencies and private individuals or enterprises who are eligible to receive such data (distribution statement X).

After you have decided on the access, you must select a reason for the limitation. Reasons for limiting access to publications are the following:

Foreign government information

Proprietary information

Critical technology

Test and evaluation

Contractor performance evaluation

Premature dissemination

Administrative or operational use

Software documentation

Direct military support

Specific authority

A discussion of these reasons and the corresponding access groups can be found in appendix A and NOSC TD 841, Revision 1.

During review of your publication, your decision concerning the selected distribution statement will be reviewed and approved by your branch and division heads, the Information Security Office, and the Public Affairs Office. They will contact you if they believe that the statement should be changed.

The Public Affairs Officer has been delegated by the commanding officer to assign the distribution statements for unclassified publications. You must remember that the Public Affairs Officer is the only person at NOSC, other

than the Commanding Officer, who can authorize release of information to the public.

EXPORT-CONTROL REVIEW. As part of your determination on distribution availability, you must also make a decision concerning export controls. Chapter V, part 2, explains export controls. When making the decision concerning export controls, remember to use the Militarily Critical Technologies List, the Commodities Control List, the Munitions List, and your knowledge concerning the state-of-the-art of the applicable technology.

If you have questions concerning whether your information should be subject to export controls, contact the Program Director for Technology for assistance.

During review of your publication, your decision concerning the applicability of export controls will be reviewed and approved by your branch and division heads, the Information Security Office, and, if unclassified, the Public Affairs Office.

PATENT REVIEW. The Office of Legal Counsel reviews all publications for inclusion of information that should be patented. This review is accomplished in one of two ways:

> If the information will be released to the public (distribution statement A) and will be either published in a journal or presented at a symposium, you must have the legal counsel sign the routing-and-approval form (NOSC Form 5720).
>
> If the information will be published as a NOSC-numbered publication, the Publications Branch will forward a copy of the publication to the legal counsel for review.

INTELLIGENCE-DATA REVIEW. If you have used intelligence sources or the Intelligence Library in preparing your material, you must have the Intelligence Office review your publication. This review is to determine if your publication contains intelligence information and, if intelligence information has been included, to ensure that it is properly identified.

Your Role as a Technical Reviewer

At times, you will be asked to review a publication to ascertain its technical adequacy. To do so, you must remain aware of the status of the technology. The following guidelines will help you maintain that awareness:

> Become a subject-matter expert on the status of the technology in the defense community, industry, academia, and international arena.

Ask the information security personnel for assistance in interpreting security guidelines.

Use the technical library.

Use the resources of the Defense Technical Information Center. (Also contribute information to DTIC so that other researchers are aware of the state-of-the-art of specific technological areas.)

Participate in evaluating industry's independent research and development (IR&D) work.

Use the intelligence office to obtain scientific and technical information on military equipment belonging to allies and adversaries.

Participate in technical professional societies.

Use the "Militarily Critical Technologies List" and provide input to DoD to change the list as technology changes.

Where to Get Help at NOSC

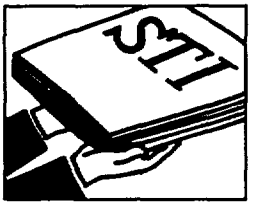
To determine what reviews are required for your publication: The Public Affairs Office, the Information Security Office, the Publications Branch, or your branch and division heads.

To determine if the information in your publication is classified: The Information Security Office or your branch and division heads.

To determine if the information in your publication is subject to export controls: The Program Director for Technology, the Information Security Office, or your branch and division heads.

To determine the correct distribution statement: The Publications Branch, the Information Security Office, or your branch and division heads.

To determine if your publication contains intelligence data: The Intelligence Office.



PART 4
DISTRIBUTION OF TECHNICAL PUBLICATIONS

How are NOSC publications distributed? What is primary distribution? How is it performed? Who does the Center's secondary distribution? How are NOSC-numbered secret publications bar-coded? What do I do with a request from a foreign national? How are publications sent to DTIC? Do publications always have to go to DTIC? How does the public get a copy of a NOSC publication? Who checks the clearances of contractors?

General Procedures

Procedures for releasing and distributing NOSC technical publications are summarized in this part of the handbook. Although much of the discussion concerns distribution of formal NOSC publications, i.e., TRs, TDs (both in-house and contract authors), and TMs, the same guidelines apply to other types of technical publications.

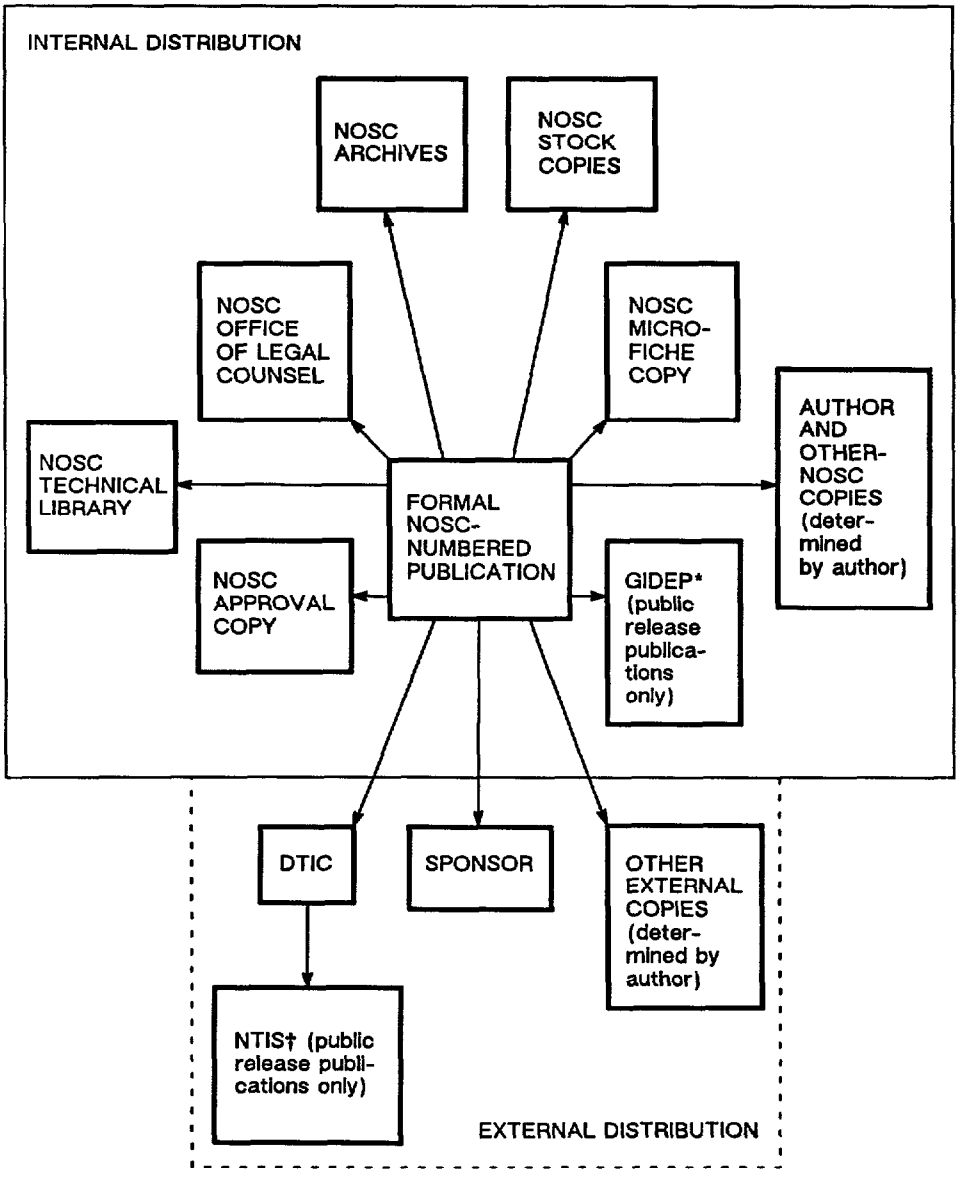
However, the most important things to remember about releasing and distributing publications are to

> Limit recipients of classified and unclassified, limited technical publications to personnel with a "need-to-know" and an appropriate security clearance.
>
> Have all technical publications properly reviewed so that the correct distribution statement can be assigned.

Primary Distribution of TRs, TDs, and TMs

Primary distribution (figure 8) is the initial distribution (both internal and external) of technical publications. At NOSC, this means those copies that are distributed immediately after printing. Internal distribution refers to distribution to NOSC personnel at all locations (bayside, topside, seaside, and Hawaii). External distribution refers to copies distributed to off-Center personnel, for example, sponsors, other Navy laboratories, and contractors.

Both internal and external distributions of a technical publication are determined by the preparing technical code. However, the actual distribution (label preparation, wrapping, and mailing) is done by the Publications Branch and Navy Publishing and Printing Services (NPPS) as part of the printing process.



*Government-Industry Data Exchange Program (see part 6)
†National Technical Information Service

Figure 8. External and internal primary distribution of NOSC TRs, TDs, and TMs (category I). Note that only those publications that have been approved for public release (distribution statement A) are sent to GIDEP and NTIS.

INTERNAL DISTRIBUTION. The following internal distribution is required for TRs, TDs, and NOSC-numbered TMs:

One print-approval copy

Three copies to the NOSC technical library

One copy to the Office of Legal Counsel (for patent review)

One archive copy

Five stock copies that are reserved for secondary distribution (more can be ordered and stocked if required)

One copy for preparation of microfiche copies

One copy of statement A publications for distribution to the Government-Industry Data Exchange Program (GIDEP). (Unclassified, limited publications and classified publications cannot be sent to GIDEP; see part 6 of this chapter.)

Additional internal distribution is determined by the preparing technical code.

EXTERNAL DISTRIBUTION. Except for the minimum-required external distribution (the Defense Technical Information Center* and the project's sponsor), all external distribution is determined by the author who either selects an approved standard list or develops a special list. Transmittal letters are not required, since the releasing authority, which is printed on the inside front cover of the publication, functions as the transmittal letter (figure 9).

The primary distribution list, which shows the name or other identification of each recipient and the number of copies furnished to each, can appear at the end of TRs and TDs (figure 10). NOSC practice is to list only the off-Center recipients. Distribution lists are not normally printed in TMs.

Your distribution list must be included with the copy of the publication that you circulate for approval so that your branch and division heads can review it. If the publication is classified, the Information Security Office will verify the security clearances of the contractors. In addition, if the information in the publication is export-controlled, they will verify that the listed contractors have registered with the Defense Logistics Agency to receive copies of export-controlled information.

* *Exceptions exist for sending publications to DTIC; see "Defense Technical Information Center," part 5 of this chapter.*

NAVAL OCEAN SYSTEMS CENTER
San Diego, California 92152-5000

E G. SCHWEIZER, CAPT, USN
Commander

R M. HILLYER
Technical Director

ADMINISTRATIVE INFORMATION

This work was performed for the Space and Naval Warfare Systems Command, Communications Systems Project, Washington, DC 20363-5100, under program element OMN Contract N66001-84-D-0127 was carried out by Electrospace Systems, Inc , 3940 Hancock Street, Suite 211, San Diego, CA 92110, under the technical coordination of X X XXXXX, Code 832, NOSC

Released by
X. X XXXXXX, Head
Systems Development
Branch

Under authority of
X X XXXXXX, Head
Submarine Broadcast
Systems Division

XX

Figure 9. Administrative information page of a formal NOSC-numbered publication. Note that masthead and release-and-review information combine to serve as a transmittal letter.

INITIAL DISTRIBUTION

Director
Defense Advanced Research Projects Agency
Arlington, VA 22209

Deputy Under Secretary of Defense for Research
& Advanced Technology
Washington, DC 20301

Assistant Secretary of the Navy
Washington, DC 20350

Chief of Naval Operations
Washington, DC 20350
OP-987

Naval Air Systems Command (4)
Washington, DC 20361
AIR-03

Naval Sea Systems Command
Washington, DC 20362
SEA 003 (3)
SEA 06R1 (Dr Pastine)

Space & Naval Warfare Systems Command
Washington, DC 20363
SPAWAR 05 (5)
SPAWAR 06 (4)
PDW 110
PDW 120
PDW 124

Naval Facilities Engineering Command (2)
Washington, DC 20390
NFAC-03

Naval Medical Research & Development Command
Naval Medical Command National Capital Region
Bethesda, MD 20814
Code 40

Naval Health Research Center
San Diego, CA 92138

Naval Civil Engineering Laboratory
Port Hueneme, CA 93043
Code L03

Naval Postgraduate School (2)
Monterey, CA 93940

U S Naval Academy
Annapolis, MD 21402

Pacific Missile Test Range
Point Mugu, CA 93047

Chief of Naval Research
Arlington, VA 22217
OCNR Code 10
OCNR Code 10P (Cooper, Stanford)
OCNR Code 11 (20)
OCNR Code 12 (10)
OCNR Code 20 (Schmidt)
OCNR Code 20 (15)

Naval Research Laboratory
Washington, DC 20375
Code 1001 (Dr T Coffey)

David W Taylor Naval Ship Research
& Development Center
Bethesda, MD 20084

David W Taylor Naval Ship Research
& Development Center
Annapolis, MD 21402

Naval Air Development Center
Warminster, PA 18974
Code 01
Code 7012 (H Beyer)

Naval Coastal Systems Center
Panama City, FL 32401
Code 40

Navy Personnel Research & Development Center
San Diego, CA 92152
Code 03 (Dr R Sorenson)
Code 04 (Dr R Penn)

Naval Surface Weapons Center
White Oak Laboratory
Silver Spring MD 20910
Code EIA
Code R04

Naval Surface Weapons Center
Dahlgren, VA 22448

Naval Underwater Systems Center
Newport, RI 02841

Naval Underwater Systems Center
New London Laboratory
New London, CT 06320
Code 10

Naval Weapons Center
China Lake, CA 93555
Code 38 (Dr E Royce)

Office of Naval Research (3)
Eastern/Central Regional Office
Boston, MA 02210

Office of Naval Research (3)
Western Regional Office
Pasadena, CA 91106

Navy Acquisition
R&D Information Center
Alexandria, VA

Commandant of the Marine Corps (2)
Washington, DC 20380
MC-RD

Marine Corps Development & Education
Command (2)
Quantico, VA 22134

National Oceanic & Atmospheric Administration
National Ocean Service
Rockville, MD 20852
OA/TE2 (L Huff)

Defense Technical Information Center (2)
Alexandria, VA 22314

Figure 10. Sample external distribution list in a formal NOSC-numbered publication.

Primary Distribution of TNs

Distribution for TNs is strictly limited. The maximum number of copies printed is 25 of which 7 are required for the Center's internal distribution (figure 11):

One print-approval copy

Three copies to the NOSC technical library

One copy to the Office of Legal Counsel (for patent review)

One archive copy

One copy for preparation of microfiche copies

These seven copies are distributed by the Publications Branch. The Publications Branch will also instruct the Navy Publishing and Printing Service (NPPS) to distribute other internal copies of your TN, if you provide a list.

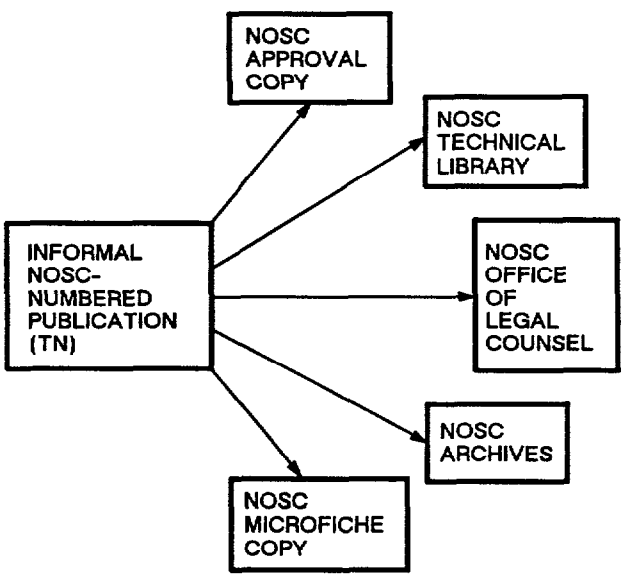
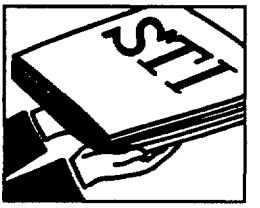


Figure 11. Internal distribution of NOSC TNs. Only permitted external distribution is to the sponsor.

Because they are informal working papers, TNs are not to be distributed off-Center except for copies to the sponsor. Copies to your sponsor are to be mailed with a transmittal letter and, if the TN is classified secret, with a record of receipt.

If you need more than 25 copies of a TN, you should prepare a technical report, a technical document, or an article for a journal.



Additional restrictions concerning distribution of TNs include the following:

TNs cannot be reprinted.

Distribution lists cannot be included in the publication.

Secondary Distribution of TRs, TDs, and TMs

Secondary, i.e., supplementary, distribution of NOSC TRs, TDs, and TMs is handled by the Publications Branch (figure 12). However, the release of unclassified, limited publications and classified publications must be authorized by the controlling technical code. To secure this approval or disapproval, the Publications Branch will send the author either a NOSC release form or a DTIC release form. The approval or disapproval decision must be made by someone within the code with "by-direction" authority. Before the releasing code receives the form, publications personnel will have verified that the requester has the appropriate clearances, i.e., security and export-control registration.

If, as a NOSC author, you receive a request for a publication, forward it to the Publications Branch where all necessary paperwork will be prepared.

Secondary Distribution of TNs

On-Center requests for copies of TNs are the responsibility of the originating technical code. Any NOSC code that needs a TN must contact the releasing code for a copy.

Although TNs are restricted to NOSC only, you may receive an occasional off-Center request. These requests should be forwarded to the Publications Branch, where they will be processed for release in the same manner as requests for TRs, TDs, and TMs.

Distribution of Secret Publications

INTERNAL DISTRIBUTION. The Publications Branch puts bar-codes on all TRs, TDs, TNs, and TMs that are classified secret and prepares all required accompanying paperwork.

All internal distribution is handled by the Classified Material Control Center (CMCC) after publications personnel deliver the bar-coded copies and accompanying paperwork.

4. Distribution of Technical Publications

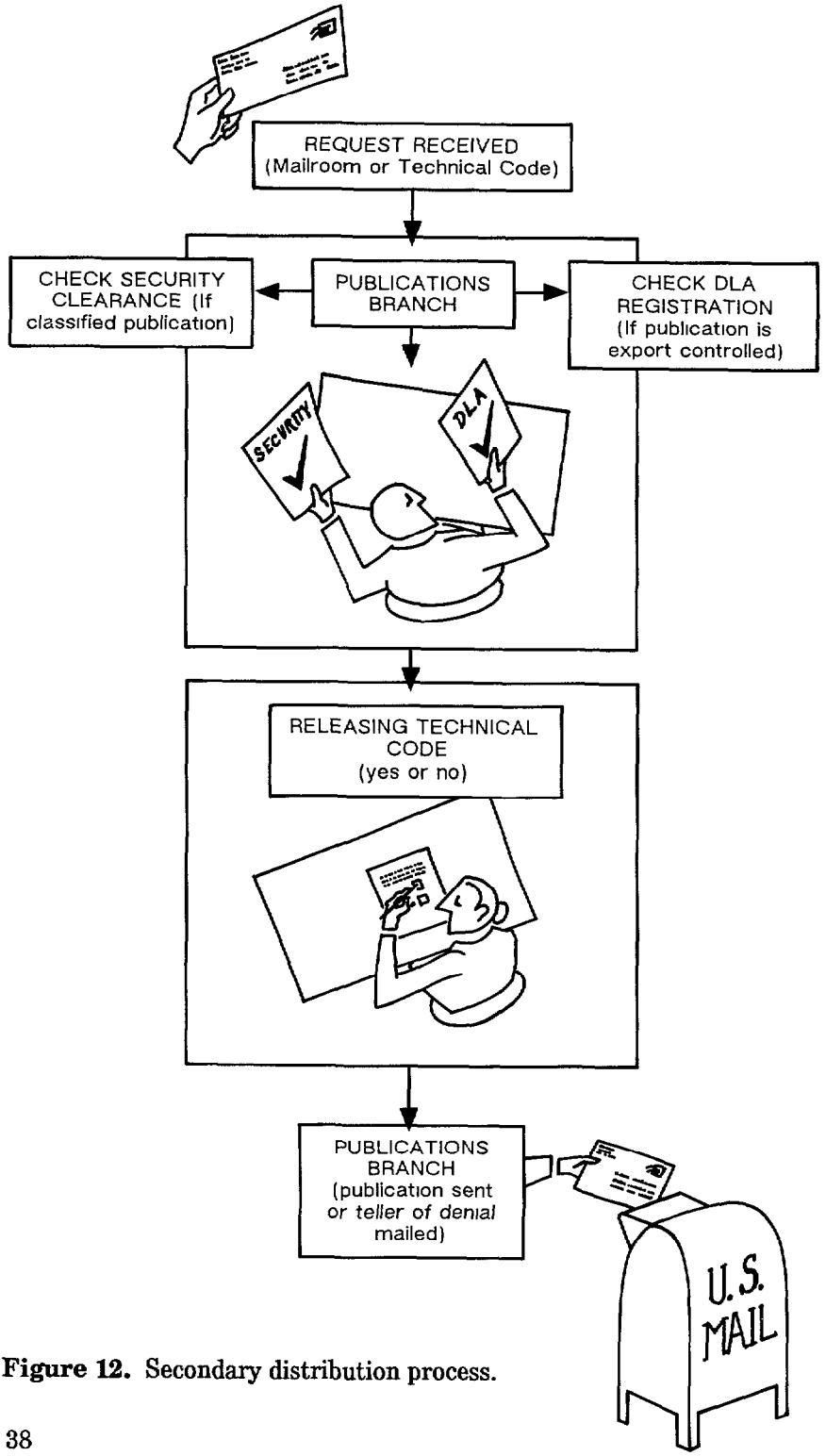
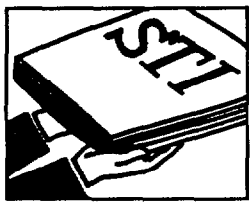


Figure 12. Secondary distribution process.



EXTERNAL DISTRIBUTION. Copies of secret TRs, TDs, and TMs to be used for external distribution are not bar coded. Personnel in the Publications Branch and the Navy Publishing and Printing Services (NPPS) prepare all required paperwork, including the records of receipt.

If you are sending a copy of your TN to your sponsor, you are responsible for preparing all paperwork, including the record of receipt and the transmittal letter.

Defense Technical Information Center

The principal function of the Defense Technical Information Center (DTIC) is to acquire, store, announce, retrieve, and provide secondary distribution for DoD scientific and technical information. DTIC services are available to all components of DoD, DoD contractors, other government agencies, and their contractors, grantees, and potential contractors. DTIC services are not available to foreign nationals.

NOSC provides copies of most of its formal publications—TRs, TDs (in-house and contract authors), and category I TMs—to DTIC. However, if the classification guidelines or requirements of the sponsor preclude submission to DTIC, copies of NOSC publications are not sent to DTIC, and the statement "Do Not Release to DTIC" appears on the front cover of the publication. In addition, if the information is extremely sensitive and you want to control all secondary distribution, we supply DTIC with only an SF 298 that describes the information in the publication. When we use this procedure, DTIC announces the availability of the information and then forwards all requests to the controlling agency. The controlling agency then either approves or disapproves the request.

If your publication is unclassified and limited in distribution or if it is classified (up to and including secret), DTIC receives two copies of the NOSC publication. If the publication is cleared for public release (statement A), DTIC receives four copies of the NOSC publication. (The extra two copies are sent to the National Technical Information Service.) Distribution to DTIC is done by the Publications Branch as part of the primary distribution process.

National Technical Information Service

The National Technical Information Service (NTIS) is the Department of Commerce agency that is the central source for public sale of government-sponsored publications. Publications selected by NTIS for sale and distribution are listed in NTIS semimonthly and annual announcements.

NTIS receives two copies of NOSC publications that are cleared for public release. These copies are provided to NTIS by DTIC. NTIS does not receive

copies of classified or limited, unclassified publications. NOSC does not work with NTIS in the sale of its publications.

Foreign Distribution

Distribution of publications to foreign governments is strictly controlled. All requests (table 3) for distribution to a foreign government must be cleared by the Information Security Office.

Table 3. Foreign distribution of NOSC publications.

Classification Level and Distribution of Publication	Controlling Code
Classified Publication	
Primary Distribution	Information Security Office
Secondary Distribution	Information Security Office
Unclassified Publication	
Primary Distribution	Information Security Office
Secondary Distribution	Information Security Office

PUBLIC-RELEASE PUBLICATIONS

Primary Distribution. As part of the primary distribution process, formal technical publications that have been cleared for public release (statement A publications) may be released to foreign recipients after approval by the Information Security Office. Those copies that can be released are mailed either by the Publications Branch and NPPS (after security's approval) or by the Information Security Office.

Secondary Distribution. If you receive a request after primary distribution of the publication, send the request to the Information Security Office. Security personnel will tell you whether you may directly answer the request or whether the Information Security Office must answer the request.

UNCLASSIFIED, LIMITED PUBLICATIONS AND CLASSIFIED PUBLICATIONS

Primary Distribution. The release to foreign requesters of technical publications that are limited in distribution or classified must be cleared by the Navy Office of Technology Transfer and Security Assistance (NAVOTTSA) on a case-by-case basis. As part of the primary

distribution process, the Information Security Office will coordinate your request with NAVOTTSA.

Secondary Distribution. All secondary distribution requests from foreign countries are processed *only* by the Information Security Office. This means that if you receive a request from any foreign country you must forward the request to the Information Security Office for processing.

Archival Copies

One copy of every NOSC publication processed by the NOSC Publications Branch is kept as the Center's archive copy of its publications series. These copies are stored in the Publications Branch's vault where they are protected for historical purposes.

Library Copies

Three copies of all formal NOSC publications are provided to the NOSC Technical Library as part of the primary distribution process. The Technical Library honors all dissemination restrictions placed on the cover of all publications.

Where to Get Help at NOSC

To have a publication sent to a foreign national: The Information Security Office.

To check if a contractor has clearance or is cleared for export-controlled data: The Information Security Office.

To get help in preparing an external distribution list: Your line management or the Publications Branch.

To send a publication to DTIC: The Publications Branch.

To obtain a copy of a TN: The originating technical code.

To mail out a copy of a formal NOSC publication: The Publications Branch.

PART 5
DEFENSE TECHNICAL INFORMATION CENTER

What is DTIC? What types of publications are sent to DTIC? What publications are excluded? How do I know if a publication should be sent to DTIC? How is the publication sent? How does DTIC protect my classified or restricted work?

What Is DTIC?

The Defense Technical Information Center (DTIC) is the central point within the Department of Defense for acquiring, retrieving, and disseminating scientific and technical information. It is the centralized DoD database for publications prepared by DoD employees, DoD contractors, and colleges and universities under DoD contract. Publications in DTIC are announced to registered users and are made available to users with an appropriate clearance and "need-to-know."

DTIC is part of the Defense Logistics Agency and is located at Cameron Station in Alexandria, Virginia.

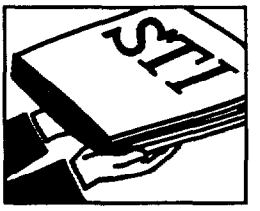
NOSC's Policy Toward DTIC

Center policy requires that NOSC scientists and engineers submit the results of their work to DTIC; the Center also requires that the results of work performed by contractors be submitted. The publication must be done within 6 months of the completion of the work or within 6 months of a significant scientific or technological finding or observation. Both positive and negative results are to be published.

As explained in part 1 of this chapter, "Publishing the Results of Your Work," these results can be published in the open literature, in a NOSC publication, or in the published proceedings of a conference, symposium, or meeting. In all cases, the Publications Branch prepares the necessary paperwork and submits the information to DTIC. All that you must do is provide the Publications Branch with either the manuscript which will be published as a NOSC-numbered publication or with a response to our request concerning presentations and journal articles.

How to Determine What Information Should Be Sent to DTIC

When you are deciding whether information should be sent to DTIC (figure 13), consider the following questions. A positive response to any of them



indicates that the information should be included in the DTIC database:

Is the information of immediate interest?

Is the information timely?

Does the information document the approach, results, and recommendations of a single project, task, work unit, contract, grant, or closely related effort?

Would the information be beneficial to DoD laboratories, contractors, and academic institutions?

Is the information of historical significance? For example, does it provide data concerning why significant decisions concerning weapon systems were made?

Should the information be put in the archives where it can be retrieved for later use?

Is this information for which no preceding references can be found?

Is this statistical or management information that has an audience beyond NOSC?

Is this a study or analysis? For example, does it include military scenarios, assessments made using operational research techniques, systems analysis techniques, or similar technology?

Was the information published as a thesis, bibliography, or dissertation that was sponsored with DoD funding?

If the information has been published in a journal or presented at a conference, was your effort in developing the information sponsored with DoD funding?

Types of Information to Send to DTIC

The following types of information (figure 14) can be sent to DTIC:

Publications that document the results of DoD research, development, test, and evaluation efforts.

Logistics data, e.g., test plans, test results, reliability-and-maintainability plans, safety plans, integrated logistics support plans, and specifications.

Software documentation (special procedures exist for the software itself; see chapter VIII, part 2).

Publications prepared by DoD employees, DoD contractors, and college and university personnel working under DoD contract.

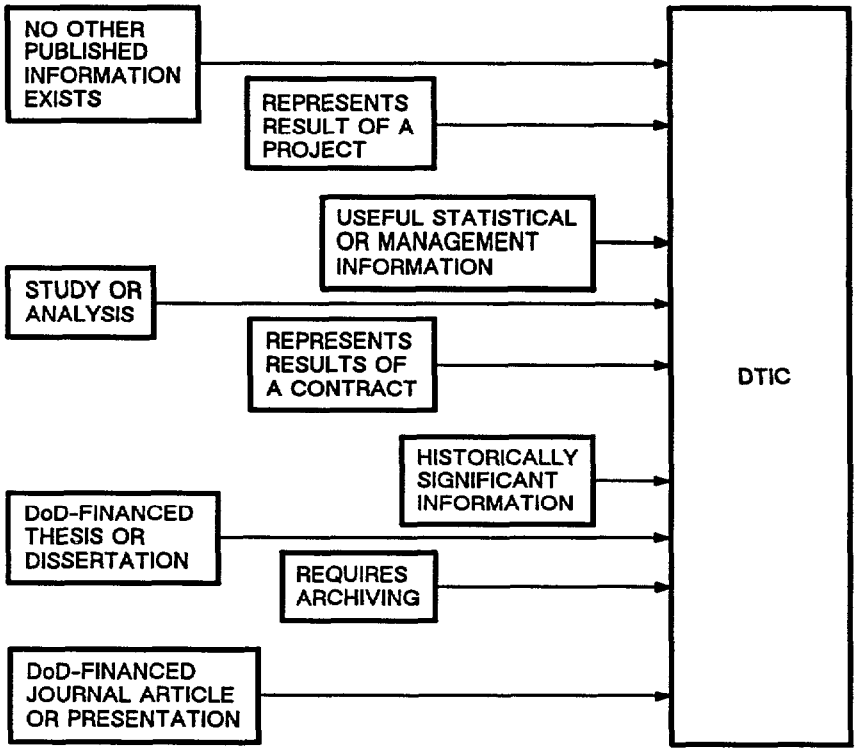


Figure 13. Types of information that *must* be sent to DTIC.

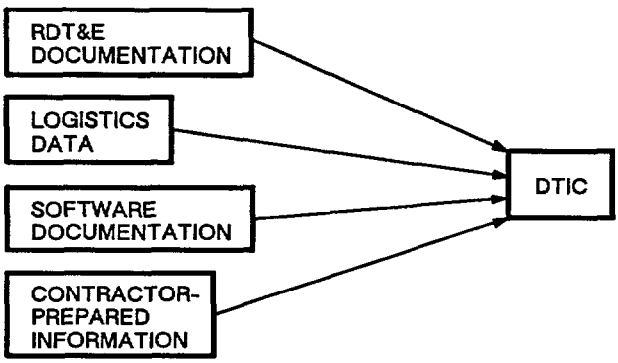


Figure 14. Types of publications that can be sent to DTIC.

How to Send Information to DTIC

PUBLICATIONS AUTHORED BY NOSC PERSONNEL. Use NOSC Form 5605 to have your manuscript reviewed:

> If the information is classified, the routing-and-approval form is signed by your branch and division heads and the Information Security Office.
>
> If the information is unclassified, the form is signed by your branch and division heads, the Information Security Office, and the Public Affairs Office.
>
> In addition, the Office of Legal Counsel reviews journal articles and presentations for information that should be patented.

After the form is signed, send the manuscript to the Publications Branch. You will be contacted by a Publications Branch editor, who will prepare the publication and all required paperwork for submission to DTIC.

JOURNAL ARTICLES AND PUBLISHED PRESENTATIONS BY NOSC AUTHORS. For journal articles and published presentations, the procedure is as follows: Using information from the routing-and-approval form (NOSC Form 5720),* the Publications Branch will contact you to find out if your submission has been accepted and published. If it has been published, you then respond to the questionnaire and provide the required administrative information concerning funding and, if available, a reprint. Publications personnel will then fill out the SF 298 (the report documentation page that DTIC uses to catalog publications) and submit the completed form to DTIC.

As explained in part 2 of this chapter (subsection, "Journal Articles, Published Presentations, and NOSC Publications"), you can also submit your presentation or journal article to DTIC by publishing it as a NOSC technical document.

PUBLICATIONS BY NOSC CONTRACTORS

Identification of Publications. NOSC has two methods to identify contractor-prepared publications that should be sent to DTIC.

(1) The first method involves the *data management* function. The Publications Branch reviews all deliverables submitted to NOSC. If publications personnel believe the deliverable should be sent to DTIC, they notify the Contracting Officer's Technical Representative (COTR) that the publication will be sent to DTIC *unless* the COTR notifies the Publications Branch within 30 days (figure 15).

---

* *The Public Affairs Office forwards copies of the completed form to the Publications Branch.*

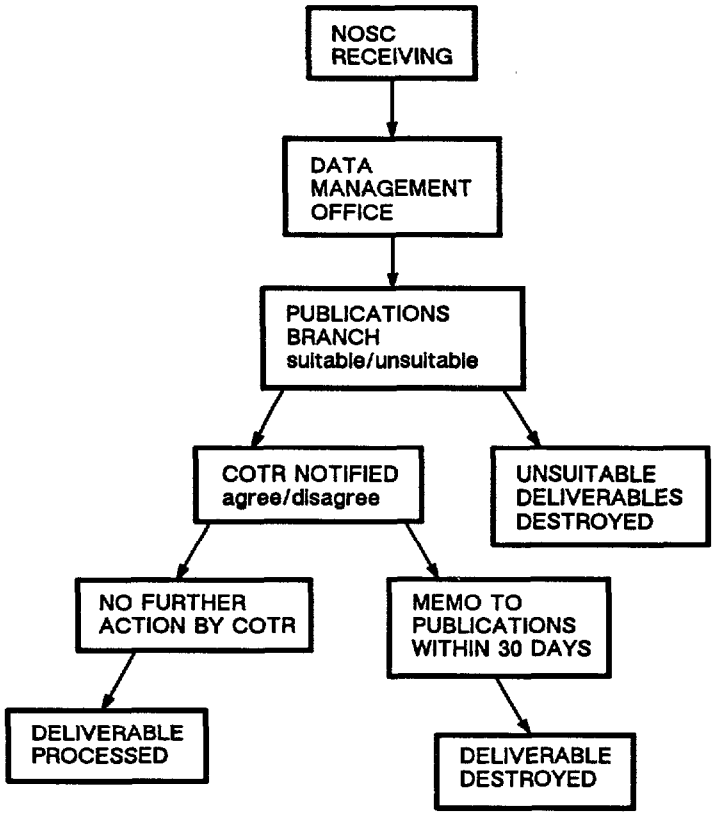


Figure 15. Process for identifying contractor-prepared data for submission to DTIC.

(2) The second method involves *COTR identification*. The COTR looks at a publication and decides it should be sent to DTIC. In this case, the COTR prepares the routing-and-approval form (NOSC Form 5605) and forwards the publication to the Publications Branch.

Submission of Publications to DTIC. For either type of submission of contractor-prepared publications, personnel in the Publications Branch will prepare the required paperwork: a NOSC technical document cover, an inside front cover that contains administrative information necessary to release the publication, and an SF 298.

NOSC contractor-prepared publications are not edited by publications personnel. The only reviews are to check the classification markings (if the publication is classified) and to ensure that all pages are present and legible.

JOURNAL ARTICLES AND PUBLISHED PRESENTATIONS BY NOSC CONTRACTORS. The same process used to identify NOSC-authored journal articles and published presentations is used to identify similar work done by NOSC contractors. The only difference is that the publications personnel work with the COTR and not the author, i.e., the contractor.

Protection of Information in DTIC

DTIC's distribution of classified and unclassified publications is controlled by several elements:

Security clearance and need-to-know of the requester.

Security classification and the distribution statement of the publication.

The distribution statement denotes the availability of the publication for distribution, release, and disclosure without additional authorization by the controlling office. (A distribution statement is distinct from and in addition to the security classification.) The distribution statement is usually determined by the controlling office; for most NOSC publications, NOSC determines the distribution statement.

Publications (both classified and unclassified) submitted to DTIC must have a formal distribution statement (A through F or X). This statement is then used by DTIC to determine if a requester is authorized to receive the publication.

DTIC distributes publications only to those agencies authorized by the distribution statement. For example, if the publication is limited to DoD agencies, then requests from all contractors and government agencies other than DoD must be approved by the controlling office. (In the case of NOSC publications, the controlling office is usually NOSC.) DTIC requires written approval from the controlling office before the distribution can be made. At NOSC, the Publications Branch coordinates these DTIC requests with the controlling technical code (figure 16).

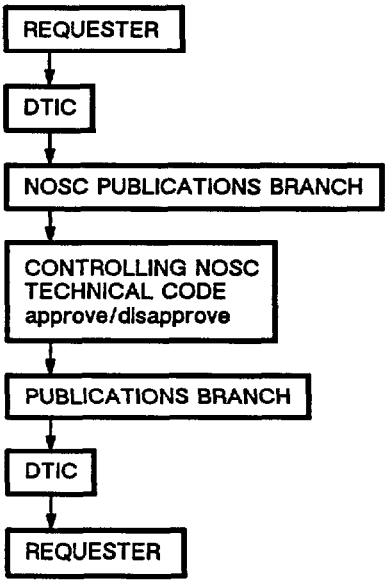


Figure 16. Information flow for secondary distribution process when requester is not included in limits of distribution statement.

Information Excluded From DTIC

NOSC does not send the following information to DTIC:

- Information for which the classification guidelines exclude submission to DTIC, e.g., certain types of intelligence and surveillance information
- Technical manuals (hardware only) stocked at Navy Publications and Forms Center
- Administrative papers
- Nontechnical memoranda
- Engineering drawings
- Nontechnical correspondence
- Financial reports
- Contract administration documents
- Regulations
- Commercially published books

Where to Get Help at NOSC

To decide if a publication should be sent to DTIC: Your branch or division head or the Publications Branch.

To have contractor-prepared information submitted to DTIC: The Publications Branch.

To have a journal article or published presentation submitted to DTIC: The Publications Branch.

To determine what formal review process is necessary for submitting a publication to DTIC: The Public Affairs Office, the Information Security Office, or the Publications Branch.

PART 6
GOVERNMENT–INDUSTRY DATA EXCHANGE PROGRAM

What is GIDEP? What types of publications are included? Who has access to GIDEP information? Is GIDEP accessible to foreign governments? How are my publications sent to GIDEP? Who determines if they should be sent? What are my responsibilities as a COTR in regard to GIDEP?

What Is GIDEP?

The Government–Industry Data Exchange Program (GIDEP) is a cooperative activity between the federal government and industry. Sponsored by the Joint Logistics Command, the program allows participants to exchange technical data related to parts, components, and materials used in commercial and industrial military, energy, and space systems and equipment. By sharing unclassified and unlimited information (approved for public release), expenditures of time and money are reduced or eliminated. (Classified and proprietary material are excluded from GIDEP.)

There are four GIDEP databases or interchanges:

(1) **Engineering Data Interchange**

Engineering evaluation and qualification test reports

Nonstandard parts justification data

Parts and materials specifications

Manufacturing processes

Other related engineering data on parts, components, materials, and processes

(2) **Reliability-Maintainability Data Interchange**

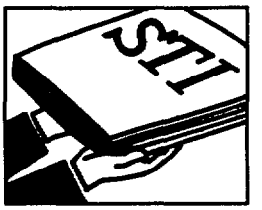
Failure rate/mode and replacement rate data on parts, components, and materials based on field performance information and/or reliability demonstration tests of equipment, subsystems, and systems

Reports on reliability-and-maintainability practices and procedures

(3) **Failure Experience Data Interchange**

Objective failure information on parts, components, processes, fluids, materials, and safety and fire hazards

Data from ALERTs and SAFE-ALERTs as well as other problem information and failure analyses. (An ALERT, a report on failure information, is generated when significant problems are identified on



parts and materials; a SAFE-ALERT is a similar report, but the failure information is related to a safety problem.)

(4) **Metrology Data Interchange**

Test equipment calibration procedures and metrology-related engineering data on test systems, calibration systems, and measurement technology

National Institute of Standards and Technology metrology data

GIDEP Membership

Members of GIDEP are agencies that use or generate the types of data included in the GIDEP databases. Basically, membership consists of

the Canadian government

Canadian contractors who have contracts with either the U.S. or Canada

U.S. government agencies

U.S. government contractors and universities

How Does NOSC Participate in GIDEP?

All NOSC-numbered formal publications (technical reports, technical documents, and technical manuals) that are approved for public release (distribution statement A) are sent to NOSC's GIDEP representative in the Product Assurance Division. The representative then reviews the publication and decides if the information is applicable for GIDEP. If the decision is positive, the representative fills out the DD Form 2000 (General Document Summary Sheet, figure 17) and sends both the form and the publication to GIDEP. (The Publications Branch automatically sends qualified publications to the GIDEP representative as part of the primary distribution process.)

For unclassified publications that are limited in distribution (statements B through F and X), the NOSC author should review the publication and decide if the material is applicable for GIDEP. If this is a positive decision, the author forwards the publication to the GIDEP representative who writes an unclassified abstract. As this abstract must be approved for public release, the GIDEP representative routes the abstract through the appropriate routing-and-approval cycle. After it is approved, this abstract is included on the DD Form 2000, which is the only information sent to GIDEP. Requests for these publications by GIDEP members must be approved by the originating technical code.

6. Government-Industry Data Exchange Program

REPRODUCTION OR DISPLAY OF THIS MATERIAL FOR SALES OR PUBLICITY PURPOSES IS PROHIBITED

GOVERNMENT-INDUSTRY DATA EXCHANGE PROGRAM

OMB NO 22-R0336

GENERAL DOCUMENT SUMMARY SHEET

1 OF

Please Type All Information – See Instructions on Reverse

1 ACCESS NUMBER	2 COMPONENT/PART NAME PER GIDEP SUBJECT THESAURUS	
3 APPLICATION	4 MPR NOTIFICATION ☐ NOTIFIED ☐ NOT APPLICABLE	5 DOCUMENT ISSUE (Year / Month)
6 ORIGINATOR'S DOCUMENT TITLE		7 DOCUMENT TYPE ☐ GEN RPT ☐ NONSTD PART ☐ SPEC
8 ORIGINATOR'S DOCUMENT NUMBER	9 ORIGINATOR'S PART NAME/IDENTIFICATION	
10 DOCUMENT SUPERSEDES SUPPLEMENTS ACCESS NO	11 ENVIRONMENTAL EXPOSURE CODES	
12 MANUFACTURER	13 MANUFACTURER PART NUMBER	14 INDUSTRY/GOVERNMENT STANDARD NUMBER

15 OUTLINE TABLE OF CONTENTS SUMMARY OR EQUIVALENT DESCRIPTION

16 KEY WORDS FOR INDEXING

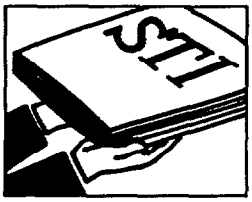
17 GIDEP REPRESENTATIVE	18 PARTICIPANT ACTIVITY AND CODE

DD FORM 1 AUG 79 2000

ALL PREVIOUS EDITIONS ARE OBSOLETE

16-27

Figure 17. DD Form 2000 used for sending documents to GIDEP.



Please note that any publication that contains either proprietary data (regardless of the distribution statement) or classified information cannot be sent to GIDEP.

How Is Information Obtained from GIDEP?

NOSC PERSONNEL. The NOSC technical library maintains copies of GIDEP microfilm files; abstracts of reports; summaries of failure data rate, replacement rate data, ALERTs, and SAFE-ALERTs; and other data related to NOSC work. These copies are available in the technical library; a technical librarian will assist you in their use.

CONTRACTORS. When GIDEP receives material, it is reviewed for program applicability, indexed for computer retrieval, processed for microfilming, and automatically distributed to contractors and government agencies that are members. Contractors are also able to query the database for copies of material.

What Are the Responsibilities of NOSC Personnel?

As an author of a NOSC publication:

Be aware of the general requirements of GIDEP.

Assist the GIDEP representative in determining if your publication or abstract should be included in the database.

Review unclassified, limited publications for inclusion in GIDEP, and forward suitable publications to the Center's GIDEP representative.

Have the NOSC technical library search the GIDEP database before you start work that involves the testing of parts and components and the preparation of calibration procedures.

Review requests from GIDEP members for access to publications that are limited in distribution.

As a COTR on a NOSC contract:

Be knowledgeable of how the GIDEP function works.

Include the following GIDEP clause in all contracts over $500,000 that involve the design, development, test, production, and support of material related to NOSC's mission:

> The contractor shall provide and maintain appropriate procedures to enable his full participation in the Government–Industry Data Exchange Program (GIDEP) per MIL-STD-1556. Compliance with this clause shall not relieve the contractor from complying with any other provisions of the contract.

Review requests from GIDEP members for access to publications that are limited in distribution.

As a branch or division head:

Review suggested publications and abstracts for inclusion in GIDEP.

Review requests from GIDEP members for access to publications that are limited in distribution.

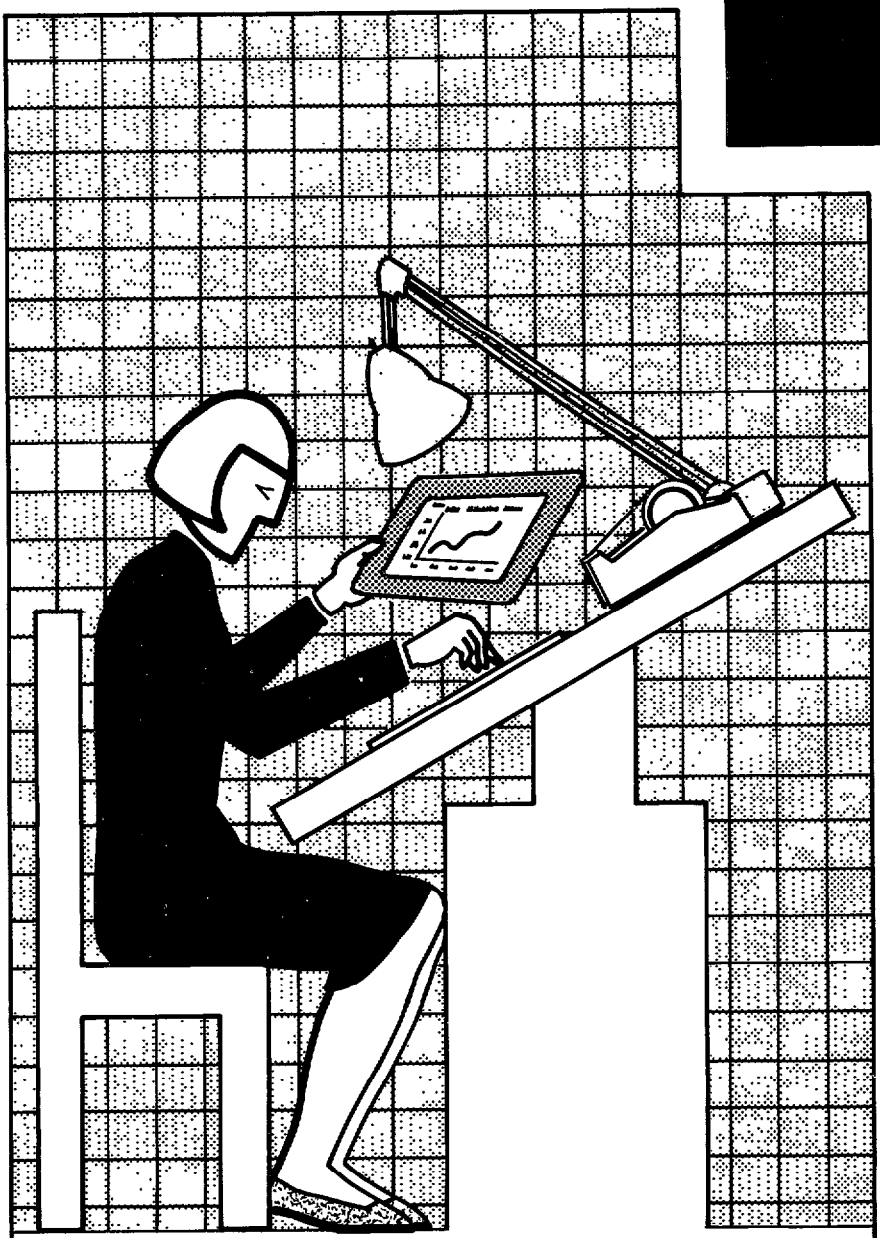
Where to Get Help at NOSC

To obtain additional information concerning GIDEP: GIDEP Representative, Product Assurance Division.

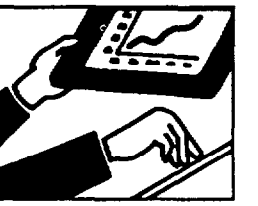
To obtain access to GIDEP materials stored at NOSC: NOSC Bayside Library.

To search the GIDEP database before starting new contract work: NOSC Bayside Library.

II



Visual Scientific and Technical Information



CHAPTER 2

Visual Scientific and Technical Information

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PART 1
PRESENTATIONS

What is the difference between formal and informal presentations? How do I get viewgraphs, slides, or posters made? Can posters be used in a presentation? Can I make my own viewgraphs or slides? Are distribution statements used with presentations? What about classification markings? When are secret presentations bar-coded? How can a presentation be made into a formal publication and sent to DTIC? What routing is required for a presentation?

Formal Presentations

DEFINITION. Presentations made to anyone other than Center employees, for example, at a meeting called by your sponsor or those made at a symposium, are defined as formal presentations. These presentations usually convey Center policy or discuss Center accomplishments.

PREPARATION OF PRESENTATION AIDS. Presentation aids include viewgraphs (overhead transparencies), slides, and posters (figure 18). When these aids are used in formal (i.e., official) presentations, NOSC requires that they be prepared by the Visual Media Branch.

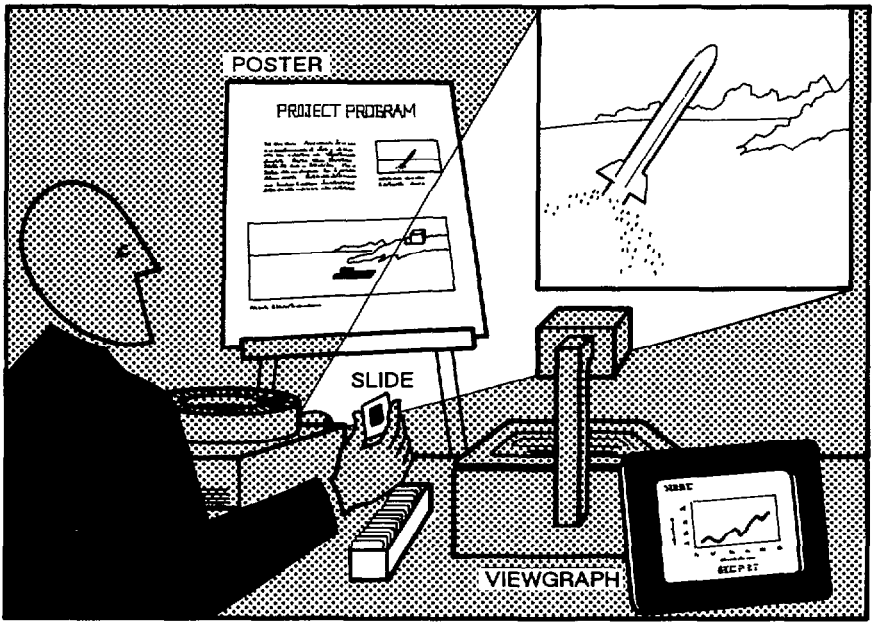


Figure 18. Examples of presentation aids.

To have graphics personnel in the Visual Media Branch prepare your presentation aids, simply provide them with copies of your draft presentation material. Graphics personnel do not require copies of a completed routing form (NOSC Form 5605). However, they must be given the appropriate distribution statement for your work. In addition, if your presentation is classified, they need information concerning the overall classification of the presentation as well as information on the individual presentation aids (see following section, "Classified Presentations").

DISTRIBUTION STATEMENTS AND WARNING NOTICES. Because technical information will be discussed during your presentation, you must use a distribution statement with both classified and unclassified presentations. The distribution statement will let your audience know if the information in your presentation is either available to the public or restricted, e.g., limited to DoD employees.

Formal distribution statements, which are discussed in detail in appendix A, are summarized below:

Approved for public release.

Limited to U.S. government agencies.

Limited to U.S. government agencies and their contractors.

Limited to DoD components.

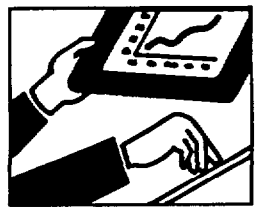
Limited to DoD components and U.S. DoD contractors.

Further dissemination only with approval of Commander, NOSC.

To determine which distribution statement applies to your presentation, consider the presentation as a whole. The distribution statement is placed on opening and closing presentation aids that carry only the distribution statement, or it is added to your first and last presentation aids (figure 19). The distribution statement is not placed on individual presentation aids.

In addition to the distribution statement, you need to determine if the presentation includes information that has other distribution restrictions, for example, militarily critical technology (MCT) or proprietary data. These restrictions must also be shown at the beginning and end of your presentation.

If your presentation does not require the use of presentation aids, simply tell your audience what distribution restrictions, if any, apply to the material to be discussed.



NOSC

INTRODUCTION
TO NOSC
SUPPORT SERVICES

Approved for public release; distribution is unlimited.

NOSC

Distribution authorized to DOD components only; critical technology; September 1988. Other requests must be referred to Commander, Naval Ocean Systems Center, San Diego, California 92152-5000.

WARNING—This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50 U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

Figure 19. Opening and closing presentation aids (viewgraphs) showing use of distribution statements.

CLASSIFIED PRESENTATIONS

Opening Presentation Aid. Classified presentations are marked similarly to bound publications. Your first presentation aid, e.g., an opening viewgraph (figure 20), is similar to a cover or title page of a publication and shows the following information:

Overall classification level of the entire presentation

Classification source

Declassification date

Downgrading information (if used)

Date of origin

Office of origin

Warning notices or intelligence control markings (if required)

Title of presentation

Distribution statement

Image Area. The image area of individual presentation aids contains the following information (figure 21):

The classification level of the individual presentation aid, i.e., secret, confidential, or unclassified. When space is limited, the overall classification level may be shown *only* at the bottom of the image area.

The applicable portion markings if you have included more than one image on a presentation aid, e.g., four charts on one viewgraph. (It is not necessary to mark portions of an unclassified presentation aid.)

Short forms of intelligence control markings or warning notices.

Frames and Holders. In addition, the frame of each viewgraph (also shown in figure 21) is marked with the classification source document, declassification date, and date when the viewgraph was produced.* Because slides are small, this information (classification source document, declassification date, and date when the slide was produced) is placed on an outside envelope that houses the slide.

Bar-Coding Secret Presentations. If the presentation is secret and if you plan to keep it intact for more than 90 days, you must have the presentation aids bar-coded. If you keep the presentation aids together as a set, only one bar-code is necessary. However, if you take one of the secret presentation aids out of the set, you must have that individual presentation aid bar-coded. Bar-coding of this material is done by the Classified Material Control Center (CMCC).

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* *For posters, this information appears in either the right or left bottom corner of each poster.*

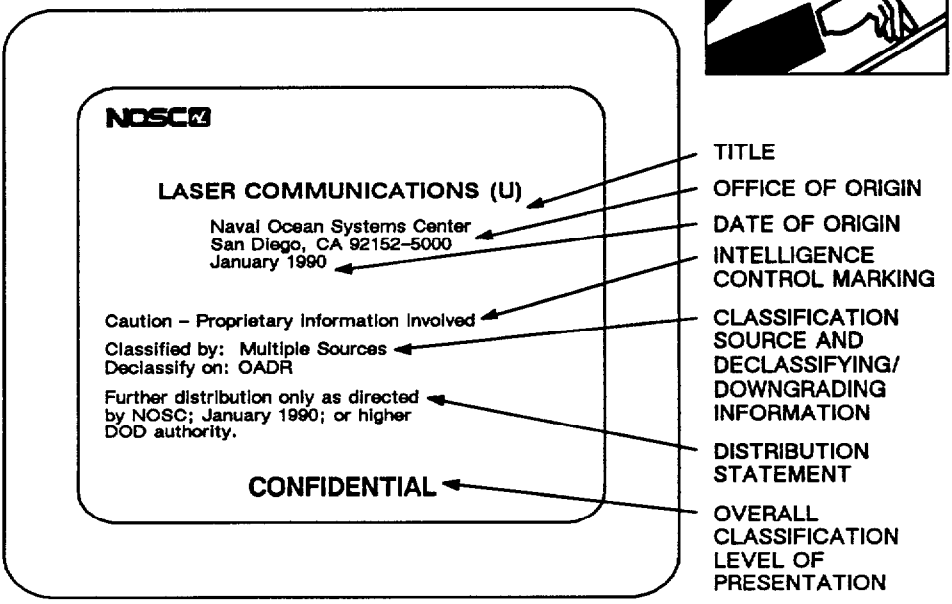


Figure 20. Opening presentation aid for a classified presentation.

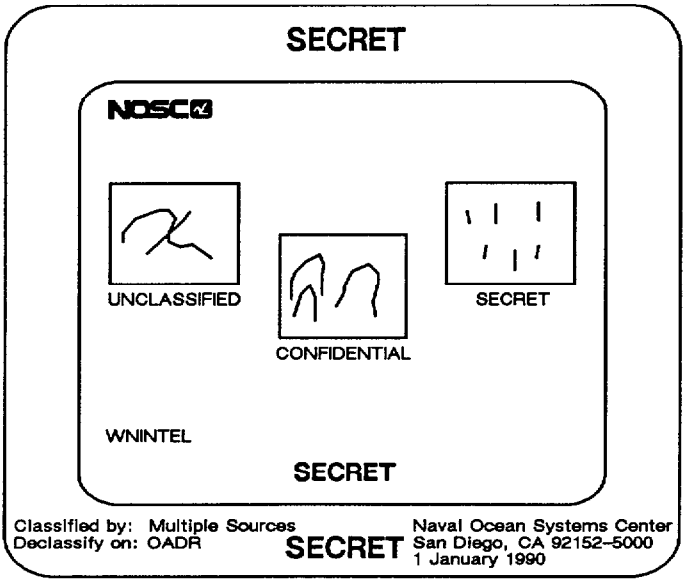


Figure 21. Image area and frame of an individual classified presentation aid. (Information on the frame is filled in by the requester, NOT graphics personnel.)

ROUTING AND APPROVAL. Because formal presentations are official presentations, routing and approval of the information to be presented is required. NOSC Form 5720* is used for this, and the approval cycle depends on the classification of the information:

Classified information:
- Branch and division heads
- Information Security Office

Unclassified information:
- Branch and division heads
- Information Security Office
- Office of Legal Counsel
- Public Affairs Office

FORMAL PRESENTATIONS AND FORMAL PUBLICATIONS. To ensure that the information in your presentation is available to qualified requesters, you can convert your presentation into a technical publication to be sent to the Defense Technical Information Center. You should do this if the information in your presentation would be useful to someone who was not at your presentation or if you want the presentation to be officially recorded and documented.

To make this conversion, perform the following steps:

Compile hard copies of all presentation aids, for example, the viewgraphs.

Add any explanatory text that is required.

Attach a copy of the completed routing-and-approval form (NOSC Form 5720) to the package and send the package to the Publications Branch.

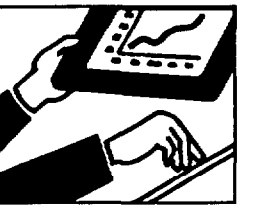
When the Publications Branch receives your package they will take the steps necessary to issue your presentation as a NOSC technical document (TD).

Informal Presentations

DEFINITION. Informal presentations are those made to Center personnel, for example, to Center management or to engineers at a NOSC program review.

PRESENTATION AIDS. When you make a presentation to NOSC personnel, Center policy does not require that you have the Visual Media Branch prepare your presentation aids, usually viewgraphs. These viewgraphs can be made by personnel within the technical codes. (However, if

* *Graphics personnel do not require a copy of this form to prepare your presentation aids.*



asked, personnel in the Graphics Section of TID will prepare your viewgraphs.)

If you do decide to produce informal viewgraphs for on-Center use, remember that the viewgraphs must still conform to good graphic standards. For example, the type size must be sufficiently large to be read from the back of the room, and the amount of information on the viewgraph must be kept to a minimum.

HOW ARE INFORMAL PRESENTATION AIDS MARKED?

Distribution Statements and Warning Notices. As long as your viewgraphs will not be used off-Center or your hard copies sent off-Center, the viewgraphs do not need distribution statements. However, if you later decide to use your viewgraphs off-Center, they are subject to the policy previously stated for formal presentations.

Classification Markings. The rules discussed for marking classified formal presentations apply to informal presentations.

CONVERSION OF INFORMAL PRESENTATION AIDS INTO FORMAL AIDS. If you need to use your informal presentation aids at an off-Center presentation, you must take them to the Visual Media Branch. Graphics personnel will review them for format and adherence to Center policy. They will also provide information on the requirements for distribution statements and classification markings.

Buying Presentation Aids on Contract

Presentation aids, i.e., viewgraphs, slides, and posters, for both formal and informal presentations may not be bought on contract without permission of Technical Information Division (TID). All requests for presentation aids must be brought to the Visual Media Branch.

If your contractor will be making a presentation, e.g., a program review, and you want the presentation aids as a deliverable, be sure to specify in the contract that you want all electronic and photographic media and camera-ready art delivered to NOSC. (These deliverables require TID approval.)

Using NOSC Logo on Presentation Aids

Figure 22. NOSC logo. This logo can be used only on *formal* presentation aids.

The NOSC logo (figure 22) can only be used on formal presentation aids that have been prepared by graphics personnel. The logo cannot be placed on presentation aids that you do for informal presentations or on presentation aids delivered under NOSC contracts.

Guidelines for Preparing Presentation Aids

Use the following guidelines to help ensure that your presentation is professionally done:

Always remember your audience. The basic requirement for a presentation aid is that the information presented can be read by everyone in the audience. The message must be conveyed simply and quickly.

Work toward using the fewest and shortest words possible. The fewer the words, the better your idea will be understood. For example:

Eliminate all unnecessary qualifiers (words or phrases that modify, qualify, or limit other words or phrases).

Reduce connectives (and, or, for, but, yet, nor). Use commas and ampersands.

Limit your total word count on each presentation aid to 25 or less. (This does not include the title.)

Keep your titles short and meaningful. Long, rambling titles tend to introduce long, rambling messages.

Group your presentation aids into sections. If one message exceeds 25 words, limit each viewgraph to short, meaningful portions.

Limit the number of diagrams or pictures on each viewgraph. If you have a specific diagram or illustration, as well as text material to supplement it, limit each presentation aid to one diagram or illustration and its accompanying text.

Where to Get Help at NOSC

To have presentation aids prepared: The Visual Media Branch.

To determine if your presentation is formal or informal: The Visual Media Branch or your branch or division head.

To obtain help in classifying a presentation: The Information Security Office.

To convert a presentation into a publication for the Defense Technical Information Center: The Publications Branch.

To determine the distribution statement for your presentation: Your branch or division head, the Public Affairs Office, or the Information Security Office.

To have a secret presentation bar-coded: The Classified Material Control Center.

To request visual media and presentation aids as a contract deliverable: TID's Visual Media Branch or Audiovisual Manager.

PART 2

LOGOS, SPECIAL COVERS, AND BROCHURES

What is a logo? What is the approval process for logos? How can I get a logo prepared? How can I get a special cover for a NOSC publication? Who approves special covers? How are brochures prepared? What is the approval process for brochures?

Logos

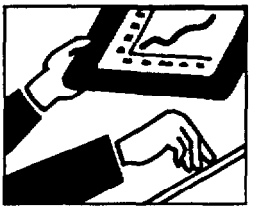
WHAT IS A LOGO? At NOSC, the term "logo" refers to the distinctive graphic design of the name of a project or an organization. These designs can be in letter form, such as the NOSC logo; a simplified graphic design; or a combination of both. (Figure 23 shows examples of different logo designs.)

Figure 23. Examples of different logos in use at NOSC.

HOW TO HAVE A LOGO PREPARED AND APPROVED. If you, as the project manager, decide that your project requires a logo, use the following procedures to have a logo designed, approved, and produced:

Request the Visual Media Branch to prepare a preliminary design for your review and approval.

Take the preliminary design to the Center Advisory Board (CAB) for approval.



Have the Visual Media Branch develop the final artwork after CAB approval.

If you want copies of the logo reproduced for use as stickers, have the Visual Media Branch prepare a printing requisition (DD Form 282) that includes the correct color designation, size of the logo, and paper quality. Then take the artwork and the printing requisition to the local Navy Printing and Publishing Services Branch Office (NPPSBO) for printing of the logos.

If you want copies of the logo reproduced for use as patches, prepare a stub requisition for the Supply Department to process. TID graphics personnel will provide advice on colors and size, but you must prepare the required paperwork.

USE OF COLOR ON LOGOS. If you want to have your logo reproduced in more than two colors (black is considered a color), you must provide NPPSBO with a justification as to why color is necessary. As discussed in chapter IV, part 1, "Printing, Duplicating, and Micropublishing Services," multicolor printing is allowed only for recruitment purposes, ceremonial programs, safety, awards, object identification, and technical clarity. Multicolor printing cannot be done when color is only for decorative purposes or when color is a substitute for effective layout and design.

USING LOGOS AND THE NAVY SEAL

Formal Publications. When a formal, NOSC-numbered publication (technical report, technical document, or technical manual) is prepared, both the Navy seal (figure 24) and the NOSC logo (see figure 22) are used. The Navy seal is used on the cover; the NOSC logo is super-imposed on the inside front cover; and a project logo can be used on the title page.

Figure 24. Navy seal.

Other Publications. The Navy seal, NOSC logo, and project logos can be used on other publications only with the approval of your department head and the head of the Publications Branch.

If approval is granted, you must always use the Navy seal when using the NOSC logo. The Navy seal and the NOSC logo can be of equal size, but the NOSC logo can never be larger than the Navy seal. (You can use the Navy seal without the NOSC logo.)

If you are also using a project logo, you must use both the Navy seal and the NOSC logo. The project logo must be smaller than the Navy seal and NOSC logo.

Formal Presentation Aids. The NOSC logo can be used only on formal presentation aids prepared by the Visual Media Branch. Project logos are not normally used on formal presentation aids. However, with approval of your department head and the head of the Visual Media Branch, a project logo can be incorporated into the design of the presentation aid.

Informal Presentation Aids. The NOSC logo and project logos are not to be used on informal presentation aids.

Summary. Use of the Navy seal, NOSC logo, and project logos is summarized in table 4.

Table 4. Uses of the Navy seal, NOSC logo, and project logos.

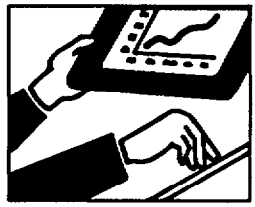
Use	Navy Seal	NOSC Logo	Project Logo
Formal NOSC-numbered publication	Yes	Yes	Yes
Other publications	Approval of department head and TID required	Approval of department head and TID required	Approval of department head and TID required
Formal presentation aids	No	Yes	Approval of department head and TID required
Informal presentation aids	No	No	No

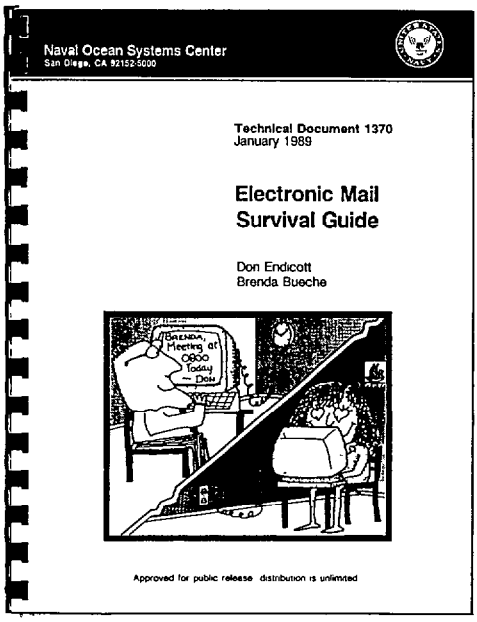
Special Publication Covers

At times, you may require a special cover for a formal, NOSC-numbered publication. These covers, which require approval of your department head and the Publications Branch, are prepared by graphics personnel as part of the publication process.

To have a special cover prepared, provide the editor assigned to your publication with a justification for your cover. Work on the cover design will not start until the justification has been received and approved.

Figure 25 shows examples of special covers for some NOSC-numbered, formal publications.





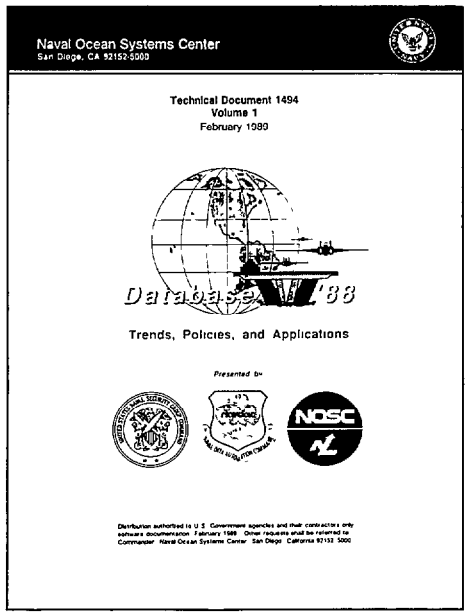


Figure 25. Examples of special covers for NOSC-numbered formal publications.

Brochures and Flyers

Brochures and flyers are formal NOSC publications that fall within the technical document (TD) series.

BROCHURES. Brochures (classified and unclassified) are part of a class of publications called "pamphlets." In 1981, President Reagan issued a memorandum directing the heads of executive agencies to "eliminate wasteful spending on government periodicals, pamphlets, and audiovisual products." As a result of this memorandum, the Navy developed a program in which the publication of pamphlets or brochures must be approved by the Navy Publications and Printing Policy Committee in Washington, D.C. This approval is required before printing.

In addition, all approved brochures must carry the following statement:

> The Secretary of the Navy has determined that this publication is necessary in the transaction of business required by law of the Department of the Navy. Use of funds for printing this publication has been approved by the Navy Publications and Printing Policy Committee.

To be considered a brochure, a publication must be

Printed on a one-time basis.

Published to inform, motivate, increase knowledge, and improve performance.

Nondirective in nature.

Less than 80 pages long.

Issued for regulatory, administrative, indoctrination, or recruitment purposes.

Designed according to the Navy's Graphic Design Standard (SECNAVINST 5600.20).

Excluded from this definition are manuals, memoranda, directives, instructions, regulations, official histories, proceedings, reports, internal information bulletins, programs for ceremonies, primarily statistical material, and single-sheet flyers.

FLYERS. The publication of single-sheet flyers is not restricted:

Flyers can be printed in two colors (remember that black is a color).

They can be folded in any way (fan-folding is the usual method).

Their design is not restricted.

Many times, the graphic designers at NOSC use this medium as a design substitute for brochures.

PRODUCTION OF BROCHURES AND FLYERS. To have a flyer or brochure produced, e.g., to describe the accomplishments of a project or to describe a special facility, contact either the head of the Publications Branch or the Visual Media Branch.

The two branches will work together to prepare a draft copy of the brochure or flyer for on-Center review. The brochure or flyer must be approved by the following personnel:

Unclassified information:
- Branch Head
- Division Head
- Information Security Office
- Public Affairs Office
- Chief Staff Officer

Classified information:
- Branch Head
- Division Head
- Information Security Office
- Chief Staff Officer

Use NOSC Form 5605 to obtain these signatures.

The purposes of these reviews are as follows:

Branch and division heads: Ensure technical adequacy and accuracy and approve distribution statement and classification level.

Public Affairs Office: Approve the distribution statement.

Information Security Office: Review to verify classification level and approve classification markings, associated security caveats, and distribution statement.

Chief Staff Officer: Review for "...necessity, accuracy, current applicability, adequacy, judiciousness of purpose, and good taste and ... consonance with existing law and with national and DN policy." A certification of this review and signature by the Chief Staff Officer is shown on the publication by the following statement:

Reviewed and approved by _____
Chief Staff Officer, NOSC (date)

In addition, if you are producing a brochure rather than a flyer, you must also obtain NPPS approval. Publications personnel will work with you to obtain the NPPS approval.

Where to Get Help at NOSC

To have the artwork for a logo prepared: Visual Media Branch.

To obtain a copy of the Navy seal: Visual Media Branch.

To have a special cover for a NOSC publication prepared: Publications Branch.

To have work started on a brochure or flyer: Visual Media Branch or Publications Branch.

To obtain permission to produce a brochure: The Publications Branch.

PART 3
AUDIOVISUAL SERVICES*

What audiovisual services are available at NOSC? Who pays for these services? When should audiovisual productions be used? How do I request a production? Do we have a film library? Can an audiovisual production substitute for a formal NOSC publication? What about distribution statements and classification markings? What is the approval process? How are audiovisual services and equipment ordered on contract? Can I do my own audiovisual work?

What Audiovisual Services Are Available at NOSC?

TYPES OF PRODUCTIONS AND EQUIPMENT. The Center provides a broad spectrum of services for both film (motion picture) and videotape productions. Types of productions can range from silent, one-time documentation of a test to productions incorporating script writing, narration, and photographic, editing, and sound techniques.

Among the Center's capabilities are the following:

- Color and black-and-white videotape and film production
- TEMPEST-certifiable videotape production
- Underwater videotape and film coverage
- Computerized animation
- Sound transfer to audio cassette, 1/4-inch audio tape, and 16mm magnetic film
- Production of videotapes in U-Matic (3/4-inch) and VHS (1/2-inch) formats
- Duplication of BETA, VHS, and U-Matic videotapes
- Transfer of 16mm film and 35mm slides to BETA, VHS, and U-Matic formats

FILM AND VIDEOTAPE LIBRARY. The Center maintains a film and videotape library (building 128, bayside). This library contains films which were produced by NOSC and its predecessor organizations during the last 20 years; these films may be checked-out for use by NOSC employees. The videotape library consists of edited masters of the Center's videotape presentations; when necessary, duplicates can be made from the master videotapes. The requesting code must, however, pay for the duplicate copy (time and materials).

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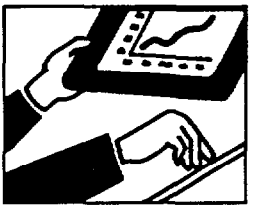
* *The term "audiovisual," as used in this handbook, defines a stand-alone presentation that combines sound with visual media. It should not be confused with the current definition in use by DoD to designate a specialized subject-matter category.*



Procedures concerning use of the library are as follows:

The library can be used by all NOSC employees and contractors. (Contractor access is handled on a case-by-case basis.)

Films and videotapes not cleared for public release are issued to non-military activities only after approval by the Public Affairs Office.

Search and retrieval services are available only to properly cleared government agencies and contractors.

Classified films and videotapes are released only to properly identified personnel with a "need-to-know."

HOW CAN I OBTAIN AUDIOVISUAL SERVICES? All audiovisual services are available through the Video Section of the Visual Media Branch (building 128, bayside). To have an audiovisual production prepared, simply contact personnel in the section. Costs for these services (time and materials) are the responsibility of the requesting technical code.

When Should Audiovisual Productions Be Used?

GENERAL USES. Audiovisual productions can be used to document the work, concepts, and facilities of the Center (figure 26):

In-situ testing of equipment and weapon systems

Presentation of proposed programs and systems concepts

Results of computer simulations

Substitutes for facility tours

Conceptual use of hardware, e.g., the destruction of mines by a piece of fleet equipment

Lectures

RDT&E development and progress reports

FORMAL REPORTING. Audiovisual productions can be used as either a substitute for, or in conjunction with, formal publications. Although the production itself is not sent to the Defense Technical Information Center (DTIC), the production can be reported to DTIC on an SF 298. The production is thus considered as a formal publication that satisfies NOSC's requirement for reporting results of Center work to DTIC.

To have the production reported to DTIC, simply provide the Publications Branch with a copy of the completed routing-and-approval form (NOSC Form 5605 or 5720) and a duplicate of the production.* Publications personnel will prepare an SF 298, including an abstract and the required funding information.

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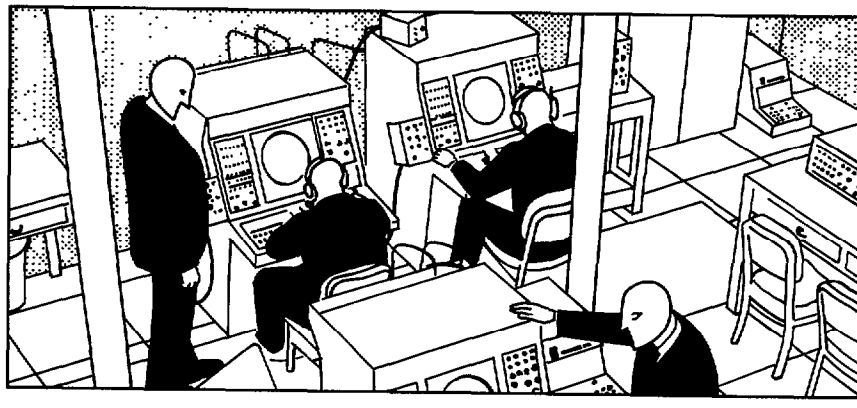
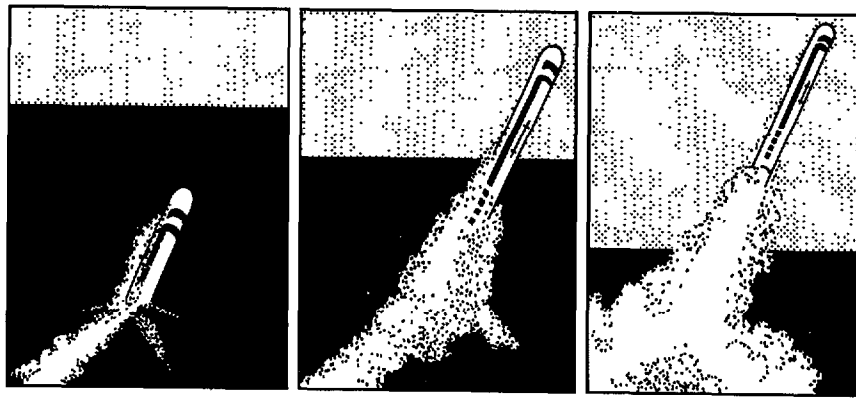
* *The duplicate will not be sent to DTIC, but will be stored in the NOSC archives of formal publications.*

FACILITY TOUR



AT SEA TESTING



COMPUTER SIMULATION

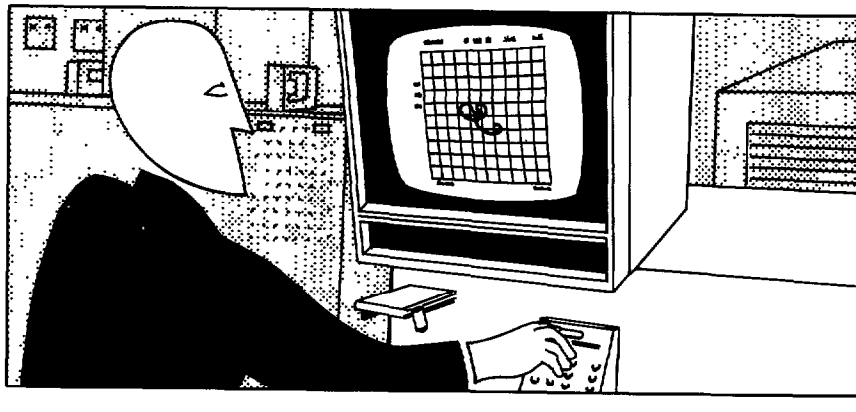


Figure 26. Uses of audiovisual documentation.

Since the production will not be duplicated at DTIC, the cognizant technical code must provide duplicate copies to those agencies that request copies. (Requests are subject to need-to-know for classified and unclassified, limited productions.)

Distribution Statements and Warning Notices

All audiovisual productions (classified and unclassified) that involve technical information must be marked with a distribution statement and, if required, warning notices, e.g., the caveat for militarily critical technology.

The correct distribution statement depends both upon the intended use of the production and the technical information conveyed in the production.

Personnel in the Video Section will include the appropriate statement and applicable warning notices on the opening frame of your production.

PRODUCTIONS TO BE SENT OFF-CENTER TO OTHER THAN THE SPONSOR. Use a formal distribution statement. These statements, which are summarized below, are explained in detail in appendix A:

Approved for public release.

Limited to U.S. government agencies.

Limited to U.S. government agencies and their contractors.

Limited to DoD components.

Limited to DoD components and U.S. DoD contractors.

Further dissemination only with approval of Commander, NOSC.

PRODUCTIONS TO BE SENT OFF-CENTER TO ONLY THE SPONSOR. Use one of the formal distribution statements in appendix A or the following statement:

> This document has not been reviewed in accordance with DoD Directive 5230.25. Distribution is limited to Naval Ocean Systems Center. Additional requests must be approved by Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

PRODUCTIONS TO BE USED ONLY AT NOSC. No statement is required.

Review and Approval Cycle

REVIEW EXTERNAL TO NOSC. The Space and Naval Warfare Systems Command (SPAWAR) must approve all type I productions (internal to NOSC), and the Chief of Naval Operations (CNO) must approve all type II and III productions (Navy-wide distribution and interservice distribution, respectively).

Forms 1995-1 and 1995-2 (figures 27 and 28) are used to obtain these approvals. Personnel in the Video Section obtain necessary approvals based on information provided by the code requesting the production.

INTERNAL NOSC REVIEW. All audiovisual presentations (classified and unclassified) that will carry a formal distribution statement must be reviewed. NOSC Form 5605 or 5720 is used for this review. This review is required before the formal distribution statement can be placed on the production.

The approval cycle depends on the classification of the production.

Classified productions:
- Branch and division heads
- Information Security Office

Unclassified productions:
- Branch and division heads
- Information Security Office
- Public Affairs Office

Although video personnel will make the production available for screening during this review process, the requesting technical code must coordinate the review.

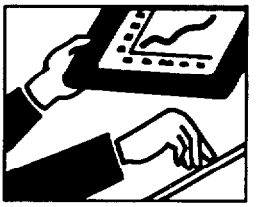
Classified Productions

The opening frames of a classified production must be marked with the following information:

- Distribution statement
- Overall classification level of the production
- Classification source
- Declassification date
- Date of origin
- Office of origin
- Downgrading information (if used)
- Warning notices or intelligence control markings (if required)
- Title of production

The closing frames carry only the classification level of the production.

II. Visual Scientific and Technical Information



VISUAL INFORMATION PRODUCTION REQUEST, EVALUATION AND APPROVAL

REPORT CONTROL SYMBOL DD-PA(AR)1381

SECTION A. ORIGINAL CUSTOMER REQUEST FOR VISUAL INFORMATION (VI)

1 DATE OF REQUEST *(YY/MM/DD)*

2 DATE REQUIRED *(YY/MM/DD)*

3 TYPE OF REQUEST *(X a, b, or c, and complete as applicable)*

a NEW OR REVISED PRODUCTION

(1) Script Attached *(X one)* ☐ Yes ☐ No

(2) Suggested Location (a) Script (b) Photography

(3) Revision of PIN/PAN

b ADOPTION OF GOVERNMENT PRODUCTION

(1) Source *(Name Address, & Phone Number)*

(2) Location of Master Materials

(3) PIN/PAN or Other Product Number

c COMMERCIAL ACQUISITION *(Existing off the shelf productions only)*

(1) Vendor's Mailing Address & Phone Number

(2) Sole Source Justification Attached *(X one)* ☐ Yes ☐ No

(3) Copyright Release Attached *(X one)* ☐ Yes ☐ No

(4) Estimated Cost Per Copy $

(5) Commercial Identification Number

4 TITLE

5 SERIES TITLE AND PART IDENTIFICATION

6 PROPOSED SECURITY CLASSIFICATION *(X one)*

☐ a Unclassified ☐ b Confidential ☐ c Secret ☐ d Top Secret

7 PRODUCTION OBJECTIVE *(X one)*

a Education and Training	b Internal Information	c Public Information	d Recruiting	e Research Development Test and Evaluation	f Intelligence Reconnaissance Criminal Investigation and Communications Security	g Combat Readiness	h Installation Support	Medical and Dental
☐	☐	☐	☐	☐	☐	☐	☐	☐

8 OBJECTIVE AND KEY POINTS

9 JUSTIFICATION

10 TARGET AUDIENCE

11 DISTRIBUTION PLAN

12 FUNDING

☐ a Unfunded ☐ b Funded amount available $_____

c Program Element(s) *(List)*

13 ESTIMATED YEAR OF OBSOLESCENCE

14 ESTIMATED RUNNING TIME

15 REQUESTER

a TYPED NAME *(Last First MI)*

b RANK/GRADE

c ORG NAME OR SYMBOL

d TITLE

e PHONE NUMBERS *(Autovon & Commercial)*

DD Form 1995-1, AUG 87 *Previous editions are obsolete* Page 1 of 2 Pages

Figure 27. DD Form 1995-1 used to obtain approval for audiovisual production.

VISUAL INFORMATION (VI) PRODUCTION REPORT

REPORT CONTROL SYMBOL DD-PA(AR)1381

UPDATE OF AN EXISTING RECORD (Last date (YY MM DD)) _____ NEW

1. PRODUCTION IDENTIFICATION NUMBERS

*a PIN
*b ORIGINAL COMPONENT DIGRAPH
c PAN
d INTERNAL CONTROL NUMBER
*e REPORTING AGENCY DIGRAPH

2. PRODUCTION TITLES

*a TITLE
b SERIES TITLE AND PART IDENTIFICATION

3. CLASSIFICATION

a SECURITY CLASS (X one) U | C | S | TS
b CLASSIFIED BY
c. DECLASSIFY ON / OADR (YY/MM/DD)
d (1) DOWNGRADE TO (2) ON (YY/MM/DD)
e ADDITIONAL WARNING NOTICES

4. PUBLIC CLEARANCE STATUS

a LEGAL RESTRICTIONS TO SALE
b NO LEGAL RESTRICTIONS TO SALE
c. CLEARED FOR PUBLIC EXHIBITION AND SALE
d NOT CLEARED FOR EXHIBITION OR SALE

5. CATEGORY AND MEDIA FORMATS AND COPIES

CATEGORY (X one)
*a CATEGORY 1
*b CATEGORY 2
*c. CATEGORY 3
d LENGTH (1) Min / Sec (2) Units

e MEDIA TYPE | P | D_1 | D_2 | D_3
(1) Motion Picture
(2) Video Tape
(3) Video Disc
(4) Slide / Tape
(5) Slide Set
(6) Audio Tape
(7) Audio Disc
(8) Multi Media
(9) Overhead Trans
(10) Other (Specify)

f SIZE | P | D_1 | D_2 | D_3
FILM
(1) 8 mm film
(2) 16 mm film
(3) 35 mm film
TAPE
(1) 1/8 inch tape
(2) 1/4 inch tape
(3) 1/2 inch tape
(4) 3/4 inch tape
(5) 1 inch tape
(6) 2 inch tape
(7) 8 mm tape
(8) Other (Specify)

g PLAYBACK FORMAT | D_1 | D_2 | D_3
(1) U matic
(2) Cartridge
(3) Reel to Reel
(4) Video VHS
(5) Video Beta I

g (Continued) | D_1 | D_2 | D_3
(6) Video Beta II or III
(7) Super Beta
(8) Video Disc
(9) Compact Disc
(10) Interactive Video Disc
(11) 8 mm Video
(12) Other (Specify)

h MEDIA STOCK | D_1 | D_2 | D_3
(1) Color
(2) Black and White

i MEDIA SOUND
(1) Optical
(2) Magnetic
(3) Disc
(4) Silent

j CUMULATIVE NUMBER OF COPIES
(1) D_1 _____ (2) D_2 _____ (3) D_3 _____

6. SUBJECT INDEX

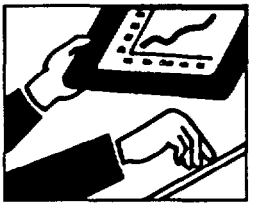
*a FIELD AND GROUP CODES (1) / (2) / (3) /
*b DESCRIPTORS (1) (2)
(3) (4) (5)

***7. SYNOPSIS**

(Minimum 50 words)

DD Form 1995-2, AUG 87 *Previous editions are obsolete* Page 1 of 3 Pages

Figure 28. DD Form 1995-2 used to obtain approval of audiovisual productions.



Can I Do My Own Audiovisual Work?

NOSC scientists and engineers may check out audiovisual equipment from the TID Audiovisual Equipment Loan Pool. This equipment can only be used to document tests when TID staff cannot provide the required coverage. You may also assemble your test footage, if you have the proper facilities.

Center policy also requires that any recording or editing of videotape data must be cleared by TID before any work occurs. In addition, the individual doing the work must have a Camera/Video/Recording (CVR) Equipment Permit, NOSC Form 5512/40. (See figure 30 in part 5 of this chapter.)

Can Other DoD Activities Do Audiovisual Work at NOSC?

At times other DoD activities, for example, your sponsor, may want to perform some audiovisual work at NOSC. These requests are handled on a case-by-case basis by TID's Audiovisual Manager. If you know of such a request, refer your contact to the Audiovisual Manager who will process the request.

Ordering Audiovisual Services or Equipment by Contract

Any stub requisition or statement-of-work that orders film or videotape equipment or services must be routed through TID's Audiovisual Manager. Supply will not process any audiovisual request without TID approval.

The purposes of this review are to

Ensure that NOSC complies with DoD and Navy requirements concerning audiovisual productions and equipment.

Ensure that the equipment does not already exist at NOSC.

Determine the best method of providing the requested service, i.e., negotiate a new contract, use an existing service contract, or use Center capabilities.

If you are allowed to order an audiovisual production on contract, be sure to specify the delivery of all production elements needed to reproduce the audiovisual production, e.g., negatives, positives, videotapes, and magnetic soundtracks. (More information on this topic is in part 5 of this chapter.)

Where to Get Help at NOSC

To have an audiovisual production (videotape or film) prepared: Video Section, Visual Media Branch.

To use the film library: Video Section, Visual Media Branch.

To determine if an audiovisual production can be used instead of a formal NOSC publication: Publications Branch.

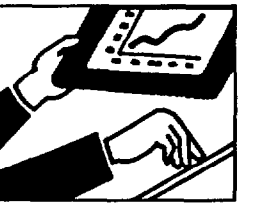
To determine the suitability of an audiovisual production for a specific purpose: Video Section, Visual Media Branch.

To determine the correct distribution statement for your production: Your branch or division head, the Public Affairs Office, or the Information Security Office.

To determine the classification of your production: Information Security Office.

To order audiovisual services or equipment on contract: TID's Audiovisual Manager.

To obtain a CVR Equipment Permit: TID's Audiovisual Manager.



PART 4
PHOTOGRAPHIC SERVICES

What photographic services are available at NOSC? Where can I get help? Can I buy my own equipment and do my own work? How does the Photographic Library work? How are photographs marked to show classification? What is the Center's policy on distribution statements? Can I purchase my own photographic services by contract?

What Photographic Services Are Available at NOSC?

The Center provides complete black-and-white and color photographic services through TID's Photography Section. Included are the following services:

- Field photography (air, surface, underwater, laboratory, and test facilities)
- Stop-action, microphotography, and macrophotography
- Studio and *in situ* photography of hardware
- Photographic support for audiovisual and graphic presentations
- Portrait and passport photography

The Photography Section will also develop photographic systems and technology to meet any unique requirements that NOSC projects may have.

When Should Photography Be Used?

Photography can be used to meet many of the requirements for visual documentation of the Center's scientific, technical, and administrative work. For example, consider these applications:

- Graphics in NOSC-numbered, formal publications.
- Camera-ready prints for journal articles or symposium proceedings.
- Historical documentation of the evolution of a project, e.g., conceptual illustrations, prototype hardware, first test event, and group employees.

How Do I Obtain Photographic Services?

The Center's main photographic facility is located in room 2236, building 33, topside. Services are requested by using NOSC Forms 10700/2 and 10700/2A (figure 29).

4. Photographic Services

PHOTOGRAPHIC REQUEST (FOR BLACK & WHITE WORK) PREPARE IN DUPLICATE

CHECK PROPER BOX WHEN MATERIAL ATTACHED ☐ UNCLASSIFIED ☐ CONFIDENTIAL ☐ SECRET

PROJECT JOB ORDER NO | REQUESTER'S NAME | ACTIVITY CODE | EXT | BLDG | DATE

PHOTOGRAPHIC REQUEST (FOR COLOR WORK) PREPARE IN DUPLICATE

CHECK PROPER BOX WHEN MATERIAL ATTACHED ☐ UNCLASSIFIED ☐ CONFIDENTIAL ☐ SECRET

PROJECT JOB ORDER NO | REQUESTER'S NAME | ACTIVITY CODE | EXT | BLDG | DATE

1 PHOTOGRAPHY | COPY | ACTUAL DATE NEEDED | AUTHORIZED ☐ OVERTIME ☐ CLASSIFIED PICK UP SIGNATURE APPROVAL

PROCESS ONLY | NO | FILM TYPE SIZE

PROCESS AND PROOF/MOUNT

PRINTING ONLY (List negative numbers below) | TITLE

2 PROJECT OR PROGRAM

3 DESCRIPTION NAME OR SUBJECT (Negative numbers, etc.)

4 LOCATION (Area, Bldg, Room) ☐ ITEM CAN BE PHOTOGRAPHED IN STUDIO ☐ TOPSIDE ☐ BAYSIDE ☐ SEASIDE | BLDG AREA | ROOM | DATE | TIME

5 PURPOSE (Report, Display, Passport, etc.) AND REMARKS

6 NUMBER EACH: 4x5 | 8x10 | 8 x11 | VUGRAPH ☐ MOUNTED ☐ UNMOUNTED | 35mm SLIDE | OTHER (Describe)

A B C D E F

THIS SPACE FOR PHOTO LAB USE ONLY

G H I J K

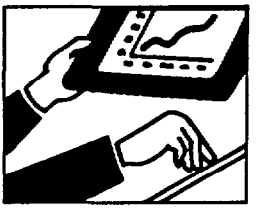
7 ☐ MAIL ☐ PICK UP | PICKED UP BY | DATE

REQ NO | DATE LOGGED | DATE COMPLETED | DATE CALLED

L M

NOSC SD 10700/2 (REV 3-87)

Figure 29. NOSC Form 10700/2 used to obtain color photographic work (NOSC Form 10700/2A is used to obtain black-and-white photographic work).



Auxiliary facilities at San Clemente Island, Morris Dam, and Hawaii (building 1394) provide specialized support for photographic services. The facilities at San Clemente Island and Morris Dam provide optical instrumentation; both facilities are administered by the Range Instrumentation Branch. The Hawaii facility (administered by TID) provides full color and black-and-white photographic services.

Photographic Library

INFORMATION AND SERVICES AVAILABLE. The Photographic Library has historical, project, and portrait negatives and file prints for NOSC and its predecessor organizations. Staff assistance is available to help locate and retrieve requested information. There is no charge to the Center codes for this service.

The photographic library is located in building 33, room 2236, topside.

USE OF THE LIBRARY. Procedures concerning use of the library are as follows:

> The library can be used by all NOSC employees and contractors. (Contractor access is handled on a case-by-case basis.)
>
> Photographs not cleared for public release are issued to nonmilitary activities only after approval by the Public Affairs Office.
>
> Photographic search and retrieval services are available only to properly cleared government agencies and contractors.
>
> Classified photographs are released only to properly identified personnel with a "need-to-know."

CATALOGING OF PHOTOGRAPHS. All NOSC photographs kept in the Photographic Library are cataloged with an "LRO" number that designates the negative number and month and year of the photograph. For example,

> LRO 2913-4-86,

where 2913 is the serial number; 4, the month; and 86, the year.

Distribution Statements and Classification Markings

DISTRIBUTION STATEMENTS AND WARNING NOTICES. All unclassified photographs that portray scientific or technical subjects are stamped with the following statement:

> Official U.S. Navy photograph. Not for publication unless officially released. Naval Ocean Systems Center, San Diego, CA 92152-5000.

If you want to release a photograph to other than Navy employees or your sponsor, you must have the preceding statement changed to one of the formal statements in appendix A. For approval, the routing procedures noted here are the responsibility of the technical code.

Classified photographs:
- Branch and division heads
- Information Security Office

Unclassified photographs:
- Branch and division heads
- Information Security Office
- Public Affairs Office

CLASSIFIED PHOTOGRAPHS. The front of all prints (top and bottom) should be marked with the overall classification level of the photograph. If possible the associated classification markings, i.e.,

Classification source,

Declassification information,

Downgrading information (if used),

Warning notices (if used), and

Intelligence control markings (if used),

are also placed on the front of the print, i.e., at the bottom of the print. When it is not practical to place the associated classification markings on the front of the photograph, place them on the back of the photograph.

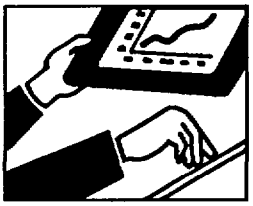
Can I Do My Own Photographic Work?

NOSC scientists and engineers may check out photographic equipment from the TID Audiovisual Equipment Loan Pool. This equipment can only be used to document tests when TID staff cannot provide the required coverage.

Center policy also requires that the individual doing the work must have a Camera/Video/Recording (CVR) Equipment Permit. (See part 5 of this chapter for additional information.)

Buying Photographic Services or Equipment by Contract

To buy photographic services or equipment by contract requires the approval of the Audiovisual Manager in TID. This approval must be secured before the procurement action can be forwarded to the Supply Department.



The purposes of this review are to

Ensure that NOSC complies with DoD and Navy requirements concerning photographic work.

Ensure that the equipment does not already exist at NOSC.

Determine the best method of providing the required service, i.e., negotiate a new contract, use an existing service contract, or use Center capabilities.

If you are allowed to order photographic services or equipment, be sure to specify that the negatives as well as the prints be delivered to NOSC.

Where to Get Help at NOSC

To obtain a CVR Equipment Permit: TID's Audiovisual Manager.

To order photographic work: The Photographic Section.

To determine the correct distribution statement for a photograph to be sent off-Center: Your branch and division heads, the Public Affairs Office, or the Information Security Office.

To obtain a copy of an existing photograph: The Photographic Library.

To borrow photographic equipment: TID's Audiovisual Equipment Loan Pool.

To determine if a photograph should be classified: Your branch and division heads and the Information Security Office.

PART 5

USE AND PURCHASE OF VIDEO AND PHOTOGRAPHIC SERVICES AND EQUIPMENT

How and where do I get permission to do photographic and video work? Where can I borrow equipment? How do I purchase equipment? Can I buy photographic and video services on contract?

Photographic and Video Work Performed by Scientists and Engineers

CENTER POLICY. Performing photographic, video, and sound-recording work at all NOSC locations, including ranges and test facilities, is limited to NOSC personnel with an official pass. NOSC issues two types of passes:

Photographer's Pass: This is the Center's official photographer's authorization; it is usually limited to NOSC employees who have been specifically hired to provide photographic services.

Camera/Video/Recording (CVR) Equipment Pass: This permit is for NOSC employees who occasionally need to use a camera, video equipment, or sound-recording equipment. The CVR Equipment Pass (figure 30) is issued by the Personnel Security Group for a period not to exceed 12 months.

You must obtain a pass whether you use personal or government-owned equipment.

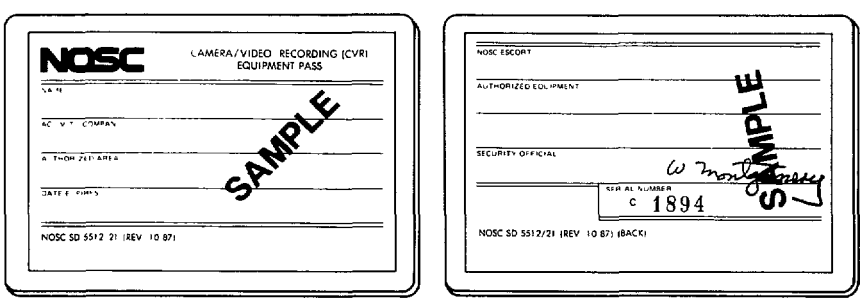
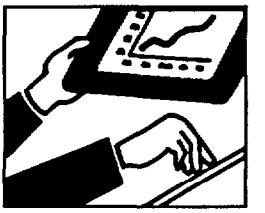


Figure 30. Camera/Video/Recording (CVR) Equipment Pass.



HOW TO OBTAIN A CVR EQUIPMENT PERMIT. NOSC personnel who want to do sound-recording, photographic, or video work must submit NOSC Form 5512/40, Request for Photographer's Pass or Camera/Video/ Recording Equipment Pass (figure 31), to the Personnel Security Group. The request must go via the Center's Audiovisual Manager in TID and the Information Security Office. (Forms are available in the Personnel Security Group's badging office.)

Because DoD and Navy require that Center in-house technical information resources be used before a CVR Equipment Permit can be issued, the following information must accompany the request:

Type and purpose of work to be done.

Project or program being supported.

Type of government-owned equipment to be used and, if applicable, name and code of custodian.

Steps taken to determine reasons why TID resources cannot provide the requested service (DoD does not permit cost to be a factor).

Impact on program or project if request for CVR Equipment Permit is denied.

USING PHOTOGRAPHS AND VIDEO PRODUCTS PRODUCED BY SCIENTISTS AND ENGINEERS. If you have made photographic, video, or sound recordings and you need to send this information off-Center, you must take your material to either the Video Section or the Photography Section. Personnel in these sections will review your material for format and conformance with Chief of Naval Operations (CNO) requirements. They will also perform any necessary post-production work and advise you on the requirements for distribution statements and classification markings.

Using Personal Photographic or Video Equipment at NOSC

To protect against inadvertent disclosure of classified information, use of personal photographic and video equipment must be approved in advance by the Security Office.

TID's Equipment Loan Pool

To provide photographic, video, and sound-recording equipment to Center personnel, TID operates two equipment loan pools: one in Hawaii and one in San Diego. Types of equipment in the loan pool include the following:

Video players and monitors

Video and still cameras

5. Use and Purchase of Video and Photographic Services and Equipment

REQUEST FOR PHOTOGRAPHER'S PASS OR
CAMERA/VIDEO/RECORDING (CVR) EQUIPMENT PASS

NOSCINST 5290.1

FROM (division head or above)	TO	VIA	DATE
CODE	Personnel Security Group, Code 151	AV Manager, Code 9603	

I. Please issue to the person named below a:

☐ Camera/Video/Recording Equipment Pass
☐ Photographer's Pass
(for official photographers only)

NAME	CODE/ACTIVITY/COMPANY (if activity/company, give complete mailing address)

TELEPHONE NUMBER	DURATION REQUIRED	FREQUENCY OF USE	ACCESS REQUIREMENT (bldg. number(s))

II. NOSC person who will escort contractor or visitor personnel requesting passes.

NAME (last, first, middle)	CODE	EXT.

III. The pass is needed for the following type of Government equipment (specify make and model of equipment to be used). Privately owned equipment must be justified below.

☐ CAMERA	☐ VIDEO	☐ RECORDING

JUSTIFICATION FOR PRIVATELY OWNED EQUIPMENT

IV. The pass is needed for the following reason:

☐ Employee of the Visual Media Branch
☐ Contractor performing or a contract for the specific purpose of providing audio/visual services only.
☐ Employee of the Public Affairs Office to escort news media personnel.
☐ Other: Requests for all other persons must be justified in block V below.

V. BRIEF DESCRIPTION OF DUTIES

CERTIFICATION

The individual for whom this pass is requested has been instructed in the security regulations concerning the use of camera/video/recording equipment aboard a naval facility, the application of classification and downgrading markings, and public release restrictions.

SIGNATURE (division head or above)	DATE

☐ APPROVED ☐ DISAPPROVED	SIGNATURE (AV Manager, Code 9603)	DATE

NOSC-90 5512/40 (Rev. 1-87)

Figure 31. NOSC Form 5512/40 used to request pass to operate camera, video, or recording equipment.

Projection equipment

Sound-recording equipment

To borrow photographic, video, and sound-recording equipment you must have a valid Photographer's Pass or CVR Equipment Permit. Equipment can be borrowed only when TID resources cannot meet the requirements of the requesting code. No permit or pass is required to borrow presentation or projection equipment.

If the equipment will be used off-Center, for example, on travel, TID personnel working in the equipment loan pool will provide a Property Pass.

The loan pool also receives and reissues photographic or video equipment which is no longer needed by Center codes.

Purchasing Photographic or Video Equipment

TID APPROVAL. TID's Audiovisual Manager must approve the purchase of all photographic, video, and sound-recording equipment before the Supply Department will accept the requisition. As part of the approval process, the Audiovisual Manager must determine if the equipment will be used to support RDT&E programs (category 1 equipment) or to support other Center work (category 2 equipment).

To obtain approval for purchase, a written justification, signed by a branch head or higher, is required. The justification must include the following information:

Reason why new or additional equipment is required and how it will be used.

Mission or program areas to be supported.

Classification level of work to be supported.

Percentage of work other than RDT&E for which the equipment will be used.

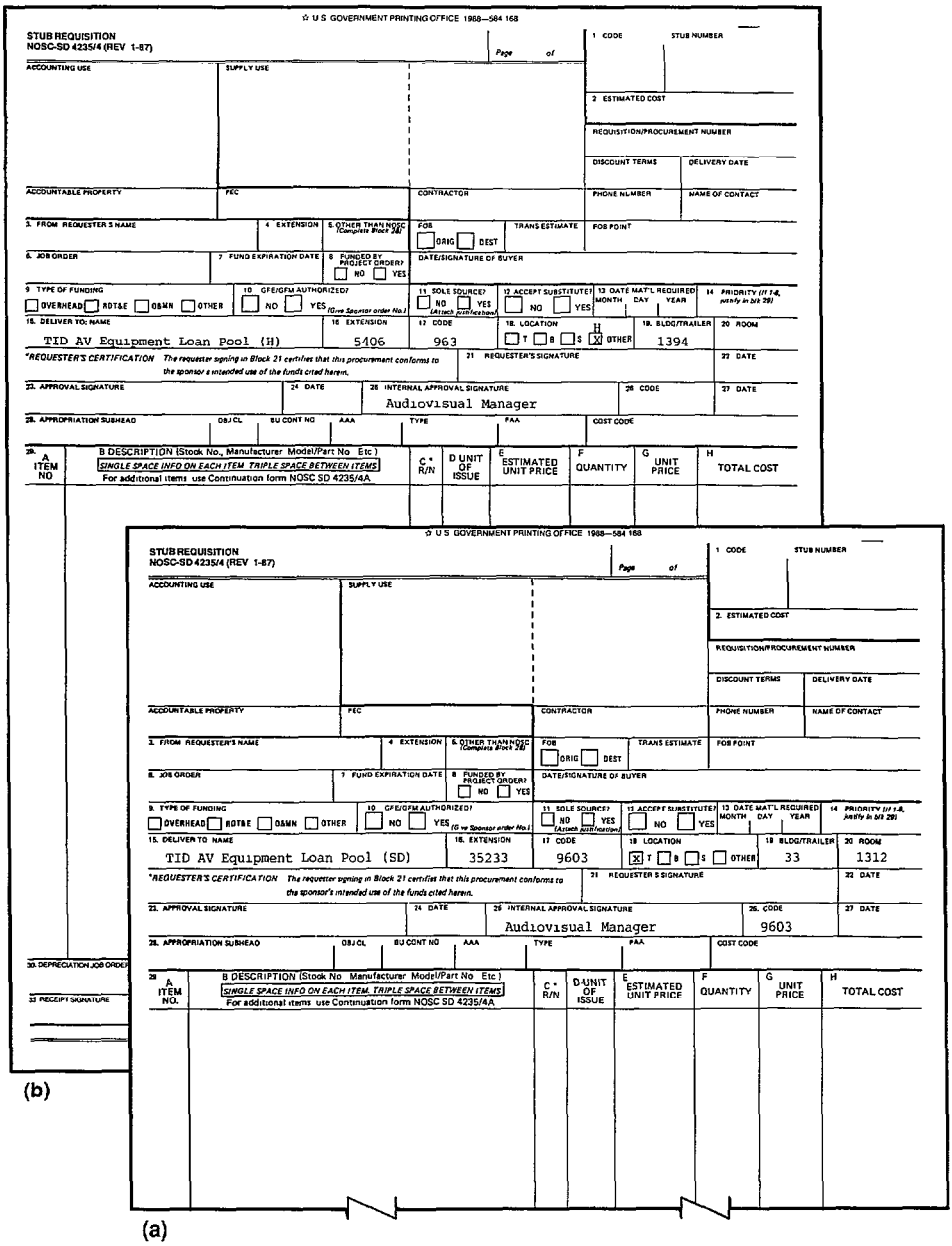
If the need for the equipment will extend beyond the immediate requirement (a positive response requires a justification).

A certification that no other activity in the local area can provide the required support.

Whether similar equipment is available on a loan basis from either NOSC's equipment loan pool or that of any other DoD or federal agency.

Certification that the products produced will not be distributed off-Center.

PREPARATION OF STUB REQUISITION. When preparing the stub requisition for buying photographic, video, or sound-recording equipment, follow the example shown in figure 32. Note that the equipment must be



☆ U S GOVERNMENT PRINTING OFFICE 1988—584 168

STUB REQUISITION
NOSC-SD 4235/4 (REV 1-87)

Page of

1 CODE | STUB NUMBER

ACCOUNTING USE | SUPPLY USE

2 ESTIMATED COST

REQUISITION/PROCUREMENT NUMBER

DISCOUNT TERMS | DELIVERY DATE

ACCOUNTABLE PROPERTY | PEC | CONTRACTOR | PHONE NUMBER | NAME OF CONTACT

3. FROM REQUESTER'S NAME | 4 EXTENSION | 5. OTHER THAN NOSC (Complete Block 28) | FOB ☐ ORIG ☐ DEST | TRANS ESTIMATE | FOB POINT

6. JOB ORDER | 7 FUND EXPIRATION DATE | 8 FUNDED BY PROJECT ORDER? ☐ NO ☐ YES | DATE/SIGNATURE OF BUYER

9 TYPE OF FUNDING ☐ OVERHEAD ☐ RDT&E ☐ O&MN ☐ OTHER | 10 GFE/GFM AUTHORIZED? ☐ NO ☐ YES (Give Sponsor order No.) | 11 SOLE SOURCE? ☐ NO ☐ YES (Attach justification) | 12 ACCEPT SUBSTITUTE? ☐ NO ☐ YES | 13 DATE MAT'L REQUIRED MONTH DAY YEAR | 14 PRIORITY (If 1-8, justify in blk 29)

15. DELIVER TO: NAME: TID AV Equipment Loan Pool (H) | 16 EXTENSION: 5406 | 17 CODE: 963 | 18. LOCATION ☐ T ☐ B ☐ S ☒ OTHER H | 19. BLDG/TRAILER: 1394 | 20 ROOM

*REQUESTER'S CERTIFICATION The requester signing in Block 21 certifies that this procurement conforms to the sponsor's intended use of the funds cited herein. | 21 REQUESTER'S SIGNATURE | 22 DATE

23. APPROVAL SIGNATURE | 24 DATE | 25 INTERNAL APPROVAL SIGNATURE: Audiovisual Manager | 26 CODE | 27 DATE

28. APPROPRIATION SUBHEAD | OBJ CL | BU CONT NO | AAA | TYPE | PAA | COST CODE

29. A ITEM NO | B DESCRIPTION (Stock No., Manufacturer Model/Part No Etc) SINGLE SPACE INFO ON EACH ITEM TRIPLE SPACE BETWEEN ITEMS For additional items use Continuation form NOSC SD 4235/4A | C* R/N | D UNIT OF ISSUE | E ESTIMATED UNIT PRICE | F QUANTITY | G UNIT PRICE | H TOTAL COST

30. DEPRECIATION JOB ORDER

33 RECEIPT SIGNATURE

(b)

☆ U S GOVERNMENT PRINTING OFFICE 1988—584 168

STUB REQUISITION
NOSC-SD 4235/4 (REV 1-87)

Page of

1 CODE | STUB NUMBER

ACCOUNTING USE | SUPPLY USE

2. ESTIMATED COST

REQUISITION/PROCUREMENT NUMBER

DISCOUNT TERMS | DELIVERY DATE

ACCOUNTABLE PROPERTY | PEC | CONTRACTOR | PHONE NUMBER | NAME OF CONTACT

3. FROM REQUESTER'S NAME | 4 EXTENSION | 5. OTHER THAN NOSC (Complete Block 28) | FOB ☐ ORIG ☐ DEST | TRANS ESTIMATE | FOB POINT

6. JOB ORDER | 7 FUND EXPIRATION DATE | 8 FUNDED BY PROJECT ORDER? ☐ NO ☐ YES | DATE/SIGNATURE OF BUYER

9. TYPE OF FUNDING ☐ OVERHEAD ☐ RDT&E ☐ O&MN ☐ OTHER | 10 GFE/GFM AUTHORIZED? ☐ NO ☐ YES (Give Sponsor order No.) | 11 SOLE SOURCE? ☐ NO ☐ YES (Attach justification) | 12 ACCEPT SUBSTITUTE? ☐ NO ☐ YES | 13 DATE MAT'L REQUIRED MONTH DAY YEAR | 14 PRIORITY (If 1-8, justify in blk 29)

15. DELIVER TO NAME: TID AV Equipment Loan Pool (SD) | 16. EXTENSION: 35233 | 17 CODE: 9603 | 18 LOCATION ☒ T ☐ B ☐ S ☐ OTHER | 19 BLDG/TRAILER: 33 | 20 ROOM: 1312

*REQUESTER'S CERTIFICATION The requester signing in Block 21 certifies that this procurement conforms to the sponsor's intended use of the funds cited herein. | 21 REQUESTER'S SIGNATURE | 22 DATE

23. APPROVAL SIGNATURE | 24 DATE | 25 INTERNAL APPROVAL SIGNATURE: Audiovisual Manager | 26. CODE: 9603 | 27 DATE

28. APPROPRIATION SUBHEAD | OBJ CL | BU CONT NO | AAA | TYPE | PAA | COST CODE

29 A ITEM NO. | B DESCRIPTION (Stock No Manufacturer Model/Part No Etc) SINGLE SPACE INFO ON EACH ITEM. TRIPLE SPACE BETWEEN ITEMS For additional items use Continuation form NOSC SD 4235/4A | C* R/N | D UNIT OF ISSUE | E ESTIMATED UNIT PRICE | F QUANTITY | G UNIT PRICE | H TOTAL COST

(a)

Figure 32. Samples of stub requisitions for audiovisual purchase. (a) Delivery address for San Diego AV equipment; (b) delivery address for Hawaii AV equipment.

delivered (block 15) to TID's Equipment Loan Pool (either San Diego or Hawaii) and that the internal approval signature is that of the Audiovisual Manager (block 25).

If the Audiovisual Manager decides that the equipment is for "audiovisual support," external approval by the Center's major claimant (Space and Naval Warfare Systems Command, Code 005), the Naval Air Systems Command, and the Chief of Naval Operations (OP09) is required. These approvals are obtained by the Audiovisual Manager.

RECEIPT OF PURCHASED EQUIPMENT. Most equipment purchased will be received by TID's loan pool. The primary custodian will be the manager of the equipment loan pool. The equipment will then be reissued to the requester for indefinite use. If transfer of the equipment becomes necessary, the original requester must receive approval of the Audiovisual Manager.

At times the Audiovisual Manager can decide to assign category 1 equipment (supporting RDT&E programs) directly to the requester as primary custodian.

USE OF PURCHASED EQUIPMENT. Equipment originally approved and purchased for direct RDT&E support of specific programs or projects cannot later be used for non-RDT&E work without prior approval by the Naval Air Systems Command and the Chief of Naval Operations. If you think you might be using RDT&E equipment for non-RDT&E uses, contact the Audiovisual Manager for assistance.

SERVICE, REPAIR, AND TURN-IN OF EXCESS EQUIPMENT. Custodians of photographic and video equipment are responsible for servicing and repairing equipment assigned to them. When the equipment becomes worn or damaged beyond economical repair, the Audiovisual Manager will assist in disposal of the equipment.

Purchase of Photographic and Video Expendable Material

Shop store 4 provides photographic and video materials. Purchasers must have a Photographer's Pass, a CVR Equipment Permit, or be on an exception list. (Contact the Audiovisual Manager for details.)

Direct purchase of materials, either from Navy standard stock or from commercial sources, can only be requested by the Audiovisual Manager. (Exceptions exist for the photographic facilities at San Clemente Island, Morris Dam, and Hawaii.) To obtain approval, submit your stub requisition to the Audiovisual Manager for approval.

Contracting for Video Services

VIDEO PRODUCTIONS. Only the Audiovisual Manager and the Visual Media Branch are authorized to approve contracting of any type of video or photographic support, i.e., still photography and film and videotape production.

All procurement requests must be processed through TID before your package can be taken to the Supply Department. Contract support can be approved only if TID resources cannot provide the required service. Be sure to include the following information with your request so that the Audiovisual Manager can make a determination on your request:

Type of work to be done.

Purpose of work.

Project or program being supported.

Reasons why TID resources cannot provide the requested service (DoD does not permit cost to be a factor).

Steps taken to determine that TID resources cannot provide the required support.

OPTICAL INSTRUMENTATION SERVICES. Contract support for optical instrumentation recordings and related services is the responsibility of the Operations Branch. This code maintains a contract to provide these services at the Center's ranges. The inclusion of optical instrumentation services in a contract requires approval of the Operations Branch.

Where to Get Help at NOSC

To obtain a CVR Equipment Permit: The Personnel Security Group.

To use or send a photograph or video production off-Center: Photography Section or Video Section of the Visual Media Branch.

To contract for video or photographic services: The Audiovisual Manager.

To buy video or photographic equipment: The Audiovisual Manager.

To purchase optical instrumentation services: The Operations Branch.

To borrow photographic or video equipment: TID's Equipment Loan Pool.

To be placed on the exception list at shop stores to buy expendable photographic and video supplies: The Audiovisual Manager.

Technical Library Program

CHAPTER 3
Technical Library Program

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PART 1
USING THE NOSC TECHNICAL LIBRARIES

Who can use the NOSC Technical Library? Can NOSC contractors use the library? What library services are available to NOSC contractors? How do I arrange for my visitors to use the library? What services are available under Intraservice Support Agreements?

NOSC Civilian and Military Personnel

NOSC civilian and military personnel have full access to the technical library's holdings and services.

To use the library, you must wear your picture badge. The Topside Library accepts unclassified, confidential, and secret badges; however, the Bayside Library requires either a confidential or secret badge.

NOSC Contractors

NOSC contractors are provided services and access as follows:

Access to all unclassified and unrestricted materials available within the library.

Access to classified materials on a need-to-know basis that is certified by the technical code in charge of the contract. This certification, which must be made in advance of the contractor's visit to the library, is done by a memorandum (original and one copy) from the contracting officer's technical representative (COTR) to the head of the Technical Libraries Branch. The memorandum must include the following information:

- Contractor's name(s)
- Company affiliation
- Contract number
- Dates access to library will be required (not to exceed the length of the contract)
- Specific subject areas to which the contractor requires access
- Copy of the pertinent Contract Security Classification Specification (DD Form 254)

Literature searches and reference service at the discretion of the head of the Technical Libraries Branch.

Contractors may not borrow library material, and material in use will not be recalled for a contractor's use.

Intraservice Support Agreement Personnel

Personnel wearing picture badges indicating a security clearance from organizations with an Intraservice Support Agreement (ISA) with NOSC are provided the following services:

Access to all materials currently in the library up to the level of the clearance of the individual.

Circulation service (secret material is mailed via U.S. Postal Service).

Literature searches and lengthy reference services at the discretion of the head of the Technical Libraries Branch.

DoD Personnel from Other Point Loma Activities

DoD personnel from other Point Loma activities wearing picture badges indicating a security clearance are provided the following services:

Access to all materials currently available in the library up to the level of the clearance of the individual.

Loan of materials via interlibrary loan.

Other Contractors and Visitors

Other contractors and visitors with security clearances must specify an appropriate NOSC technical code that will be responsible for their information requirements. After advance approval of the visit by the head of the Technical Libraries Branch, the following services are provided:

Access to all unclassified and unrestricted materials within the library.

Access to classified material on a need-to-know basis that is certified in advance by the contractor's or visitor's point of contact at NOSC. To obtain this certification, the point of contact must send a memorandum to the head of the Technical Libraries Branch. This memorandum must include the following information:

- Visitor or contractor name
- Organization affiliation
- Dates library will be accessed
- Specific subject areas to which the visitor or contractor requires access

Literature searches and lengthy reference services at the discretion of the head of the Technical Libraries Branch.

Where to Get Help at NOSC

To arrange for a NOSC contractor to use the technical library: Head of the Technical Libraries Branch.

To arrange for a visitor to use the technical library: Head of the Technical Libraries Branch.

To obtain information on library services provided under Intraservice Support Agreements: Head of the Technical Libraries Branch.

PART 2
LIBRARY SERVICES

Where are the Center's technical libraries located? What types of material does the library have in its collections? How can I obtain a copy of a book for my project? How can I order a desk copy of a journal? What is the Center's policy on project databases? How can I have a translation made? When are literature searches required? How do I arrange for a literature search?

Library Locations

To serve the Center's scientists and engineers, the Center has technical libraries located at topside (building A19A), bayside (building 150), and Hawaii (building 1394).

Library Collections

The NOSC Technical Libraries Branch maintains three primary collections—technical reports,* books, and periodicals—that support the Center's mission areas. Material is collected in disciplines and subject areas pertinent to NOSC's mission, and the collections' contents either emphasize general areas of interest at NOSC or represent the highly specialized needs of Center scientists and engineers.

The collections are housed in the three locations of the Technical Libraries Branch: topside, bayside, and Hawaii. Materials are located according to the location of the scientists and engineers working in specific disciplines or subject areas. For example, underwater ordnance, underwater engineering, and marine chemistry materials are found primarily in the Bayside Library, and materials on communications and artificial intelligence are located in the Topside Library.

The library holds all major reference works, indices, and abstracts in engineering and the physical and life sciences that are pertinent to NOSC's mission. Special resources include an extensive collection of maps and charts and a collection of technical reports on artificial intelligence from the major universities working in artificial intelligence. In addition, all locations have a complete and current collection of military and federal specifications, standards, handbooks, and drawings.

* *The technical report collection consists of classified and unclassified technical material published by industry, academia, and government agencies. It also includes the library's collection of technical manuals.*

Acquisition Of Library Materials

SELECTION OF ACQUISITIONS. Acquisitions for the technical library are selected by the library's professional staff of librarians. Selections are based on both the librarians' knowledge of new publications and on recommendations from Center personnel.

ACQUISITION POLICY. The library is the Center's internal approval point for all purchases of library materials; this includes, but is not limited to, technical reports, books, journal subscriptions, maps, charts, specifications, and bibliographic retrieval systems.

When library materials are required by Center personnel, the library will determine the most expeditious means of acquisition, and in most cases will handle the purchase of materials intended for the exclusive use of a technical code or project office. Any publication that is ordered is cataloged into the library's system and identified as being used by the requester for an indefinite period.

FUNDING

Books. Acquisitions of books for general circulation are funded by the library's budget. However, when material is needed for the exclusive use of a requester, that requester must fund the purchase. When you have a requirement for a specific book, submit your request with a job order number to a librarian at any library location or via e-mail.

Journals. Journals and periodicals housed within any of the technical libraries are purchased by the library for general use. Journals kept and used within a specific code must be funded by the requesting code.

These periodicals, ordered and approved by the library, are delivered directly to the requesting code's location. Once a year, usually in July or August, the library will issue a memorandum requesting the following information:

The title of the periodical

The job order to be used to purchase the periodical (an overhead number is preferred)

A statement justifying the mission essentiality of the requested periodical

Interlibrary Loans

Publications that are not available for purchase may be borrowed from other libraries or photocopied. The NOSC Technical Libraries Branch borrows not only from local libraries, but also from DoD, corporate, public, and university libraries throughout the United States and Great Britain.

The library follows rules established by the American Library Association for its interlibrary loan program.

Reference Services

The library offers reference services by professional librarians; these reference services range from answering brief questions or locating specific handbook-type information to compiling comprehensive subject bibliographies. The library maintains online access to all available commercial and government databases pertinent to NOSC's mission areas. In addition, secure online links are maintained to the databases of the Defense Technical Information Center (DTIC).

All reference services, including literature searches, are funded through Center overhead money. You do not have to pay for your reference services.

LITERATURE SEARCHES. When you are in the conceptual phases of your project—even before you make a proposal to your sponsor—you should contact a NOSC librarian for a literature search. A librarian will search the DTIC databases as well as other databases that are pertinent to your project. During the life of your project, you should continue to contact the library for additional searches. Occasional searches will keep you aware of work being done by other researchers and prevent you from duplicating work being done elsewhere. Some of the databases used by the NOSC Technical Libraries Branch are listed in table 5.

To request a literature search by the library, you simply fill out the form shown in figure 33. (Forms are available in all library locations.)

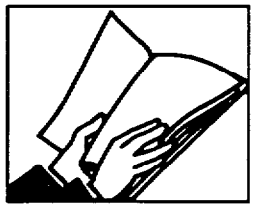


Table 5. Online information retrieval systems used in literature searches.

Database	Purpose
DATALIB	Online access to the NOSC technical library's catalog of books, technical reports, periodicals, and other publications.
DTIC DROLS	Classified access (up to and including secret) to past, current, and planned work sponsored by the Department of Defense. DROLS consists of three databases: technical reports, work units(1498s), and industrial independent research and development summaries.
NASA RECON	Access to more than 2 million technical reports, journal articles, books, conference proceedings, and other publications in the fields of aerospace and related technologies.
DIALOG	Access to more than 250 databases in all subject fields. Many of these databases correspond to printed index equivalents, including COMPENDEX (*Engineering Index*), CA SEARCH (*Chemical Abstracts*), SCISEARCH (*Science Citation Index*), INSPEC (*Physics Abstracts, Electrical and Electronics Abstracts, Computer and Control Abstracts*), and NTIS (National Technical Information Service).
ORBIT	Access to more than 70 databases, including COLD, a database of technical reports, conference papers, articles, and books compiled and maintained by the Army Cold Regions Research and Engineering Laboratory.
BRS	Access to more than 70 databases, including RBOT, a database on robotics, and TECHDATA, an online index to specifications, standards, and manufacturing catalog information.
WILSONLINE	Access to general indexes such as *Applied Science & Technology Index, Business Periodicals Index,* and *Readers Guide to Periodical Literature.*
OCLC	Online union catalog of over 14 million books, serials, and maps owned by 3600 member libraries.
USNI MILITARY DATABASE	Access to unclassified information on the world's armed forces, their organization, orders of battle, and weapons (produced by the United States Naval Institute).
CORPTECH	Information on developers and manufacturers of high technology products in the United States (available only at the topside library).

NOSC TECHNICAL LIBRARY REQUEST FOR LITERATURE SEARCH

Name_____

Code_____ Bldg _____ Phone_____

E-mail ID_____

Date _____ Date Required_____

SEARCH TOPIC

Please provide a narrative statement of your topic Define any terms that may have special meaning in your request Indicate areas to be excluded Include significant phrases, synonymous terms, known authors, companies, agencies etc or pertinent citations BE AS SPECIFIC AS POSSIBLE

SEARCH SPECIFICATIONS

Time coverage _____(number of years)

Language _____ English only_____

Highest Classification _____

DATA BASES TO BE SEARCHED (Library use only)

NOSC Library Holdings_____

DTIC

Technical Reports_____

Work Units (1498's)_____

Industrial IR&D_____

Program Planning_____

Other (please specify)

_____

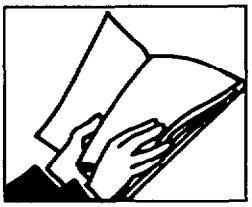
_____

_____

_____

_____

Figure 33. Form used to request literature search by Technical Libraries Branch.



REQUIRED LITERATURE SEARCHES. Before starting any new work at NOSC, you must have the library query DTIC's Research and Technology Work Unit Information System (1498) Database. The purpose of this query is to identify related work and to ensure that work being done by other DoD components will not be duplicated.

Project managers and principal investigators must request the DTIC search on all aspects of their proposed program, including planned contract work. Queries are required for the following types of work:

All 6.1-, 6.2-, and 6.3A-funded work.

All work that falls within the definition of research and technology. Research includes all efforts directed toward increased knowledge of natural phenomena and the environment and efforts directed toward the solution of long-term defense problems in the physical, engineering, life, behavioral, and social sciences. Technology includes scientific or engineering efforts directed toward eliminating technical barriers and providing solutions to technical problems (excluding routine engineering) encountered in RDT&E programs.

All work that is a study or analysis. A study or analysis examines a subject to provide a greater understanding of relevant issues and alternatives that lead to conclusions and recommendations. Areas subject to such examination include planning, programming, budgeting, decision-making, and policy concerned with organizations, tactics, doctrine, policies, force plans, strategies, procedures, intelligence, weapons selection and mix, systems programs, or resources. Also included is the research and development of related database structures and models for the support of studies and analyses.

For work in any of these three areas, you must fill out NOSC Form 3900/56 (figure 34) to document the query. If your work does not fall into the areas defined above, the form is still required to validate the exemption. When completed, send the form to the General Accounting Branch.

DTIC
DATABASE QUERY _____

1 Laboratory Program Summary (LPS) Title

_____

_____

2 Please check box a or b

a ☐ Documentation of DTIC Query

(1) The Defense Technical Information Center (DTIC) Research and Technology Work Unit Information System (R&T WUIS) data base was queried regarding the project listed in line 1 above through the NOSC Library on _____
(date)

(2) It has been determined that work planned, including contractual support, does not duplicate other DoD work

b ☐ Exemption from query

A query is not required because this work does not involve
(1) Research and Technology efforts
(2) 6 1, 6 2, OR 6 3a funding
(3) Studies and Analyses

Principal Investigator _____ _____
(Signature) (Date)

_____ _____
(Typed name) (Code)

NOSC-SD 3900/56 (Rev 2-87)

Figure 34. Form used to document DTIC database query.

Special Projects and Services

DATABASE OF DATABASES. The NOSC Technical Libraries Branch has established a database of databases, i.e., project libraries and databases, that are located outside the technical library. This NOSC Database of Databases is included in the library's online catalog.

NOSC project managers are required to register their database with the library. To do this, provide the library with a descriptive abstract of what is contained in the database, its location, and a point of contact.

CONSULTING SERVICES. The library offers a consultation service to project managers when they are starting a new library or database. The library staff will provide advice on organization, cataloging, and indexing of materials. Advice is also available about selecting software for storage and retrieving documentation. Several software packages are available in the library for review by project managers.

CONTRACTOR REVIEW OF DOCUMENTATION. Project managers can request library support for contractor review of documentation during the proposal period of a contract. The Topside Library will provide storage, retrieval, and access control for the documentation.

MAP AND CHART COLLECTION. The Topside Library maintains an extensive collection of maps and charts for use by NOSC personnel in support of their projects. The following listing shows the map resources available:

Maps and Charts

Hydrographic
- World coverage (DMA Charts)
- U.S. coastal coverage (NOAA Charts)

Topographic (U.S. Geological Survey Maps)
- U.S. series—scales 1:1,000,000 and 1:250,000
- States' series—scales 1:62,5000 (15 min) and 1:24,000 (7.5 min)

Bathymetric (NOAA/USGS) maps

Aeronautical (DMA/NOAA) charts

Road maps (for reference use in the library)

Political maps (CIA and other sources)

General world and U.S. (DMA and USGS) maps

Navigational Aids

Sailing directions

Coastal pilots and fleet guides

Fog and light lists

Tide tables

Almanacs and ephemeris

Booklets on map and chart symbols, abbreviations, terminology, and projections

Atlases

General

Specialized: oceanographic, climatological, political, etc.

CURRENT AWARENESS SERVICES. The NOSC Technical Libraries Branch publishes periodic notifications of new publications in the following subject areas:

Acoustics
Antennas
Applied Mathematics
Arctic
Artificial Intelligence
Command and Control
Communication Systems and Equipment
Communications Theory
Data Communication
Display Systems
Feedback and Control Theory
Fiber Optics
Image Processing
Laser Applications
Matrix Materials
Microelectronics
Numeric Analysis
Oceanography
Optics
Program Management
Radar
Radio Noise
Reliability
Robotics
Semiconductors and Transistors
Signal Processing
Software Engineering
Software Quality, Reliability, and Documentation
Superconductivity

Current awareness listings are available at all NOSC library locations. You can be placed on the distribution list for any of the current awareness topics by contacting the library. You can also request that a current awareness publication be established on a new subject by contacting a reference librarian.

Individually tailored current awareness searches can be established with any of the following online services (explained earlier in table 5) by contacting the head of the Technical Libraries Branch:

DTIC
NASA
BRS
DIALOG
ORBIT

TECHNICAL BOOKS TO BE PUBLISHED. A library publication which announces forthcoming scientific and technical books is prepared and distributed by the Topside Library every 6 to 8 weeks.

TRANSLATION SERVICES. The library also provides translations of technical information published by foreign sources. The library will either provide you with a copy of the translated article or work with you to have the article translated. (A job order is required for this service.)

DATALIB. The NOSC Technical Libraries Branch has implemented DATALIB, an integrated online library system, to manage information resources contained within its collections. DATALIB, developed specifically for use by technical libraries, is a powerful retrieval system that has four functional modules: bibliographic, circulation, acquisitions, and serials control.

The library staff is currently working on implementing the bibliographic function of DATALIB, which is actually the online catalog of the library's holdings and also serves as the master record for the other three modules. The library's technical reports, books, periodical holdings, NOSC-authored papers, specifications, standards, software, telephone directories, and trade catalogs are listed in the DATALIB online catalog.

Major capabilities of DATALIB include the following:

Retrieval by either menu or command-level searching using Boolean connectors.

Capability for the library to host multiple databases.

Other capabilities to be included later include the following:

Online circulation of library materials using barcodes.

Circulation status displayed for items retrieved, i.e., "Is an item on the shelf?"

Online record of items on order and their status.

Online check-in and records of periodical issues.

Where to Get Help at NOSC

To register a database in the NOSC Database of Databases: Bayside Library.

To obtain consulting services on establishing a project database: Bayside Library.

To suggest inclusions in the Technical Libraries Branch's collection: Head of the Technical Libraries Branch.

To obtain help in buying a project-specific book: Head of the Technical Libraries Branch.

To obtain information on ordering journals: Topside Library.

To request a literature search: All library locations.

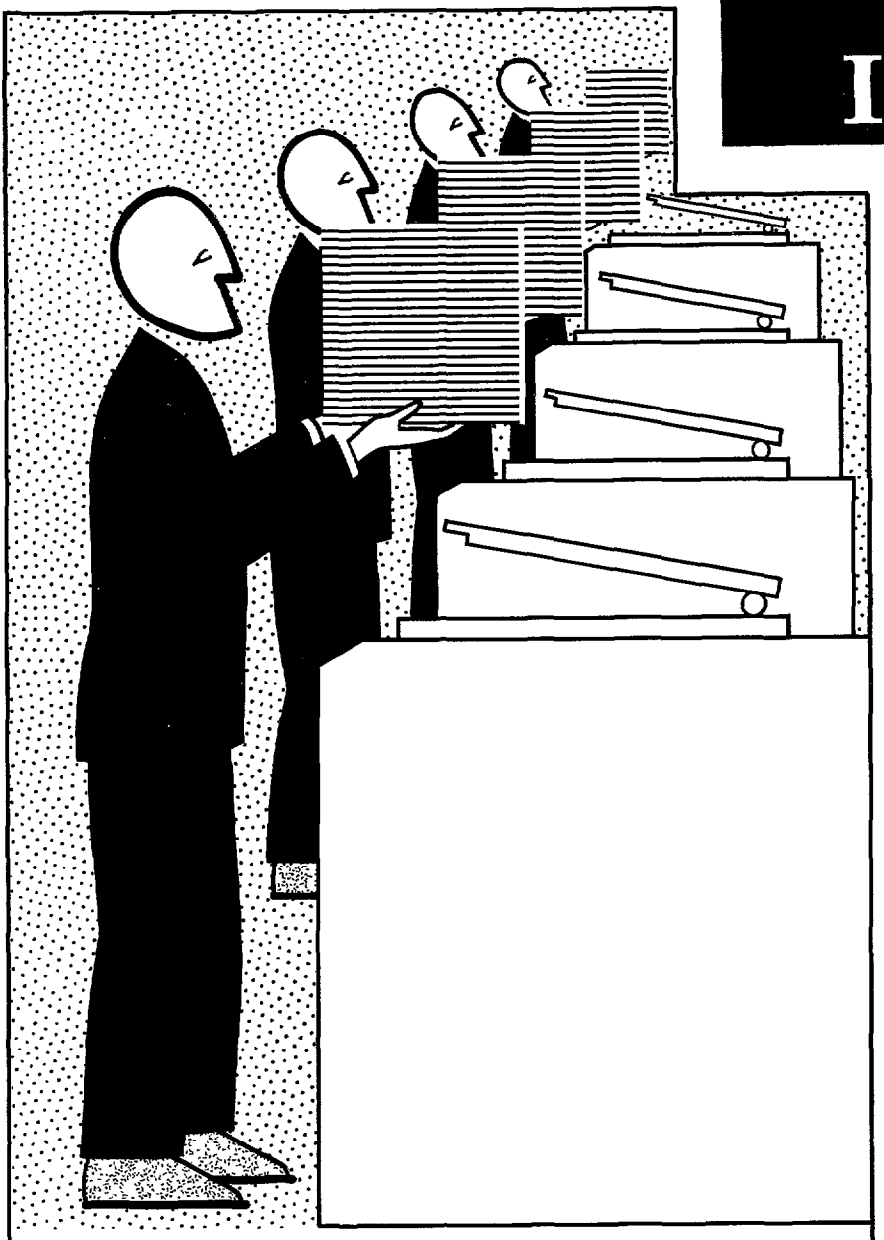
To obtain maps or charts: Topside Library.

To review standards and specifications: All library locations.

To order translations: Bayside Library

To obtain interlibrary loan services: Bayside Library.

To obtain information about DATALIB: Topside or Bayside Library.

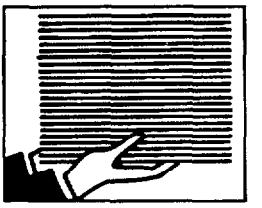


IV

Printing and Copier Programs

CHAPTER 4

Printing and Copier Programs



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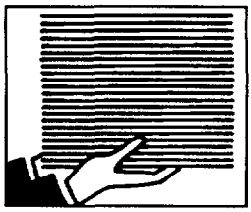

PART 1

PRINTING, DUPLICATING, AND MICROPUBLISHING SERVICES

Who provides NOSC's printing services? Where can I get printing done? Can I buy printing as part of my contract? What about color printing? What is NOSC's policy on using the Navy seal? Can my contractors have access to NPPS? How do I pay for printing services?

What Services Are Available and Where Are They Located?

PRINTING AND DUPLICATING SERVICES. The Navy Publishing and Printing Service (NPPS), San Diego, operates a branch office at NOSC that provides the following printing and duplication (reprographic) services for NOSC personnel.

> Printing: Platemaking, presswork, binding, and electronic page printing (laser printing).
>
> Duplication (reprographics): Offset or high-speed electrostatic copying processes and diazo, photostat, quick copy, electronic laser printing, and similar types of photocopying processes.

The main facility for NPPS, Pt. Loma, is located topside (building A38). Satellite facilities, which provide high-speed copiers operated by NPPS personnel, are in building 33 (room 2036), topside; building 1 (room B119), bayside; and building 336, barracks area. (See figure 35.) NPPS does not operate a satellite facility seaside, but a high-speed copier that can be operated by NOSC personnel is available.

NPPS prints or duplicates all NOSC publications (both formal and informal).* If NPPS cannot provide the required printing or duplicating service, NPPS will contract for these services. NPPS buys all these services, *except* printing, directly from the contractor. Any printing that NPPS cannot provide must be sent by NPPS to the local branch of the Government Printing Office (GPO) for purchase. When planning your publications, remember any unusual printing requirements that NPPS must buy through GPO will increase your costs and turnaround time.

NPPS also provides electronic laser printing services through the conversion of magnetic data (magnetic tape and floppy disk). This capability can be used for producing publications, forms, administrative data, and orders.

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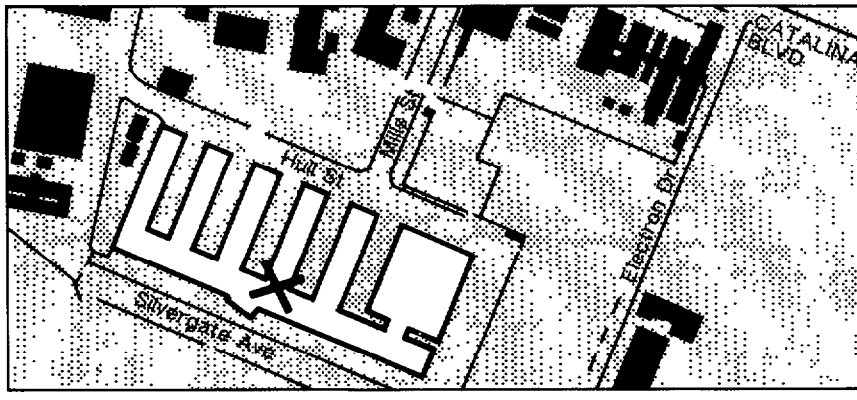
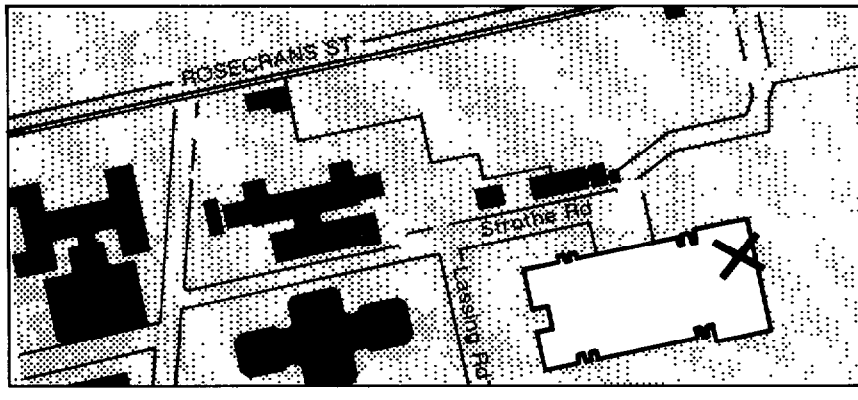
* *In this chapter, publications include, but are not limited to, books, pamphlets, directives, manuals, folders, brochures, periodicals, magazines, newspapers, technical reports, charts, posters, maps, or drawings that are processed by or for the Navy regardless of content, format, quantity, distribution, or intended end use. The definition does not include publications that are provided by suppliers and regularly carried as stock items for commercial sale or use.*

BUILDING 33, TOPSIDE, ROOM 2036



BUILDING 1, BAYSIDE, ROOM B119



BUILDING 336, BARRACKS AREA

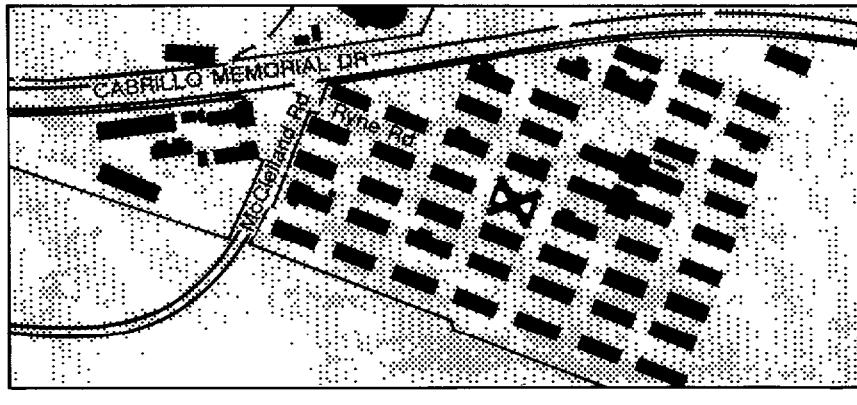
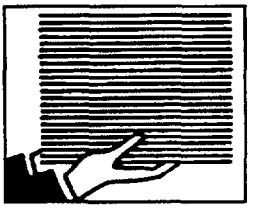


Figure 35. Location of NPPS-operated, quick-copy centers.



MICROPUBLISHING. Micropublishing includes all production aspects of microfilm, microfiche, and aperture cards (both roll and sheet format) that are produced by any filming method, including computer-output microfilm (COM) units.

NPPS operates a micropublishing facility at its plant on North Island. This facility will prepare your required microform on a cost-reimbursable basis. If you need these services, the Publications Branch will provide guidance and the required forms.

Microform production for mass or general distribution is considered as "micropublishing" and requires the approval of NPPS, San Diego. However, microfilming of administrative records, accounting reports, or project files is categorized as administrative or archival microform and does not require NPPS approval.

Basis for the NOSC Printing Program

NOSC's printing program is administered by the Publications Branch. The policies that the Publications Branch interprets for NOSC are established by NPPS. Their regulations, in turn, are based on regulations issued by Congress, i.e., the Joint Committee on Printing (JCP).

Printing Regulations

Many regulations exist concerning what can and cannot be printed or duplicated by Navy components. Some of the more important regulations are summarized below; additional information is available from either the Publications Branch or NPPS.

COLOR PRINTING. Multicolor printing, i.e., the use of more than one color of ink, is permitted for recruitment purposes, ceremonial programs, safety, awards, object identification, and technical clarity. Object identification refers to the use of color when the color is necessary for identification of certain objects; examples include flags, uniforms, plants, and medical specimens. Technical clarity refers to the use of color when the color is necessary for a technical understanding of the concept presented. Examples include geological or hydrographic maps, electrical flow lines, and illustrations in which color (such as a cloud of orange smoke) is a critical factor. For NOSC scientists and engineers, object identification and technical clarity are the most common reasons for requiring color printing.

Multicolor printing cannot be done when color is only for decorative purposes or when color is a substitute for effective layout and design.

If color is required in a formal, NOSC-numbered publication, the Publications Branch will obtain the required approvals. For multicolor printing

for all other items, the requesting code must prepare the justification for NPPS approval.

USE OF THE NAVY SEAL. All official publications intended for general use within the Department of the Navy, e.g., formal NOSC publications, must include the Navy seal on the front cover. (See figure 24 in chapter II, part 2.) If the seal is not included, the publication cannot be printed by NPPS.

In addition, if you want to use the NOSC logo (see figure 22, in chapter II, part 1) on a publication, you must also use the Navy seal. The logo and seal can be of equal size, but the NOSC logo cannot be larger than the seal.

If you require a copy of the Navy seal, you should contact the Graphic Arts Section.

BINDING OF PUBLICATIONS. Types of binding available through NPPS include metal prongs, Chicago screws, comb binding, saddle stitching (limited to publications of 100 pages or less), perfect binding, and side stitching with staples (figure 36). Publications can also be bound in looseleaf binders, but the requesting code must provide funds and time to procure the binders before the publication goes to print.

All types of binding, with the exception of perfect binding, can be done by the local NPPS facility. NPPS must either have a commercial source or their main plant in National City do perfect binding.

SPECIAL PUBLICATIONS. Certain publications, such as pamphlets, brochures, and administrative publications, must be officially reviewed prior to publication. This review, done by the Center's Chief Staff Officer, must be completed before NPPS will accept the publication for printing. The following statement shows that this review has been completed:

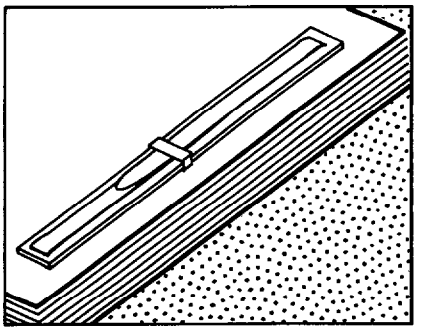
> Reviewed and approved by _____
> Chief Staff Officer, NOSC (date)

(See "NOSC Publication Series," chapter I, part 2.)

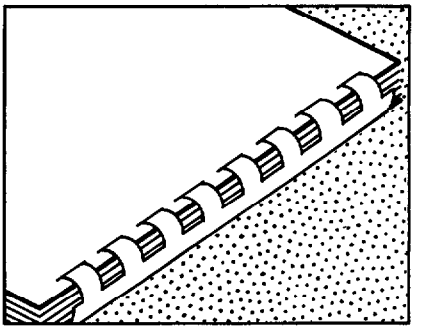
CONTRACTS FOR PRINTING, DUPLICATING, AND MICROPUBLISHING SERVICES. No contracts for printing or duplicating services can be made by NOSC (only NPPS can make this type of procurement). However, NOSC can contract for micropublishing services, if the requirement is for archival copies (limited to seven copies). Contracts for micropublishing for general distribution, i.e., more than seven copies, must be either approved by or procured by NPPS.

Because of these requirements, you cannot include printing, copying, or micropublishing services in your contracts. However, you may order a small initial quantity of draft publications for review; at NOSC, the maximum number of copies that you can have your contractor provide is seven. Additional copies must be approved by the Director, NPPS, Pt. Loma.

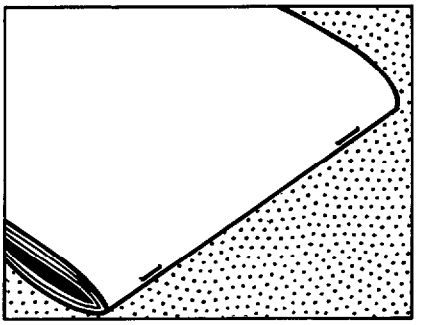
1. METAL PRONGS



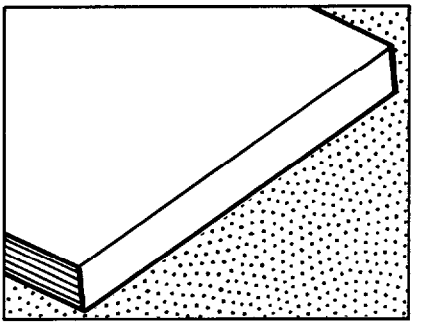
2. COMB BINDING



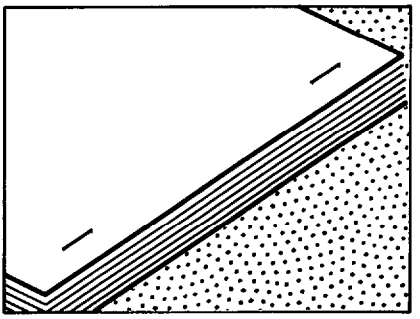
3. SADDLE STITCHING



4. PERFECT BINDING



5. SIDE STITCHING



6. 3-HOLE PUNCH

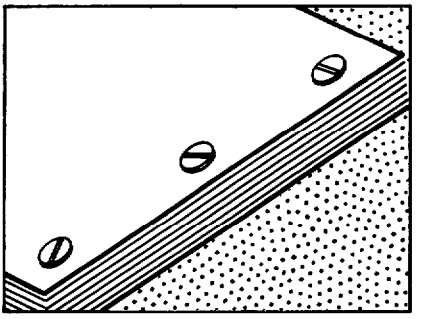


Figure 36. Types of bindings.

Contractors and NPPS

Because an obligation of government funds is involved, NOSC contractors cannot authorize the printing of NOSC work. In addition, contractors cannot ask NPPS personnel to perform work. Contractors can, however, be authorized to pick-up and deliver work to the NPPS facility. To allow your contractor access to NPPS for this function, you need to prepare a memorandum (figure 37) to NPPS, Pt. Loma, via the NOSC Information Security Office. The memorandum should cite the applicable contract, names of the contractors (not more than four), the justification, and the function to be performed (pick-up and delivery of work). When contractors take the work to NPPS, they must have a reprographics request with a government employee's signature authorizing the work. (Reprographic request form, NPPSO SD Form 5604 (figure 38), is available at all NPPS locations.)

Ser XXX/XX-XX
Date

MEMORANDUM

From: Code XX
To: Director, NPPS, Pt. Loma
Via: Code 152

Subj: CONTRACTOR ACCESS TO NPPS

1. Under contract XXXX, the following personnel are authorized to pick-up and deliver work to NPPS:

a.
b.
c.
d.

(No more than four contractors)

2. Access to NPPS to perform these functions is necessary because (state justification).

XXXX,

Figure 37. Sample memorandum authorizing contractors to pick-up and deliver work to NPPS.

ORIGINAL AND 1 COPY TO NPPSBO PT LOMA FACILITY BLDG A38 (NOSC)

☐ FORM ☐ PUBLICATION ☐ TECH MANUAL
☐ MICROPUBLISHING ☐ OTHER

FY 89 | DATE OF REQUEST | DATE REQUIRED | PLANT 80 | SUB PLANT 68

NPPSO JOB NO.

UNCLASSIFIED

APPROPRIATION CODE: 10 NOSC; 01 FCTCPAC

ENTER IN COST CODE FIELD

CODE | LAST NAME (Print)

JOB ORDER NUMBER

1 J 1 0 Y — SEQ NO 1000–4999

5 5 6 6 Y — SEQ NO 5000–9999

SEQUENTIAL NUMBER

FUND ID: 9071 / 9021 / 9022

SPECIFICATIONS — To be filled in by customer

ITEM ORDERED (Title, form no. etc.)

NO OF COPIES (Per page) | NO OF PAGES/MASTERS FURN

PAPER—TYPE AND COLOR (if not standard white bond)

DIAZO (Check if applicable)
☐ PRINT ☐ INTERMEDIATE ☐ VIEWGRAPH

FINISHED SHEET SIZE
☐ 8½ x 11 OTHER _____ x _____

PRINT
☐ ONE SIDE ☐ HEAD TO FOOT
☐ HEAD TO HEAD ☐ HEAD TO _____ LEFT _____ RIGHT

PUNCH/DRILL
☐ 2 HOLE STD TOP ☐ 3-HOLE STD LEFT
OTHER _____ HOLES _____ INCHES IN DIAMETER _____ INCHES CENTER TO CENTER ON THE _____ SIDE

COLLATE (Please furnish collation sheet)
☐ COLLATE ☐ STAPLE (1 on left) ☐ STAPLE (2 on left)
☐ COMB BIND ☐ OTHER ☐ PAD

DELIVERY INSTRUCTIONS
☐ NPPSBO TO CALL ☐ MAIL ☐ CUSTOMER WILL PICK UP

ORIGINALS TO BE RETURNED UNLESS BOX IS CHECKED
☐ DESTROY ORIGINALS

ADDITIONAL INSTRUCTIONS

SEPARATE COVER: FRONT | BACK

COLLATION
☐ ASSEMBLE

FOR 72 PAGE PUBLICATIONS OR LESS FILL IN COLLATION LISTING AT RIGHT →

FOR PUBLICATIONS EXCEEDING 72 PAGES FILL IN AND ATTACH COLLATION AND DATA RECORD FORM 11ND GEN 5603/1 (REV 2 72)

SHT NO	FRONT	BACK	SHT NO	FRONT	BACK	SHT NO	FRONT	BACK
1			13			25		
2			14			26		
3			15			27		
4			16			28		
5			17			29		
6			18			30		
7			19			31		
8			20			32		
9			21			33		
10			22			34		
11			23			35		
12			24			36		

NAME OF REQUESTER | BLDG | CODE | EXTENSION

SIGNATURE APPROVAL AS REQUIRED | OVERTIME AUTHORIZED (Initials)

CHECK COPY RECD BY | DATE OUT | DATE RETURN

JOB RECEIVED BY | DATE

REPROGRAPHICS REQUEST
PT LOMA
NPPSO-SD 5604/7A (REV 10-86)
Previous issues obsolete

FOR PRODUCTION PERSONNEL USE ONLY

	PROCESS NO/TITLE	MSRE UNIT	PRICE	PRODUCTION/BILLING UNITS	AMOUNT
	100 COPY PREP	MIN	60		
EPP6	112 DATA MANIP	MIN	85		
	115 FORMS	UNIT	25 00		
NEGATIVE	200 NEGATIVE	8½x11	1 30		
	201 STRIP/REFLAT	8½x11	1 41		
	202 DEFLAT	8½x11	49		
MTL	210 PLATE METAL	UNIT	1 10		
JOB PRINTING	302 PLATE MR	MR	1 68	MR	
	303 RUN 10x15	IMP	01		
	305 RUN 11x17	UNIT	01		
SYSTEMS	320 PAPER MASTER	UNIT	20		
	321 RUN 10x15 1/S	IMP	015		
	322 RUN 10x15 2/S	IMP	009		
	323 RUN 11x17 1/S	UNIT	015		
	324 RUN 11x17 2/S	UNIT	009		
P	390 PAPER	COST +			
FOLD	400 FOLD MR	MR	2 45	MR	
	401 FOLD RUN	SH	0112		
COL	410 COLLATE MR	MR	1 31	MR	
	411 COLLATE RUN	HP	0061		
D	420 DRILL	UNIT	1023		
	421 COMB BIND	SHT	0122		
ST	430 SIDE STITCH	UNIT	04		
	431 SADDLE STITCH	UNIT	082		
MISC BIND	441 ACCO	EACH	56		
	442 SCREW POSTS	EACH	46		
	443 GLUE BIND	UNIT	10		
W	450 WRAP/PACK	UNIT	07		
LABOR	470 MISC BIND LAB	MIN	51		
	471 PREP FOR/MAIL	MIN	51		
	472 DISTRIBUTION	MIN	51		
	473 MISC LAB/CLASS	MIN	51		
COPY	500 DUP ORIG	COPY	12		
	501 RUN 1-50	IMP	0195		
	502 RUN 51-150	IMP	0175		
	503 RUN 151 & OVER	IMP	0155		
2080 CO On	530 XEROX 2080	RUN FT	36		
	533 COLOR CPY	COPY	1 12		
	538 LABOR	MIN	51		
REPRO	540 DIAZO-FULL	SQ FT	041		
	541 DIAZO-HALF	SQ FT	083		
	542 SEPIA	SQ FT	17		
	543 DIAZO LABOR	MIN	51		
C	601 GPO	COST + 5 5%			
C	602 SPECIALTY	COST + 5 5%			
M	700 MATERIAL-SUND	COST + 15%			
FP	940 FPODS				
OT	999 OT PREMIUM	COST			

ESTIMATE | ACTUAL TOTAL

Figure 38. NPPSO SD Form 5604 used to request reprographic services.

How Do I Obtain Services from NPPS?

PRINTING AND MICROPUBLISHING SERVICES. Any request you have for printing or micropublishing services must be directed to the Publications Branch for approval and processing.

DUPLICATING SERVICES. When you need to have unclassified and confidential material duplicated, you submit the request directly to NPPS by using NPPSO SD Form 5604.*

Also use NPPSO SD Form 5604 to have secret or proprietary material duplicated. You must prepare four copies of the form and have the form signed by someone who has the authorization to have secret material duplicated. (These people are listed in a quarterly memorandum issued by the Information Security Office to department heads and NPPS.) Also, before you take bar-coded material to NPPS, you must obtain copy numbers from the Classified Material Control Center.

If your material contains copyrighted information, NPPS cannot duplicate the material until you give NPPS a copy of the letter granting NOSC permission to use the copyrighted material.

FUNDING. NPPS operates on a cost-reimbursable basis. You must pay for all NPPS services, e.g., printing, duplicating, micropublishing, and binding. Funding is provided to NPPS by a DD Form 282 (figure 39),** or a NPPSO SD Form 5604. The type of form used depends on the work to be completed. Generally, as most technical codes require duplicating rather than printing services from NPPS, NPPSO SD Form 5604 is usually used. Formal, NOSC-numbered publications and all work that will be done at either the main NPPS facility in National City or the NPPS satellite office on North Island require use of a DD Form 282.

FORMS AVAILABILITY. NPPSO SD Form 5604 is available in the main NPPS facility in building A38 and in all satellite facilities (bayside, topside, and barracks areas). DD Forms 282 are available in the NOSC free bin.

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* *Unclassified and confidential material can be duplicated on self-service copiers, as long as the total number of copies does not exceed 15 per original or 250 total aggregate copies. Also, to duplicate confidential material, special conditions must be met. (See "Types of Material That Can Be Copied," part 2 of this chapter.)*

** *The Publication Branch controls and issues all DD Form 282 numbers.*

DOD PRINTING REQUISITION/ORDER

CLASSIFICATION (Requisition automatically becomes UNCL when detached from classified material)

REQUISITION NO | DATE OF REQUEST | REQUESTED DEL Y | EST COST

FOR REFERENCE CONSULT | PHONE

FOR PLANT USE: (PLANT JOB NUMBER) | SCHEDULED COMPLETION DATE | ESTIMATED COST

Appropriation & Subhead	Object Class	Bureau Control No	Sub allot	Authorization Acct g Act y	Trans Type	Property Acct g Act y	Cost Code	FUNDING AUTHORIZATION BASIC REQN NO	AMOUNT

FORM/PUBLICATION NO AND TITLE (In that order)

QTY (Specify shts sets etc) | PAGES | QTY WILL LAST MOS | JOB TO BE REPRINTED ☐ YES ☐ NO | JOB IS ☐ NEW ☐ REVISED ☐ A REPRINT | LAST JOB NO

ENCLOSURES (Submit clean well protected copy) PAGES COPY | NEGATIVES | PLATES (If other specify)

PROOFS (Specify only if necessary) ☐ NOT REQ D | SEND TO

SPECIFICATIONS

FINISHED SIZE | MARGINS (Top) (Left/Bind) | INK (If not black)

FOLD TO (Size) x

PRINT ☐ ONE SIDE ☐ HEAD TO HEAD ☐ HEAD TO FOOT ☐ OTHER (SEE COPY ATTACHED)

ASSEMBLE ☐ IN SETS ☐ PAGE SEQ

WIRE STITCH (Staple) Number Stitches ☐ UPPER LEFT ☐ TOP OTHER (Specify)

STANDARD PUNCH (Drill) ☐ 2 HOLE TOP ☐ 3 HOLE LEFT

OTHER (Number) (Diameter) (Ctr to ctr) (Location)

PERFORATE/SCORE ☐ SEE COPY

PAD (Location) SHTS SETS ☐ TOP ☐ LEFT

PRONG FASTENERS ☐ YES ☐ NO

COMPOSING/PROCESSING (Prepare/alter copy folio list offset etc)

WRAP (No per pkg)

GRADE OF PAPER*	WEIGHT*	COLOR*
1		
2		
3		
4		
5		
6		
7		

* NOTE Grades and weight of paper will be in accordance with specifications issued by the Congressional Joint Committee on Printing No deviations permitted unless justified

DISPOSITION OF NEGS ____ ORIG ____ H HOLD D-DESTROY R-RETURN

FOR PLANT USE ONLY

NUMBER ORIG | LINE HT

IMAGE SIZE x

PRESS	PLATES	IMP

PRESS SHEET SIZE x

TRIM SIZE x

PLANNED BY

SPECIAL INSTRUCTIONS/REMARKS

SERIAL NUMBERING REGISTRATION ETC

ORDERING OFFICE (If other than delivery address)

LIAISON OFFICE APPROVAL (Signature and date)

APPROVING OFFICE (Signature and date)

SEND CONFIRMATION/BILLING COPY TO (Insert complete mailing address)

DELIVER TO (Complete address)

DISTRIBUTION REQUIRED ☐ LIST / ☐ LABELS ATTACHED

WILL PICK UP — PLEASE NOTIFY (Ext) ☐ HOLD

MATERIAL RECEIVED (Signature and date)

DD FORM 1 APR 71 282 (NAVY) NOSC-SD (O/P) 5604/2 (REV 8-88)

Figure 39. DD Form 282 used to order printing services.

NOSC-Numbered Publications

PRINTING AND DUPLICATION. The Publications Branch takes care of all required paperwork for printing NOSC-numbered publications. We use the DD Form 282 for NOSC technical reports, technical documents, technical manuals, and technical notes; the use of this form ensures that the funding is obligated.

BINDING. The standard binding for NOSC technical reports, technical documents, and technical notes is two or three staples; for technical manuals it is metal prongs with pressboard covers. If you want another type of binding, please let the publications personnel know before production work is started on the publication.

MICROFICHE. All NOSC-numbered publications are automatically sent by the Publications Branch to be microfiched. Microfiche copies (figure 40) are available from the Publications Branch for secondary distribution.

In some circumstances, particularly for NOSC technical documents that are written by NOSC contractors, the publication is prepared in microfiche format. Hard copies are made only for the NOSC Technical Library and the Center's archival copy. Microfiche format is acceptable for submission to the Defense Technical Information Center, and the microfiche medium saves funding for the technical codes. If this process is to be used, you must ensure that the copy submitted to the Publications Branch is of high quality and the use of photographs and foldouts has been minimized.

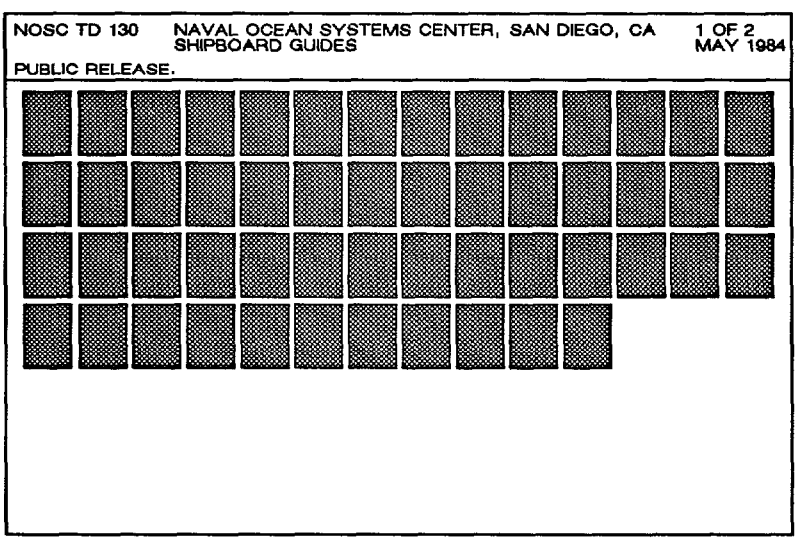
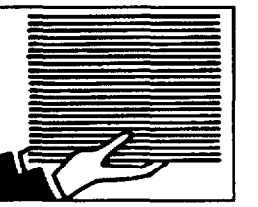


Figure 40. Microfiche of NOSC publication.



ADDITIONAL COPIES. If you need additional copies of NOSC technical reports, technical documents, and technical manuals, you must contact the Publications Branch. This procedure ensures that the stock copies held by the Publications Branch are used before copies are reprinted. NOSC technical notes cannot be reprinted.

When a publication is reprinted, changes or additions cannot be made. If the reprinted publication is classified secret, the copy numbers on the cover are continued in sequence; for example, if the last copy number of the original printing was 150, the first copy number of the second printing is 151.

Where to Get Help at NOSC

For information on the DD Form 282: The Publications Branch.

For information on available printing services: NPPS or the Publications Branch.

To obtain printing services: NPPS (all locations).

To obtain duplicating services: NPPS (all locations).

To have publications bound: NPPS (all locations).

To obtain micropublishing services: NPPS or the Publications Branch.

To determine if your micropublishing request is archival or publishing: NPPS.

For an interpretation of your requirements for multicolor printing: NPPS or the Publications Branch.

To obtain a copy of the Navy seal: The Graphic Arts Section.

To obtain information on duplicating classified material: The Information Security Office.

To answer questions concerning a contractor's access to NPPS: The Information Security Office.

PART 2

SELF-SERVICE COPIER PROGRAM

How do I request a copier? Who pays for copiers? How do I get paper for my copier? What if I need special features such as a sorter? Can NOSC buy its own copiers? Who services the copiers? What is a key operator?

Center Policy

Because NOSC codes often need to copy technical and administrative information, NOSC and Navy Publishing and Printing Service (NPPS) have a program to provide self-service copiers. These copiers are provided through a Government Services Administration (GSA) contract administered by NPPS. The Publications Branch is the Center's contact point for copiers supplied under this contract.

Requesting technical codes pay for the copiers. Either project or overhead funding can be used, and several codes can divide the costs by providing different job orders.

To qualify for a copier, each requesting code must designate someone as the key operator. Duties of the key operator include the following (figure 41):

Ordering emergency supplies from the contractor.

Ordering paper from NPPS.

Requesting copier repair.

Monitoring use of the copier.

Clearing paper jams.

Refilling the copier with paper and chemicals.

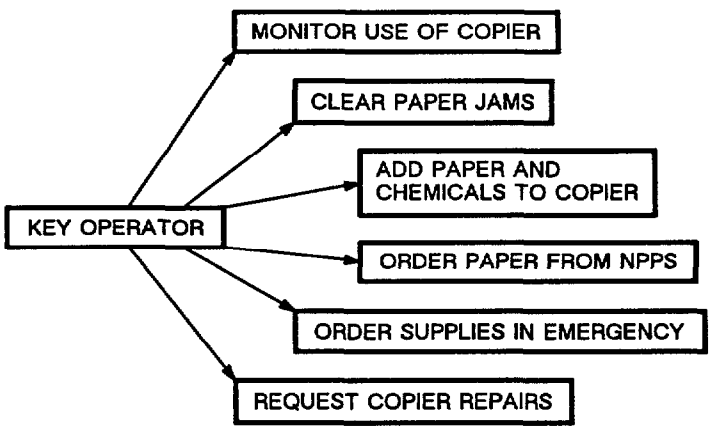
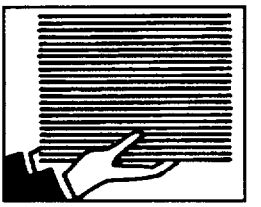


Figure 41. Duties of key operator for self-service copier.



How to Obtain a Copier

To request a self-service copier, you must first fill out the Requisition for GSA Copier Action (NPPSO Form 4235/89) (figure 42). Forward the form, together with a job order, to the Publications Branch where it will be signed. After signature, publications personnel will forward the form to NPPS for approval.

After NPPS approval, NPPS procurement personnel will order the copier. The contractor will deliver the copier to the requesting code's site. However, the requesting code is responsible for preparing the site, e.g., taking care of the necessary power requirements.

The minimum number of copies that must be produced monthly to qualify for a copier is 2500. However, in special circumstances, exceptions can be made to this rule, e.g., a code's physical distance from other copiers.

Contract Details

COPIERS AVAILABLE. The contract-supplied copiers are divided into four volume-based bands:

Band I:	up to 5000 copies per month
Band II:	5001 to 15,000 copies per month
Band III:	15,001 to 30,000 copies per month
Band IV:	30,001 to 50,000 copies per month*

The special features of each band are noted in table 6.

OPERATOR TRAINING. Operator training is available from the contractor. The key operator can request this training at any time for any number of people. Requests are made by a phone call; no written paperwork is required.

SERVICE AND REPAIRS. The contractor services and repairs all copiers. NOSC key operators place service calls directly to the contractor. Response time by the contractor is within 4 hours of your call.

Replacement parts are covered under the maintenance agreement unless the part has been damaged because of user neglect or user abuse. If neglect or abuse has occurred, the contractor cannot replace the part until NOSC Supply issues a purchase order. The code responsible for the copier must prepare the stub requisition and provide the funds.

COPIER SUPPLIES. The contractor delivers toner, fuser oil, and other supplies on a monthly basis. If supplies become low, the key operator can request additional supplies by phoning the contractor. (See later section, "Paper Delivery," for information about ordering paper.)

---

* *If you need to make more than 50,000 copies per month, you will need to have NPPS approval to lease or purchase the required copier. See later section, "NOSC-Owned and NOSC-Leased Copiers."*

2. Self-Service Copier Program

CHANGE # ____ TO:

FY89

REQUISTION FOR GSA COPIER ACTION NPPSO 4235/89 (7-88) (Orig + 1 to NPPS)

REQ NO N43639-8229-0002

NPPSO INFO DO NO/ITEM NO

CONTRACT NO	UMMIPS PRIORITY	ACTIVITY UIC	DATE OF REQUEST	NEW ITEM NO. (NPPSO PURCH DEPT SHALL ENTER):
GS-00 F-91528	15	N66001		

ACTIVITY NAME	DATE REQUIRED	EXISTING ITEM NO:
NAVAL OCEAN SYSTEMS CENTER		N62706-89-F-0005

MAILING ADDRESS	ACT COORDINATOR NAME CODE PHONE
271 CATALINA BLVD, SAN DIEGO, CA 92152-5000	P. GRAHAM, CODE 9613, 553-4820

COPIER LOCATION *(Bldg., Floor, Room, Street, Zip)*

PROPOSED / NEW

CURRENT

KEY OPRS *(list 2) Name, Code, Phone*

CURRENT COPIER MODEL | BAND | SERIAL NO.

ESTIMATED MONTHLY VOLUME TO BE DONE

ACTION *(Select one)*

- ☐ ADD NEW COPIER
- ☐ CANCEL EXISTING COPIER - DO NOT REPLACE
- ☐ REPLACE EXISTING COPIER
- ☐ RENEW EXISTING COPIER ON FISCAL YEAR BASIS

RELOCATIONS

- ☐ RELOCATE BAND I OR II COPIER BY CUSTOMER ACTIVITY PERSONNEL
  No charge, however NPPSO requires notification to make contract modification
- ☐ RELOCATE ANY COPIER BY CONTRACTOR *(First relocation ONLY - no charge).*
- ☐ RELOCATE ANY COPIER BY CONTRACTOR *(2nd and subsequent relocations - charge NTE $250)*

TYPE *(Select one)*

COMPLETE FOR NEW/REPLACEMENT COPIER ONLY

- ☐ BAND I, MODEL 1803ZMR
  0 - 5,000 COPIES MONTHLY
  $ 0222/COPY ($111/MONTHLY MAXIMUM)
- ☐ BAND II, MODEL 1803ZMR W/ADH
  5,001-15,000 COPIES MONTHLY
  $ 0140/COPY ($210/MONTHLY MAXIMUM)
- ☐ BAND III, MODEL 3290ZMR
  15,001-30,000 COPIES MONTHLY
  $ 0126/COPY ($378/MONTHLY MAXIMUM)
- ☐ BAND IV, MODEL 5003ZMR
  30,001-50 000 COPIES MONTHLY
  $ 0140/COPY ($700/MONTHLY MAXIMUM)

ACTIVITY FUNDING

DD 282 REQ. NO	FUND ID NO	ACTIVITY JOB ORDER NO.
89 PTA 2134	9072	

ACTIVITY FUND AUTHORIZATION SIGNATURE/COPIER TRANSACTION APPROVAL | DATE

FOR NPPSO/BO USE ONLY - ESTIMATED TOTAL AMOUNT

CANCELLATION	NO CHARGE
FIRST RELOCATION BY CONTRACTOR	NO CHARGE
SECOND AND SUBSEQUENT RELOCATIONS BY CONTRACTOR (NTE $250)	$ _____
NEW OR REPLACEMENT ($_____ per mo X _____ no of months remaining)	$ _____
ANNUAL RENEWAL ($_____ per mo X __12__ months)	$ _____
(A 2½% surcharge will be applied IAW NAVPUB 7600 1) TOTAL	$ _____

APPROPRIATION SUBHEAD	OBJECT CLASS	BUREAU CONTROL NO	SA	AAA	PAA	COST CODE	AMOUNT
AA17X4912 2301	000	43639	0	44415	000000	43639RK00200	$

NPPSO/BO REVIEW AND APPROVAL SIGNATURE | DATE

■ ACTIVITY REQUESTS A COPY OF THE DELIVERY ORDER OR MODIFICATION. PAGE ____ OF ____

Figure 42. NPPSO Form 4235/89 used to request a self-service copier.

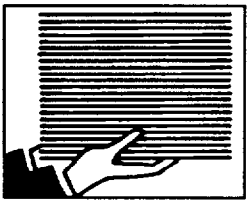


Table 6. Copier features by band number.

Band	No. of Copies/Mo	Copies/ Min	Automatic Features	Special Features
I	Up to 5000	18	Reduction (65 to 77%) Paper tray selection Exposure control	• Variable magnification (1% increments to 129%) • Two paper trays: 8.5" × 11" and 8.5" × 14" (the latter expands to 11" × 17") • Copy editing (edits out unwanted portions of original) • Copier stand
II	5001 to 15,000	18	Reduction (65 to 77%) Paper tray selection Exposure control	• Variable magnification (1% increments to 129%) • Two paper trays: 8.5" × 11" and 8.5" × 14" (the latter expands to 11" × 17") • Copy editing (edits out unwanted portions of original) • Copier stand • Semiautomatic document feeder
III	15,001 to 30,000	32	Reduction (65 to 77%) Paper tray selection Exposure control	• Variable magnification (1% increments to 129%) • Two paper trays: 8.5" × 11" and 8.5" × 14" (the latter expands to 11" × 17") • Copy editing (edits out unwanted portions of original) • Copier stand • Semiautomatic document feeder • Sorter of at least 10 bins
IV	30,001 to 50,000	50	Reduction (65 to 77%) Paper tray selection Exposure control	• Variable magnification (1% increments to 155%) • Two paper trays: 8.5" × 11" and 8.5" × 14" (the latter expands to 11" × 17") • Copy editing (edits out unwanted portions of original) • Copier stand • Automatic document feeder • Sorter of at least 15 bins

SERVICE PROBLEMS. If the contractor does not respond within 4 hours of your request for service or if you have other problems with the copier or the contractor's technicians, contact the Publications Branch or NPPS.

Paper Delivery

The key operator is responsible for ordering paper from NPPS. The order must be placed by close of business on Monday to permit delivery on Wednesday. (Orders for copiers in bands III and IV are placed weekly; orders for bands I and II are placed monthly.)

Paper is available in sizes of 8.5- by 11-inch, 8.5- by 14-inch, and 11- by 17-inch; only white paper is available. If you need color-coded and transparent paper, you must order the stock.

How to Change a Copier

The procedure to change a copier is simple. You again fill out NPPSO Form 4235/89 and forward it to the Publications Branch where it will be signed and forwarded to NPPS.

If the request is approved by NPPS, they will order the new copier which will be delivered by the contractor. At the time of installation, the contractor will remove the existing copier.

Most change requests are for a copier with additional features, e.g., a sorter or document feeder. However, as the GSA contract is based on volume only, you must be making the minimum number of copies required for the copier with the special features. For example, if you need a semiautomatic document feeder, you need to be making 5001 copies monthly; for a sorter, you need to be making 15,001 copies monthly.

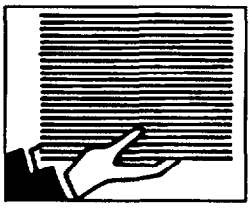
NOSC-Owned and NOSC-Leased Copiers

In special circumstances, NOSC can lease or purchase its own copiers. These circumstances can occur, for example, when

The requesting code needs a special feature, e.g., a sorter or duplexing capability, and they cannot have it under the GSA contract because they do not produce enough copies.

The requesting code needs to duplicate more than 50,000 copies per month.

The contract copiers do not provide a required feature.



If your request falls in one of these categories, you can request NPPS to approve the purchase or lease of a copier that is not part of the GSA contract. You do this by filling out the NPPSO Form 4235/89 and forwarding it to the Publications Branch for processing. Be sure to include adequate justification for your request, explaining why you need this exemption from the GSA contract. If NPPS approves the request, you prepare the necessary paperwork for NOSC Supply. You must include the NPPS authorization number on the stub requisition before Supply will place the order.

All supplies, including paper, for all copiers that NOSC leases or purchases under this arrangement must be ordered by NOSC.

Use of NOSC and GSA Copiers

NUMBER OF COPIES. Copies produced on all self-service copiers are limited to 15 copies per original or a total of 250 aggregate copies. If your copying requirements are greater than this, take your work to the nearest NPPS facility. (See part 1 of this chapter, "Printing, Duplicating, and Micropublishing Services.")

CONTRACTOR USE OF COPIERS. Unless your contract specifically authorizes your contractor to use NOSC copiers, contractors cannot use the Center's self-service copiers. NOSC copiers can be used by government personnel only.

TYPES OF MATERIAL THAT CAN BE COPIED

Unclassified Material. No restrictions exist on copying unclassified material except for the number of copies (15 copies per original or a total of 250 aggregate copies).

Confidential Material. Confidential material can be copied when the following criteria are met:

The copier is located in a controlled environment. This means that someone—usually the key operator—is in the same office as the copier. The key operator is then responsible for ensuring that no extra copies are left at the copier and that all classified waste is burned.

All copies to be duplicated have the proper classification markings.

The number of copies is kept to the minimum necessary, but no more than 15 copies per original or a total of 250 aggregate copies are made.

Secret and Proprietary Material. Secret and proprietary material can be copied only when the Information Security Office has

granted approval. Each time you need to copy secret or proprietary material, you must have the Information Security Office's approval.

Copyrighted Material. Copyrighted material can be copied under the "fair use" doctrine; see "Fair Use of Copyrighted Material" in part 2 of chapter VI.

PERSONAL USE OF COPIERS. The Navy prohibits personal use of copiers; the copiers are for official purposes only. To ensure that this policy is carried out, most self-service copiers imprint the words "Reproduced at Government Expense" on all copies that are made. However, exemptions to this procedure can be made, for example, if the copier is used to make copies of legal, procurement, or historical material. To request an exemption, prepare a memorandum to your department head asking for the exemption. Include in your memorandum the model number, serial number, and location of the copier, as well as the reason for the exemption. If your department head approves the exemption, forward the approving memorandum to the Publications Branch.

Where to Get Help at NOSC

To order a copier: The Publications Branch.

To obtain copier service or supplies (except paper): The copier contractor.

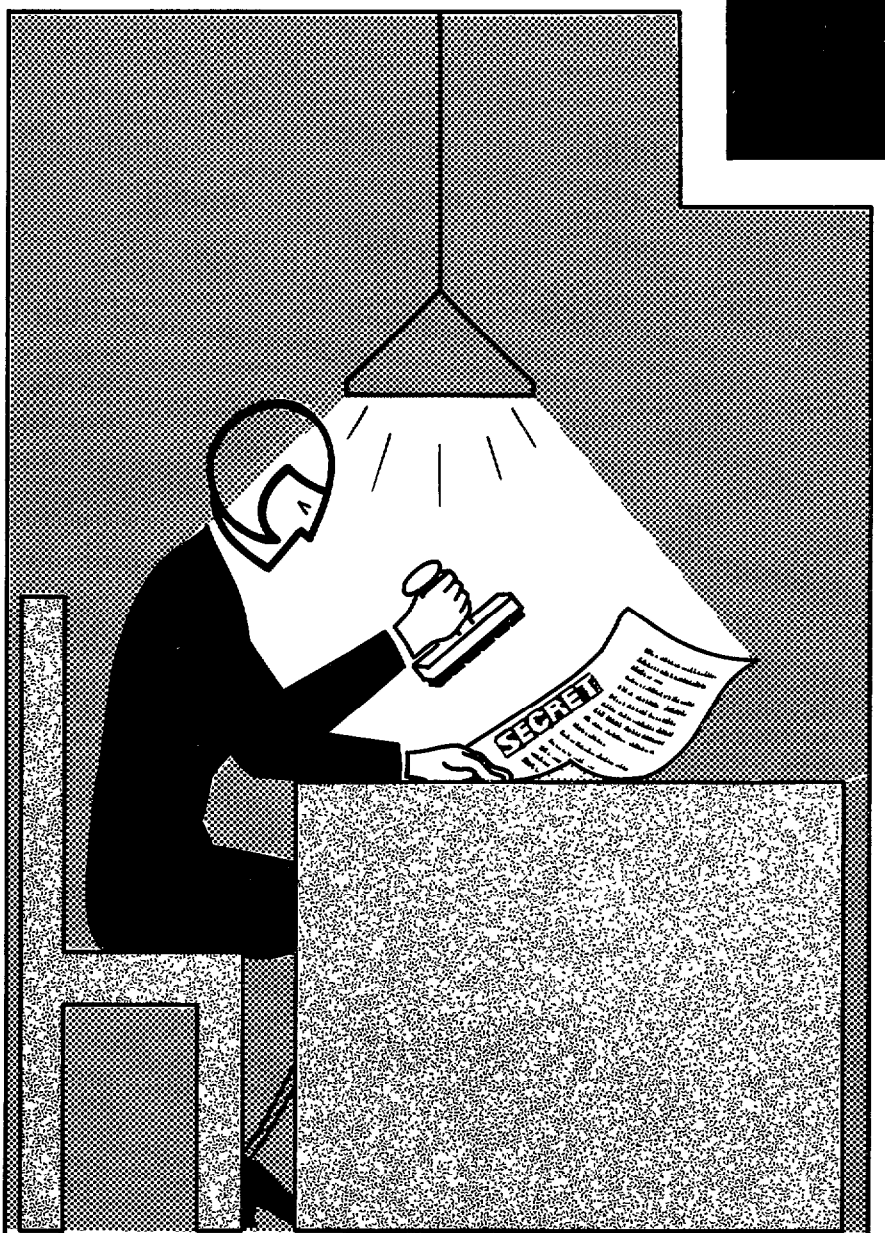
To order paper: NPPS.

To request another copier: The Publications Branch.

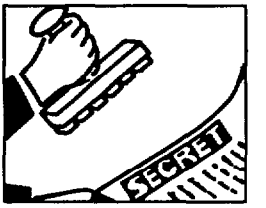
To determine if copyrighted material can be copied: The Office of Legal Counsel.

To have your copier certified to copy confidential material: The Information Security Office.

V



Controls on Scientific and Technical Information



CHAPTER 5

Controls on Scientific and Technical Information

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PART 1
DISTRIBUTION STATEMENTS

What is a distribution statement? Does it always have to be used? How are statements assigned? What types of material require distribution statements? What is the relationship of the distribution statement to the export-control notice? Are distribution statements required for both classified and unclassified material?

Basic Requirements

Use the following guidelines (and those in table 7) to decide what types of distribution statements and reviews are needed with any material that contains recorded scientific or technical information. All forms of material—printed or written material, aperture cards, magnetic media, viewgraphs, slides, drawings, videotapes, and microfilm—are included.

If your information will be sent or presented off-Center, mark the information with a distribution statement. The purpose of the distribution statement is to let the user know who can receive copies of your information. Use distribution statements on both classified and unclassified information.

When required, add the export-control notice in addition to the distribution statement.

Table 7. Distribution statements and reviews required for scientific and technical information.

Intended Distribution	Statement Required	Internal NOSC Review Required	Export-Control Notice Review
Outside NOSC and sponsor	DoD-recognized distribution statement (A–F or X)	Yes	Yes
Only to sponsor	Distribution statement E and Caveat stating material cannot be sent to DTIC	No*	Yes
Only within NOSC	None	No	No
Procurement	Distribution statement D, E, or F and Caveat stating material is for bidding purposes only	No*	Yes
From NOSC contractor to NOSC (deliverable)	Distribution statement E and Caveat stating material cannot be sent to DTIC	No*	Yes

*If a different distribution statement is used, the material must go through the official NOSC review cycle.

Technical Material Generated or Distributed by NOSC Personnel

The procedures in this section apply both to technical material generated by NOSC personnel and to material received from a contractor and then distributed by NOSC personnel. These procedures do not apply to material when it is delivered by a contractor to NOSC. (For information on contract deliverables, see "Technical Material Generated by Contractors.")

DISTRIBUTION STATEMENTS. A distribution statement does not stop you from providing information to those organizations and people with a "need-to-know." Rather, its purpose is to regulate the material's secondary distribution by showing who can have access to the material without approval by the controlling organization. For example, if the distribution statement limits the information to only DoD organizations, then the controlling organization must approve distribution to contractors and other U.S. government agencies. NOSC requires that all technical material leaving the Center be marked with a distribution statement recognized by DoD (see appendix A). In addition, some technical material may require a caveat stating that the material cannot be sent to DoD databases, or a caveat stating that the material is furnished for bidding purposes only. The selection of the distribution statement and caveat depends upon the use of the technical material.

Distribution Outside NOSC and Sponsoring Office. If your material will be distributed or presented to other than Center employees and your sponsor, use one of the seven distribution statements recognized by DoD (see appendix A). These distribution statements show whether the material can be released to the public or whether the material is controlled by an agency of the Department of Defense.

The seven DoD distribution statements can be summarized as follows:

Approved for public release.

Limited to U.S. government agencies.

Limited to U.S. government agencies and their contractors.

Limited to DoD and U.S. DoD contractors.

Limited to DoD components.

All distribution controlled by the controlling agency.

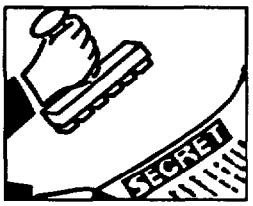
Limited to U.S. government agencies and private individuals or enterprises eligible to obtain export-controlled data.

Reasons for limiting distribution include the following:

Proprietary information

Foreign government information

Evaluation of a contractor's performance



Technical or operational information used solely for official administrative or operational purposes

Critical technology

Information not appropriate for premature dissemination because it pertains to systems or hardware in the development or conceptual stage

Export-controlled technical data

Test and evaluation data

Software data

Direct military support

Specific authority (The information needs to be limited for reasons other than those listed above and a specific written guideline exists to cover this contingency.)

These statements and explanations concerning their use are in appendix A. However, the important thing for you to remember is that the purpose of these statements is to control the secondary distribution of your material. The statements are not intended to limit distribution to agencies and individuals with legitimate requirements for the information. In addition, if you want to use statement A (approved for public release), you cannot reference any classified publications or list them in a bibliography.

At NOSC, your material must be officially reviewed if it will be distributed outside NOSC and the sponsoring office. The review depends upon the classification level of the material:

Classified information:

- Branch and division heads
- Information Security Office

Unclassified information:

- Branch and division heads
- Information Security Office
- Public Affairs Office
- Office of Legal Counsel (journal articles and presentations only)

NOSC Forms 5605 or 5720 are used for this review.

Distribution Only to Sponsor. If your material will be distributed or presented to only your sponsor and NOSC employees, use the following statements:

> Do not distribute to DTIC or other data depositories.
>
> AND
>
> Distribution authorized to DoD components only; premature dissemination; (date of determination). Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

If you use these statements, you do not need to send your material through the Center's official review process. Remember, however, that because your material has not been officially reviewed at NOSC, it cannot be entered into DoD databases, for example, the Defense Technical Information Center or the Navy Publications and Forms Center. Copies may be given to contractors working under a NOSC contract, but only if the controlling technical code approves. (These copies are sent to contractors by using a transmittal letter.)

Use of any other statement requires that the material be sent through the Center's official review process.

Distribution Only Within NOSC. If the material, for example, a memorandum, is to be used only at NOSC, you do not need to mark the material with any statement.*

Distribution for Procurement Purposes. All material used for procurement, for example, statements of work and specifications, must be marked with the following caveat:

> Do not distribute to DTIC or other data depositories; this information is furnished for bidding purposes only.
>
> PLUS ONE OF THE FOLLOWING
>
> Distribution authorized to U.S. government agencies and their contractors; contract bidding (date of determination). Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.
>
> OR
>
> Distribution authorized to Department of Defense and U.S. DoD contractors only; contract bidding (date of determination). Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

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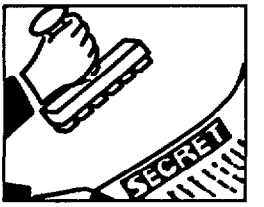
* *This does not apply to NOSC technical notes, which are intended for on-Center use, because copies of TNs are often sent to NOSC sponsors.*



OR

Further dissemination only as directed by Commander, Naval Ocean Systems Center, San Diego, CA 92152–5000; or higher DoD authority.

To use any other statement requires that the material be sent through the Center's official review process.

EXPORT CONTROL NOTICE. All technical material that NOSC sends off-Center must be reviewed for export controls, which include militarily critical technology. If the material contains information that cannot be exported without an export license, the following statement, in addition to *any* distribution statement, must be used:

WARNING—This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50 U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

Technical Material Generated by Contractors

When a contractor delivers material to the Center, all material containing scientific or technical information is marked with the following statements:

Do not distribute to DTIC or other data depositories.

AND

Distribution authorized to DoD components only; premature dissemination (date of determination). Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

The main reason for using these statements is to avoid inadvertent release of information that has not been reviewed by NOSC to a DoD database, such as DTIC. Since it is possible for anyone to pick up material and send it to a DoD database, NOSC policy is that only information that has been officially reviewed at NOSC be placed in DoD databases. However, if after receiving the deliverable, you want the information included in a DoD database, you can route the information through the Center's official review cycle and have a statement assigned. After review, this material goes to the Publications Branch for processing as a NOSC technical document (see chapter I, part 2, "Types of Publications").

How to Mark Technical Material

STANDARD PRINTED OR WRITTEN MATERIAL. Standard printed or written material includes all publications (formal and informal) and correspondence that discuss technical information.

Material with a cover or title page: Print, type, or stamp the caveat, procurement statement, or distribution statement and export-control notice (if required) on the front cover or title page (figure 43).

Material without a cover or title page: Print, type, or stamp the caveat, procurement statement, or distribution statement and export-control notice (if required) on the first page (figure 43).

DECK OF ADP PUNCHED CARDS. When marking a deck of ADP punched cards (figure 44), print, type, or stamp the caveat, procurement statement, or distribution statement and export-control notice (if required) on the face of the first and last cards and on the container holding the deck.

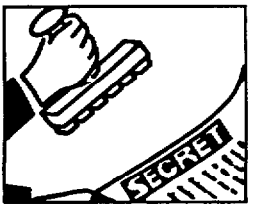
MAGNETIC MEDIA. Print, type, or stamp the caveat, procurement statement, or distribution statement and export-control notice (if required) on a label applied to the outside of the magnetic media and on the container housing the media (figure 45). The first and last pages of the resulting hard-copy document or computer printout must also be marked with the applicable statements (figure 46). Included in this medium are magnetic tapes, cassettes, and disks.

MICROFORM. Print, type, or stamp the caveat, procurement statement, or distribution statement and export-control notice (if required) on the outside of the jacket or canister housing the microform (figure 47). The first and last pages of the resulting hard-copy document and first and last frame of the film are also to be marked with the statements. The headers for microfiche must carry abbreviated versions of the statements.

DRAWINGS. Print, type, or stamp the caveat, procurement statement, or distribution statement and export-control notice (if required) near the title block of drawings (figure 48).

PHOTOGRAPHS. Place the caveat, procurement statement, or distribution statement and export-control notice (if required) on the back of photographs (figure 49). It is not necessary to place this information on the front of the photograph.

PRESENTATIONS USING VIEWGRAPHS OR SLIDES. When marking presentations, include a viewgraph or slide with distribution statement and export-control notice (if required). These viewgraphs and slides should either include the presentation's title or be followed by a viewgraph or slide showing the presentation's title (figure 50).



Naval Ocean Systems Center

The Reduction of Reverberation and Ambient Noise by Ocean Surface Films

PUBLICATION WITH COVER

BATTLE GROUP EXERCISE
by
J. M. Smith

1 Oct 1989

Approved for public release

PUBLICATION WITH TITLE PAGE

WARNING
INFORMATION SUBJECT TO EXPORT CONTROL LAWS

Distribution authorized to U.S. Government agencies only; critical technology; August 1988. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, California 92152–5000.

EXERCISE THREE

Do not distribute to DTIC or other data depositories. Distribution authorized to DoD components only; premature dissemination; May 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152–5000.

MATERIAL WITHOUT TITLE PAGE OR COVER

Figure 43. Placement of distribution statement and export-control notice on standard printed or written material.

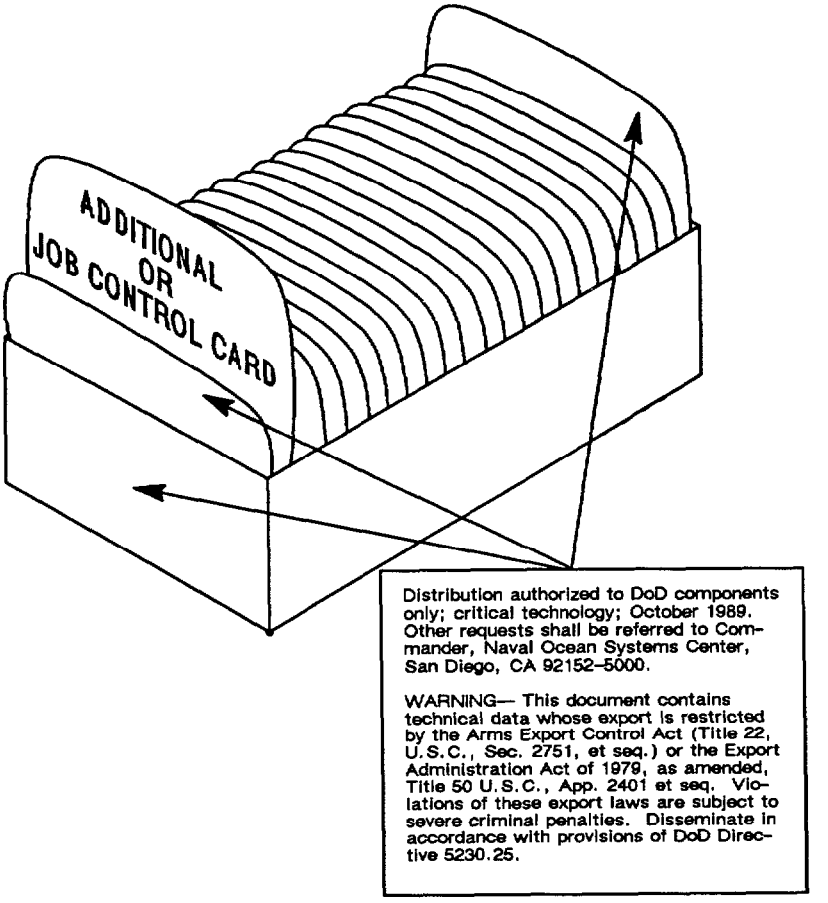
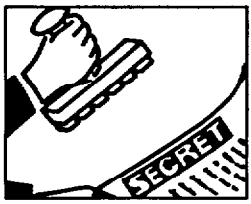


Figure 44. Placement of distribution statement and export-control notice on deck of ADP punched cards.



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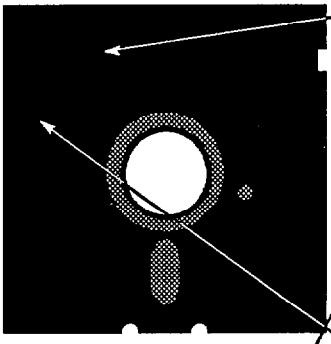
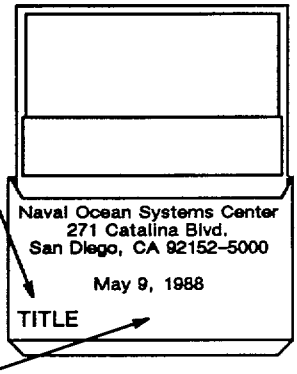
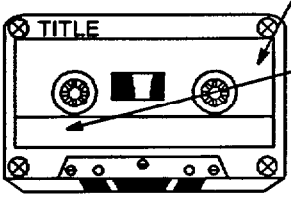


FLOPPY DISK

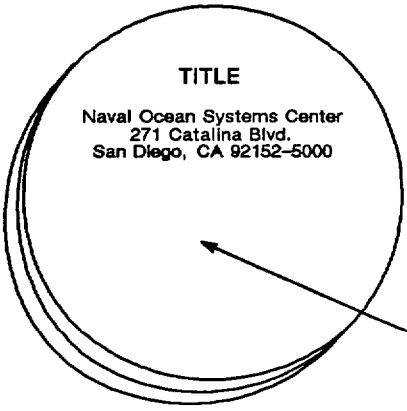


CASSETTE CONTAINER

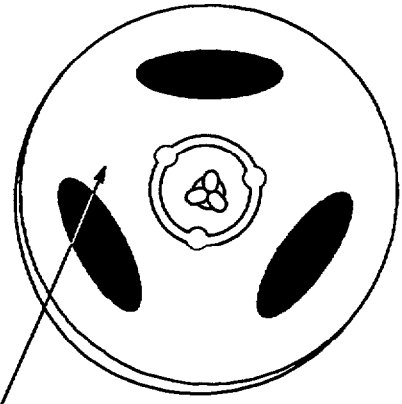


CASSETTE

Distribution authorized to DoD components only; critical technology; October 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.



CONTAINER FOR REEL-TO-REEL TAPE



REEL-TO-REEL TAPE

Do not distribute to DTIC or other data depositories. Distribution authorized to DoD components only; premature dissemination; May 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

Figure 45. Placement of distribution statement and export-control notice on magnetic media.

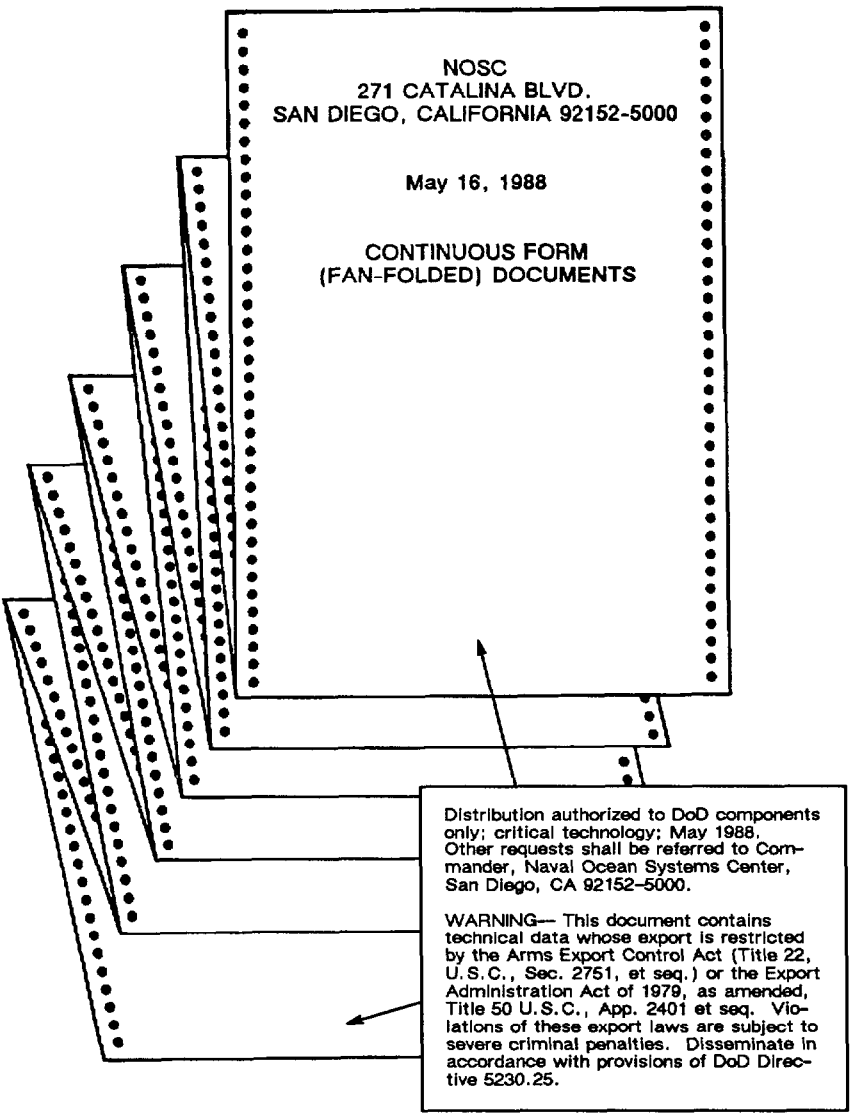
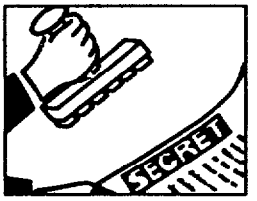
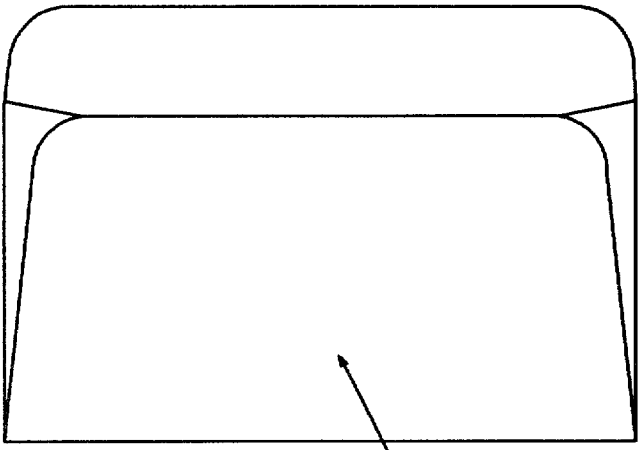


Figure 46. Placement of distribution statement and export-control notice on computer printout.

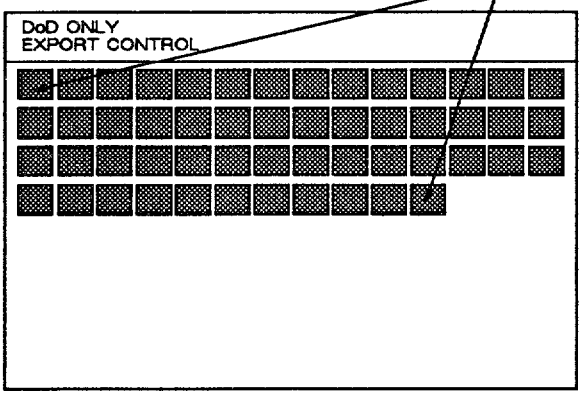




MICROFICHE JACKET

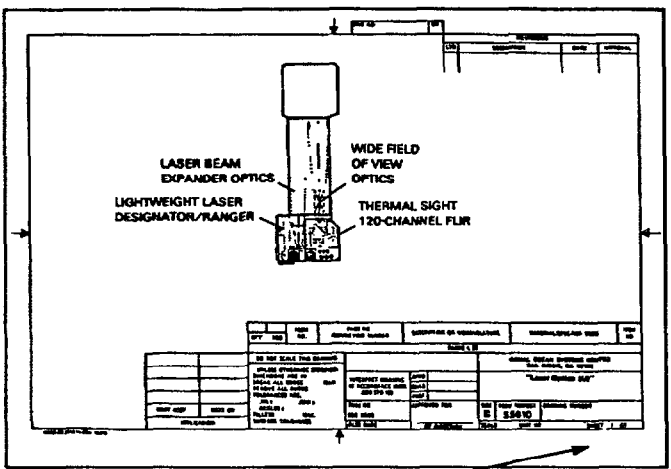
Distribution authorized to DOD components only; critical technology; October 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, California 92152-5000.

WARNING—This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50 U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.



MICROFICHE

Figure 47. Placement of distribution statement and export-control notice on microfiche.



Distribution authorized to DoD components only; critical technology; October 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

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Figure 48. Placement of distribution statement and export-control notice on drawing.

(BACK OF PHOTOGRAPH)

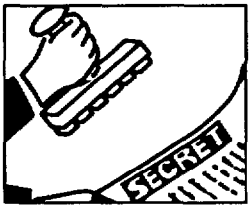
Distribution authorized to DOD components only; critical technology; April 1988. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

WARNING—This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50 U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

April 18, 1988

NOSC
271 CATALINA BLVD.
SAN DIEGO, CALIFORNIA
92152-5000

Figure 49. Placement of distribution statement and export-control notice on photograph.



NOSC

PRESENTATION TITLE

Distribution authorized to DOD components only; critical technology; October 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, California 92152-5000.

WARNING—This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50 U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

VIEWGRAPH

Naval Ocean Systems Center

PRESENTATION TITLE

Distribution authorized to DoD components only; test and evaluation; October 1989. Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

SLIDE

Figure 50. Placement of distribution statement and export-control notice on slides and viewgraphs.

PRESENTATIONS WITHOUT VIEWGRAPHS OR SLIDES. When making an oral presentation, make a verbal declaration of the dissemination of the material being discussed, including its export restrictions (if required), at the beginning of the presentation.

How to Change a Distribution Statement

A distribution statement may be changed after technical material has been released.

If you have used either the procurement statement or the caveat stating the material cannot be sent to DoD databases and you want to change this statement to one of the formal distribution statements in appendix A, you need to have the material formally reviewed by using either NOSC Form 5605 or NOSC Form 5720.

If the technical material has been assigned a formal distribution statement, the statement can be changed to one that imposes less control. You cannot impose stricter dissemination controls after release of material, but you can lessen the controls. To have the new statement approved, the material must be formally reviewed by using either NOSC Form 5605 or NOSC Form 5720. Be sure to state in the "remarks" section of the form that the review is for changing the distribution statement. If the material was issued as a formal, NOSC-numbered publication, the Publications Branch will notify recipients of the change in the distribution statement.

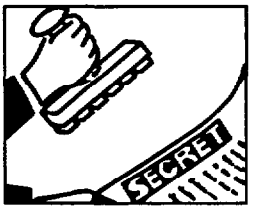
Where to Get Help at NOSC

To determine the correct distribution statement: The Information Security Office, Public Affairs Office, the Publications Branch, or your branch or division head.

To determine if a DoD-recognized distribution statement is required: Your branch or division head, the Publications Branch, or the Information Security Office.

To prepare viewgraphs and slides with distribution statements: The Visual Media Branch.

To determine if material should be export-controlled: The Program Director for Technology.



PART 2
EXPORT CONTROLS ON TECHNICAL INFORMATION

Why do I need to be concerned with export controls? How do I determine if my information must be protected from export? How do I protect it? How is basic research affected? What is critical technology and how is it related to export controls?

What Are Export Controls and Why Do They Exist?

Technical information that can be withheld from public disclosure under the provisions of Section 1217 of Public Law 98-94 is considered as export-controlled. Public Law 98-94, the Defense Authorization Act of 1984, authorized the Secretary of Defense to withhold from public disclosure technical information with military or space applications. As a result, DoD implemented procedures that control the export of some scientific and technical information. These procedures are discussed in this part of the handbook.

Export controls, including the control of critical technology, are used to protect U.S. technology with military applications from inadvertent disclosure to foreign nations and foreign nationals. These controls are imposed because acquisition of the militarily critical technology by potential adversaries can significantly reduce the adversaries' risks when designing new weapons and defensive systems and also shorten their research-and-development cycle. Acquiring militarily critical technology can also severely undermine our national security by allowing our adversaries to develop countermeasures to our existing and anticipated defense systems.

How Do I Determine if My Material Should Be Controlled?

For our purposes, export controls (or withholding information from public disclosure) apply to both classified and unclassified information that meet all the following criteria (figure 51):

The information is in the possession of or under the control of the Navy (criterion 1).

The information has a military or space application (criterion 2).

The information may be exported only with approval, authorization, or license under U.S. export-control laws (criterion 3).

The information discloses critical technology (criterion 4).

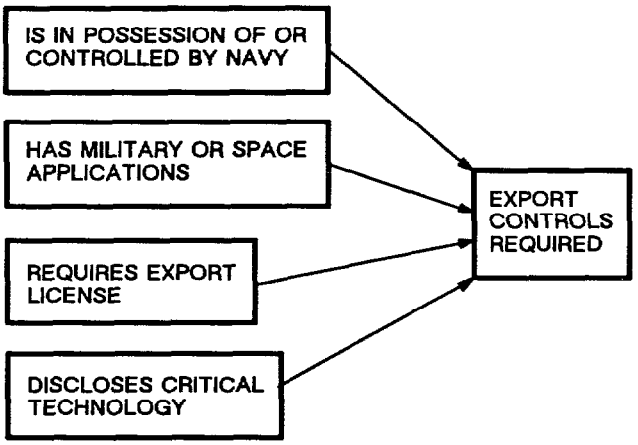


Figure 51. Four criteria that must be met for export controls to be required.

CRITERION 1: POSSESSION OR CONTROL BY NAVY. Information under the control of, or in the possession of, the Navy means information created or received by Navy elements and information developed and produced for the Navy under contracts or other agreements. At NOSC this means technical information created by in-house personnel and technical information created by our contractors.

CRITERION 2: MILITARY OR SPACE APPLICATIONS. If information has military or space applications, the information can be used, or adapted for use, to design, engineer, produce, manufacture, operate, repair, overhaul, or reproduce military or space equipment or related technology.

Technical information with military or space applications can be recorded in a variety of media (figure 52). Examples include the following:

Blueprints	Drawings	Plans
Instructions	Software	Reports
Computer Documents	Films	Viewgraphs
Manuals	Videotapes	SOWs

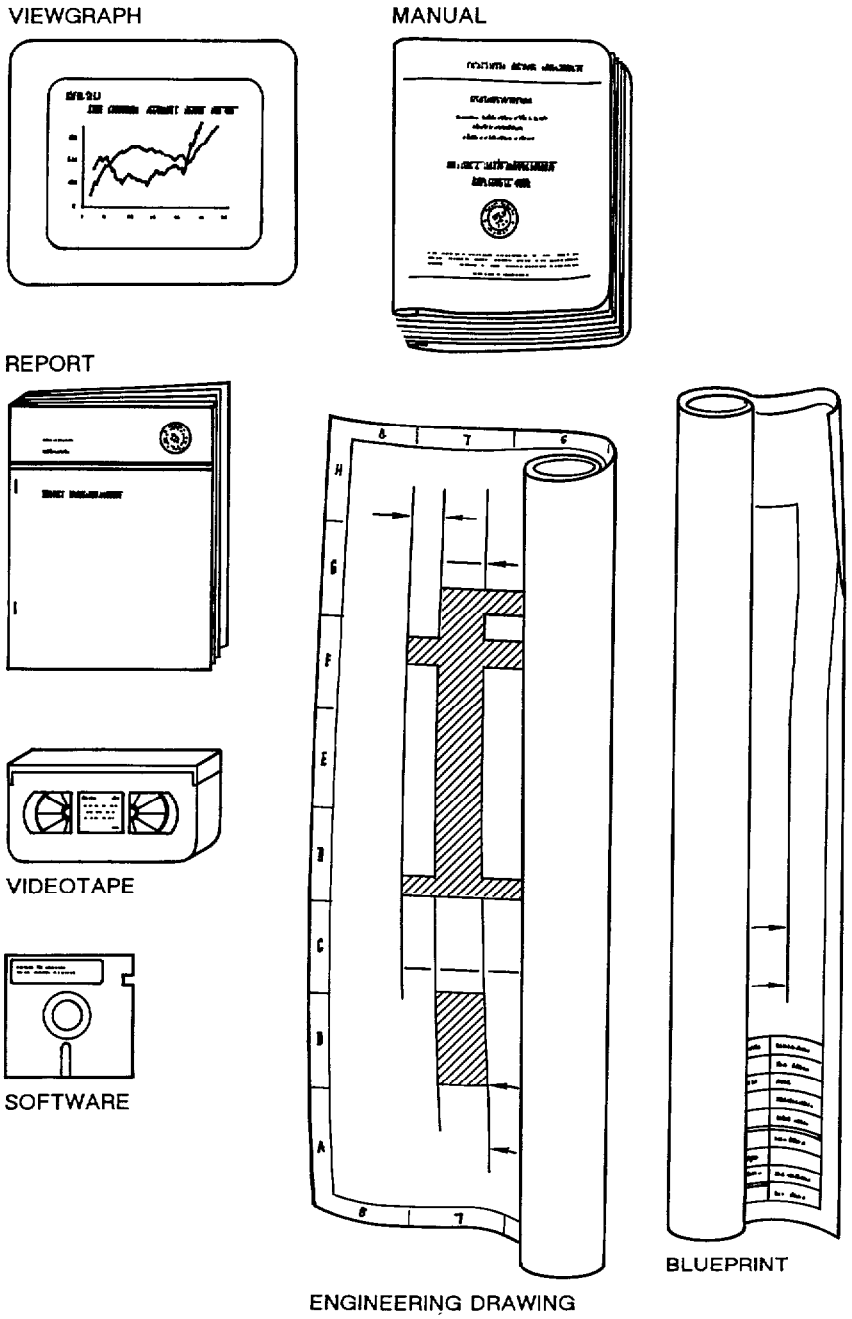


Figure 52. Examples of technical information that can disclose export-controlled information.

CRITERION 3: U.S. EXPORT LAWS. The implementing regulations for export-control laws describe the technical information that must have approval before legal export. Generally, technical information related to items on the State Department's Munitions List and the Commerce Department's Commodities Control List require licensing or approval (figure 53).

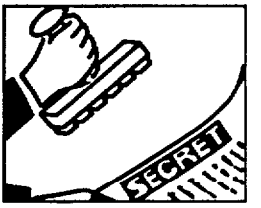
WEAPONS AND WEAPON TECHNOLOGY	STRATEGIC TECHNOLOGY
Basic Statute: Arms Export Control Act of 1976	Basic Statute: Export Administration Act of 1979 (currently extended by Executive Order)
Implementing Regulation: International Traffic in Arms Regulation (ITAR)	Implementing Regulation: Export Administration Regulation (EAR)
Product List: Munitions List	Product List: Commodity Control List (CCL)
Implementing Office: State Department, Office of Munitions Control	Implementing Office: Commerce Department, Office of Export Administration

Figure 53. U.S. export laws.

CRITERION 4: CRITICAL TECHNOLOGY. Critical technology is essentially information that reveals production "know-how" that would significantly contribute to a country's military potential and possibly prove detrimental to the security of the United States. Such information usually occurs in the following areas:

Arrays of Design and Manufacturing Know-How: The know-how and related technical information required to achieve a significant development, production, or utilization purpose. Included are services, processes, procedures, specifications, design data and criteria, and testing techniques.

Keystone Equipment: Manufacturing, inspection, or test equipment specifically necessary for the effective application of a significant array of technical information and know-how.



Keystone Materials: Materials specifically necessary for the effective application of a significant array of technical information and know-how.

Products Accompanied by Sophisticated Know-How: Use of the products requires providing (disclosing) a significant amount of technical information and know-how (including operation, application, or maintenance know-how). Also included are products for which the embedded know-how can be derived by reverse engineering or is revealed by use of the products.

SOURCES OF INFORMATION. When reviewing your material, you should use several references to determine if your material requires export controls. These include the classified and unclassified versions of the Militarily Critical Technologies List (MCTL), the Munitions List, the Commodities Control List, the Arms Export Control Act, the Export Administration Act, the International Traffic in Arms Regulation, and the Export Administration Regulation. These references are available in the NOSC technical libraries, the Office of Legal Counsel, and in some division offices. You can also obtain help from your branch and division heads and the Program Director for Technology in making this determination. At NOSC, copies of the MCTL are available from the Publications Branch.

Other sources that can help you determine if export controls are required include information from the intelligence and security communities, work in industry and academia, and technology developments by allied nations.

EXCEPTIONS TO EXPORT CONTROLS . Even if you determine that your technical material meets the above criteria, it may be exempted from export controls if one of the following conditions apply:

It is authorized for export under a general, unrestricted license.

It is exempted under regulations implementing the export-control laws.

What Information Should Be Controlled?

The following material must be reviewed to determine if export controls are required:

All NOSC-numbered formal and informal publications—technical reports, technical documents (including those by NOSC personnel and those by NOSC contractors), technical manuals, and technical notes

System-command-numbered technical manuals

Presentations

Journal articles

Documents used in procurements, e.g., statements-of-work and specifications

Any other document—regardless of its medium—that will be sent off-Center to other than the sponsor

If export controls are required, you must mark the document with the following statement:

> WARNING—This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 2751, et seq.) or the Export Administration Act of 1979, as amended, Title 50, U.S.C., App. 2401 et seq. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

The Militarily Critical Technologies List

Published in both a classified and unclassified form, the Militarily Critical Technologies List (MCTL) is a detailed discussion of the development, production, and utilization technologies which DoD has determined to be crucial to our military capability and of significant value to potential adversaries.

When DoD produces the MCTL, technical specialists from DoD, the military services, service laboratories, other government agencies, and industry are used to determine what technologies should be included.

Criteria for selection of candidate technologies for inclusion on the list include the following:

Technology which is not already possessed by a potential adversary.

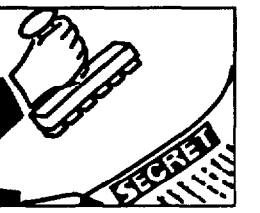
Technology which provides advantages to the U.S. in terms of performance, reliability, maintenance, and cost over systems currently in use by an adversary.

Technology which is included in the CIA's projection of Soviet acquisition targets.

Technology which is related to emerging technologies with high potential for having an impact on advanced military applications.

Responsibilities of NOSC Scientists and Engineers

Your first responsibility regarding export controls is to determine if your material meets the four criteria discussed earlier. If it does, then mark it with the warning notice cited in this part under "What Information Should Be Controlled."



Another area of responsibility is distribution of your export-controlled information. Only contractors that are considered as "qualified" contractors can receive export-controlled material.* To determine if a contractor is qualified, you can check with the Defense Logistics Service Center (DLSC).

However, if your material will be a formal NOSC publication, the Information Security Office will determine the status of the companies on your distribution list as part of the review process. Also, if you want to distribute export-controlled information to an *individual*, you must check with DLSC to ensure that the individual has a DD Form 2345 on file.

You should also inform the Program Director for Technology of any changes you feel are necessary in the MCTL. If you feel that information should be removed, provide that office with supporting information; for example, cite where the controlled information has appeared in the open literature. The Program Director for Technology will then work with DoD to see if the MCTL can be changed.

What Distribution Statements Are Used with Export-Controlled Information?

To restrict material because of export controls, use distribution statement B (U.S. government agencies only), C (U.S. government agencies and their contractors), D (DoD and U.S. DoD contractors), or E (DoD components). Cite as the reason "critical technology." Statement F (limited to NOSC) can also be used. (See table 8 or NOSC TD 841 Rev 1.)

If you need to further emphasize the significance of the restriction, use distribution statement E and cite as the reason "direct military support." Using this statement means that the export-controlled information is of such military significance that release for purposes other than direct support of DoD-approved activities could jeopardize an important technological or operational advantage of the United States.

If you need to release the information to individuals who are not associated with an agency or company, use statement X (U.S. government agencies and private individuals eligible to receive export-controlled data).

The selected distribution statement and warning notice must be used together. Part 1 of this chapter, "Distribution Statements," provides guidelines for placement of the statement and notice on the controlled material.

** To be considered as "qualified," a contractor must have a DD Form 2345 on file with the Defense Logistics Service Center in Battle Creek, Michigan. The DD Form 2345 will state what types of export-controlled information the contractor can access.*

Table 8. Distribution statements to be used with export-controlled material.

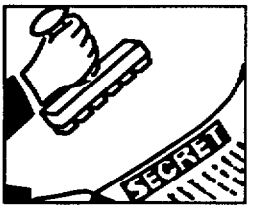
Desired Audience	Distribution Statement
U.S. Government only	B
U.S. Government and its contractors	C
DoD and U.S. DoD contractors	D
DoD only	E
NOSC only	F
Individuals or enterprises not associated with U.S. Government	X

Remember, as previously discussed, the purpose of the distribution statement and warning notice is not to limit the distribution of your information, but to protect it during the secondary distribution process. You can still distribute to agencies that have a valid need for the information, but the warning notice and distribution statement will provide the recipient with guidance on additional distribution.

How Contractors Obtain Access to Export-Controlled Information

All contractors or individuals who need access to export-controlled information must be registered with the Defense Logistics Service Center (DLSC) in Battle Creek, Michigan. Interested contractors fill out a DD Form 2345 (Export-Controlled DoD Technical Data Agreement), which permits them to receive certain categories of export-controlled data. The form is a self certification that the contractor or individual will use the data only in ways that will maintain the protection afforded by U.S. export-control laws.

DLSC collects the certifications and maintains them in a database. They also distribute a list of contractors eligible for access to export-controlled information. Their toll-free telephone number is 1-800-352-3572; their commercial number is (616) 961-4358; and their AUTOVON number is 932-4358. If you need to write to DLSC, their address is Defense Logistics Service Center, ATTN: DLSC-FBA, Federal Center, Battle Creek, MI 49017-3086.



Fundamental Research

There has been much discussion and controversy concerning basic research (category 6.1) and exploratory development (category 6.2) and their relationships to export controls. Different guidelines exist for work done under contract and work done by government scientists and engineers:

> Technical information that results from *contracted basic research* is normally assigned distribution statement A (public release); the performing agency can be a university or a contractor. Technical information that results from *contracted exploratory development*, when the work is performed on campus by a university, is also normally assigned distribution statement A. Exceptions exist only if the results of the work may be classified or if there is a probability of disclosing the performance characteristics of military systems or of manufacturing technologies that are unique and critical to defense. If the research results are to be classified or limited, this agreement must be recorded in the contract or grant.
>
> Basic research and exploratory development performed by government employees in a government laboratory must be reviewed before being released to the public. These results are *usually* released to the public, but there may be instances where they must be limited, for example, if the information is closely related to military operations or systems.

At NOSC, results of in-house fundamental research and exploratory development that are to be released to the public must go through the Center's official review process (branch and division heads, Information Security Office, and Public Affairs Office). It is your responsibility, as the researcher, to verify that your results do not fall within the area of export controls. You can receive help in making this decision from the Program Director for Research or Technology. However, the important thing for you to remember is that your research resulting from 6.1 and 6.2 funding must be reviewed before you can publish or present it.

Export Controls and NOSC Contract Work

At times, export-controlled information must be part of a procurement package. When this occurs, use the following procedures:

> Write the statement-of-work so that it can be released to the public.
>
> Make your export-controlled information an addendum to the statement-of-work or place it in another document, such as a specification or a test plan. Mark these documents with the warning notice and with either distribution statement X or the special procurement statement.

Reference the export-controlled information in the statement-of-work, and state that this information is available from NOSC.

Inform your contract negotiator of this situation so that the applicable clauses and forms can be included in your contract.

Establish procedures to provide this information to potential contractors.

You must also decide if your contract will result in deliverables that contain information that must be export controlled. If it will, inform your contract negotiator so that the appropriate clauses can be incorporated in the contract.

Where to Get Help at NOSC

To determine if information should be protected with an export-control notice: The Program Director for Technology.

To determine if in-house-performed, 6.1-, 6.2-, and 6.3A-funded work is export controlled: The Program Director for Research (6.1) or the Program Director for Technology (6.2 and 6.3A).

To determine if contract-performed, 6.1-, 6.2-, and 6.3A-funded work will be export controlled: The Program Director for Research (6.1) or the Program Director for Technology (6.2 and 6.3A).

To include export-controlled information in a procurement: The Supply Department, Contracts Division (your contract negotiator).

To obtain copies of the MCTL: The Publications Branch.

To suggest changes to the MCTL: The Program Director for Technology.

To find out if a contractor is cleared for MCTL: The Defense Logistics Service Center in Battle Creek, Michigan (1-800-352-3572).

PART 3

GENERAL GUIDELINES FOR MARKING CLASSIFIED INFORMATION

Why must classified information be marked? What types of information must be marked? Can NOSC originally classify material? What are warning notices and intelligence control notices? How do I know when to use these notices?

NOSC Policy

Classified material is any material that contains classified information. All classified material, regardless of its medium, must be marked. Examples of media that can contain classified information are manuscripts, viewgraphs, formal and informal publications, floppy disks, and video tapes.

As the originator of classified material (figure 54), you are responsible for

- Marking the material so that there is no doubt about its level of classification.
- Identifying which parts contain or reveal classified information.
- Determining how long the material must remain classified.
- Identifying any additional measures necessary to protect the material.
- Identifying the origin of the material (NOSC).

Classification markings serve two purposes:

- They let the user know the classification level and the degree of protection required for your material.
- They help when your material is extracted, paraphrased, downgraded, or declassified.

Original Classification and Derivative Classification

Since the Commander of NOSC is not a top secret authority, the Center is not authorized to originally classify material. This means that the classification level of material we create at NOSC is derivatively classified. If you have material that you believe should be classified by NOSC, contact the Information Security Office for assistance. Also, if you have information that you believe is classified and cannot find a source document, contact the Information Security Office for assistance.

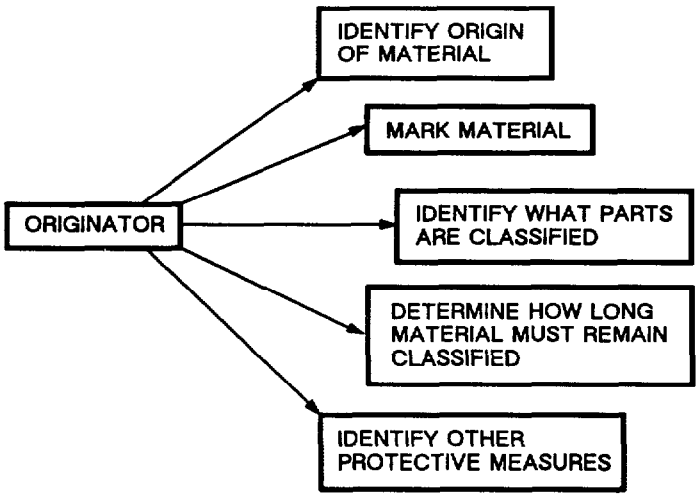


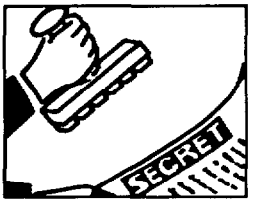
Figure 54. Responsibilities of originators of classified material.

Basic Marking Requirements

Your marking requirements and your applications of these markings will vary, depending upon your material. However, the following basic guidelines apply to all classified material originated by NOSC scientists and engineers. (See table 9.)

Table 9. Basic marking requirements for classified material.

Markings for Classified Material	Use on Classified Material
Overall classification marking (top secret, secret, confidential)	Required
Classification source of material	Required
Declassification date of material	Required
Date of origin of material	Required
Office that originated the material	Required
Distribution statement	Required
Downgrading date of material	If available from source document
Warning notice	If required by source document
Intelligence control marking	If required by source document
Export-control notice	If required by MCTL



OVERALL CLASSIFICATION MARKING. All classified material originated at NOSC must be marked with the overall classification of the material. Overall classification is the highest classification level of the material you have created. NOSC classification levels are noted here:

Confidential
Secret
Top secret

Only in special circumstances is unclassified material marked as unclassified (see "Entirely Unclassified Material," later in this section).

ASSOCIATED CLASSIFICATION MARKINGS. In addition, the following information (called associated classification markings) must be provided:

Classification Source. The source you used to determine your material's overall classification level; this is usually a source document or a classification guide.

Declassification Date. The date when your material will be reviewed for declassification or the date when your material will be declassified. This information is usually available from your source document.

Date of Origin. The date you created the material.

Office of Origin. The agency that created the classified material. For NOSC-created information, the office of origin is usually NOSC.

Downgrading Information: The date when the overall classification level will be changed to a lower classification level. This is not always used; it depends upon information provided in your source document.

SPECIAL MARKINGS. Some material may also require a warning notice or an intelligence control marking (these markings are discussed later in this part). Remember that derivatively classified material (most of the material created at NOSC) must be marked with these notices, if required by your source document.

DISTRIBUTION STATEMENT AND EXPORT CONTROL NOTICE. All classified material must have a distribution statement and, if required, an export-control notice.

ENTIRELY UNCLASSIFIED MATERIAL. In most instances, you do not mark unclassified material as unclassified unless you must convey to the user that the material has been examined specifically for classification purposes.

Downgrading/Declassification Markings

STANDARD MARKING. Mark all classified material with the following standard marking:

Classified by_____
Declassify on_____
Downgrade to_____ (only when required)

"Classified by" Line. If original classification, use the original classification authority, e.g, COMNAVSEA.

If derivative classification, use the security classification guide or source document. Include the date of your guide or source document if necessary for positive identification.

If you used more than one source, use the term "multiple sources." When using multiple sources, you must keep a listing of all source documents or classification guides with a copy of the classified material. If the material becomes a formal NOSC publication, the Publications Branch will list the multiple sources in the publication and it will not be necessary for you to maintain a list.

"Declassify on" Line. Use the specific date when declassification will occur or the event that will cause declassification to occur.

If a specific date or event cannot be determined, use the notation "originating agency's determination required (OADR)."

When you have used multiple sources to derive your classification, use the longest declassification date applicable to your material. If you cannot determine a specific date or event or if any source document is marked "review for declassification," use the notation "OADR."

"Downgrade to" Line. Use this marking only when downgrading is applicable. Insert "secret" or "confidential" and the specific date or event. For example, "Downgrade to confidential on 5 August 1999."

RESTRICTED DATA AND FORMERLY RESTRICTED DATA. Mark all classified material that contains restricted data (RD) and formerly restricted data (FRD), as defined in the Atomic Energy Act of 1954 as amended, with one of the following markings:

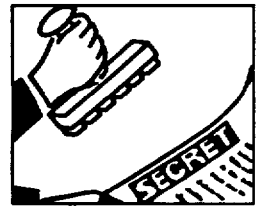
Classified by _____

RESTRICTED DATA—This material contains Restricted Data as defined in the Atomic Energy Act of 1954. Unauthorized disclosure subject to administrative and criminal sanctions.

or

Classified by _____

FORMERLY RESTRICTED DATA—Unauthorized disclosure subject to administrative and criminal sanctions. Handle as Restricted



Data in foreign dissemination. Section 144.b, Atomic Energy Act, 1954.

As the markings RD and FRD denote extended classification, only the "classified by" line is used; it is placed above the RD or FRD warning notice. The "declassify on" and "downgrade to" lines are not used.

Warning Notices

A warning notice (table 10A) advises users that your classified material requires protective measures in addition to those imposed by the classification level. Your classification source document usually provides information on which notice, if any, must be used. The following notices are those commonly used with NOSC material.

Table 10A. Warning notices used on classified NOSC material.

Entire Notice	Short Form	Abbreviated Form
Reproduction requires approval of originator or higher DoD authority	Not Used	Not Used
Further dissemination only as directed by (insert appropriate command or official) or higher DoD authority	Not Used	Not Used
RESTRICTED DATA—This material contains Restricted Data as defined in the Atomic Energy Act of 1954. Unauthorized disclosure is subject to administrative and criminal sanction.	Restricted Data	RD
FORMERLY RESTRICTED DATA—Unauthorized disclosure subject to administrative and criminal sanctions. Handle as Restricted Data in foreign dissemination. Section 144.b, Atomic Energy Act, 1954.	Formerly Restricted Data	FRD
Special Handling Required—Not releasable to foreign nationals	Not used (see NAVSEAINST C5511.32A)	Not used (see NAVSEAINST C5511.32A)
This document or material is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of (originating command)	Not used (see NAVSEAINST C5511.32A)	Not used (see NAVSEAINST C5511.32A)
Critical Nuclear Weapons Design Information. DoD Directive 5210.2 applies.	CNWDI	N
COMSEC Material—Access by contractor personnel restricted to U.S. citizens holding final government clearance	Not Used	Not Used

DISTRIBUTION AND DUPLICATION NOTICE. If you have classified information which is subject to special distribution and duplication limitations, use one of the following notices:

> Reproduction requires approval of originator or higher DoD authority.
>
> Further dissemination only as directed by (insert appropriate command or official) or higher DoD authority.

RESTRICTED DATA AND FORMERLY RESTRICTED DATA NOTICES. If you have classified material that contains restricted data or formerly restricted data, use one of the following notices:

> RESTRICTED DATA—This material contains Restricted Data as defined in the Atomic Energy Act of 1954. Unauthorized disclosure subject to administrative and criminal sanctions.
>
> FORMERLY RESTRICTED DATA—Unauthorized disclosure subject to administrative and criminal sanctions. Handle as Restricted Data in foreign dissemination. Section 144.b, Atomic Energy Act, 1954.

NAVAL NUCLEAR PROPULSION INFORMATION. Use one of the following notices on classified material containing naval nuclear propulsion information (NNPI)*:

> Special Handling Required—Not Releasable to Foreign Nationals.
>
> This document (or material) is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of (originating command).

CRITICAL NUCLEAR WEAPONS DESIGN INFORMATION. Use the following statement on classified material containing critical nuclear weapons design information (CNWDI):

> Critical Nuclear Weapons Design Information.
> DoD Directive 5210.2 applies.

COMMUNICATIONS SECURITY MATERIAL. Before release to contractors, mark classified communications security (COMSEC) material with the following statement:

> COMSEC material—Access by contractor personnel restricted to U.S. citizens holding final Government clearance.

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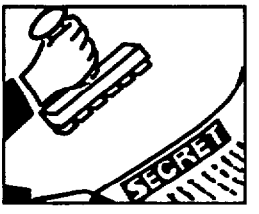
* *Can also be used on unclassified NNPI material.*



Intelligence Control Markings

The following intelligence control markings (table 10B) are those commonly used on NOSC material:

Table 10B. Intelligence control markings used on classified NOSC material.

Entire Notice	Short Form	Abbreviated Form
Warning Notice - Intelligence sources or methods involved	WNINTEL	WN
Dissemination and extraction of information controlled by originator	ORCON	OC
Not releasable to contractors/consultants	NOCONTRACT	NC
Caution - Proprietary information involved	PROPIN	PR
Not releasable to foreign nationals	NOFORN	NF
Authorized for release to _____	REL TO	REL TO

WARNING NOTICE—INTELLIGENCE SOURCES AND METHODS INVOLVED. This notice identifies information whose further distribution and use must be restricted. Use this marking only on classified intelligence information which clearly identifies or would permit ready identification of an intelligence source or method that is susceptible to countermeasures that could nullify or measurably reduce its effectiveness. The short form of this marking is WNINTEL, and the abbreviated form is WN. (Note that publications containing WNINTEL information are not sent to DTIC.)

DISSEMINATION AND EXTRACTION OF INFORMATION CONTROLLED BY ORIGINATOR. This marking is used so that the originator can continually supervise use of the information. Use this marking only on classified intelligence information which clearly identifies or would permit ready identification of an intelligence source or method that is susceptible to countermeasures that could nullify or measurably reduce its effectiveness. Do not use this marking when the information can be reasonably protected by using other markings or by using the "need-to-know" principle of the security classification system. The short form of this marking is ORCON, and the abbreviated form is OC.

NOT RELEASABLE TO CONTRACTORS/CONSULTANTS. This marking prohibits the release of classified material to contractors and consultants without the permission of the originator. Use this marking when release of the information to a contractor or consultant would provide a competitive advantage which could conflict with the contractor's or consultant's obligation to maintain the security of the information. Also use

this notice on material provided by a source with the condition that it not be made available to contractors or consultants. The short form for this marking is NOCONTRACT, and the abbreviated form is NC.

CAUTION—PROPRIETARY INFORMATION INVOLVED. This marking identifies classified information provided by a commercial firm or private source with the understanding that the information will be protected as a trade secret or proprietary data. This marking can be used in conjunction with the NOCONTRACT marking to prevent release to contractors or consultants. The short form for this marking is PROPIN, and the abbreviated form is PR.

NOT RELEASABLE TO FOREIGN NATIONALS. This marking identifies classified intelligence information that may not be released in any form to foreign governments, foreign nationals, or non-U.S. citizens without permission of the originator. Use this marking on intelligence information which, if released to a foreign government or national, could jeopardize intelligence sources or methods. Also use it on information which should not be released because of U.S. policy. The short form for this marking is NOFORN, and the abbreviated form is NF.

AUTHORIZED FOR RELEASE TO (name of country or international organization). Use this marking on classified material that an originator has determined can be released through established foreign disclosure procedures and channels to the foreign countries or organizations indicated. The short and abbreviated forms for this marking are REL (short form of country/organization).

NATO Information and Foreign-Government Information Included in U.S. Publications

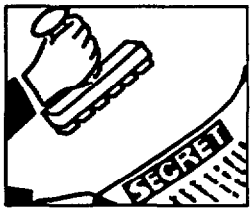
FACE OF PUBLICATION. Unless the markings would reveal intelligence information, NATO information or foreign-government information that is incorporated in U.S. Navy publications must be identified in a manner to ensure the information is not prematurely declassified or made accessible to a national of a third country without the consent of the originator. The face of the publication is marked as follows:

FOREIGN GOVERNMENT INFORMATION.

Or, if the publication incorporates or contains extracts of NATO-classified information, mark the publication with this caveat:

THIS DOCUMENT CONTAINS NATO CLASSIFIED INFORMATION.

ASSOCIATED CLASSIFICATION MARKINGS. When marking NATO and foreign-government information, include the appropriate identification of the classification source in the portion markings, for example (NATO-S), (U.K.-C), or (FRG-Restricted).



You still must use the "classified by" line and the notation "Originating Agency's Determination is Required."

If "Restricted" or "NATO Restricted" information is included in an otherwise unclassified publication, the publication is marked as "confidential." All requirements for portion marking apply, and you should include on the face of the publication, one of the caveats discussed in the preceding paragraph.

Where to Get Help at NOSC

To determine if your information is classified: The Information Security Office.

To ensure your material has the appropriate warning notices and intelligence control markings: The Information Security Office or the Intelligence Office.

To find a source document to help you with classification problems: The Information Security Office.

To answer questions on original classification: The Information Security Office.

To answer questions on foreign-government information or NATO information: The Information Security Office.

PART 4
HOW TO MARK SPECIFIC TYPES OF INFORMATION

How do I mark the inside pages of a publication? How are viewgraphs and slides marked? Where do you mark a photograph? What about compilations of information? How are warning notices and intelligence control markings used?

How to Mark a Technical Publication

OVERALL MARKINGS. Table 11 summarizes the classification markings, warning notices, and intelligence control markings required on classified technical publications. The remainder of this section discusses the specific marking details for a classified publication.

Table 11. Marking guide for classified publications.

Markings	Placement
Overall classification level	Stamp or print, top and bottom center, in letters larger than text on front cover (if used), title page (if used), first page, and outside of back cover (if used). If back cover is not used, do not place classified text on the back of the last page. Mark all interior pages either with the overall classification level or with the classification of the individual page. When using the latter option and printing front and back, mark both sides of the page with the higher classification of either side. Mark the side with the lower classification with the statement "This page is unclassified" or appropriate classification.
Classified by _____ Insert original classification authority or derivative classification source. If more than one source used, use "Multiple Sources."	On the first page (cover, title page, or text page).
Declassify on _____ Insert declassification date or event. If date cannot be determined, use "Originating Agency's Determination Required" or "OADR."	On the first page (cover, title page, or text page) following the "classified by line." (cont'd)

Table 11. Marking guide for classified publications. (cont'd)

Markings	Placement
Downgrade to (Insert [classification level] on [insert date or event])	On the first page (cover, title page, or text page) following "declassify line."
Agency and office of origin	On the first page (cover, title page, or text page).
Date of origin	On the first page (cover, title page, or text page).
Portion marking: Required for paragraphs, subparagraphs, captions, table headings, titles, text headings, illustrations, and tables	Before each paragraph, subparagraph, caption, table heading; after titles and text headings; near each table and illustration.
Warning notices	
Distribution and duplication notice	Full notice on first page (cover, title page, or text page).
Restricted Data and Formerly Restricted Data	Full notice on first page (cover, title page, or text page) following "classified by" line. Short form used to identify tables and illustrations. Abbreviated form used for portion marking.
Naval Nuclear Propulsion Information	Full notice on first page (cover, title page, or text page). Do not portion mark. (See NAVSEA Instruction C5511.32A of February 1986.)
Critical Nuclear Weapons Design Information	Full notice on first page (cover, title page, or text page). Short form used to identify tables and illustrations. Abbreviated form used for portion marking.
Communications Security Material	Full notice on first page (cover, title page, or text page).
Intelligence Control Markings (all variations)*	Full notice above classification marking on front cover (if used) and first page. Short form at top or bottom of applicable pages and near illustrations and tables. Abbreviated form used for portion marking.

*Variations of intelligence control markings can be found in part 3 of this chapter.

Face of Publication. Place the basic markings—the overall classification level and all associated classification markings—on the face of the publication. The face is the front cover, title page, or first page—whichever is the first outside page of the publication.

Use the following guidelines when marking the overall classification level (confidential, secret, or top secret) on the face of the publication:

Center the classification level at the top and bottom of the page.

Make the point size (type size) larger than any other point size on the page.

Use all capital letters.

Figure 55 shows examples of ways the overall classification level can be marked.

Downgrading/declassification instructions, warning notices, and intelligence control markings must also be placed on the face of the publication. The intelligence control markings are repeated on the title page (if used) and first inside page of the publication. In all cases (front cover, title page, and first inside page), these notices must be "spelled out"; the abbreviated or short forms cannot be used. (See figures 56 and 57.)

Back of Publication. The marking for the overall classification level must appear on the back of the publication. The back of the publication can be a separate cover or the back of a text page. The only marking required on this page is the overall classification marking. The marking must be centered (top and bottom) on the page, in a large point size, and in all capital letters.

Although Navy and DoD regulations do not require the associated markings, warning notices, and intelligence control markings on the back cover, NOSC practice is to place this information on the back cover to improve security.

PAGE MARKING

Page Classification. The classification level of each interior page of a publication must be marked. The marking must be centered (top and bottom) on the page, in a point size larger than any other used on the page, and in all capital letters.

NOSC practice is to mark each page with the overall classification level of the publication. This means that each interior page of a secret publication is marked "secret," and all interior pages of a confidential publication are marked "confidential." This procedure is recommended because of its simplicity and efficiency. (See figure 58.)

CONFIDENTIAL

SECRET

SECRET

CONFIDENTIAL

TOP SECRET

SECRET

TOP SECRET

CONFIDENTIAL

These examples are acceptable for marking classified information. The size, type, and color of the markings do not make the markings conspicuous. What is conspicuous on one publication or type of material may not be conspicuous on another. A marking is conspicuous when it will be noticed and recognized by the holder as separate or different from other information or material; it will thus warn of the special requirements necessary for protection of the information. Every effort should be made to make the markings as conspicuous as possible consistent with the production methods being used when creating classified publications or material. Remember also that the marking must be in all capital letters and in a type size larger than any other type size used on the page.

Figure 55. Examples of classification markings.

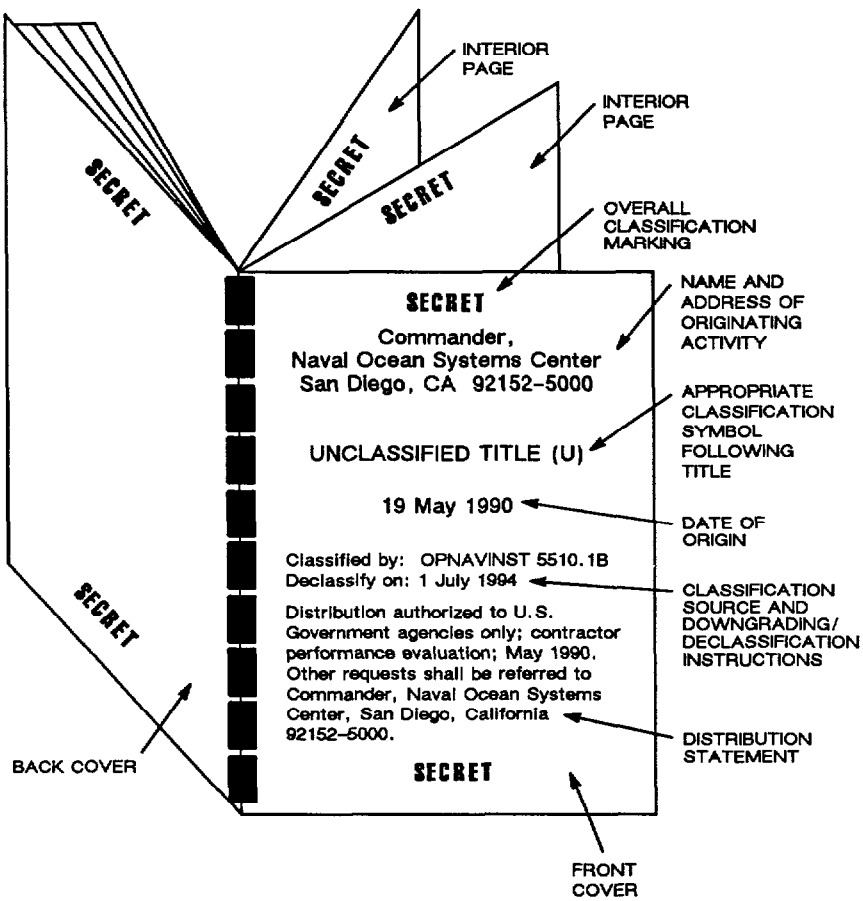
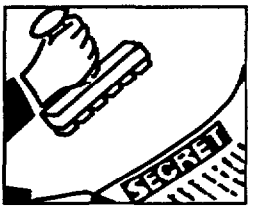


Figure 56. Front cover, interior pages, and back cover of classified publication.



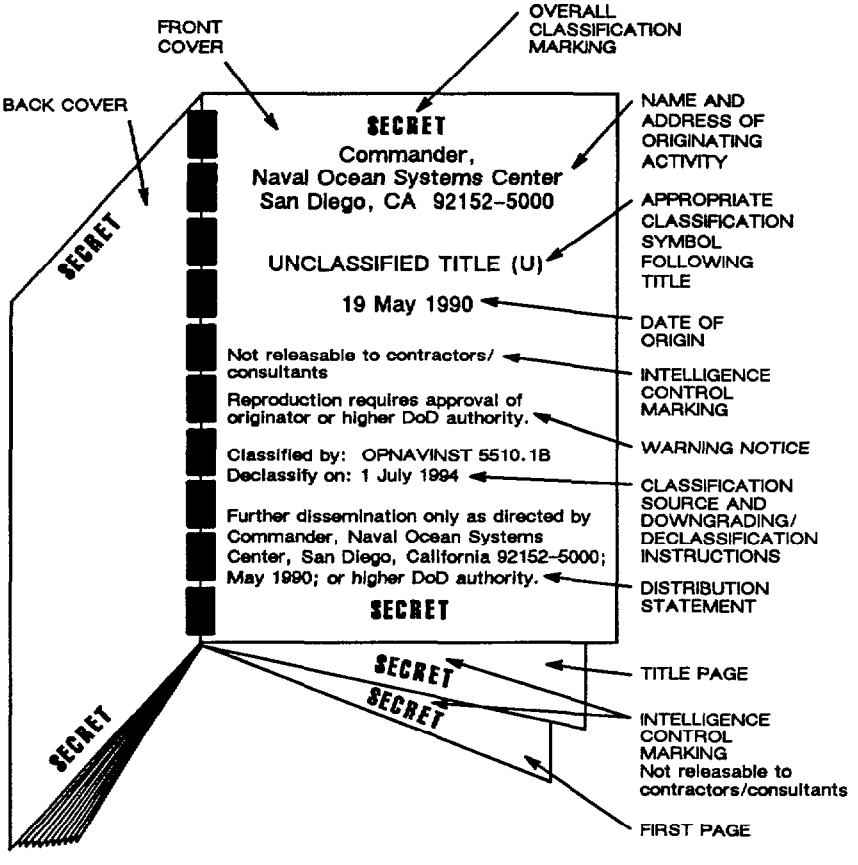
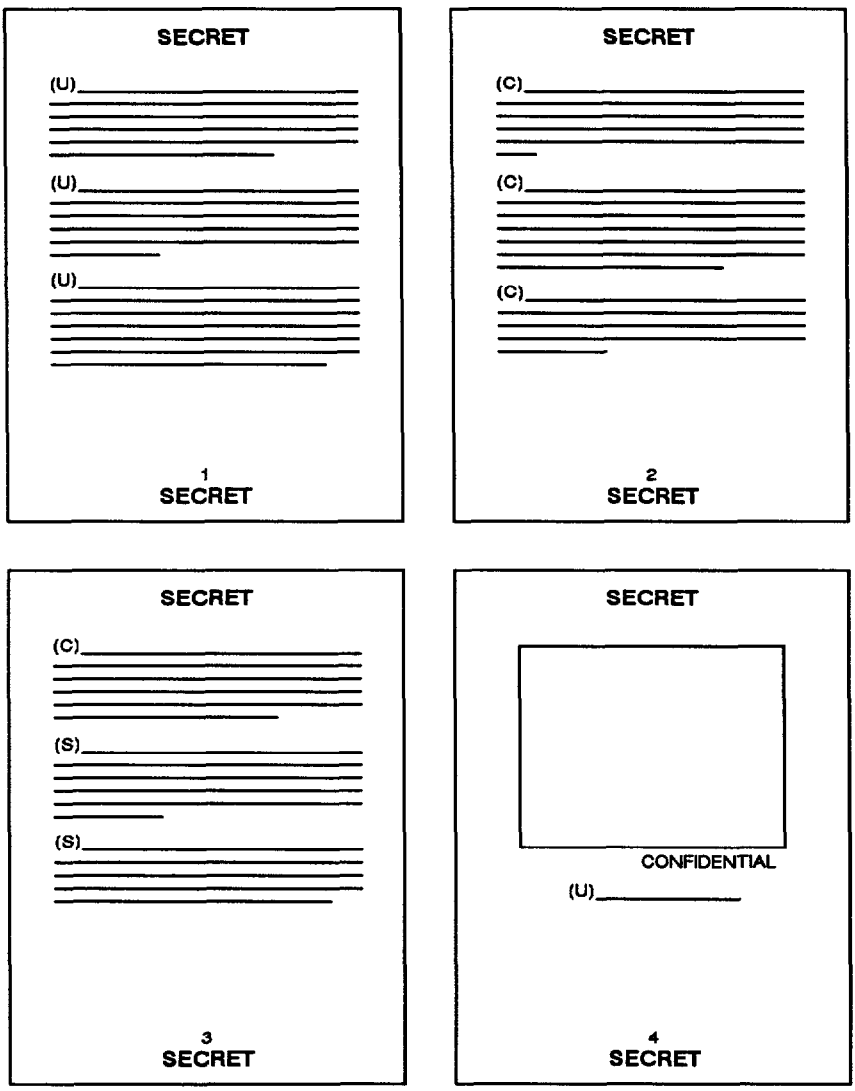
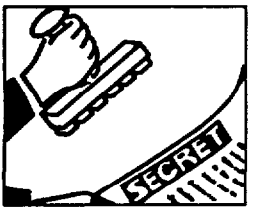


Figure 57. Front cover, title page, first page, and back cover, including warning notices and intelligence control markings, of classified publication.



All interior pages carry same overall classification marking as the publication.

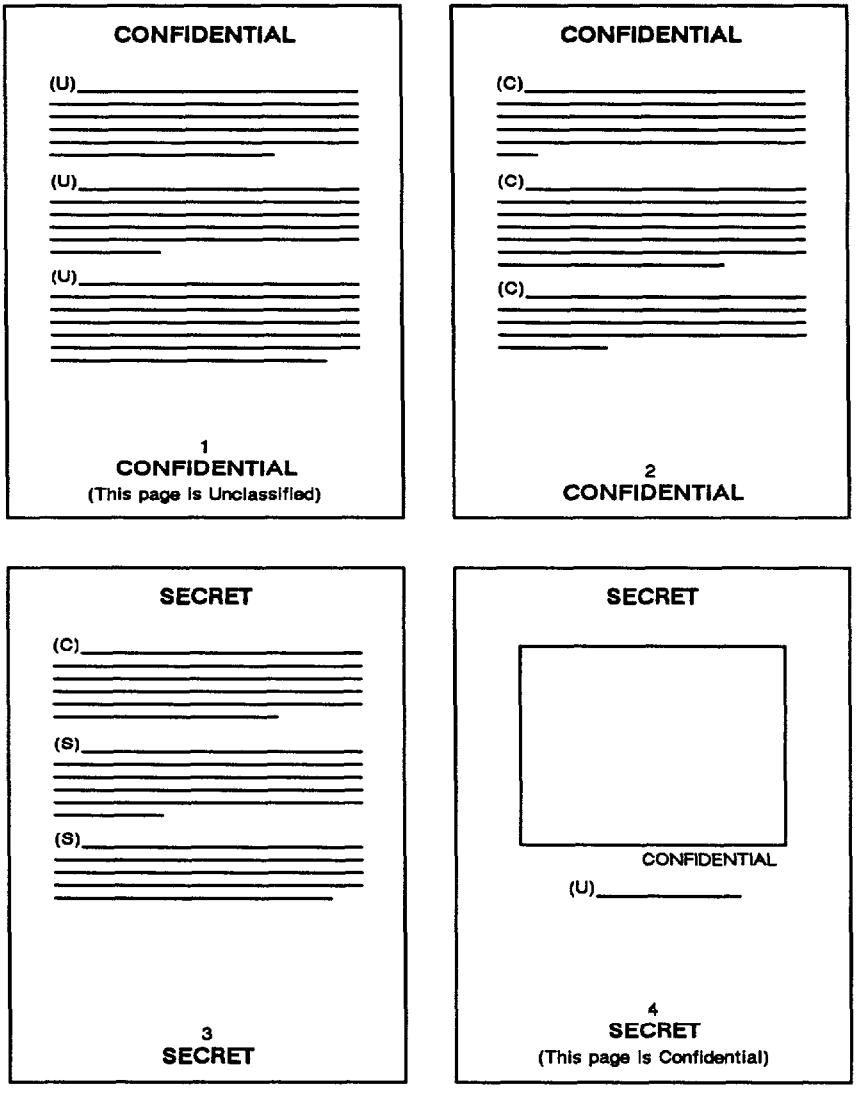
Figure 58. Preferred method of marking interior pages in a classified publication.



You do have the option, however, of marking each interior page with the highest classification of the material on the page. If you use this option and the page is printed on the front and back sides, both sides of the page must be marked with the higher classification of either side. When one side contains information of a lower classification than the marking applied, include the statement "This page is (insert classification level)." (See figure 59.)

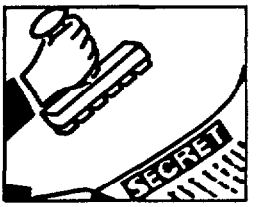
Associated Classification Markings. You do not have to put the downgrading/declassification instructions or warning notices on the interior pages of a publication. However, you do have to use the short form of the intelligence control markings, if the page contains intelligence information. Place the short form of the marking at either the top or bottom of the page after the classification marking. Remember, however, that the intelligence control marking must be spelled out, not abbreviated, on your publication's title page (if used) and first inside page. (See figure 60.)

Change Pages. When a change is issued to an existing classified publication, mark the change pages as if they were already in the basic publication. If any change is an interior page, mark the page in the same way as the interior pages of the basic publication.



Interior pages are marked according to classification level of information on that page. When printed back-to-back, as in this example, both sides must be marked with the same classification level.

Figure 59. Alternate method of marking interior pages in a classified publication.



CONFIDENTIAL

Project 2500(U)

Naval Ocean Systems Center
San Diego, CA 92152-5000

CONFIDENTIAL
Caution – Proprietary Information Involved

SECRET

(S)

CONFIDENTIAL

(U)

1
SECRET
Not Releasable to Foreign Nationals

Title page and first inside page. Note use of full text of intelligence control marking.

SECRET

(S-NF)

(U)

(U)

3
SECRET
NOFORN

CONFIDENTIAL

(C-PR)

(C)

(C)

8
CONFIDENTIAL
PROPIN

All interior pages (except title page and first page). Note use of short form of intelligence control marking.

Figure 60. Intelligence control markings on interior pages of a classified publication.

PORTION MARKINGS. Mark each portion (heading, paragraph, subparagraph, table, illustration, caption, heading, and footnote) of a classified publication to show its level of classification (top secret, secret, confidential, or unclassified). This requirement eliminates any doubt as to which portions of a publication contain or reveal information requiring protection. When determining these classification levels, consider each portion on the basis of its content and its association with other information.

Here are the symbols to be used for portion marking:

Unclassified: (U)
Confidential: (C)
Secret: (S)
Top Secret: (TS)

Add to the classification symbols, as appropriate, the abbreviated forms shown below for warning notices* and intelligence control markings:

Restricted Data: (RD)

Formerly Restricted Data: (FRD)

Critical Nuclear Weapon Design Information: (N)

Warning Notice—Intelligence Sources or Methods Involved: (WN)

Dissemination and Extraction of Information Controlled by Originator: (OC)

Not Releasable to Contractors/Consultants: (NC)

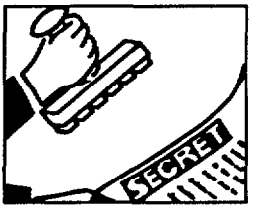
Caution—Proprietary Information Involved: (PR)

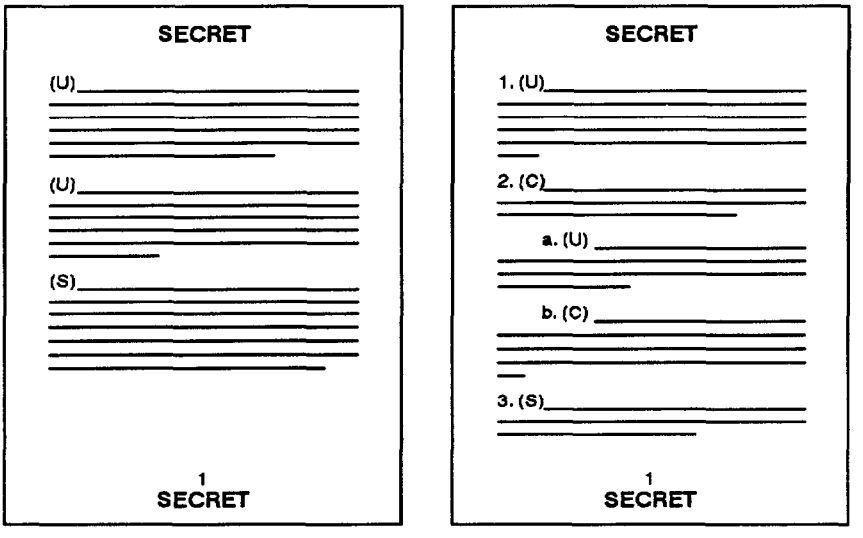
Not Releasable to Foreign Nationals: (NF)

Authorized for Release to (name of country or international organization): (REL TO (name of country or international organization))

Paragraphs and Subparagraphs. If a paragraph is not numbered, place the appropriate classification symbol in front of the text of the paragraph. If the paragraph is numbered or lettered, place the classification symbol immediately following the letter or number. (See figure 61.)

* *Not all warning notices have short and abbreviated forms of the marking. For more information, consult the Information Security Office.*





Paragraphs not numbered or lettered. Numbered or lettered paragraphs.

Figure 61. Paragraph marking in a classified document.

If a paragraph has subparagraphs (figure 62), the following rules apply:

> If the paragraph and the subparagraphs are all unclassified, you do not need to mark the subparagraphs. The unclassified symbol (U) preceding the lead-in paragraph is sufficient.
>
> If the paragraph and the subparagraphs are different classification levels, the paragraphs and subparagraphs must be marked to show individual classification level. The only exception is subparagraphs that are listings expressed as phrases, *not* as complete sentences; in this instance, marking the lead-in paragraph is sufficient.

As shown before in figure 60, mark paragraphs and subparagraphs containing information subject to warning notices or intelligence control markings with the abbreviated form of the appropriate statement.

Illustrations and Tables. Spell out the classification level of tables and illustrations (both line art and photographs) (figures 63 and 64). You can center the classification above or below the table or illustration, place it within the table or illustration, or place it above or below the table or illustration to either side. What you must do is ensure that the reader understands the classification of the table or illustration.

CONFIDENTIAL

(U)

1.

2.

a.

b.

1
CONFIDENTIAL

If all information in the paragraph and subparagraphs is unclassified, mark only the lead-in paragraph.

CONFIDENTIAL

(U)

1. (C)

2. (U)

a. (U)

b. (U)

2
CONFIDENTIAL

If any paragraph or subparagraph is classified and if the subparagraphs express complete thoughts, mark the lead-in paragraph and all subparagraphs.

CONFIDENTIAL

(U)

(C)

1. (C)

a.

b.

2. (C)

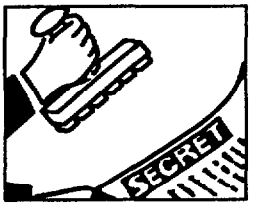
a.

b.

1
CONFIDENTIAL

If the subparagraphs do not express complete thoughts, mark only the lead-in paragraphs.

Figure 62. Marking subparagraphs in a classified document.



SECRET

Table 4. (C) _____

ATLANTIC DATA (U)

Distance, nmi	Depth, m
1	4
2	6
3	10
4	16

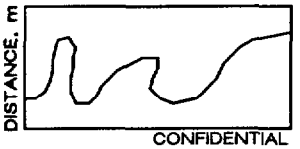
SECRET

1
SECRET

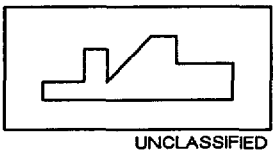
The classification symbol following the table number refers to the heading. The classification marking beneath the table refers to the table itself.

Figure 63. Marking tables in a classified publication.

SECRET



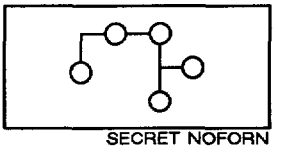
CONFIDENTIAL
SPEED, mph
Figure 2. (U)_____



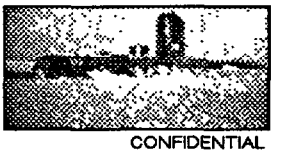
UNCLASSIFIED
Figure 3. (U)_____

SECRET

SECRET



SECRET NOFORN
Figure 4. (U)_____



CONFIDENTIAL
Figure 5. (C-FRD)_____

SECRET

The classification symbol following the figure number refers to the caption. The classification marking beneath the illustration refers to the illustration itself.

Figure 64. Marking illustrations (line art and photographs) in a classified publication.

If a caption (illustration) or heading (table) is used, you must also indicate the classification of the caption or heading. This is done by placing the classification symbol immediately following the caption or heading. If figure or table numbers are used, the classification symbol is placed between the number and the title.

If your illustration or table is longer than one page, repeat the markings on each succeeding page, i.e., markings for the caption or heading and for the illustration or table.

Mark illustrations and tables containing information subject to warning notices and intelligence control markings with the short form of the appropriate statement. Mark the caption or heading with the abbreviated form of the statement. (Refer again to figure 63.)

Headings. Headings are marked according to their own classification and do *not* reflect the overall classification of the material which follows. Consider the heading as a paragraph for marking purposes.

Use the following guidelines (figure 65) for marking headings:

Place the classification symbol for unnumbered or unlettered headings immediately after the heading.

Follow the number or letter of numbered or lettered headings with the appropriate classification symbol for that heading.

Precede run-in headings with the appropriate classification symbol. For run-in headings, the classification symbol applies both to the heading and to the following text.

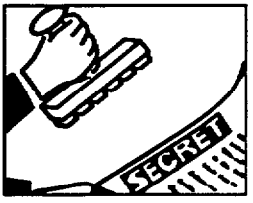
Use the abbreviated form of the warning notice or intelligence control marking, if required. The abbreviation follows the classification symbol, e.g., (S-RD).

Publication Titles. When possible, titles of publications should be unclassified. This makes it easier to reference the publication in unclassified documents or indices, e.g., the NOSC Bibliography.

If a classified title is necessary to convey meaning, add an unclassified short title for reference purposes.

Mark titles with the appropriate classification symbol; the symbol immediately follows the title.

Use the abbreviated form of the warning notice or intelligence control marking, if required. The abbreviation follows the classification symbol, e.g., (C-PR).



CONFIDENTIAL

Follow unnumbered, unlettered heads with appropriate classification symbol:

INTRODUCTION (U)

BACKGROUND (U)

Follow number or letter of numbered or lettered heading with appropriate classification symbol:

1.0 (U) INTRODUCTION

1.1 (U) BACKGROUND

Precede run-in heads with appropriate classification symbol; symbol applies both to the heading and to the following text:

(U) BACKGROUND. _____

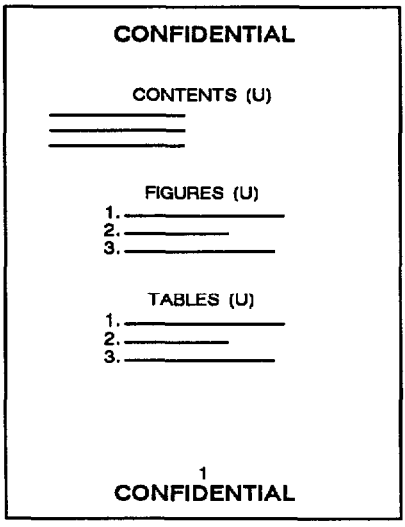
1.1.1 (C) TRAINING PURPOSES. _____

1

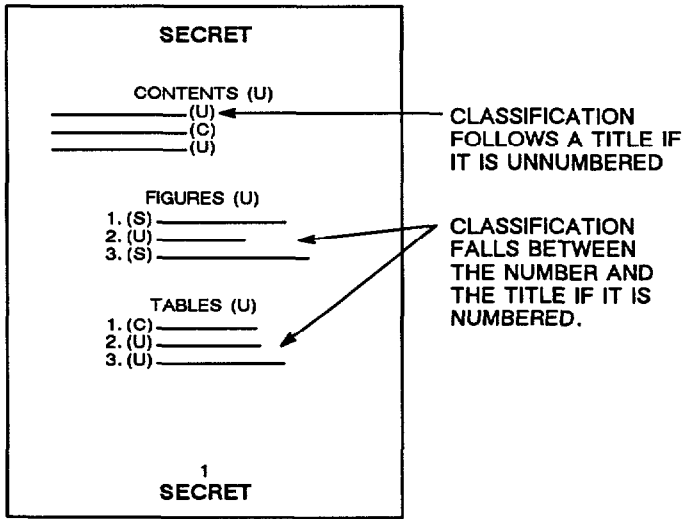
CONFIDENTIAL

Figure 65. Marking headings in a classified publication.

Table of Contents. If all items in the listings on the table of contents are unclassified, you need to mark only the heading. However, if any item in the listing is classified, all items must be marked (figure 66). Remember, the classification noted on the contents page is that of the paragraph, table, or figure *title*, not the paragraph, table, or figure itself.



Mark only the heading if all items in the listing are unclassified.



Classification letters in table of contents note that the listed *title* itself is classified, not that the paragraph, table, or figure is classified.
Mark *all* items in a listing if any *one* item is classified.

Figure 66. Marking contents page of a classified publication.

Reference Page. When using a reference page, mark the heading "References" as unclassified. Then mark each reference title and reference separately. The overall classification of individual publications used as references is placed in capital letters at the end of the reference citation (figure 67).

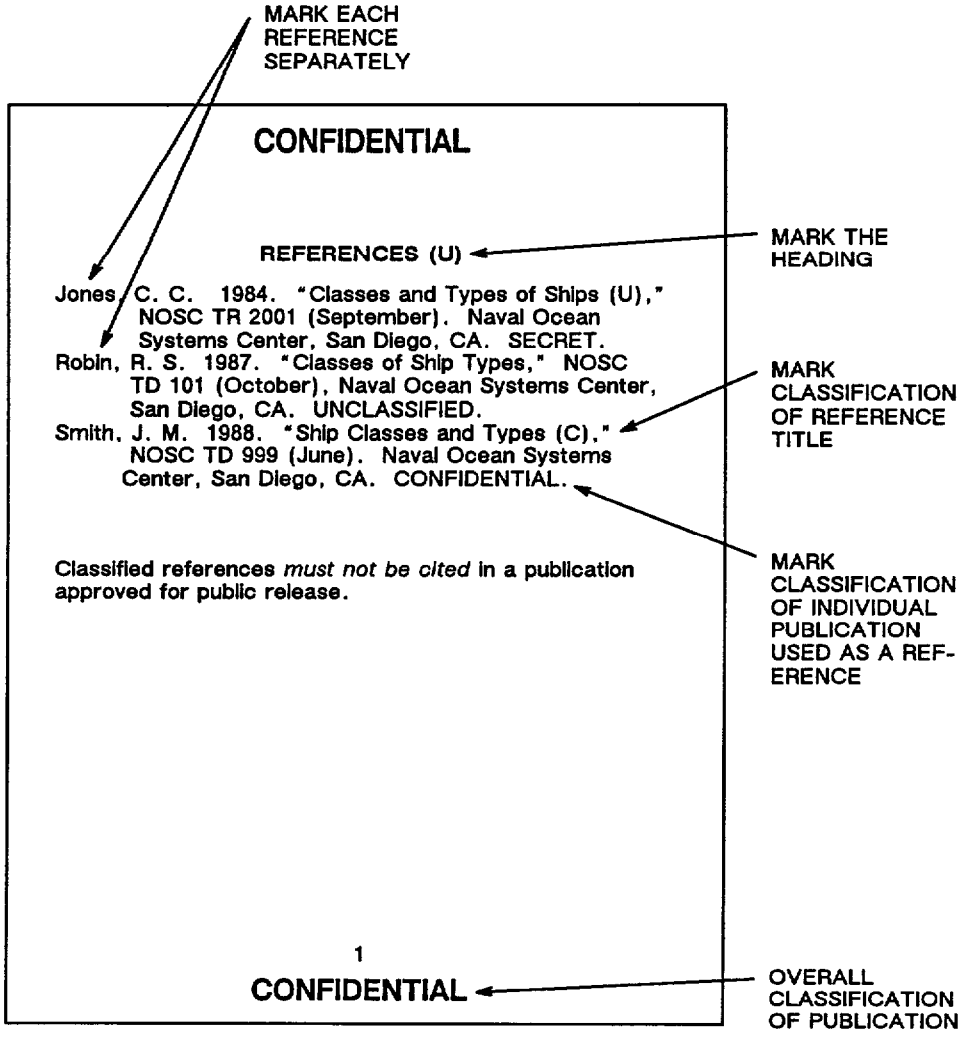


Figure 67. Marking a reference page in a classified publication.

SPECIAL SITUATIONS

Compilations of Information. When classification is required to protect a compilation of *unclassified information*, place a statement on the front of the publication explaining the reason for the classification. The statement must include the following elements:

The fact that the individual parts of the publication are unclassified.

The reason why the unclassified compilation requires classification.

The authority for the classification.

When you work with *classified information*, an overall classification level higher than the individual classified parts is sometimes required; for example, individual confidential parts may add up to a secret overall classification level. When this situation occurs, include a statement with the following information on the front cover of the publication:

The fact that the individual parts are of a lower classification level than the publication as a whole.

The reason why the compilation requires a higher classification level than its individual parts.

The authority for the classification.

Marking by Parts. In some complex publications, the major parts, e.g., appendices, might be used as separate publications. If these parts are entirely unclassified, you can mark the page "unclassified" and include the statement "All portions of this _____ are unclassified." When this practice is used, no further markings are required on the unclassified component.

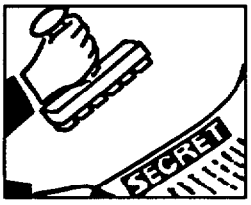
Page Numbers and Blank Pages. If you are printing a publication back-to-back (both sides of the page) and you have a blank right- or left-hand page, place no information on the page, i.e., classification level or page number. However, do number the preceding page with two page numbers, e.g., 3/4 or 22/23.

Naval Nuclear Propulsion Information. Two unusual cases exist when working with naval nuclear propulsion information (NNPI):

(1) The requirements for *portion marking* do not apply to NNPI. Instead, the following guidelines apply:

For publications containing only classified NNPI, do not mark any portion.

For publications containing both classified NNPI and other classified information mark those portions containing classified information other than NNPI and do not mark those



portions that contain classified NNPI. Include the following statement in the body of the publication to explain the absence of markings:

> Those paragraphs which are not marked for classification contain naval nuclear propulsion information (NNPI) which is exempt from the requirement for portion marking set forth in the Department of Navy Information and Personnel Security Program Regulation.

(2) Use the following guidelines to determine *source and downgrading/declassification marking:*

For publications containing classified NNPI which is also "restricted data" or "formerly restricted data," use only the "classified line" which is placed above the RD or FRD warning notice.

For publications containing classified NNPI which is not "restricted data" or "formerly restricted data," use the following notice:

> Classified by DoE-DoD Classification Guide CG-RN-1 dated January 1977.
>
> Declassify on: Originating Agency's Determination Required. This document shall not be used as a basis for derivative classification.

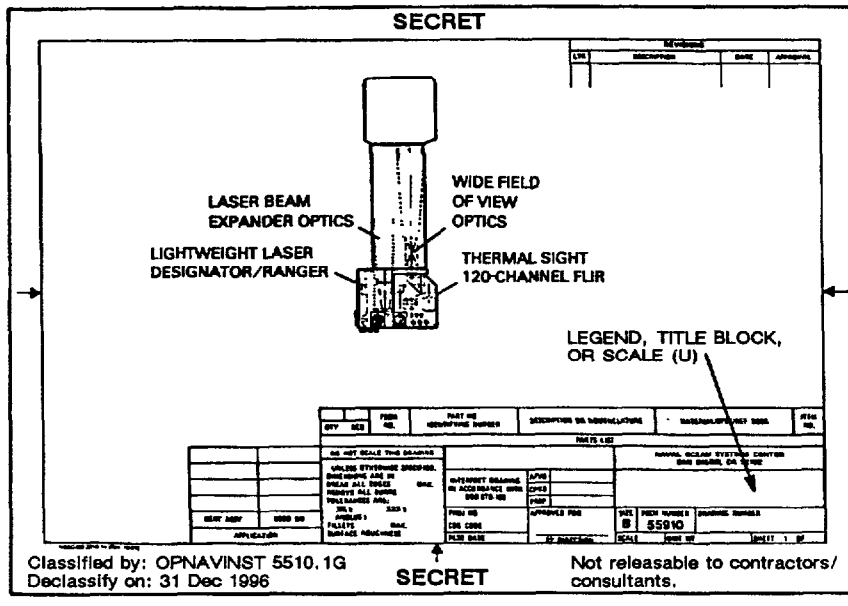
How to Mark a Chart, Map, or Drawing

Charts, maps, and drawings that are not part of a publication are marked differently than those bound in a classified publication (figure 68).

Spell out the overall classification at the top and bottom of the chart, map, or drawing. Place the classification symbol of the legend, title block, or scale immediately after the legend, title block, or scale. (This is similar to the method used to mark illustrations in a publication.)

Spell out the associated markings—classification source, downgrading/declassification instructions, warning notices, and intelligence control markings—on the chart, map, or drawing. Locate these markings near the legend, title block, or scale.

If the markings might be covered by the customary method of folding or rolling a chart, map, or drawing, add additional markings that are clearly visible when the chart, map, or drawing is folded or rolled.



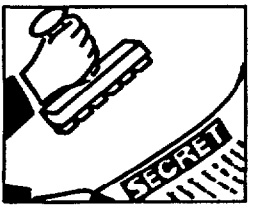
Mark a chart, map, or drawing to show its overall classification level. Spell out the associated classification markings, and mark the classification level of the legend, title block, or scale.

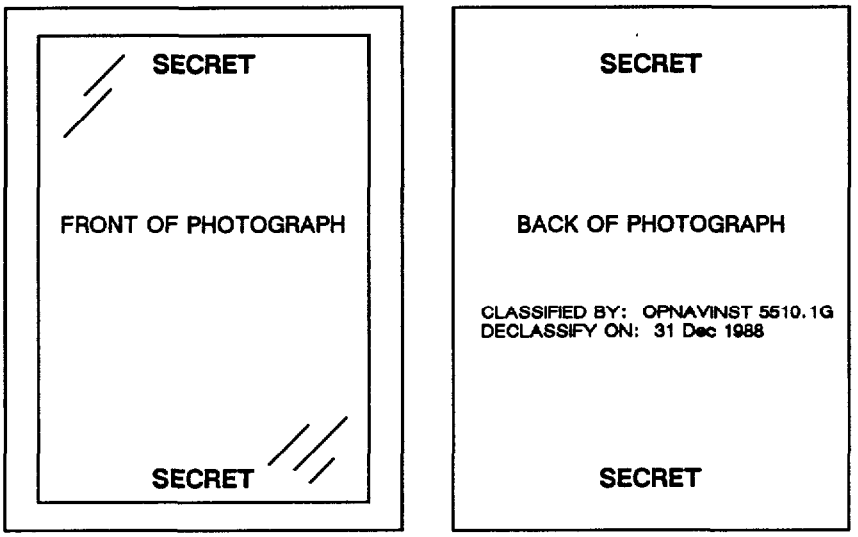
If a chart, map, or drawing is folded or rolled, add overall classification markings that are visible when the material is folded or rolled.

Figure 68. Marking classified charts, maps, and drawings.

How to Mark a Photograph

When practical, mark photographic negatives and positives (prints) with the overall classification level and all associated markings (figure 69). Place the negatives and positives in containers with conspicuous classification markings. Mark roll negatives and positives at the beginning and end of each strip.





Mark front and back of photograph with the overall classification level. The associated markings can be on the front or back of the photograph. markings may be stamped, written, or affixed by pressure-tape label.

Figure 69. Marking classified photographs.

Mark all prints that are 8 by 10 inches or larger with the overall classification at the top and bottom on the face side; place the associated classification markings at the bottom. The classification marking needs to be applied only once on smaller prints. When it is not practical to place the associated classification markings on the face of the print, place the markings on the reverse side by using a pressure-tape label, if stamping or writing is not practical.

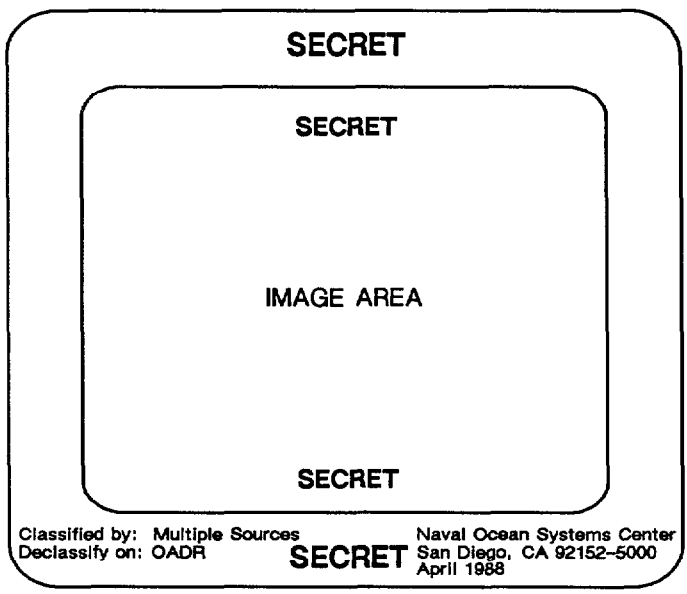
All reproductions of a photograph must clearly show the classification and associated markings.

How to Mark a Transparency, Viewgraph, or Slide

Mark the overall classification level on the image area of a classified transparency, viewgraph, or slide (figure 70). Center this marking (in capital letters) at the top and bottom of the image. If necessary, the classification marking at the top of the image area can be eliminated and only the classification marking at the bottom used. In addition, the classification marking must be placed on the holder or frame of the viewgraph or slide.

When possible, place the associated classification markings—classification source, downgrading/declassification instructions, warning notices, intelligence control markings, and office of origin—in the image area. If you cannot place the associated markings in the image area, place them on the border, frame, or holder.

When duplicating transparencies, viewgraphs, and slides as a part of hardcopy text material, make sure the classification and associated markings appear on the hard copy.



Mark the image area of a transparency, viewgraph, or slide with the overall classification level. Place the associated classification markings, as well as the overall classification level, on the border, holder, or frame.

Figure 70. Classified transparency, viewgraph, or slide.

How to Mark a Film or a Videotape

Place frames that include the overall classification and associated classification markings at the beginning and end of the videotape or film. These markings must be visible when projected on the screen.

The containers housing the film or tape must also be marked with the overall classification level and the associated classification markings (figure 71).

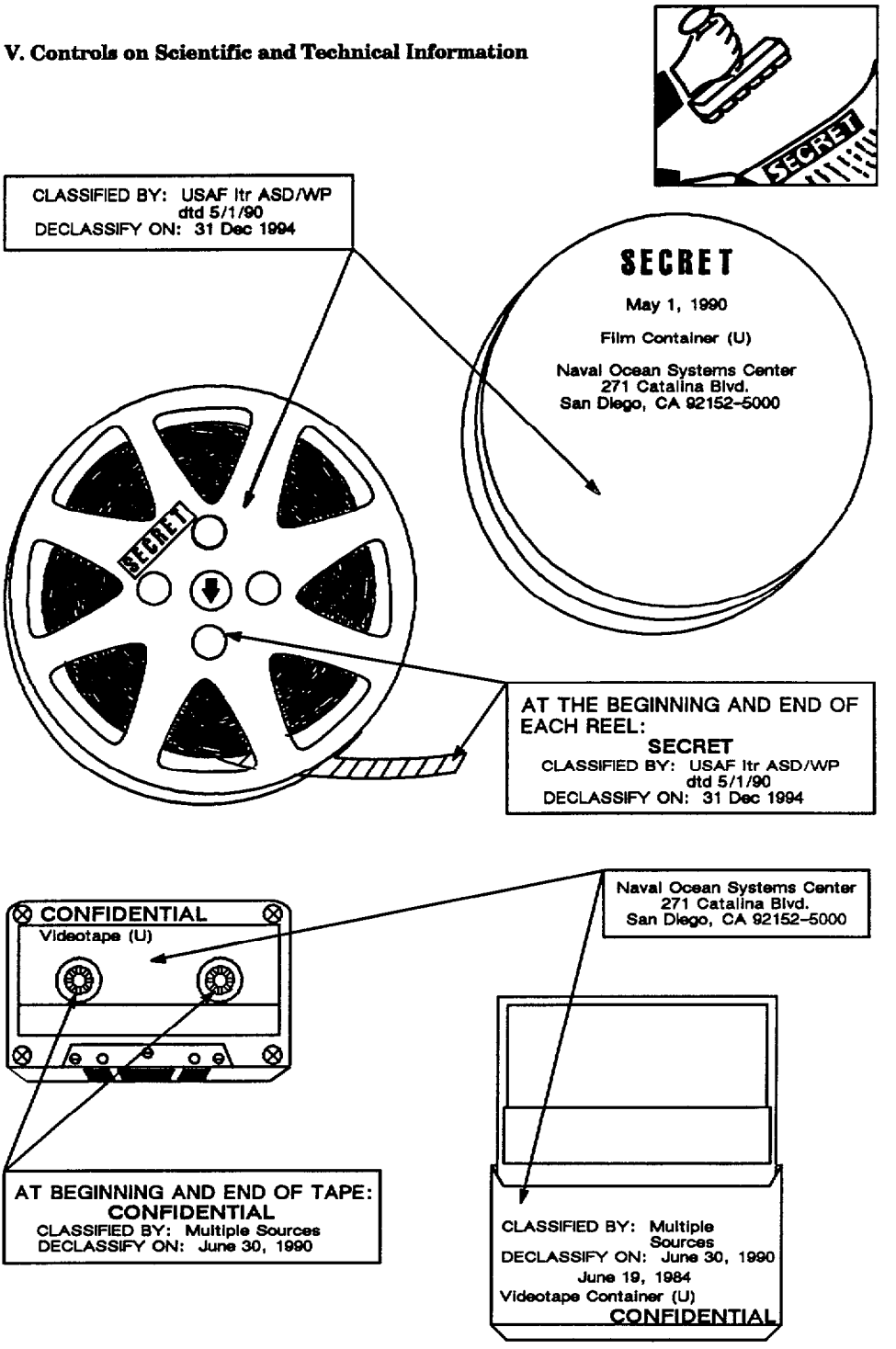


Figure 71. Classified films and videotapes.

How to Mark Microform

As microform images are too small to be read by the unaided eye, the classification and associated markings must be marked on the microform medium and its container in a size that can be read by the unaided eye. These markings must also appear on the microform image so they will be readable when the image is enlarged and displayed or printed (figure 72).

The ways the markings are applied depends on the microform medium in use. For example, roll film microform can usually be marked in the same manner as film (see "How to Mark a Film Or a Videotape"). Decks of aperture cards can be marked in the same manner as decks of ADP punched cards (see "How to Mark a Deck of Punched ADP Cards").

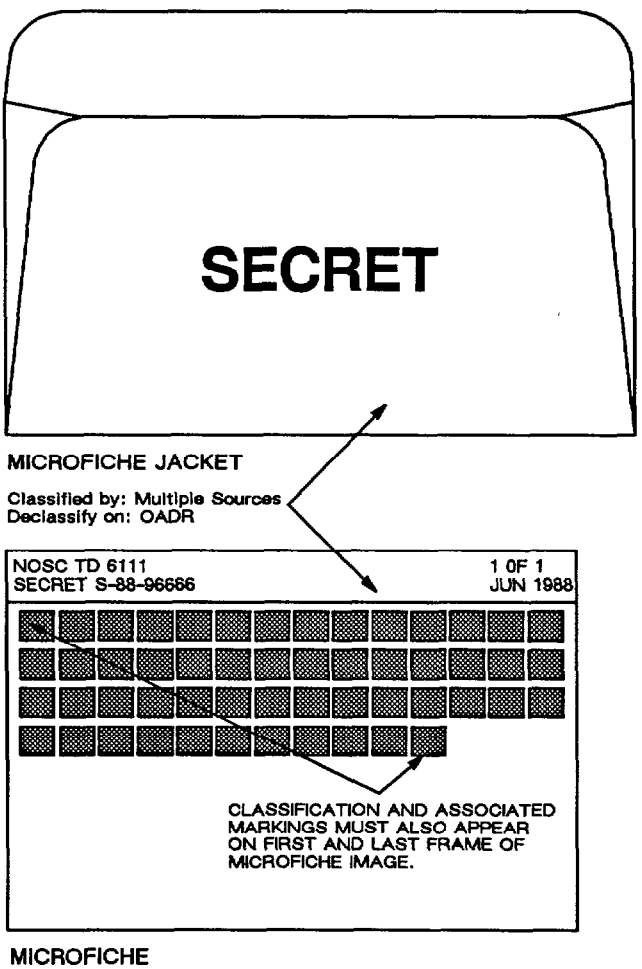
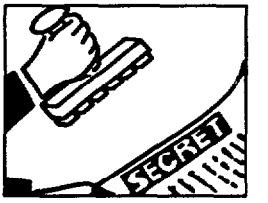
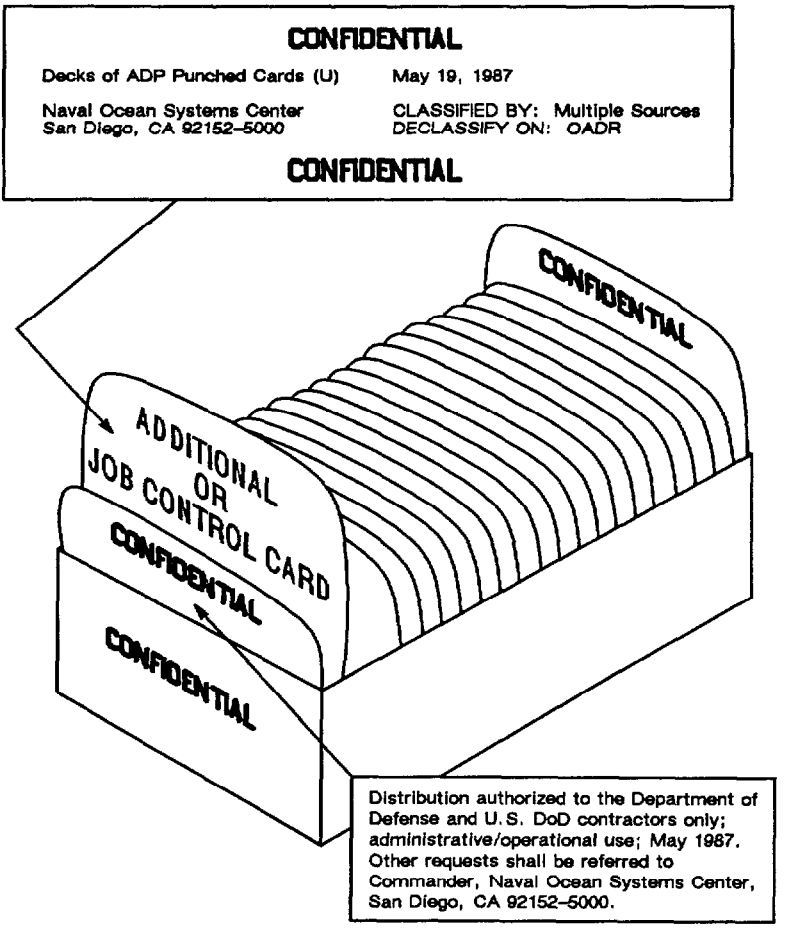


Figure 72. Classified microfilm.



How to Mark a Deck of ADP Punched Cards

When a deck of classified ADP punched cards is handled and controlled as a single unit, only the first and last cards require classification markings. Add an additional card (or modify the job control card) to identify the contents of the deck, the highest classification level, and associated classification markings. Cards removed for separate processing or use and not immediately returned to the deck must be marked individually (figure 73).



When the deck is handled and controlled as a single document, only the first and last cards in the deck require the overall classification markings. An additional card is added (or the job control card modified) to show the other required markings.

Figure 73. Marking a classified deck of ADP punched cards.

Removable ADP and Word-Processing Media

Mark externally the removable information storage media and devices used with ADP and word-processing systems. Include the overall classification level and associated classification markings. These media and devices include magnetic tape reels, cartridges, and cassettes; removable disks, disk cartridges, disk packs, and diskettes; paper reels; and magnetic cards.

Internally mark the media and devices with the overall classification level and the associated classification markings. This practice will protect the material when it is duplicated or read.

Where to Get Help at NOSC

To mark a publication: The Information Security Office or the Publications Branch.

To mark compilations of information: The Information Security Office or the Publications Branch.

To mark a publication by parts: The Information Security Office or the Publications Branch.

To mark a chart, drawing, or table: The Information Security Office or the Visual Media Branch.

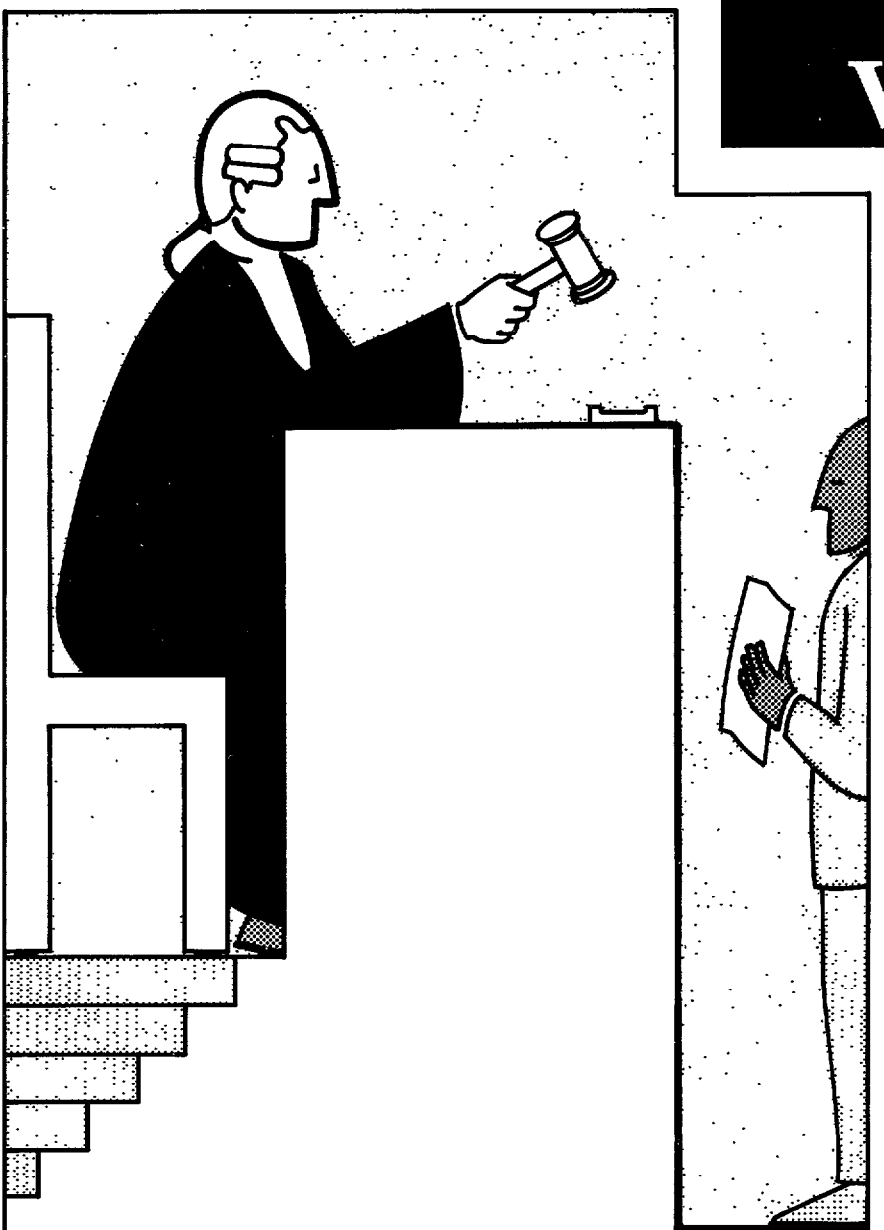
To mark a photograph: The Information Security Office or the Visual Media Branch.

To mark a viewgraph, transparency, or slide: The Information Security Office or the Visual Media Branch.

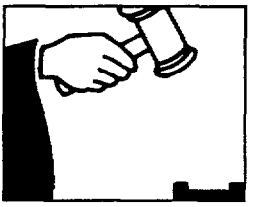
To mark a film or videotape: The Information Security Office or the Visual Media Branch.

To mark ADP material: The Information Security Office.

VI



Copyrighted and Proprietary Information



CHAPTER 6

Copyrighted and Proprietary Information

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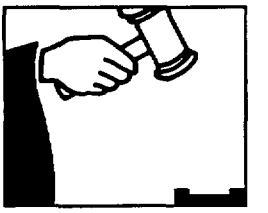


PART 1
PROPRIETARY INFORMATION

What is proprietary information? How can I recognize proprietary information? How is it protected? Can I make additional copies? When can contractors mark contract deliverables as proprietary?

What Is Proprietary Information?

Proprietary information can be simply defined as company-owned information that is protected as secret by a legend accompanying the information.

As legally recognized intellectual property, proprietary information is characterized by the following features:

> The property has been developed at the company's expense.
>
> The company wants to control disclosure or distribution of the property.
>
> The property discloses a trade secret.

Intellectual property includes information such as written materials, drawings, or computer software. Examples include specifications, reports describing manufacturing processes, engineering drawings, or a database program (figure 74).

This information is not owned by the U.S. government. Without permission of the owner, disclosure is usually restricted to government employees. However, at times disclosure is even prohibited to anyone other than the person who has received the information.

How to Recognize Proprietary Information

When a contractor wants to protect technical information, the information is marked with a proprietary legend. The legally recognized proprietary legend reads, in part, as follows:

> Those portions of this technical data indicated as limited rights data, shall not, without the written permission of the above contractor, be either (a) used, released or disclosed in whole or in part by the Government for manufacture....

Contractors use many versions of this legend, for example, "Proprietary Data," "Disclosure Restricted," "Limited Rights Data," "Do Not Copy," or "Trade Secret." Attention must be given to all versions of this legend (figure 75). Refer any information marked with this legend to the Office of Legal Counsel for review and investigation.

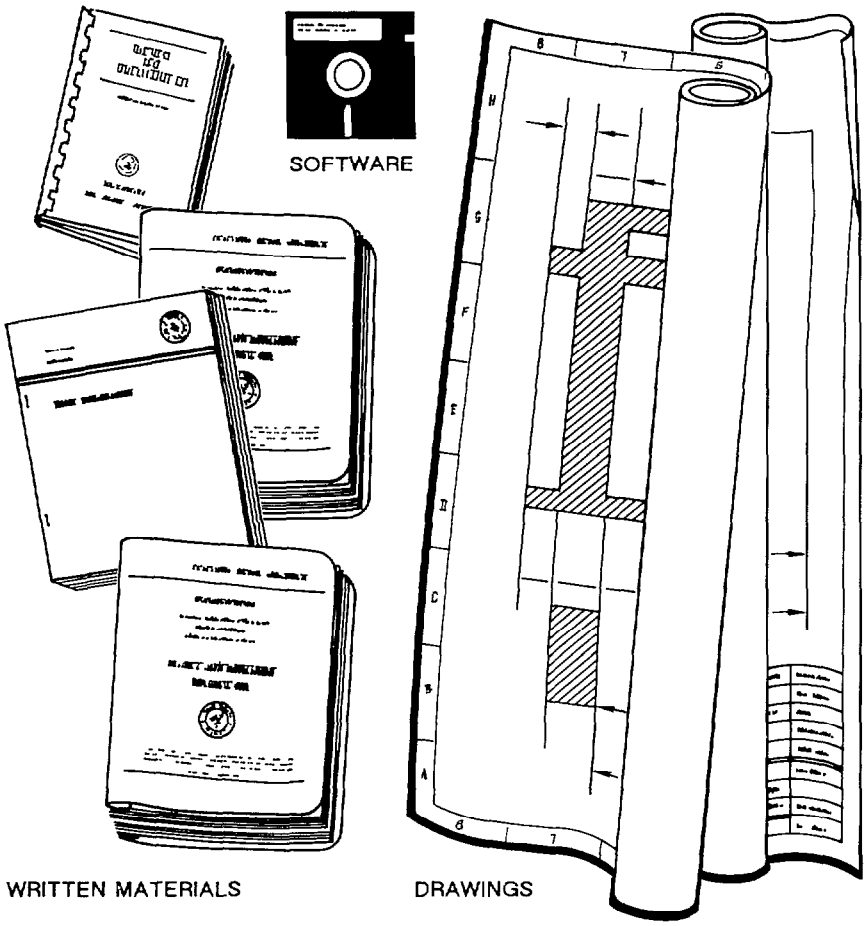
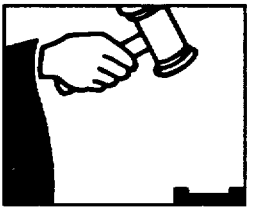


Figure 74. Types of information that can contain proprietary information.



TRADE SECRET

LIMITED RIGHTS DATA

PROPRIETARY

DISCLOSURE RESTRICTED

DO NOT COPY

"Those portions of this technical data indicated as limited rights data, shall not, without the written permisssion of the above contractor, be either (a) used, released or disclosed in whole or in part by the government for manufacture...."

Figure 75. Examples of versions of proprietary legend.

On publications, the proprietary legend normally appears on the cover or title page and on the individual pages that contain the proprietary information. On drawings the proprietary legend is usually found in the lower right corner, and on software it normally appears on the screen. However, other locations are sometimes used, and it is your responsibility to be alert for the legend.

Types of Proprietary Information at NOSC

Normally, you will encounter proprietary information at NOSC in four situations (figure 76):

Information generated under the *industrial* Independent Research and Development (IR&D) program. Note that the industrial IR&D program is performed at the contractor's own initiative and direction. Do not confuse it with the Center's Independent Research and Independent Exploratory Development (IR/IED) Program.

Information generated under the Navy Potential Contractor Program (NPCP).* NPCP is the Navy's program for potential contractors and for contractors who are qualified in scientific and technical areas not covered by current contracts.

* *Until recently, the Navy Potential Contractor Program (NPCP, or NAVPOC) was known as the Navy-Industry Cooperative Research and Development (NICRAD) Program.*

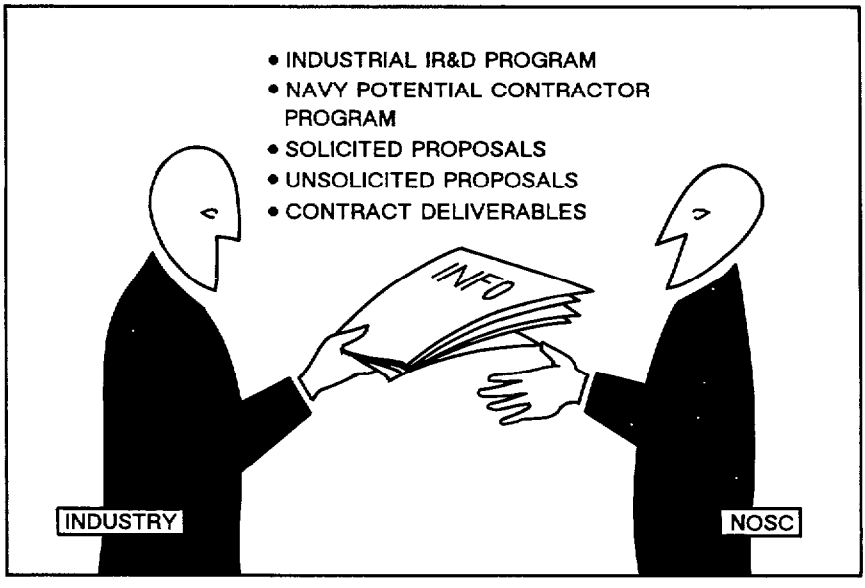


Figure 76. Common situations in which proprietary material can be encountered.

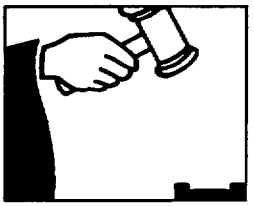
Information received in solicited and unsolicited proposals. Unsolicited proposals are written offers to perform a proposed task or effort; they are initiated and submitted to NOSC by a company, without solicitation by NOSC, with the objective of obtaining a contract. Solicited proposals are company responses to a NOSC procurement action.

Information received as contract deliverables, including software. (A contractor deliverable is information delivered in accordance with a contract's DD Form 1423.)

Procedures for Handling Proprietary Information

NOSC's policy is to honor proprietary information and to comply with the terms of the proprietary legend. Wrongful disclosure of proprietary information can be punished as a criminal offense, and the violation can lead to a jail sentence of 1 year and/or a fine.

ACCESS TO PROPRIETARY INFORMATION. Unclassified proprietary information is generally available to U.S. government employees. However, at times access may be more restrictive, even to the extent that you cannot disclose the information to other NOSC employees. Disclosure to anyone else may require written permission from the originating company. This permission is obtained by the NOSC code that controls the



particular piece of proprietary information. These requests must be sent via the Office of Legal Counsel.

Except for two additional requirements, the same rules apply for access to government classified proprietary information. These additional requirements include

Verification of the appropriate security clearance and a "need-to-know" before disclosure.

Requests for permission to disclose classified proprietary information to other than those authorized by the proprietary legend must be sent via both the Information Security Office and the Office of Legal Counsel.

DUPLICATION OF PROPRIETARY INFORMATION. In certain instances, proprietary information may not be duplicated by government employees. In these cases, written requests must be made to the originating company for permission to duplicate the material. Send these requests via the Office of Legal Counsel.

PROTECTION OF PROPRIETARY INFORMATION. Unclassified proprietary information should be protected in the following manner:

During working hours, do not leave the information unattended in work areas accessible to those who are not authorized access to the information.

After working hours, place the material in locked containers, such as file cabinets and desk drawers.

Classified proprietary information should be protected by placing it in approved containers for confidential and secret material.

USE OF PROPRIETARY INFORMATION. Proprietary information may be used as a source of information by NOSC scientists and engineers to keep up with current activities in their fields of expertise and to identify which companies are doing various type of technical work. However, this information cannot be used in proposals, publications, or presentations that will have wider disclosure than that allowed by the proprietary legend. For example, if the legend restricts the information to government employees, you cannot use it in a presentation that will include contractors.

At NOSC, some forms of proprietary information, such as industrial IR&D and the NPCP, require that anyone who has access to the material sign a receipt acknowledging such access.

USE IN NOSC PUBLICATIONS. If you obtain permission from the owner of the proprietary information to use it in a NOSC publication, both the primary and secondary distribution of the publication must be limited in accordance with DoD policy. The primary method of control is through use of the appropriate distribution statement. Publications containing

proprietary information must be marked with statement B (U.S. government agencies only), statement E (DoD components only), or statement F (further distribution only with approval of NOSC). (More information about these distribution statements appears in appendix A.)

CONTRACT DELIVERABLES. Your contractor might deliver a report, an engineering drawing, or a piece of software that is marked with a proprietary legend. As a NOSC employee part of your job is to bring this proprietary legend to the attention of the Center's legal counsel so that the proprietary claim can be investigated.

Contractors frequently mark information as proprietary when it is not actually proprietary. If the proprietary legend is not removed, the government is precluded from disclosing the information to other contractors and may find itself in a future sole-source procurement. The legal counsel will investigate whether the intellectual property is truly proprietary. The contractor will be required to provide proof that the property was developed at private expense. If the proof is not satisfactory, the proprietary legend will be removed and you will be able to freely disclose the information.

If the Office of Legal Counsel determines that the contractor developed this property at private expense, the government cannot disclose the property to anyone outside the government. As a government employee who has received the information, you are obligated to honor the proprietary claim and to protect the information from disclosure outside the government.

Where to Get Help at NOSC

To determine if a legend means that proprietary information is involved: Office of Legal Counsel.

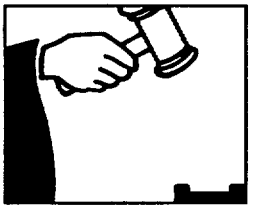
To obtain permission to disclose proprietary information to someone not authorized by the proprietary legend: Office of Legal Counsel.

To decide if proprietary information can be duplicated: Office of Legal Counsel.

To determine if the proprietary legend on a NOSC deliverable should remain on the deliverable: Office of Legal Counsel.

To answer questions concerning proprietary information resulting from IR&D and NPCP: Program Director for Technology.

To determine who may have access to proprietary information: Office of Legal Counsel.



PART 2
COPYRIGHTED MATERIAL

What is a copyright? Can government employees copyright their work? What is fair use? What copyrighted material can be used in a NOSC publication? What happens if a contractor includes copyrighted material in a NOSC deliverable?

What Is a Copyright?

DEFINITION. The copyright law, which is based on Article I, Section 8, of the U.S. Constitution, is Title 17 of the U.S. Code. Under this law, original or creative thoughts or work (published or unpublished) are automatically copyrighted when fixed in any tangible medium of expression, e.g., a handwritten manuscript. Common works of authorship, which are subject to copyright and impact your work at NOSC, include the following:

catalogs	photographs	charts
bibliographies	technical drawings	maps
editorial notes	translations	indexes
pamphlets	computer programs	textbooks
journal articles	computer databases	forewords
videotape recordings	motion pictures	graphics

COPYRIGHT DURATION. The rules concerning how long a copyright lasts vary. For works created after January 1978, copyright normally lasts for the life of the author plus 50 years or, if the author cannot be identified, 75 or 100 years from the first publication. For works copyrighted before 1978, the copyright period covers 28 years from time of publication or registration; an additional period of 47 years is available.

EXCLUSIVE RIGHTS OF COPYRIGHT OWNERS. The copyright owner is entitled to control certain uses of his or her copyrighted material (figure 77). These include the rights to

Reproduce the copyrighted work.

Prepare derivative works based on the copyrighted work.

Distribute copies of the copyrighted work.

Perform or display the copyrighted work.

Copyright, however, protects only the manner of expressing ideas. The rights of the copyright owner do not extend to the use of ideas, processes, procedures, systems, methods of operation, discoveries, concepts, or principles expressed in the copyrighted work.

Copyright protection for unpublished works applies to any work, regardless of nationality or residence of the author. Copyright protection for published works, however, is limited to U.S. citizens and to citizens of countries that are members of copyright treaties of which the United States is a party, for example, the Universal Copyright Convention (UCC).

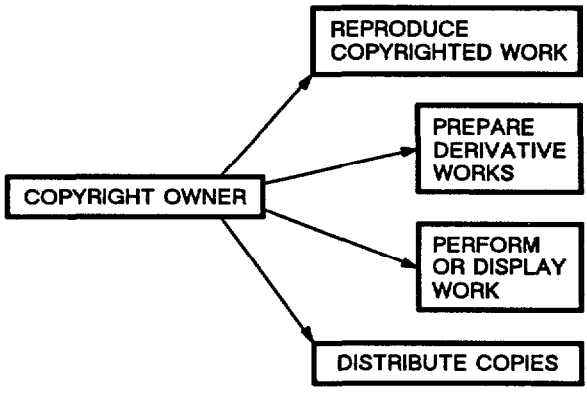


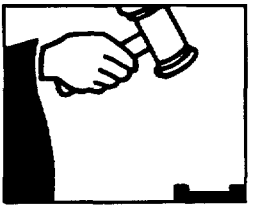
Figure 77. Rights of copyright owner.

Can NOSC Employees Copyright Material?

You cannot copyright material that you prepare as part of your work at NOSC. Section 105 of the copyright statute denies copyright protection to "any work of the United States Government," which is "a work prepared by an officer or employee of the United States Government as part of that person's official duties." Such material is considered a "work of the United States Government" whether it is published by the government or by a commercial publisher. The rationale for this is that government work is financed with tax funds and should be available for use by the public.

You may, however, hold a copyright if the work (for example, a novel or a textbook) was not prepared as part of your official duties. In fact, NOSC management encourages its employees to write privately and obtain copyright protection on their own behalf.

To determine if a particular work belongs to either the government or to you, answer the question "was this work prepared as part of my official duties?" If the answer is yes, the work belongs to NOSC; if the answer is no, the work belongs to you. If you have questions, NOSC's legal counsel will provide advice.



NOSC Publications

NOSC publications are not copyrighted because they are a "work of the United States Government," i.e., a NOSC scientist or engineer prepared the material as part of his or her work. This means that NOSC publications can be copied and used by recipients. Thus, if a NOSC technical report is approved for public release and sold by the National Technical Information Service to a member of the public, then that person can copy and use the material as required.

Journal and Symposia Articles and Sections of Handbooks

Articles submitted to journals and symposia and chapters or sections of handbooks or textbooks cannot be copyrighted by the publisher if you have prepared them as part of your work at NOSC.

When you submit your manuscript to the publisher, you must inform the publisher that your material cannot be copyrighted. You do this by placing the following statement on your manuscript:

> This is a government publication and is not available for copyright protection.

The publisher must include this statement with your article or chapter when it is published. This will allow users of the publication to know that they can freely reproduce your article or portions of it.

Use of Copyrighted Material in NOSC Publications

If you find it necessary to include copyrighted material in your NOSC publication, you must obtain permission from the copyright owner to reproduce the material. It is your responsibility as author to obtain this permission. If you obtain the permission before the Publications Branch receives the manuscript, you will save time in the publication process.

To obtain copyright permission, prepare a letter to the copyright owner. Use the letter in figure 78 as an example. NOSC prefers that copyright permission be given without charge to the government; however, if necessary, an amount of $500 or less can be authorized as a copyright fee.

To pay a fee of less than $500, the requesting code prepares a stub requisition which must be approved by the Office of Legal Counsel (block 25 on the stub). Amounts higher than $500 must be approved by the Chief of Naval Research. The Office of Legal Counsel will help you prepare the required paperwork if the requested fee is more than $500.

(LETTERHEAD)

(Date)

(Name of copyright owner or agent)
(Address)

(Salutation)

(Name of activity) requests your permission as copyright owner, or agent for the copyright owner, to make the following use(s) for Department of Defense purposes of the identified material.

(Complete identification of the copyrighted material. Include the title of the work, name of the author(s), exact copyright notice appearing on the work, and the editor and edition.)

(Designation of the exact portion of the work to be used, for example, page numbers and chapters. Blanket permission to use excerpts "as later determined" may not be requested.)

(Statement of the intended use of the material. Include the number of copies to be made, type of reproduction (photocopy, typeset, offset, tape, or disk), intended distribution, whether the material will be sold and contemplated fees or charges, and length of time the material will be used.)

(Contemplated modification of work, if any.)

If the requested permission is granted, please sign below and return this original letter in the enclosed self-addressed envelope. A copy of this letter is included for your records.

_____
(Signature of requestor)

_____
(Title)

PERMISSION

The above requested permission is granted royalty-free. A notice of copyright and credit line is desired as follows:

(Leave at least 8 lines for credit line)

_____
(Name of copyright owner or authorized agent)

Date:_____

By_____

_____
(Title)

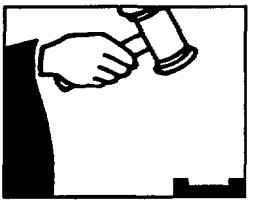
Figure 78. Sample format for requesting copyright permissions.

Two copies of the correspondence granting copyright permission must be provided to the Publications Branch. One copy is kept with the paperwork concerning the publication, and one copy is given to the Navy Publications and Printing Service (NPPS).

If you experience any of the following problems in obtaining copyright permission, contact the Office of Legal Counsel for assistance:

You cannot locate the copyright owner.

The copyright owner refuses to reply or grant the requested permission.



You do not believe that the permission offered by the copyright owner is of sufficient scope to cover your intended use of the copyrighted material.

You consider the fee requested by the copyright owner to be unreasonable (only for amounts under $500).

The copyright owner wants more than $500 as a copyright fee.

COPYRIGHT INFRINGEMENT. If you do not obtain the copyright permission and still use the copyrighted material in a NOSC publication, you will have committed copyright infringement. An infringing user is liable for monetary damages, and the U.S. government has no exemption from copyright infringement liability. Government employees are not, however, personally liable for copyright infringement occurring in the performance of their official duties.

Remember that it is a criminal offense to remove or alter any notice of copyright appearing on a copy of a copyrighted work and that NOSC may have to pay monetary damages for the copyright infringement.

COPYRIGHT NOTICE. Copyrighted material appearing in NOSC publications must be marked with the required copyright information (figure 79). Included are the following three elements:

The letter "cee" in a circle, or the word "copyright," or the abbreviation "copr."

The year of the first publication.

An identification of the owner.

For example: Copyright John Smith 1986.

This statement must appear in a prominent place near the copyrighted material.

- Copyright © 1976 by J. M. Smith
- Copyright 1955, © 1961 Charles Jones
- Copyright © Frank James, 1986
- Copyright © 1974 by Barnum Press Second Edition, copyright © 1987 by Barnum Press

Figure 79. Examples of copyright notices.

Copyrighted Material in NOSC Deliverables

Unless written approval of the contracting officer has been obtained, NOSC contractors cannot deliver data, e.g., reports, software, or drawings, containing copyrighted data unless the contractor has obtained approval of the copyright owner for the government to use the copyrighted material.

If the contractor is the owner of the copyrighted material appearing in the deliverable, then the contractor must grant the government a nonexclusive paid-up license to use the copyrighted material.

The following statement must appear on all material with a copyright notice that is delivered by a contractor to NOSC:

> This material may be reproduced by or for the United States government pursuant to the copyright license under clause 252.227-7013 (date).

Fair Use of Copyrighted Material

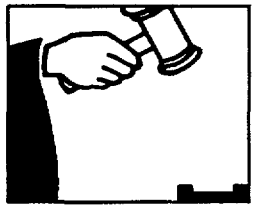
In certain situations, copyrighted material may be reproduced without permission of the copyright owner (figure 80). This is called "fair use." Included is reproduction of copies for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or *research*.

To determine if your intended use falls under the fair use concept, consider the following factors:

> The purpose and character of your use of the material, i.e., are you using the material for an educational or commercial purpose.
>
> The nature of the copyrighted work.
>
> The amount and importance of the portion used in relation to the entire copyrighted work as a whole.
>
> The effect of the use upon the potential market for or value of the copyrighted work.

Examples of fair use include "quotation of excerpts in a review or criticism for purposes of illustration or comment; quotation of short passages in a scholarly or technical work, for illustration or clarification of the author's observation...." (House of Representatives Report 94-1476, September 3, 1976).

If you believe that the inclusion of copyrighted material in a NOSC publication falls within the fair use doctrine, contact the legal counsel before you request copyright permission from the owner.



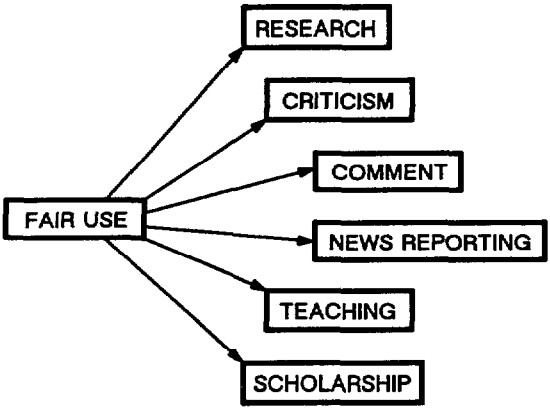


Figure 80. Uses of copyrighted material that do not require permission of copyright owner.

Where to Get Help at NOSC

To answer questions as to whether a particular work is protected by a copyright: Office of Legal Counsel.

To answer questions as to whether a particular use of copyrighted material would be an infringement: Office of Legal Counsel.

To obtain help in preparing letters requesting copyright permission: Publications Branch or the Office of Legal Counsel.

To answer questions concerning copyrighted material appearing in contract data delivered to NOSC: Office of Legal Counsel.

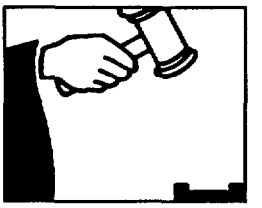
To answer questions concerning copyright fee: Office of Legal Counsel.

To obtain approval to pay a copyright fee: Office of Legal Counsel.

To decide if your work belongs to NOSC or to you: Office of Legal Counsel.

VII

Research and Technology Work Unit Summary (DD Form 1498)



CHAPTER 7

Research and Technology Work Unit Summary (DD Form 1498)

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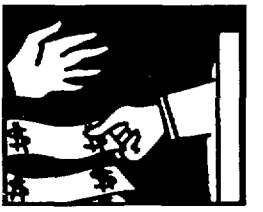


PART 1
UNDERSTANDING AND USING DD FORMS 1498

Why do we fill out DD Form 1498? Who uses these forms after we fill them out? When are forms required for in-house work? How do we access these forms? What is the difference between a DD Form 1498 and a Laboratory Program Summary?

What Is a DD Form 1498 and What Is Its Purpose?

DoD employees use the DD Form 1498, or Research and Technology Work Unit Summary (figure 81), to report work performed by DoD components.* Project work on the DD Form 1498 is reported at the "work unit level." At NOSC, we also use an accompanying form, the Laboratory Program Summary (LPS), which contains additional information on items such as manpower and cost estimates (figure 82). At NOSC you will commonly find that the term LPS refers to both the DD Form 1498 and the Laboratory Program Summary; however, we will keep the two terms separate in this discussion.

DD Forms 1498 are the basis of DoD's Research and Technology Work Unit Information System (R&TWUIS), a database operated by the Defense Technical Information Center (DTIC). This database, used to control and report technical and management data, summarizes ongoing research and technology efforts being accomplished within the RDT&E community. (NOSC sends only the DD Form 1498 to DTIC to become part of the R&TWUIS database; the LPS form is *not* sent.)

By providing a comprehensive summary of the technical content, performers, monitors, and funding sources of DoD research and technical efforts, the R&TWUIS database increases the effectiveness of DoD RDT&E. The basic objectives of the database are as follows:

Help R&D managers identify RDT&E efforts in a broad range of scientific disciplines and technologies.

Permit managers to easily coordinate programs with other DoD components and with other agencies and branches of the federal government to eliminate overlap of effort.

Help scientists and engineers determine current and past efforts related to their own work.

Permit scientists, engineers, and managers to identify individuals working in technical areas of interest who can be contacted for further technical information.

Allow scientists and engineers to stay aware of on-going work in their areas of interest.

---

* *NOSC personnel commonly refer to this form as a 1498.*

CLASSIFICATION

NOSC SD 3920 2 (Rev 12 81)

DD FORM 1 MAR 68 1498

RESEARCH AND TECHNOLOGY WORK UNIT SUMMARY	1 AGENCY ACCESSION *	2 DATE OF SUMMARY *	REPORT CONTROL SYMBOL

3 DATE PREV SUMRY	4 KIND OF SUMMARY	5 SUMMARY SCTY *	6 WORK SECURITY *	7 REGRADING *	8a DISBN INSTRN	8b SPECIFIC DATA CONTRACTOR ACCESS ☐ YES ☐ NO	9 LEVEL OF SUM A WORK UNIT

10 NO CODES *	PROGRAM ELEMENT	PROJECT NUMBER	SUBPROJ TASK	WORK UNIT NUMBER (DIV NOSC PROJECT)
a PRIMARY				
b CONTRIBUTING				
c PRODUCT AREA CODE				

11 TITLE (Precede with Security Classification Code) *

12 SCIENTIFIC AND TECHNOLOGICAL AREAS *

13 START DATE	14 ESTIMATED COMPLETION DATE	15 FUNDING AGENCY	16 PERFORMANCE METHOD

17 CONTRACT GRANT

a DATES EFFECTIVE — EXPIRATION

b NUMBER *

c TYPE — d AMOUNT

e KIND OF AWARD — f CUM TOTAL

18 RESOURCES ESTIMATE		a PROFESSIONAL MAN YEARS	b FUNDS (In thousands)
FISCAL YEAR	PRECEDING		
	CURRENT		

19 RESPONSIBLE DOD ORGANIZATION

NAME *

ADDRESS *

RESPONSIBLE INDIVIDUAL

NAME

TELEPHONE

20 PERFORMING ORGANIZATION

NAME *

ADDRESS *

PRINCIPAL INVESTIGATOR (Furnish SSAN if U S Academic Institution)

NAME *

TELEPHONE

ASSOCIATE INVESTIGATORS

NAME

NAME

21 GENERAL USE

22 KEYWORDS (Precede EACH with Security Classification Code)

* Available to contractors upon originator's approval

CLASSIFICATION INFORMATION/GUIDANCE

CLASSIFICATION

Figure 81. DD Form 1498, the Research and Technology Work Unit Summary.

VII. Research and Technology Work Unit Summary (DD Form 1498)

CLASSIFICATION	NAVAL OCEAN SYSTEMS CENTER LABORATORY PROGRAM SUMMARY	NOSC SD 3920/3 (REV 8 8

1. AGENCY ACCESSION	10.A 4 DIV NOSC PROJ NO	26 WARFARE CODE	27. TECH AGENT (IF DIF FROM BLK 19)
19 SPONSOR ACRONYM	10.A 1 PROG ELE	10.A.3 SUBPROJECT	16 PRIOR PROPOSAL NUMBER

28 MANPOWER AND COST ESTIMATES	PFY	CFY	CFY+1	CFY+2	CFY+3	CFY+4
MAN-YEARS A CIVILIAN PROFESSIONAL						
B1 CIVILIAN - TOTAL						
B2 MILITARY - TOTAL						
LABOR AND OVERHEAD C1 CIVILIAN LABOR & OVERHEAD ($K)						
C2. MILITARY OVERHEAD ($K)						
C3 TOTAL LABOR & OVERHEAD ($K)						
D. CONTRACTS ($K)						
E1 MATERIALS AND EQUIPMENT ($K)						
E2 TRAVEL AND PER DIEM ($K)						
E3 OTHER (COMPUTER & TRANSFERS) ($K)						
F TOTAL PLANNING ESTIMATE ($K)						
G FUNDS AVAILABLE ($K)						
H RCP PLAN ($K) RCP FUNDING ($K)						

DEPARTMENT HEAD/DATE	DIVISION HEAD/DATE	BRANCH HEAD/DATE	PRINCIPAL INVESTIGATOR/DA
SUMMARY DATE	CENTER APPROVALS		CLASSIFICATION

Figure 82. Laboratory Program Summary.

Enhance the efficiency and cost effectiveness of the defense contractor community by providing knowledge of ongoing DoD work so their R&D efforts can be focused toward national defense and military requirements.

Information in the database is available to all DoD scientists, engineers, and managers; DoD contractors, including both industry and academia; other government agencies and their contractors; and other qualified organizations. However, the release of the individual DD Form 1498 is in accordance with the security requirements and distribution limitations imposed by the submitting organization. As the originators of DD Forms 1498, NOSC scientists and engineers determine the classification level and the distribution statement of these forms.

What Is a Work Unit?

A work unit is the smallest segment into which an RDT&E effort can be divided for local (NOSC) administrative control. For our purposes, work units are divided into the following three categories:

Technologically distinct efforts performed by NOSC scientists and engineers.

Contracts or grants used to perform work.

Efforts performed by a non-DoD agency through an interagency fund transfer.

Each work unit has a specific objective and a finite duration, and must result in an end product or conclusion. It is technically distinct in scope, objective, and duration from other RDT&E efforts with which it may be combined for financial, administrative, or contracting purposes.

How to Access DTIC's R&TWUIS Database

At NOSC, access to this database is via the NOSC Technical Library. You must have the library search this and other databases when you are in the conceptual stages of your project, particularly before you make a proposal to your sponsor. (See chapter III.)

When Does NOSC Require a DD Form 1498 and an LPS?

NOSC requires that work unit records (DD Forms 1498) and Laboratory Program Summaries be prepared for classified and unclassified work accomplished by in-house personnel. For classified and unclassified work accomplished by contractors or non-DoD government agencies, only the DD Form 1498 is required. (See tables 12 and 13.)

VII. Research and Technology Work Unit Summary (DD Form 1498)

Table 12. Summary of work requiring DD Forms 1498.

Performing Agency	1498 Required?				
	Funding Category		Research and Technology*	Study and Analysis	Sponsored by ASN (R&AT)
	6.1, 6.2, 6.3A	All Others			
NOSC	Required	Required*	Required	Required	Required
Contractor	Required	Varies, depends on work performed†	Required	Required	Required
Academic institution	Required	Required	Required	Required	Required
Non-DoD government agency	Required	Required	Required	Required	Required

*Work must be $10,000 or more.
†See section "Contract Work."

Table 13. Summary of work requiring Laboratory Program Summary (LPS) form.

Performing Agency	LPS Required?				
	Funding Category		Research and Technology*	Study and Analysis	Sponsored by ASN (R&AT)
	6.1, 6.2, 6.3A	All Others			
NOSC	Required	Required†	Required	Required	Required
Contractor	Not required	Not required	Not required	Not required	Not required
Academic institution	Not required	Not required	Not required	Not required	Not required
Non-DoD government agency	Not required	Not required	Not required	Not required	Not required

*Research: Efforts directed toward increased knowledge of natural phenomena and efforts directed toward the solution of long-term defense problems in the physical, engineering, life, behavioral, and social sciences.
Technology: Scientific or engineering efforts directed toward eliminating technical barriers and providing solutions to technical problems (excluding routine engineering) encountered in RDT&E programs.
†Work must be $10,000 or more.

IN-HOUSE WORK

New Work. All new work funded for $10,000 or more requires a DD Form 1498 and an LPS. (IR/IED work is an exception; see next section, "IR/IED Work.") Prepare the forms either when the funding arrives at NOSC or, preferably, before it is received. NOSC will not allocate the funds or allow you to start the work unless the forms are completed and signed, i.e., a job order will not be assigned by the Budget Office. If you have prepared the forms as part of your proposal, new ones are not required; additional information is simply added to the existing forms.

IR/IED Work. All IR/IED work, regardless of funding level, must have a DD Form 1498 and an LPS. These forms are submitted only for approved and funded IR/IED projects.

Continuing Work. For updating continuing work, you should revise the applicable forms to record significant changes in the technical status of your project.

Completed Work. For completed work, revise the applicable forms when the project is terminated. Include a list of publications that reference the results of your work.

Proposed Work. DD Forms 1498 for proposed work—both new and repeat—are included in the R&TWUIS database. For proposed work, prepare the DD Form 1498 and LPS when you submit your formal proposal to your sponsor. (The DD Form 1498 is sent to DTIC after the proposal has been funded.)

CONTRACT WORK. For contract work, different guidelines apply. Because of the number and diversity of contracts awarded by NOSC, DD Forms 1498 are not required for all contracts. To determine if your contract work requires a DD Form 1498, you need to answer the following questions. A positive response to any question means that a form is required:

Is the effort research or technology? A form is required, regardless of program, program category, or appropriation. Dollar values or performing agencies are not reasons for exclusion.

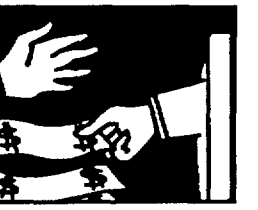
Is the work funded wholly or in part from program categories 6.1, 6.2, and 6.3A? Again, dollar values or performing agencies are not reasons for exclusions.

Is the work under the control of the Deputy Undersecretary of Defense (Research and Advanced Technology)?

Is the work being funded from RDT&E money (categories 6.1 through 6.6) and being performed by a U.S. academic institution, nonprofit academic organization, or federal contract research center? DD Forms 1498 are required for all work, including services, supplies, or equipment.

Is the work a contract for studies and analyses?

VII. Research and Technology Work Unit Summary (DD Form 1498)



Forms are not required for contracts for services, supplies, or equipment used in support of research and technology efforts (except for those being performed by a U.S. academic institution, nonprofit academic organization, or federal contract research center). Examples of such exclusions are as follows:

Purchases of equipment, components, or devices where research or technology efforts are not involved.

Routine data taking, data analysis, and data reduction services.

Field services, fabrication, installation, calibration, or modification of equipment or components.

Technical services such as programming or computational support or translation services.

Other maintenance and support services.

If your contract is a delivery-order type and requires a DD Form 1498, it is necessary to prepare the form only for the major contract and not for individual delivery orders. However, if you wish, you may choose to prepare a DD Form 1498 for individual delivery orders.

NON-DoD GOVERNMENT AGENCIES. A DD Form 1498 must be completed for all efforts performed by a non-DoD government agency.

TIME REQUIREMENTS. In all cases—in-house work, contract efforts, and efforts by non-DoD government agencies—you are to prepare a DD Form 1498 within 30 days for any of the following events:

The initiation, change, or completion of an in-house work effort.

The award, change, completion, or termination of a contract or grant.

Transfer of funds, changes, completion, or termination of work by a non-DoD government agency.

Where to Get Help at NOSC

To fill out a DD Form 1498: Budget Office or your budget analyst.

To fill a DD Form 1498 for IR/IED work: Program Director for Research or Program Director for Technology.

To report studies and analyses: Systems Planning Group.

To query the R&TWUIS: NOSC Technical Libraries.

To determine if a contract requires a DD Form 1498: Budget Office.

To determine if in-house work requires a DD Form 1498 and LPS: Budget Office.

PART 2
PREPARING AND REVIEWING DD FORMS 1498

Who fills out the DD Form 1498? How do we prepare the forms for contracts? Are forms required for delivery orders? Who signs the forms?

Who Prepares the DD Forms 1498 and the LPS at NOSC?

Project managers or principal investigators are responsible for submitting and updating DD Forms 1498 and LPSs for all funding for which they are responsible. This includes forms for proposed, new, updated, and completed work.

Contracting officers' technical representatives (COTRs) are responsible for the DD Form 1498 for contract efforts and for work by non-DoD government agencies. For contract efforts that require a DD Form 1498, the Data Management Office (DMO) and the Supply Department check to determine if the forms are required. If they are required and not included with the procurement, the DMO will not process the package until the forms are completed.

How to Prepare a DD Form 1498 and an LPS

The unclassified DD Forms 1498 are prepared online by using the Center's Mission Management System. Because the Mission Management System cannot accept classified data, you must prepare unclassified versions of DD Forms 1498 that discuss classified work. Include as much information as possible without violating security. If you believe a classified DD Form 1498 is required in addition to the unclassified version, submit the classified DD Form 1498 to the Budget Office on a cleanly typed form in the proper format.

The preparation of DD Forms 1498 for contract effort differs from that for in-house work. For contracts that involve delivery orders, the DD Form 1498 is necessary only for the main contract. When the form is being completed for a contract that is to be awarded, leave blocks 10 and 17 blank. When you are updating the form for an existing contract, include information concerning delivery orders in block 25, i.e., dollar amount, program element, short description, and principal investigator.

VII. Research and Technology Work Unit Summary (DD Form 1498)

To complete a DD Form 1498 for an individual delivery order (an option, not a requirement), fill out the form as you would for an in-house project, but include the required contract information. Figures 83, 84, and 85 are examples of completed DD Forms 1498 for in-house work, a delivery-order contract, and an individual delivery order, respectively. Appendix C provides specific information on completing these forms.

Who Signs DD Forms 1498 at NOSC?

Completed DD Forms 1498 must be approved by the cognizant department head. In addition, the department head *may* require approval at the branch and division levels. Forms for IR/IED work must also be approved by either the Program Director for Research or the Program Director for Technology.

Transmission of DD Forms 1498 to DTIC

The unclassified DD Forms 1498 are sent electronically to DTIC. The Budget Office performs this service for NOSC. The classified DD Forms 1498 are not sent to DTIC.

The Budget Office annually submits a complete set of updated DD Forms 1498 to DTIC. They also submit new forms and changes to existing forms monthly. (These are the DD Forms 1498 that you prepare within 30 days of a specific event; see previous section, "Time Requirements.")

Where to Get Help at NOSC

To fill out a DD Form 1498: Budget Office or your budget analyst.

To fill a DD Form 1498 for IR/IED work: Program Director for Research or Program Director for Technology.

To report studies and analyses: Systems Planning Group.

To use the on-line Mission Management System: Corporate Budget Office.

To solve problems concerning the field for the work breakdown structure: Systems Planning Group.

2. Preparing and Reviewing DD Forms 1498

CLASSIFICATION
UNCLASSIFIED

NOSC SD 3920/2 (Rev 12 81)

DD FORM 1 MAR 68 1498

RESEARCH AND TECHNOLOGY WORK UNIT SUMMARY				1 AGENCY ACCESSION * DN308017	2 DATE OF SUMMARY * 28 DEC 87	REPORT CONTROL SYMBOL
3 DATE PREV SUM RY	4 KIND OF SUMMARY T-PROPOSED	5 SUMMARY SCTY* U	6 WORK SECURITY * S	7 REGRADING * NA	8a DISB N INSTR N NN	8b SPECIFIC DATA CONTRACTOR ACCESS ☐ YES ☐ NO
9 LEVEL OF SUM A WORK UNIT						

10 NO/CODES *	PROGRAM ELEMENT	PROJECT NUMBER	SUBPROJ/TASK	WORK UNIT NUMBER (DIV NOSC PROJECT)
a PRIMARY	OMN			(CODE-NOSC PROJECT) 10-P10501
b CONTRIBUTING				MT
c PRODUCT AREA CODE	95	Center (Laboratory or Activity)		Multiapplication Technology

11 TITLE (Precede with Security Classification Codes) *
(U) SAMPLE LABORATORY PROGRAM SUMMARY

12 SCIENTIFIC AND TECHNOLOGICAL AREAS *
2502 Radio Communications
1706 Magnetic/Electric Field Detection

13 START DATE	14 ESTIMATED COMPLETION DATE	15 FUNDING AGENCY	16 PERFORMANCE METHOD
OCT 87	SEP 88	DN	C. In-House

17 CONTRACT/GRANT
a DATES/EFFECTIVE N/A EXPIRATION
b NUMBER * N/A
c TYPE N/A d AMOUNT
e KIND OF AWARD N/A f CUM TOTAL

18 RESOURCES ESTIMATE		a PROFESSIONAL MAN YEARS	b FUNDS (in thousands)
FISCAL YEAR	PRECEDING		
	CURRENT		

19 RESPONSIBLE DOD ORGANIZATION 398277
NAME * SPACE/NAV WARFARE SYS COM
ADDRESS * Washington, DC 20363
RESPONSIBLE INDIVIDUAL
NAME SMITH, T. L.
TELEPHONE 202 123-4567

20 PERFORMING ORGANIZATION 393159
NAME * NAVAL OCEAN SYSTEMS CENTER CENTRAL STAFF
ADDRESS * San Diego, CA 92152-5000
PRINCIPAL INVESTIGATOR (Furnish SSAN if U S Academic Institution)
NAME * DOE, A. B.
TELEPHONE 619 533-4424
ASSOCIATE INVESTIGATORS
NAME JONES, J. J.
NAME

21 GENERAL USE
PRIOR PROPOSAL NO: 123-PL09
M-MILITARY APPLICATION ONLY

22 KEYWORDS (Precede EACH with Security Classification Code) (U) PROVIDE KEYWORDS WHICH PERTAIN TO THE PROJECT
(U)WORDS OR PHRASES THAT DESCRIBE THE WORK: (U) ITEMS THAT COULD BE USED FOR SORTING
(U)E.

23. (U) OBJECTIVE. Descriptions of the principal technical objectives, the technical question being explored, and where appropriate, the performance goals in quantitative terms are to be entered. A clear statement of the relevance or potential relevancy of the work to the defense mission is required.

24. (U) APPROACH. A brief outline of the plan, including tests of equipment, theoretical work being conducted, major technical problems, and factors which may tend to accelerate or hinder the work should be entered. If the work unit describes a contract in support of an in-house effort, the following statement should be included "This work supports in-house agency accession number_____."

25. (U) PROGRESS (OCT 87-FEB 88). The start and completion dates referred to above indicate the period of progress being presented, as opposed to that of the project. This paragraph should address progress made during the period toward achievement of the plans outlined in "Approach." Scientific results achieved with respect to objectives stated in paragraph 23, and implications or applications should be clearly stated. Significant reports generated within the reporting period should be identified by number, title, and date. Terminated DD1498's should include in the progress statement the reasons for termination. Completed DD1498's should summarize the final results, whether positive or negative, as measured against the objective and should identify significant reports generated by the work unit, including those previously reported.

* Available to contractors upon originator's approval

Provide OPNAVINST or other classification authority
CLASSIFICATION INFORMATION/GUIDANCE

CLASSIFICATION

Figure 83. DD Form 1498 for in-house work.

VII. Research and Technology Work Unit Summary (DD Form 1498)

CLASSIFICATION: UNCLASSIFIED

NOSC SD 3920/2 (Rev 12 81) — DD FORM 1 MAR 68 1498

RESEARCH AND TECHNOLOGY WORK UNIT SUMMARY

1 AGENCY ACCESSION*	DN999
2 DATE OF SUMMARY*	01 Feb 87
REPORT CONTROL SYMBOL	
3 DATE PREV SUMRY	01 Oct 86
4 KIND OF SUMMARY	D-Change
5 SUMMARY SCTY*	U
6 WORK SECURITY*	U
7 REGRADING*	NA
8a DISB'N INSTRN	CX
8b SPECIFIC DATA CONTRACTOR ACCESS	☐ YES ☐ NO
9 LEVEL OF SUM	A WORK UNIT

10 NO/CODES *	PROGRAM ELEMENT	PROJECT NUMBER	SUBPROJ/TASK	WORK UNIT NUMBER (DIV NOSC PROJECT)
a PRIMARY	USN			999-XX00
b CONTRIBUTING	0	0	0	
c PRODUCT AREA CODE	95	Mission/Function Support		

11 TITLE (Precede with Security Classification Code) *

(U) INTELLIGENT GOVERNMENT REGULATIONS

12 SCIENTIFIC AND TECHNOLOGICAL AREAS*

0501 Administration and Management

13 START DATE	14 ESTIMATED COMPLETION DATE	15 FUNDING AGENCY		16 PERFORMANCE METHOD
Feb 87	Jan 90	DN	NA	B. Contract

17 CONTRACT/GRANT

a DATES/EFFECTIVE Feb 87 EXPIRATION

b NUMBER * N66001-86-D-1234

c TYPE Y

d AMOUNT (Unfunded) $250,000

e KIND OF AWARD CON

f CUM TOTAL (Funded) $100,000

18 RESOURCES ESTIMATE

FISCAL YEAR	a PROFESSIONAL MAN YEARS	b FUNDS (In thousands)
PRECEDING 87	0.3	75
CURRENT 88	0.3	25

19 RESPONSIBLE DOD ORGANIZATION 393159

NAME * NAVAL OCEAN SYSTEMS CENTER (NOSC)
Intelligence Dept

ADDRESS * San Diego, CA 92152-5000

RESPONSIBLE INDIVIDUAL

NAME HELP, I.WANT (NOSC-99)

TELEPHONE 619-225-1111

20 PERFORMING ORGANIZATION 000000

NAME * EDITORIAL EXPERTS (EDEX)

ADDRESS * 5000 N. Street
Washington, DC 20345

PRINCIPAL INVESTIGATOR (Furnish SSAN if U.S. Academic Institution)

NAME * SMITH, J. (EDEX-NA)

TELEPHONE 212-626-1345

ASSOCIATE INVESTIGATORS

NAME NA

NAME NA

21 GENERAL USE

C-Civilian Application Only

22 KEYWORDS (Precede EACH with Security Classification Code)

23. (U) OBJECTIVE. Issue delivery-order contract to simplify complex government regulations.

24. (U) APPROACH. Guidelines for preparing simple, understandable government regulations will be prepared, and some regulations will be rewritten. Resulting product will reduce government costs and improve the efficiency of government administrators.

25. (U) PROGRESS (Feb-Dec 88). Three delivery orders for a total of $25,000 were issued this reporting period. This brings the total funding of the contract to $100,000 million. New Delivery Orders are: Delivery Order 004. Program element, 69998N. Funding, $8,000. Description, Development of Plain English in Command-Level Memoranda. Principal Investigator, I.Must Interpret. Delivery Order 005. Program element, 68999N. Funding, $8,000. Description, Development of DD1498 Guidelines. Principal Investigator. U.S. Scientist Delivery Order 006. Program element, 68888N. Funding, $ 9,000. Description, Reduction of Paperwork Required to Hire Personnel. Principal Investigator, U.S. Supervisor.

* Available to contractors upon originator's approval

No CG Applies.

CLASSIFICATION INFORMATION/GUIDANCE

FEB 87 LPS p: None

CLASSIFICATION: UNCLASSIFIED

Figure 84. DD Form 1498 for delivery order contract.

2. Preparing and Reviewing DD Forms 1498

CLASSIFICATION
UNCLASSIFIED

NOSC SD 3920/2 (Rev 12-81)

DD FORM 1 MAR 68 1498

RESEARCH AND TECHNOLOGY WORK UNIT SUMMARY

1 AGENCY ACCESSION *	DN999 111
2 DATE OF SUMMARY *	01 Feb 87
REPORT CONTROL SYMBOL	
3 DATE PREV SUM RY	01 Oct 86
4 KIND OF SUMMARY	D-Change
5 SUMMARY SCTY *	U
6 WORK SECURITY *	U
7 REGRADING *	NA
8a DISB N INSTR N	CX
8b SPECIFIC DATA CONTRACTOR ACCESS	☐ YES ☐ NO
9 LEVEL OF SUM	A WORK UNIT

10 NO/CODES *	PROGRAM ELEMENT	PROJECT NUMBER	SUBPROJ/TASK	WORK UNIT NUMBER (DIV NOSC PROJECT)
a PRIMARY	USN			999-XX00
b CONTRIBUTING	0	0	0	
c PRODUCT AREA CODE	95	Mission/Function Support		

11 TITLE (Precede with Security Classification Code) *
(U) INTELLIGENT GOVERNMENT REGULATIONS

12 SCIENTIFIC AND TECHNOLOGICAL AREAS *
0501 Administration and Management

13 START DATE	14 ESTIMATED COMPLETION DATE	15 FUNDING AGENCY		16 PERFORMANCE METHOD
Feb 87	Oct 89	DN	NA	B. Contract

17 CONTRACT/GRANT
a DATES/EFFECTIVE Feb 86 EXPIRATION Jan 89
b NUMBER * N66001-86-D-1234, DO-006
c TYPE Y d AMOUNT $4,000
e KIND OF AWARD CON f CUM TOTAL $12,000

18 RESOURCES ESTIMATE		a PROFESSIONAL MAN YEARS	b FUNDS (In thousands)
FISCAL YEAR	PRECEDING 87	0.3	25
	CURRENT 88	0.5	12

19 RESPONSIBLE DOD ORGANIZATION 393159
NAME * NAVAL OCEAN SYSTEMS CENTER
Intelligence Dept.
ADDRESS *
San Diego, CA 92152-5000
RESPONSIBLE INDIVIDUAL
NAME HELP, I.WANT(NOSC-99)
TELEPHONE 619-225-1111

20 PERFORMING ORGANIZATION 000000
NAME * EDITORIAL EXPERTS (EDEX)
ADDRESS * 5000 N. Street
Washington, DC 20345
PRINCIPAL INVESTIGATOR (Furnish SSAN if U.S. Academic Institution)
NAME * SMITH,J. (EDEX-NA)
TELEPHONE 212-626-1345
ASSOCIATE INVESTIGATORS
NAME NA
NAME NA

21 GENERAL USE
C-Civilian Application Only

22 KEYWORDS (Precede EACH with Security Classification Code)
(U)CIVAPP Language; (U)CIVAPP.Cost Savings;

23. (U)OBJECTIVE. Issue delivery order to rewrite instructions concerning early-out retirement.

24. (U)APPROACH. The instruction concerning early-out retirement will be rewritten. Resulting product will reduce government costs and improve the efficiency of the retirement system.

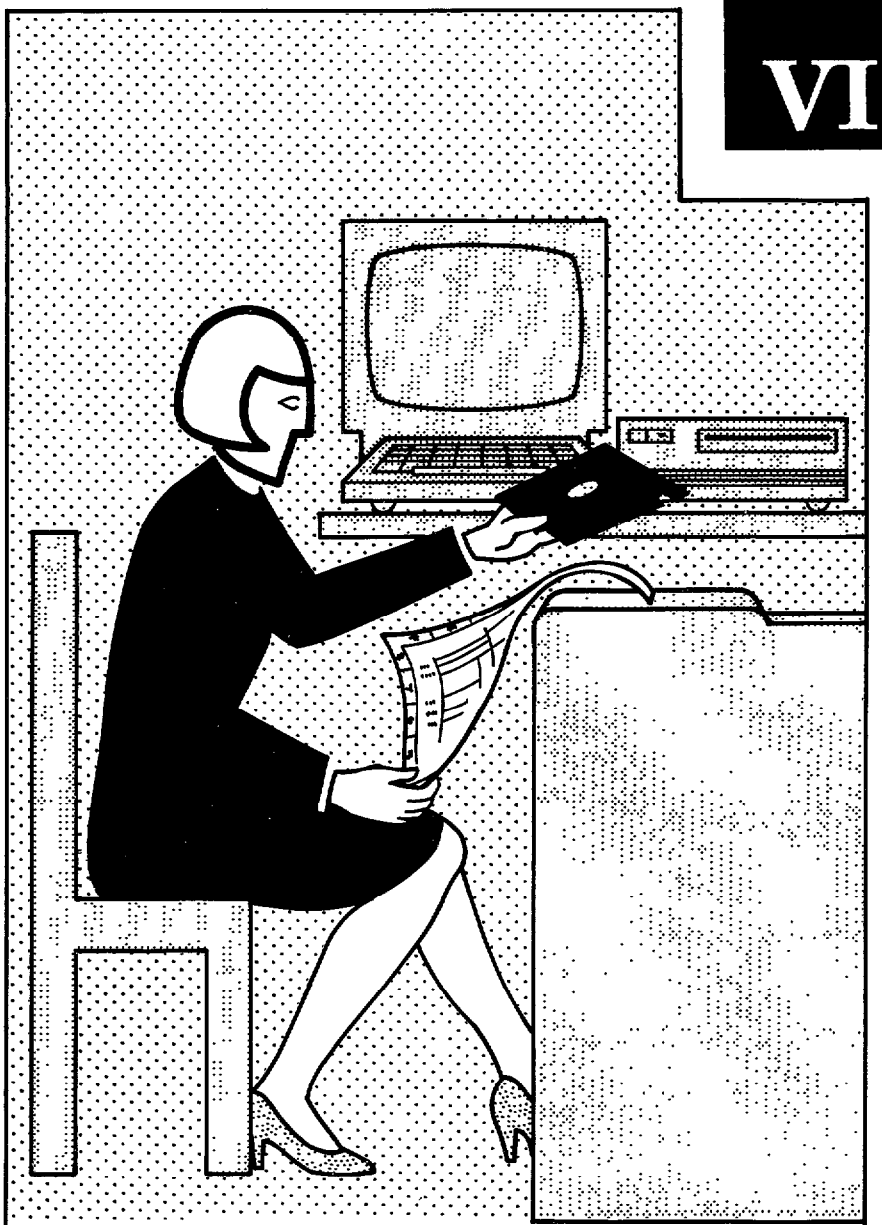
* Available to contractors upon originator's approval

No CG Applies
CLASSIFICATION INFORMATION/GUIDANCE

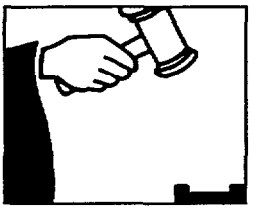
FEB 87 LPS p: None
CLASSIFICATION
UNCLASSIFIED

Figure 85. DD Form 1498 for individual delivery order.

VIII



Special Types of Logistic Data



CHAPTER 8
Special Types of Logistic Data

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PART 1
TECHNICAL MANUALS

What is a technical manual? What are the different kinds of manuals? What are the requirements for manuals for R&D equipment? How does NOSC handle software manuals? How is a manual developed? What do manuals cost? How do I order manuals on a contract? What specifications are used? Can parts of a specification be waived? What about quality assurance?

What Is a Technical Manual?

A publication that provides information for users of equipment, software, weapons, or systems is a technical manual (figure 86). The manual can

- Describe a system or equipment.
- Provide installation, operation, and/or maintenance instructions.
- Provide overhaul instructions.
- List parts.
- Provide test or logistics information or procedures.

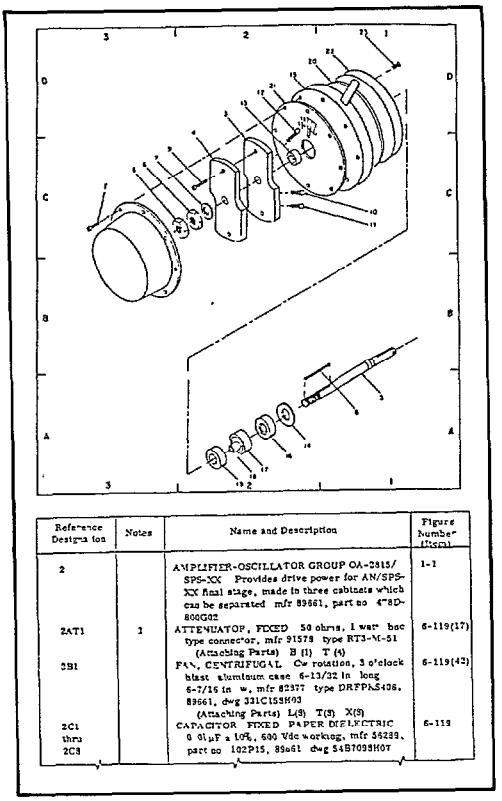
The Navy requires that manuals (both hardware and software) be accurate, comprehensible, and economically produced. They must also be changed or revised as the equipment and procedures are changed and revised. (This latter process is called life-cycle support.)

Kinds of Technical Manuals

Various types of hardware and software technical manuals, or manual products exist. Among the more common are the following:

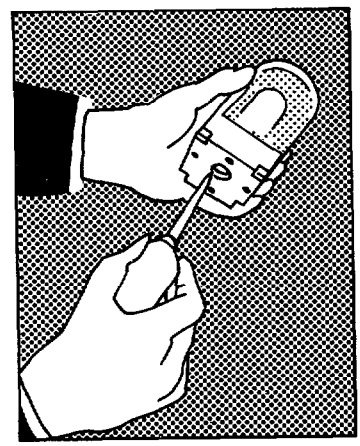
- Standard operation and maintenance manual
- Equipment illustrated parts breakdown
- Functionally oriented maintenance manual
- Computer system operators manual
- Software users manual
- Computer system diagnostic manual
- Software programmers manual
- Firmware support manual
- Computer users manual
- Computer operation manual
- Permanent change pages to a manual
- Revisions to a manual

1. Technical Manuals



Reference Designation	Notes	Name and Description	Figure Number (Item)
2		AMPLIFIER-OSCILLATOR GROUP OA-2815/SPS-XX Provides drive power for AN/SPS-XX final stage, made in three cabinets which can be separated mfr 89661, part no 4"8D-800G02	1-1
2AT1	1	ATTENUATOR, FIXED 50 ohms, 1 watt bnc type connector, mfr 91578 type RT3-M-51 (Attaching Parts) B (1) T (4)	6-119(17)
2B1		FAN, CENTRIFUGAL Cw rotation, 3 o'clock blast aluminum case 6-13/32 in long 6-7/16 in w, mfr 82377 type DRFPKS406, 89661, dwg 331C158H03 (Attaching Parts) L(3) T(3) X(3)	6-119(42)
2C1 thru 2C3		CAPACITOR FIXED PAPER DIELECTRIC 0 01 μF ± 10%, 600 Vdc working, mfr 56289, part no 102P15, 89661 dwg 54B7098H07	6-119

PARTS LIST



INSTALLATION, OPERATION, OR MAINTENANCE INSTRUCTIONS

DESCRIPTION OF A SYSTEM

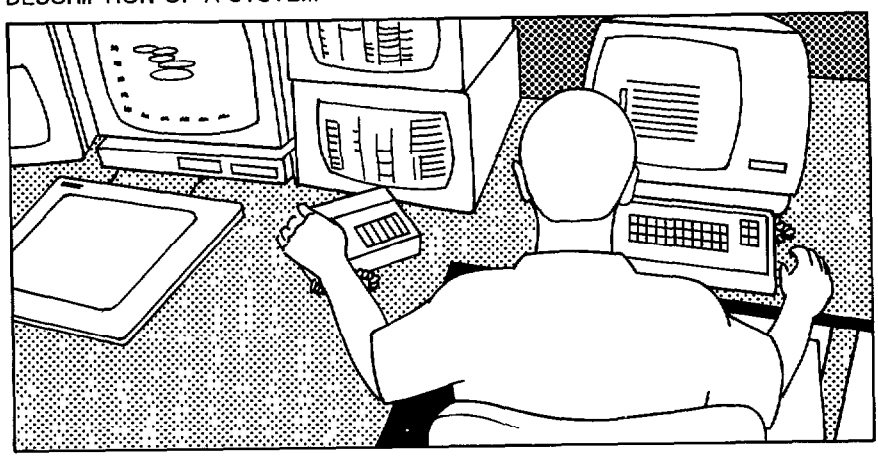
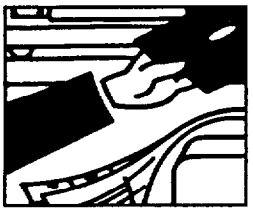


Figure 86. Functions of technical manuals.



Technical Manual Development

Development of a technical manual or a series of technical manuals requires several steps (figure 87). The process begins with a plan and ends with a final manual. The main steps are summarized in the following sections:

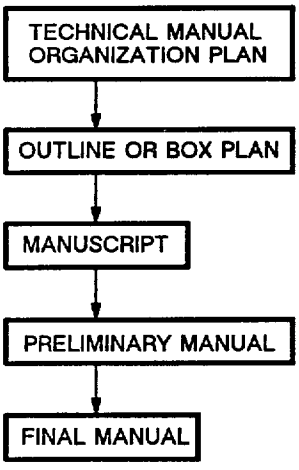


Figure 87. Steps in development of a technical manual.

TECHNICAL MANUAL ORGANIZATION PLAN. Normally prepared when three or more pieces of equipment are involved, a technical manual organization plan (TMOP) defines the scope of each required manual. It also explains the interfaces between and the overlap among the various manuals required for life-cycle support. The TMOP should be available for review at the preliminary design review.

OUTLINE OR BOOKPLAN. An outline or a bookplan indicates the planned content of the manual and lists the procedures to be contained in the manual. The outline or bookplan helps determine the acceptability of the proposed manual in the early stages of development.

MANUSCRIPT. The manuscript is a complete, fully edited, and validated version of the manual. The contractor presents the manuscript to the government for review prior to preparation of the final manual.

PRELIMINARY MANUAL. After inclusion of the government's comments about the manuscript, the preliminary manual is essentially the final manual that is ready for government verification.

FINAL MANUAL. After government verification, the final manual is distributed to the user, often a technician or operator aboard ship. This manual must be adequate and accurate as a life-cycle support element.

Quality Assurance of Manuals

Quality assurance ensures that technical manuals conform to the established technical requirements and achieve satisfactory performance in service. Although stringent quality-assurance requirements may increase your project's costs, less stringent requirements will pose a greater risk to the government. (Figure 88 shows the relationship between the quality-assurance program and the stages of a technical manual's development.)

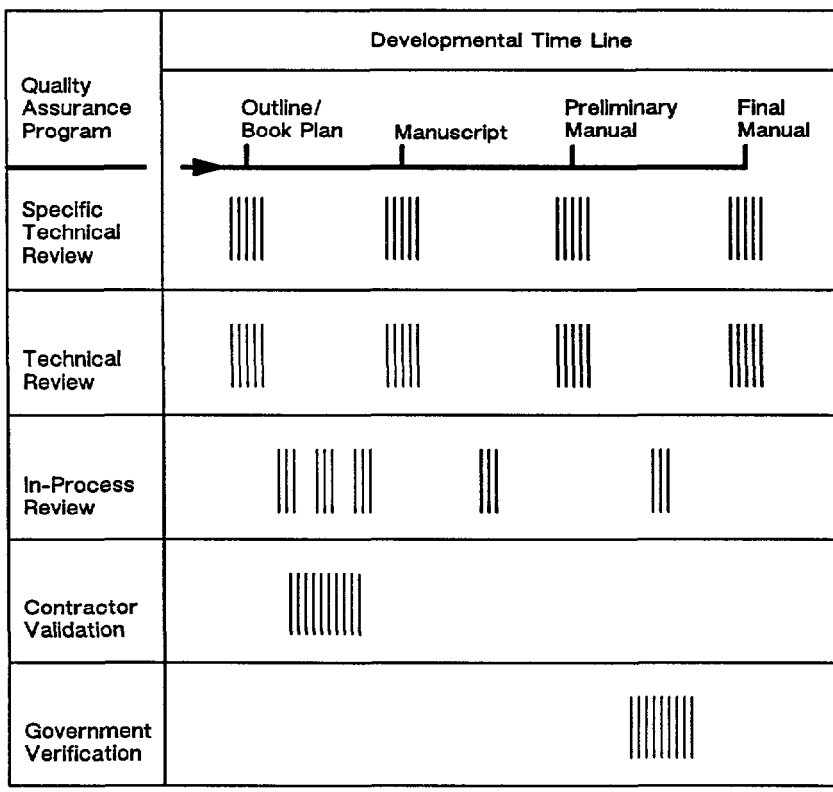
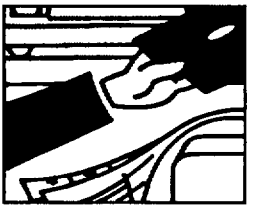


Figure 88. Basic development process for technical manuals. Items such as the development of other logistics support elements, the relationship to training, and problems associated with design change are omitted for clarity.

A quality-assurance program usually consists of the following procedures:

IN-PROCESS REVIEWS. Performed several times during the preparation of the manuscript and preliminary manual, in-process reviews (IPRs) ensure that the manuals conform to contract requirements and the approved maintenance plan, training plan, and provisioning concept. IPRs also ensure that the manual will be delivered on schedule. IPRs are held periodically to provide guidance to the preparing activity, to audit the



effectiveness of the contractor's quality-assurance program, and to review intermediate data products.

SPECIFICATION COMPLIANCE REVIEW. Used to help determine the acceptability of the manual, specification compliance reviews evaluate the style, format, and content of the manual. The emphasis in this review is on the content of the manual.

TECHNICAL REVIEW. Technical reviews are also used to determine acceptability of the manual. This review emphasizes the accuracy of the technical information in the manual.

VALIDATION. During validation, the procedures for which the manual was written are performed on the system or equipment. By performing a validation, the preparing activity demonstrates that the manual is technically adequate and accurate and that the manual complies with all contractual requirements, including specifications. Validation is normally conducted at the preparing activity's facility, but may be conducted at the installation site.

VERIFICATION. Verification is the final quality-assurance review by the government before acceptance of the technical manual. During verification, fleet personnel, who are representatives of the intended users of the manual, test the manual to determine its adequacy and suitability for operating and maintaining the system or equipment. When possible, verification is conducted with production equipment at the installation site.

Cost of Technical Manuals

Expensive to produce, technical manuals usually cost from $300 to $1000 per page. Numerous factors (figure 89) can affect the cost of a manual:

The complexity of the equipment.*

The requirements of the technical manual plan, including quality-assurance efforts.

The kind of technical manual, e.g., standard, functionally oriented maintenance manual (FOMM),** or illustrated parts breakdown (IPB).

The availability of logistics-support-analysis data early in the manual's development effort.

The availability and quality of engineering drawings and other source data.

The complexity and frequency of engineering changes that must be reflected in the manual after initial development of the manual.

---

* *A simple manual for in-house use (category I) will typically cost far less than a similar manual intended for life-cycle support of a piece of equipment used throughout the Navy and subject to systems-command requirements (category II).*

** *The cost of a FOMM is about ten times that of a standard manual.*

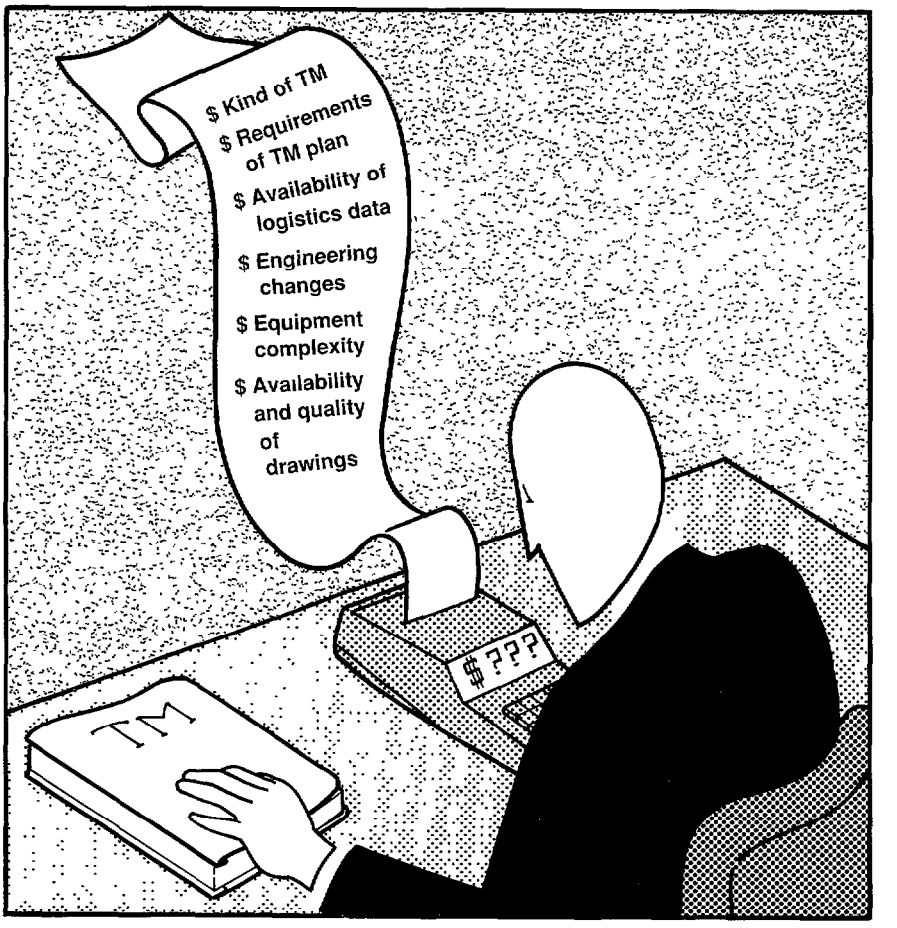


Figure 89. Factors affecting the cost of a technical manual.

The cost of developing technical manuals is part of the overall cost for delivery of an operationally effective system or equipment and must be included in acquisition plans. Hardware and software, including modifications to existing systems and equipment, cannot be procured or installed unless technical manual funding is available.

NOSC's Technical Manual Program

CENTRALIZED MANAGEMENT. Because of the expense and complexity of technical manuals, NOSC has centralized the management of technical manuals within the Publications Branch. All technical manual efforts at NOSC must be coordinated through this group, e.g., assignment

of numbers, liaison with systems commands, and review of proposed contracts.

HARDWARE MANUALS. Because the content, format, and use of hardware manuals differ, NOSC has divided hardware manuals into categories I and II (see figure 90 and table 14).

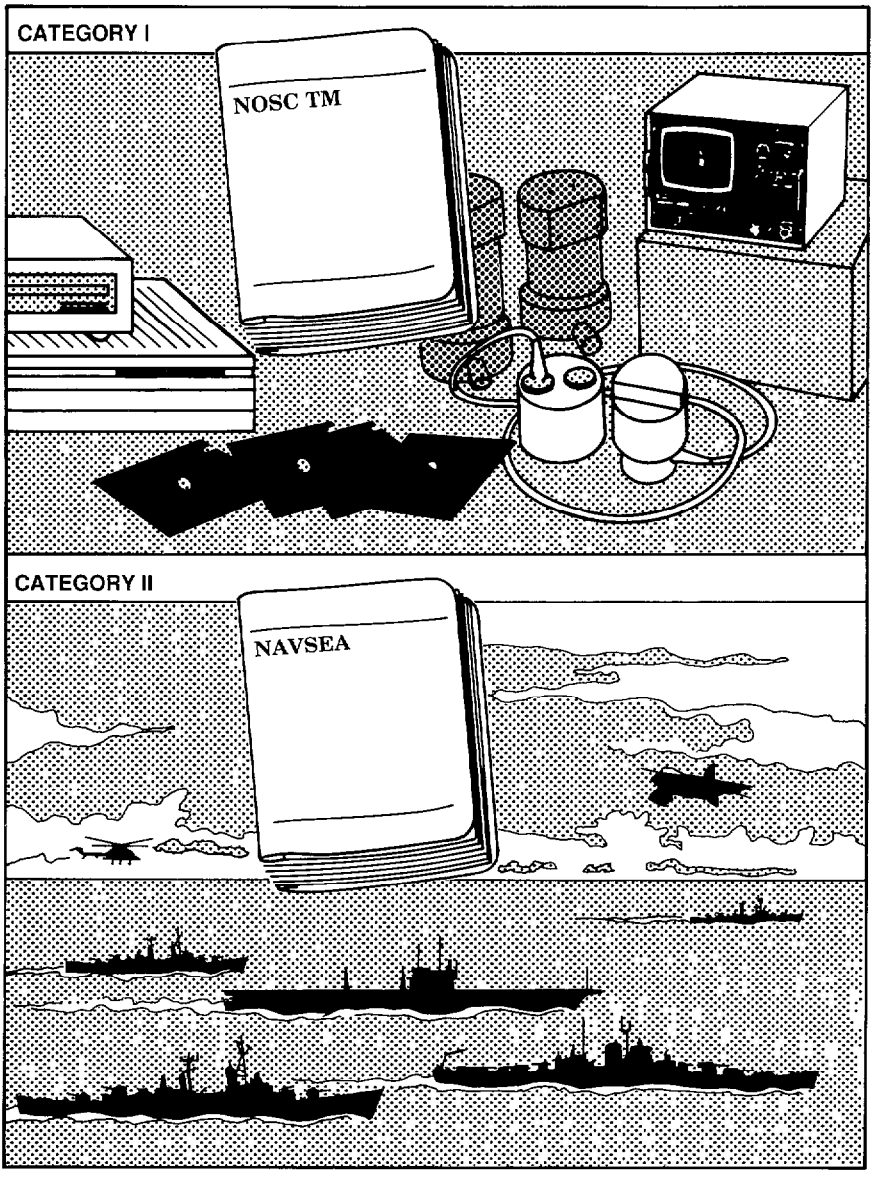


Figure 90. Types of technical manuals at NOSC.

Table 14. Comparison of category I and category II technical manuals.

Category	Type	Characteristics
I	R&D equipment and systems	NOSC TM number
	Software	Use limited to NOSC and sponsor
	Equipment and systems not approved for milestone II	Quality assurance usually not as stringent as for category II
		Management controls usually not as stringent as for category II
		Usually sent to DTIC
II	Fleet or service use	TMINS or other agency number
		Used by fleet personnel
		Formal quality assurance
		Strict management control
		Sent to NPFC

Category I Manuals. Manuals in category I support (1) research-and-development equipment and systems and (2) equipment and systems that have not yet been approved for full-scale engineering development (milestone II).

As category I manuals represent a smaller investment risk than category II manuals, category I manuals are not subject to the same quality-assurance and management controls as are category II manuals. If intended for external distribution, category I manuals are assigned a NOSC technical manual number.

Category I manuals are limited to use by NOSC personnel and sponsors. Their main purpose is for use during test and evaluation of equipment or systems.

Category II Manuals. Consistent with the sponsor's requirements, category II manuals are for fleet or service use. They are subject to more stringent management controls than category I manuals, and formal quality assurance is usually required.

Manuals in category II are assigned a systems-command or other-service technical manual identification number (TMIN).

SOFTWARE MANUALS. Because the Navy does not require that software manuals be subjected to the same type of control as hardware manuals, NOSC treats all software manuals as category I manuals (see table 14).

When intended for fleet or service use, software manuals carry a systems-command or other-agency TMIN. NOSC technical manual numbers are used for all other software manuals intended for external distribution.

TECHNICAL MANUAL NUMBERS

Types of Numbers and Their Uses. All technical manuals to be distributed off-Center must have a number from one of the following three numbering systems:

(1) A NOSC technical manual number.

(2) A technical manual identification numbering system (TMINS) number.

(3) A formal number assigned by another service or agency.

NOSC technical manual numbers are used for category I manuals (both hardware and software manuals). NOSC numbers cannot be used on manuals that will support systems or equipment in fleet or service use.

Category II manuals carry a TMINS number or formal number assigned by another service or agency. TMINS is the only Navy-authorized system for assigning numbers to manuals for fleet or service use.

How to Request a TM Number. Technical manual numbers are assigned after review of the validated manuscript. The Publications Branch is responsible for obtaining all numbers for manuals prepared at or for NOSC, i.e., NOSC TM numbers, TMINS numbers, and other agency numbers. To request a number, submit your manuscript to the Publications Branch along with a completed copy of the NOSC routing-and-approval form. (See figure 4A in chapter I, part 1, the NOSC Form 5605.)

Reasons Numbers May be Withheld. A technical manual number may not be issued if the manual is found to be inadequate for its intended use or if the manual contains inaccurate information. For example, consider the following cases:

SPAWAR will not assign a TMINS number if the manual fails a specification compliance review.

NAVSEA will not assign a number if a NAVSEA-prepared technical manual contract requirement (TMCR) was not used for the procurement action.

QUALITY-ASSURANCE REQUIREMENTS. NOSC tailors quality assurance for technical manuals to meet the requirements of the specification and the sponsor and to ensure that unnecessary requirements are not imposed.

Category I Manuals. A technical review may be all that is necessary for a category I manual. This review should be conducted by a project engineer. If the equipment is available, hands-on validation should also be considered.

Category II Manuals. Because inadequate or inaccurate information can cause considerable damage to systems and equipment, quality-assurance requirements are more stringent for category II manuals than for category I manuals.

Unless waived or not required by your sponsor, include the following quality-assurance functions in your technical manual project:

In-process reviews

Quality-program review*

Validation

Verification

If you believe that any of these quality-assurance requirements should be waived, contact the Publications Branch. Publications personnel will prepare a formal request for waiver to be sent to your sponsor.

ACQUISITION OF TECHNICAL MANUALS

Ordering Procedures for Hardware Manuals. Hardware technical manuals (categories I and II) must be ordered as separate line items on contracts and must be based on an approved technical manual contract requirement (TMCR). (See figure 91 for a sample TMCR.) A DD Form 1423 (contract data requirements list, shown as figure 92) is prepared as a separate exhibit in the contract package and is used to invoke the attached TMCR. Use this method to order technical manuals, changes, revisions, and supplements.

TMCRs have several purposes:

Defining the specific requirement.

Invoking the specifications to the extent required by the individual procurement.

Establishing a tailored quality-assurance program.

Defining the deliverable and delivery requirements for interim and final deliveries of the TM product.

Identifying government-furnished information.

Establishing basic requirements for marking the manual, e.g., the distribution statement, export-control notice, and classification markings.

---

* *Used with contracts, a quality-program review is the government's evaluation of the contractor's compliance with the quality-assurance program.*

Attachment ___ to Exhibit B

TECHNICAL MANUAL CONTRACT REQUIREMENT (TMCR)

Technical Manual/Technical Order requirements contained herein have been cleared for use by OMB No 0704-0188, expiration date of 30 June 1989

February 9, 1989 TMCR No NOSC-H-22222

Requested By E Climenson DMO Log No 90001

Code 9612

Phone 553-4816

Prepared By Naval Ocean Systems Center (619)553-4816
Code 9612 AV 553-4816
San Diego, CA 92152-5000

Contractor

Contract No

Subject

Operation and Maintenance Instructions, Computer, AN/XYZ-1

APPROVALS

Conforms to NOSCINST 4160 1A _____ Date _____
(Code 9612)

Conforms to NOSCINST 4000 1D _____ Date _____
(Code 9211)

SCOPE This TMCR is for use in the development of subject technical manual(s) It contains preparation and delivery requirements for the technical manual (TM) products cited in paragraph 1 1 Associated non-product data items identified in paragraph 1 2 are cited in the Contract Data Requirements List (CDRL), Exhibit A to this contract

1

Figure 91. Typical TMCR for NOSC technical manual project.

CONTRACT DATA REQUIREMENTS LIST

ATCH NR _____ TO EXHIBIT B

TO CONTRACT PR N66001-89-D-0000

CATEGORY _____

SYSTEM ITEM Computer AN/XYZ

CONTRACTOR _____

1 SEQUENCE NUMBER	2 TITLE OR DESCRIPTION OF DATA / 3 SUBTITLE	4 TECHNICAL OFFICE	10 FREQUENCY	12 DATE OF 1ST SUBMISSION	14 DISTRIBUTION AND ADDRESSEES (Auditor - R gal - C ; R jan C ; e)
4 AUTHORITY (Data Item Number)	5 CONTRACT REFERENCE	7 DD250 REQ / 8 APP CODE (A) / 9 INPUT TO IAC (X)	11 AS OF DATE	13 DATE OF SUBSEQUENT SUBM EVENT ID	
1 A001	2	NOSC Code 9612	10 **	12 **	14 **
4 TMCR No. NOSC-H-22222	5 CLIN	7 ** / 8 ** / 9	11	13 **	15 TOTAL **

16 REMARKS

** Manual shall be in accordance with the attached Technical Manual Contract Requirement (TMCR), Attachment 1

1	2	6	10	12	14
4	5	7 / 8 / 9	11	13	15 TOTAL

16 REMARKS

PREPARED BY	DATE	APPROVED BY	DATE

NOSC-SD 4000/9 (REV 12-85)

DD FORM 1 JAN 75 1423

PAGE ___ OF ___ PAGES

Figure 92. DD Form 1423 used to invoke TMCR.

Tailoring sheets keyed to the content specification can also be attached to the TMCR. The tailoring sheets waive paragraphs of the specifications that are not applicable to the specific procurement (figure 93).

The Publications Branch either prepares your TMCR or obtains it from your sponsor. (NAVSEA is presently the only command that mandates use of its own TMCRs, which serve as the specifications for its procurements.) To have the Publications Branch prepare or obtain your TMCR, fill out NAVSEA Form 9086/12 for NAVSEA procurements or NOSC Form SD 5600.16 for NOSC procurements. (See figures 94 and 95A and B.)

After TMCRs have been issued, they cannot be changed without written approval of the issuing agency. However, if your requirements change and affect your technical manuals, the Publications Branch will have the required changes made to any TMCR.

Ordering Procedures for Software Manuals. Software manuals are ordered as data items on the DD Form 1423 (figure 96). TMCRs are not required for software manuals.

Commercial Manuals. If they meet Navy requirements, commercial, off-the-shelf manuals can be used to provide operation, installation, and maintenance information for equipment and systems. However, if more than 10 percent of the manual requires revision, it cannot be used and you must have a technical manual prepared. Order commercial hardware manuals by using a TMCR; order software manuals as a data item on the DD Form 1423. (Note that these requirements do not apply to commercial manuals provided by a contractor for use with NOSC equipment, e.g., personal computers.)

Certification. You should include certification as part of the quality-assurance portion of your acquisition for hardware and software manuals. Certification is the process by which the contractor attests in writing to the completion of specified performance and data requirements. For example, a typical certification requirement is for the contractor to certify that the manual has been successfully validated.

ATTACHMENT 1 TO TMCR NOSC-H-

MIL-M-15071H TAILORING DATA

Type II Requirements

3.5 7.2 11 1 Test programs

3 5 7 2 12 Troubleshooting dependency diagrams

3.5 7 2.12 1 Fault logic diagrams

3.5.7.2.12.2 Troubleshooting - maintenance dependency - matrix chart

3.5.8 Chapter 8, Corrective Maintenance

3.5 8 1 Introduction

3.5.8 2 Section I, Adjustments and alinement

3 5 8 3 Section II, Repair

3 5 8 4 Supporting illustrations and data

3.5.9 Chapter 7, Parts List

3 5 9.1 Introduction

3.5 9 2 List of major components or major units

3.5.9.3.2 Parts list

3.5 9 3 2.1 Parts listing (requirements)

3 5 9 4 List of common item descriptions

3.5 9.5 List of attaching hardware

3 5.9.6 List of manufacturers

3.5 9 7 Parts location illustrations

3 5 9.7 1 Criteria for illustrations

3 5 9 7 2 Exploded views

3.5 9 7 3 Line drawings and photographs

3 5 9 7 4 Printed-circuit board

3.5.10 Chapter 8, Installation

3.5 10 1 Installation drawings

3 5 10 2 Site or installation location information

3 5 10 3 Reference publications

3 5 10 4 Tools and materials required for installation

3 5 10.5 Unpacking and repacking

3 5.10.6 Preparation of foundations

3.5.10 7 Input requirements

3.5.10 8 Installation procedures

3.5.10 9 Installation checkout

3.5.10.9.1 Phase 1 - Installation inspection and pre-energizing procedures

3.5 10 9 2 Phase 2 - Initial turn on and preliminary test

3.5 10 9.3 Phase 3 - Installation verification test

3 5 10 9.3 1 Test procedure

3 5 10.9.3 2 Installation standards summary sheet

3.5.11 Type IIS and type IIX manuals

GENERAL

3.6 [WAIVED] Technical contents for system manuals

3.7 Format

3.8 Production

3 9 [WAIVED] Applicability of manuals

3 10 [WAIVED] Changes and revisions

3.11 [WAIVED] Approval and acceptance

3 12 [WAIVED] Quantity and distribution

3.13.1 Book plan

3.13.2 [WAIVED] Quality program — Quality assurance shall be in accordance with MIL-M-85337 to the extent set forth by the TMCR.

3.13 3 [WAIVED] Preliminary (review) manual (type I)

3 13 4 [WAIVED] Manuscript review (types II, IIS, IIX, and III)

3.13 5 [WAIVED] Preliminary manual (types II, IIS, IIX, and III)

3.13.6 Reproducible copy

3.13.7 [WAIVED] Photolithographic negatives

3.13 8 [WAIVED] Printing and binding

3.13 9 [WAIVED] Replenishment material

3.13 10 [WAIVED] Status reports

3 14 Rejection Criteria

Comments

END OF TAILORING DATA

Figure 93. Sample tailoring sheet for hardware technical manual.

NAVSEA TECHNICAL MANUAL ACQUISITION REQUIREMENTS CHECKLIST (TMARC) Sheet 1 of ____

INSTRUCTIONS: 1 Provide the required info in blocks 1 thru 10 Fill out blocks 11 thru 22, following the instructions given.
2. Use Sheet 4 to detail any tailoring to the TMCR or TMSR
3. For assistance or further information telephone (NSWSES) AV 360-5523/4997, (805) 982-5523/4997.
4 For additional guidance see Procedure No 2 in S0005-AA-PRO-010/TMMP

NSDSA Task Mgr Date TMCR/TMSR No.

1. FROM (Enter mailing address of Procuring Activity)

2. Name of TMCR/TMSR Requester

Code | Date

Phone No

4. In-Service Eng Agent (ISEA)/Cognizant Tech Act. (CTA)

Code | Phone No.

3. TO
COMMANDING OFFICER
NAVAL SHIP WEAPON SYSTEMS ENGINEERING STATION
CODE 5H34
PORT HUENEME, CA 93043-5007

5. Tech Man Maint Act (TMMA)

Code | Phone No

7. Name, Address, and ZIP Code of TM Preparing Activity

6. Life Cycle Manager (LCM)

Code | Phone No

8. Tasking Document/ Contract Number

SYSTEM/EQUIPMENT IDENTIFICATION

9. Descriptive Information (Nomenclature)

CAGE (Commercial And Govt. Entity)/Mfr Name and Address

Part/Model/Type No./Mk/Mod

APL No

10. Select either a. or b.

☐ a. The TM will be prepared by a contractor (requires a Technical Manual Contract Requirements (TMCR))

☐ b. The TM will be prepared by a government activity (requires a Technical Manual SEATASK Requirements (TMSR))

11 Is this an amendment to a previous TMCR or TMSR? ☐ YES ☐ NO

If YES, then provide the existing TMCR or TMSR No _____

12. Is this an equipment/system acquisition? (Stand-alone TMCR or TMSR) ☐ YES ☐ NO

If YES go to top of Sheet 2 , if NO continue with Number 13

13 Is this a ship acquisition? (Master/Subordinate TMCRs) ☐ YES ☐ NO

If YES, provide the following information If NO, go to top of Sheet 2.

a Attached is the approved Ship Specification Section 086 for

Ship Name _____ Hull No _____ Class _____

☐ Lead ☐ Follow-On

b Fill out a separate Sheet 2 and 3 for each subordinate technical manual type TMCR or TMSR required

NAVSEA 9086/12 (REV 3/88) 0116-LF-090-8670

Figure 94. NAVSEA Form 9086/12 used to request NAVSEA TMCR.

TECHNICAL MANUAL CONTRACT REQUIREMENTS CHECKLIST

INSTRUCTIONS
1. This form is not applicable to requirements for NAVSEA manuals
2. Submit this form to Code 9612 for preparation of the Technical Manual Contract Requirement (TMCR)

REQUESTER	CODE	PHONE	DATE	STUB NO (if known)	DMO LOG NO (if known)

CONTRACTOR	CONTRACT NO	TASK

SYSTEM/EQUIPMENT IDENTIFICATION

NOMENCLATURE	PART MODEL TYPE NO MK MOD

DESCRIPTION ☐ SYSTEM ☐ EQUIPMENT

HARDWARE MANUAL	SOFTWARE MANUAL	TYPE ISSUE
☐ Standard Technical Manual	☐ Computer System Operator's Manual	☐ New Manual
☐ Standard Technical Manual with Illustrated Parts Breakdown	☐ Software User's Manual	☐ Change Pages
☐ Illustrated Parts Breakdown	☐ Computer System Diagnostic Manual	☐ Update Revision
☐ Overhaul and Repair Manual	☐ Software Programmer's Manual	☐ Complete Revision
☐ Commercial Off the Shelf Manual	☐ Firmware Support Manual	☐ Nonsuperceding Revision
☐ Commercial Off the Shelf Manual with Supplementary Data	☐ Other (Define)	☐ Supplement
☐ Functionally Oriented Maintenance Manual		☐ Other (Define)
☐ Other (Define)		
		(Identify basic manual to be changed/revised on back)

DELIVERABLE REQUIREMENTS

DELIVERABLE	DELIVERY SCHEDULE	GOVERNMENT REVIEW	MARK FOR (CODE)	QUANTITIES	
				COPIES	REPRO
☐ Outline/Book plan					
☐ Manuscript					
☐ Preliminary					
☐ Final (Camera Ready)					
☐ Electronic Media					

NOSC SD 5600 16 (6 89)

CONTINUE ON REVERSE

Figure 95A. NOSC Form SD 5600.16 used for requesting a NOSC TMCR (page 1 of 2). Continued

ELECTRONIC MEDIA REQUIREMENTS

ACQUISITION DATA

SPONSORING COMMAND AGENCY

☐ SPAWAR ☐ NAVAIR ☐ USMC ☐ ARMY ☐ AIR FORCE ☐ NAVSEA ☐ Other _____

TECHNICAL MANUAL CATEGORY (See NOSC INST 5600.4)	SPECIFICATION TAILORING SHEET ATTACHED?
☐ Category I ☐ Category II	☐ Yes ☐ No

QUALITY ASSURANCE FUNCTIONS

☐ Formal Quality Assurance Program
☐ In Process Reviews
☐ Contractor Validation
☐ Government Verification
☐ Guidance/Quality Planning Conferences
☐ Adequacy Reviews
☐ Quality Program Reviews
☐ Quality Reviews

GOVERNMENT FURNISHED INFORMATION/MATERIAL

COMMENTS/ADDITIONAL INFORMATION

FOR CODE 9612 USE ONLY

COMMENT

WAIVERS

TMCR NUMBER	DATE TMCR ISSUED	BY
NOSC		

NOSC SD 5600 16 (6 89) (BACK)

Figure 95B. NOSC Form SD 5600.16 used for requesting a NOSC TMCR (page 2 of 2).

CONTRACT DATA REQUIREMENTS LIST

ATCH NR _____ TO EXHIBIT A

TO CONTRACT PR N66001-89-D-000

CATEGORY _____

SYSTEM ITEM _____

CONTRACTOR _____

1 SEQUENCE NUMBER	2 TITLE OR DESCRIPTION OF DATA / 3 SUBTITLE	6 TECHNICAL OFFICE	10 FREQUENCY	12 DATE OF 1ST SUBMISSION	14 DISTRIBUTION AND ADDRESSEES (Addressee - Regular Copies Repro Copies)
4 AUTHORITY (Data Item Number)	5 CONTRACT REFERENCE	7 DD250 REQ / 8 APP CODE A1 / 9 INPUT TO IAC X1	11 AS OF DATE	13 DATE OF SUBSEQUENT SUBM EVENT ID	
1 A001	2 Software User's Manual / 3	NOSC Code 9612	10 2TIME	12 180DAC	14 NOSC
4 DI-MCCR-80019A	5 SOW Para. 4.0	7 DD / 8 D / 9	11	13 30DARC	M/F Code 9612 4/1 M/F Code 9211 1/0

16 REMARKS

Blk 8 A Distribution Statement shall be applied to the deliverable in accordance with Attachment 1 to the DD1423.

Blk 12. NOSC will comment within 30 days after receipt of initial submission. The Contractor shall incorporate all NOSC comments into the final delivery.

Blk 14· Provide original typed text and final art as repro.
* Deliver repro only with final submission.
** Final copy only to Code 9211.

15 TOTAL 5/1

1	2 / 3	6	10	12	14
4	5	7 / 8 / 9	11	13	

16 REMARKS

15 TOTAL

PREPARED BY	DATE	APPROVED BY	DATE

NOSC-SD 4000/9 (REV 12-85)

DD FORM 1 JAN 75 1423

PAGE ___ OF ___ PAGES

Figure 96. DD Form 1423 used to order a software manual.

SPECIFICATIONS. NOSC requires that all technical manual products be developed according to an approved DoD technical manual specification for content and format. The most common of these specifications are listed here:

DoD-STD-2167

DoD-STD-7935

MIL-M-15071H

MIL-M-38784B

MIL-M-85337

REVIEW AND APPROVAL OF MANUALS. If your manual (hardware or software) will be sent off-Center, you must have the manual reviewed and approved before printing and distribution. Use NOSC Form 5605 for each manual submitted for review. Each manual must be reviewed as follows:

For classified manuals: Branch and division heads and the Information Security Office.

For unclassified manuals: Branch and division heads, the Information Security Office, and the Public Affairs Office.

In addition, the Publications Branch will review the manual for compliance with NOSC policies and TMCR requirements.

PRINTING, DISTRIBUTING, AND STOCKING. The Publications Branch is the central point of contact for printing and distributing technical manuals. Publications personnel provide the mailing labels for all manuals except those sponsored by NAVSEA. The Naval Sea Data Support Activity (NSDSA) prepares distribution lists and mailing labels for NAVSEA technical manuals.

Manuals for fleet or service use are usually stocked at the Naval Publications and Forms Center (NPFC) in Philadelphia. The printing costs for the initial stock must be paid by the project. Subsequent restocking costs are paid by the cognizant systems command.

A supply of NOSC technical manuals is maintained by the Publications Branch. Some NOSC technical manuals are also sent to the Defense Technical Information Center.

WAIVERS TO MANUAL REQUIREMENTS. Because we work in an R&D environment, your technical manual requirements may be unique and the Navy's or NOSC's requirements may be inappropriate. In these cases, you can request a waiver from either NOSC or Navy requirements by using the following procedures:

Category I manuals: Submit a request for waiver via your department head to the Publications Branch for review.

Category II manuals: Submit your request for waiver from requirements imposed by the systems command or other sponsoring agency to the Publications Branch for review. Publications personnel will review the request and submit the requested waiver to the appropriate technical manual management authority.

Where to Get Help at NOSC

To determine a budget for a technical manual project: The Publications Branch.

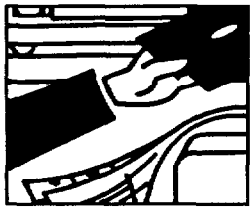
To determine the review process for a technical manual: Your branch or division heads or the Publications Branch.

To determine if a manual should be a category I or category II manual: The Publications Branch.

To obtain a technical manual number: The Publications Branch.

To have a technical manual contracts requirement (TMCR) prepared: The Publications Branch.

To have portions of a specification waived: The Publications Branch.



PART 2
SOFTWARE

What are my responsibilities in regard to software developed for NOSC? How can I release software to the public? Does NOSC send software to DTIC? How does NOSC handle classified software? Does software have distribution statements? Where are classification markings placed on classified software? Where are the distribution statements placed?

Reporting Requirements

After successful completion of a software project, i.e., your software can be used by either DoD agencies or the public, you must announce the resulting software through the Defense Technical Information Center (DTIC). This requirement applies to both classified and unclassified software (both application and general-purpose utility software) and the supporting documentation that permits other organizations to use the software.

You have two options to meet this requirement:

Announce the availability of the software through DTIC.

Provide the software and documentation for release through DTIC.

ANNOUNCING AVAILABILITY OF SOFTWARE. To announce the availability of the software, NOSC provides DTIC with only a completed SF 298 (figure 97). The software and supporting documentation are not sent to DTIC.

To make this announcement, you need to complete a NOSC routing-and-approval form (NOSC Form 5605) and an SF 298, and forward the two forms through the appropriate review cycle:

For classified manuals: Branch and division heads and the Information Security Office.

For unclassified manuals: Branch and division heads, the Information Security Office, and the Public Affairs Office.

(For the SF 298, provide only draft information. An editor in the Publications Branch will fill out the final form.)

After the routing-and-approval form has been signed, the Publications Branch will assign a NOSC technical document (TD) number to your software and its supporting documentation and prepare the final SF 298 for transmission to DTIC.

Although we do not provide DTIC with the software or its supporting documentation, you must give the Publications Branch a copy for archival purposes.

2. Software

REPORT DOCUMENTATION PAGE

Form Approved OMB No 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response Including the time for reviewing instructions searching existing data sources gathering and maintaining the data needed and completing and reviewing the collection of information Send comments regarding this burden estimate or any other aspect of this collection of information Including suggestions for reducing this burden to Washington Headquarters Services Directorate for Information Operations and Reports 1215 Jefferson Davis Highway Suite 1204 Arlington VA 22202-4302 and to the Office of Management and Budget Paperwork Reduction Project (0704-0188) Washington DC 20503

1 AGENCY USE ONLY *(Leave blank)*	2 REPORT DATE January 1989	3 REPORT TYPE AND DATES COVERED Final Jan 1988 to Dec 1988
4 TITLE AND SUBTITLE Projection Pursuits for Cluster Analysis		5 FUNDING NUMBERS PE33906N PR–CD59 WU–ICCD5 900
6 AUTHOR(S) A B Jones and X. Y Smith		
7 PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Ocean Systems Center San Diego, CA 92152-5000		8 PERFORMING ORGANIZATION REPORT NUMBER NOSC TD 000X
9 SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Chief of Naval Operations Washington, DC 20350		10 SPONSORING/MONITORING AGENCY REPORT NUMBER
11 SUPPLEMENTARY NOTES		
12a DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited		12b DISTRIBUTION CODE

13 ABSTRACT *(Maximum 200 words)*

In this report, projection pursuit is examined to uncover clusters in a high-dimensional data set by mapping them to a plan Results are given and conclusions drawn.

14 SUBJECT TERMS			15 NUMBER OF PAGES 16 PRICE CODE
17 SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18 SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19 SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20 LIMITATION OF ABSTRACT Unlimited

NSN 7540-01 280-5500 Standard form 298

Figure 97. Completed SF 298 reporting software to DTIC.

RELEASE OF ENTIRE PACKAGE. If you want to send the entire package, including the documentation and the software, complete the routing-and-approval form (NOSC Form 5605) and forward the entire package through the appropriate review cycle. The Publications Branch will transmit the information to DTIC, after assigning a TD number and preparing an SF 298.

When you use this option and send the entire package to DTIC, NOSC has two requirements:

> You can send only software that has been completely tested, documented, and appropriately validated.
>
> You must avoid violating contractual or other restrictions concerning the use of the software, the sites where the software may be installed, and other application constraints.

DTIC also has certain requirements concerning the software package:

> Provide the software on a 9-track, single-reel tape (6250 bpi) with single end-of-file (EOF) between files and EOF after the last file.
>
> Provide information on the maximum block size and the parity.
>
> Include a statement of terms and conditions for use of the software (if necessary).
>
> State whether the software can be placed on a minireel.

If you have problems with any of these requirements, contact the Publications Branch.

Distribution of Software Through DTIC

If we have supplied DTIC with only an SF 298, DTIC will forward to NOSC or the controlling office all requests for copies of the software or its supporting documentation. If the request is approved, then NOSC or the controlling office supplies the requester with the appropriate software or documentation.

If we have supplied DTIC with both the software and the supporting documentation, DTIC will supply both the software and the documentation to qualified requestors. (This is done after export-control restrictions, distribution limitations (classified and unclassified software), and need-to-know restrictions (classified software) have been satisfied.)

Software Revisions

If revisions are made to the software or its documentation, either a new SF 298 or the revised software package and documentation must be submitted to DTIC. In either case a new routing-and-approval form (NOSC Form

5605) must be completed. The package will, however, retain the same TD number.

Public-Release Software

There may be times when you want to have your software made available to the general public, for example, release to a users' group. In these cases, you must have the software and its supporting documentation cleared for public release.

After the information has been cleared, the Publications Branch will forward the software and its supporting documentation to DTIC, which in turn, will send the package to the National Technical Information Service (NTIS). NTIS is the agency authorized to sell software to the general public (domestic) and to foreign governments, organizations, and individuals. By agreement with DoD, NTIS will *not* sell this software to U.S. business firms or foreign governments, organizations, or individuals for use in foreign contracts. These requests are referred to the Navy.

When NTIS sells the software, it ensures that

> The software will not be published for profit or in any manner offered for sale to the government.
>
> The government owns the results, if the software is modified or enhanced by using government funds.
>
> The software package, if used in contracts with the government, does not result in a charge to the government.

What Software Should be Reported

To determine if your software should be reported to DTIC, answer the following questions (figure 98). A positive response to any question indicates that the information should be made available to qualified users.

> Will the software be distributed to organizations other than the sponsor?
>
> Is the software of immediate interest to DoD laboratories, contractors, or academic institutions?
>
> Is the preliminary version of the software of value before the final software is available for distribution?
>
> Does the software represent the results of a single project, task, work unit, contract, grant, or closely related effort?

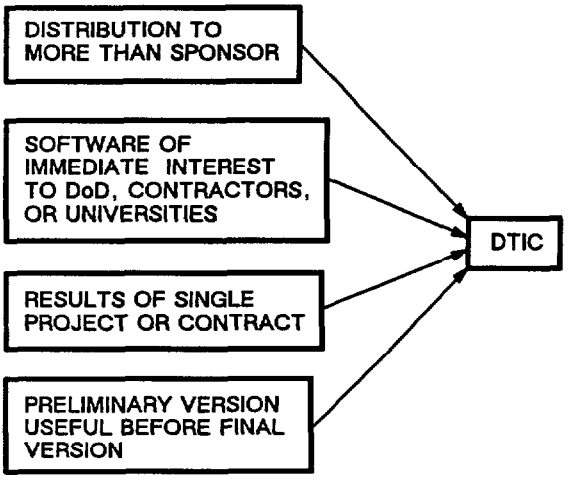


Figure 98. Reasons for submitting software to DTIC.

Distribution Statements and Classified Software

DISTRIBUTION STATEMENTS. Distribution statements must be assigned to all software that is sent off-Center. If the software will only be sent to your sponsor, use the following statement:

> Do not distribute to DTIC or other data depositories.
>
> AND
>
> Distribution authorized to DoD components only; premature dissemination; (date of determination). Other requests shall be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

If the software will have a wider off-Center distribution, a formal distribution statement must be used, and the software must be formally reviewed. The distribution statements are discussed in appendix A, and the review procedures are as follows:

> For classified software: Branch and division heads and the Information Security Office.
>
> For unclassified software: Branch and division heads, the Information Security Office, and the Public Affairs Office.

(For more information see chapter V, part 1, "Distribution Statements.")

The distribution statement and, if necessary, the export-control notice must appear on the first and last screens of the software and the outside of the magnetic-tape reel.

CLASSIFICATION MARKINGS. The first and last screens of your software must show the overall classification level, i.e., confidential, secret, or top secret, of the software. The first screen also shows all associated classification markings, i.e., source document, downgrading and declassification dates, date of origin, office of origin, warning notices, and intelligence control markings.

Except for the first and last screens, the overall classification level is not marked on the individual screens.

Mark the outside of the magnetic-tape reel to show the overall classification level and the associated classification markings.

Where to Get Help at NOSC

To determine if your software should be released to DTIC: Your branch or division head or the Publications Branch.

To answer questions concerning distribution statements on software: Your branch or division head or the Publications Branch.

To answer questions concerning classified software: The Information Security Office.

To have supporting documentation prepared for your software: The Publications Branch.

To submit software to DTIC: The Publications Branch.

To answer questions concerning DTIC's format for submitting software: The Publications Branch.

PART 3
ENGINEERING DRAWINGS

What is an engineering drawing? What are the drawing levels? How do I decide what level to use? How are drawings marked for classification purposes? What about distribution statements? What reviews are required? How do I get a drawing number? How do I contract for drawings?

What Is an Engineering Drawing?

Engineering drawings (figure 99), the designer's primary means of communication, visually disclose the form and function of an item, e.g., the size, shape, and material. Drawings are prepared according to either industry or military standards; at NOSC, NOSC TD 714, "NOSC Drawing Requirements Guide," serves as the standard for most drawings.

Levels of Drawings

DoD recognizes three categories of drawings—level 1, level 2, and level 3. Within the three categories are 46 different types of drawings, e.g, control drawings, formulation drawings, and matched part drawings.*

The drawing levels can be defined as follows:

> Level 1 drawings: Conceptual or development design drawings used to evaluate how an engineering concept meets the stated requirements.
>
> Level 2 drawings: Production prototype and limited production drawings which are used when a production prototype or a limited production model is to be manufactured.
>
> Level 3 drawings: Production drawings that allow a manufacturer to produce items that are interchangeable with the original design. When these drawings are done correctly, additional design effort and design data are not required, and the manufacturer does not have to consult the design activity for information.

The three drawing levels are defined within a time-phased, activity-coordinated program whose purpose is to minimize the number and cost of drawings while ensuring an adequate level of design disclosure. The numbers and types of drawings increase as the design process progresses.

To select the appropriate drawing level, use the following guidelines:

> Consider who will need the information contained in the drawing, e.g., production personnel, project engineer, or maintenance personnel.
>
> Use the lowest level necessary to communicate the information to the designated audience.

---

* *For a complete listing, refer to DoD-STD-1000.*

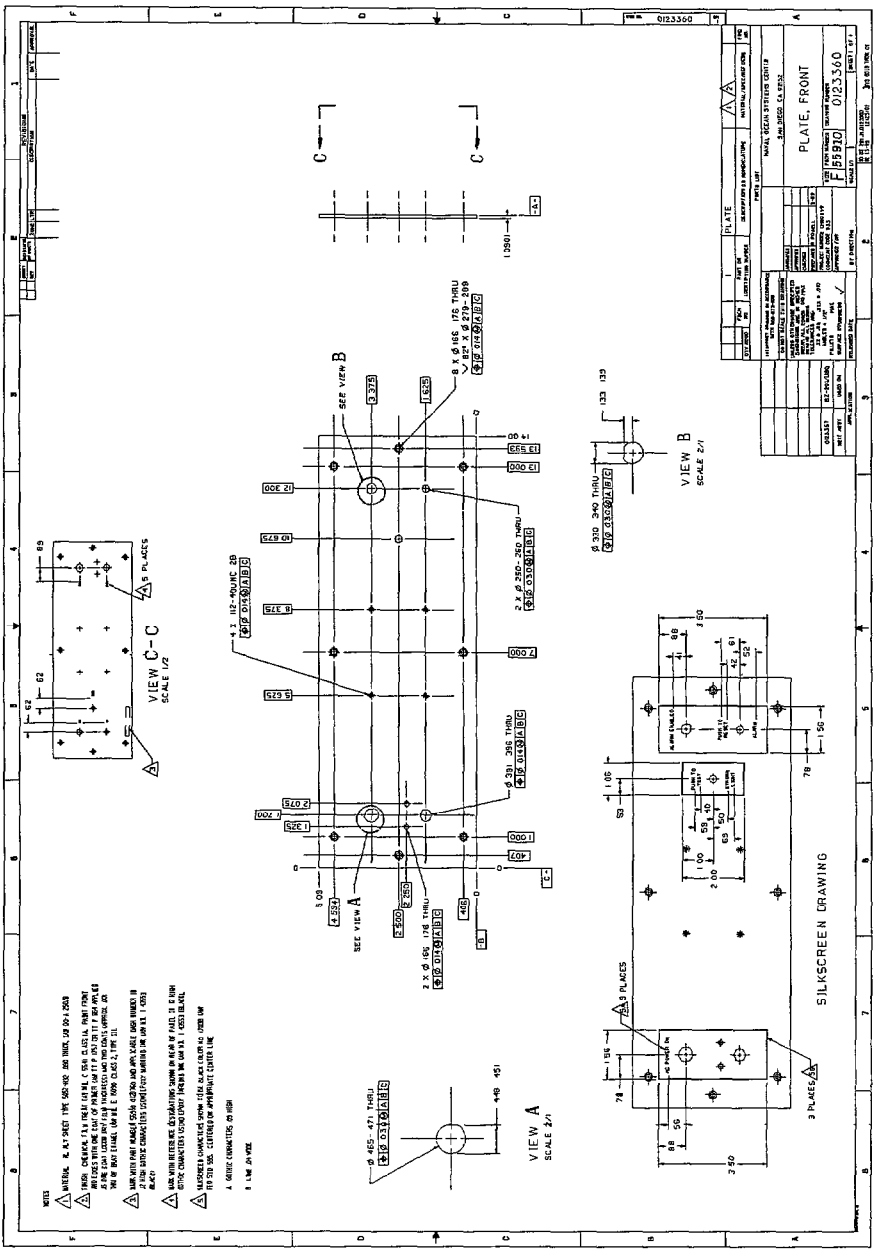


Figure 99. Sample of an engineering drawing.

Remember that design features subject to change require a less thorough disclosure than those which are firmly established and unique to the design.

NOSC Policy

At NOSC, overall responsibility for engineering drawings resides with the project manager. However, two Center branches—the Computer-Aided Design and Documentation Branch and the Production Support Branch—are available to provide assistance to project managers. The Computer-Aided Design and Documentation Branch will help with all drawing requirements for all systems-command and NOSC drawings. The Production Support Branch provides numbers and storage for drawings sponsored by the Naval Sea Systems Command (NAVSEA).

To ensure that your project's drawings are technically correct, coordinate your drawing requirements with the Computer-Aided Design and Documentation Branch. This branch will completely prepare your drawing package or finalize your drawings after you or your contractor have prepared the draft copies. This branch also reviews all drawings before they are authenticated. This support is available for NOSC drawings and all systems-command drawings, including NAVSEA drawings.

PREPARATION OF DRAWINGS. Navy drawings vellums—either NOSC or systems-command—are used for all engineering drawings. Vellums for NOSC and NAVSEA drawings can be obtained from the Computer-Aided Design and Documentation Branch. The branch also supplies blank vellums for Space and Naval Warfare Systems Command (SPAWAR) or Naval Air Systems Command (NAVAIR) drawings (figure 100).

DRAWING NUMBERS

Numbering System. At NOSC, we use two systems for assigning drawing numbers:

NOSC Drawing Number System: Each drawing is identified by the Federal Supply Code for Manufacturers (FSCM) 55910.

Systems-Command Drawing Number System: Each drawing is identified by the appropriate systems-command FSCM:

Naval Air Systems Command, 30003

Naval Sea Systems Command, 53711

Space and Naval Warfare Systems Command, 28687

Naval Ordnance Systems Command, 10001

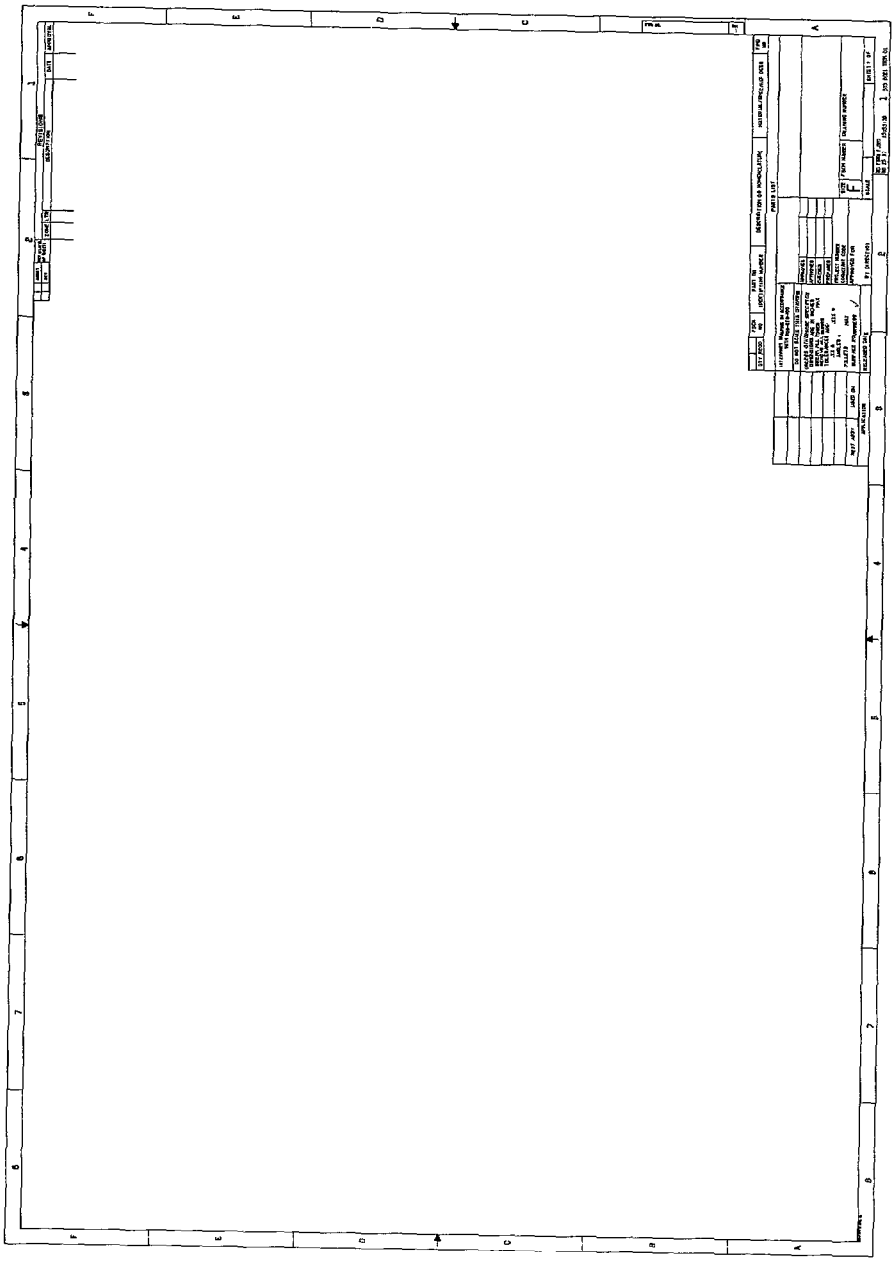


Figure 100. Example of a blank drawing vellum.

To decide which numbering system should be used, use the follow criteria:

Use a NOSC drawing number when the drawings will be used by NOSC or its contractors and the master drawing, i.e., master vellum, will be retained by NOSC.

Use a systems-command drawing number if the drawing will be released eventually to a systems command for production or if the master drawing will be released to the custody of a systems command.

If you do not know if the drawing will be released to a systems command, then use a NOSC drawing number.

How Are Numbers Obtained? NOSC and NAVSEA numbers are assigned individually or in blocks of 25 numbers. If you need a block of numbers, you must also prepare a drawing "tree" breakdown. (A drawing tree is similar to an organization chart; an example is shown in figure 101.)

NOSC drawing numbers are assigned by the Computer-Aided Design and Documentation Branch. Single numbers can be obtained by a telephone request. Requests for blocks of numbers must include a copy of the drawing tree breakdown.

Numbers for drawings controlled by NAVSEA are obtained from the Production Support Branch.

Numbers for other systems-command drawings are obtained by the project manager from the appropriate systems command.

Reporting of Number Usage. If you have received a block of numbers from the Computer-Aided Design and Documentation Branch, report use of these numbers to the branch. Reports are due monthly, and unused numbers are reported at completion of the project.

Report your use of NAVSEA drawing numbers to the Production Support Branch as the drawings are prepared for project use. The branch will make the required reports to NAVSEA.

Reporting of other systems-command-numbered drawings depends upon the sponsor's specific requirements.

Drawing Title and Type Designator. The project manager obtains the drawing titles and type designators (nomenclature) for NOSC and systems-command drawings. Because of the number and complexity of the regulations that govern titles and type designators, you should do this task early in the development phase of your project. If you need help in determining your drawing title, the Computer-Aided Design and Documentation Branch will assist.

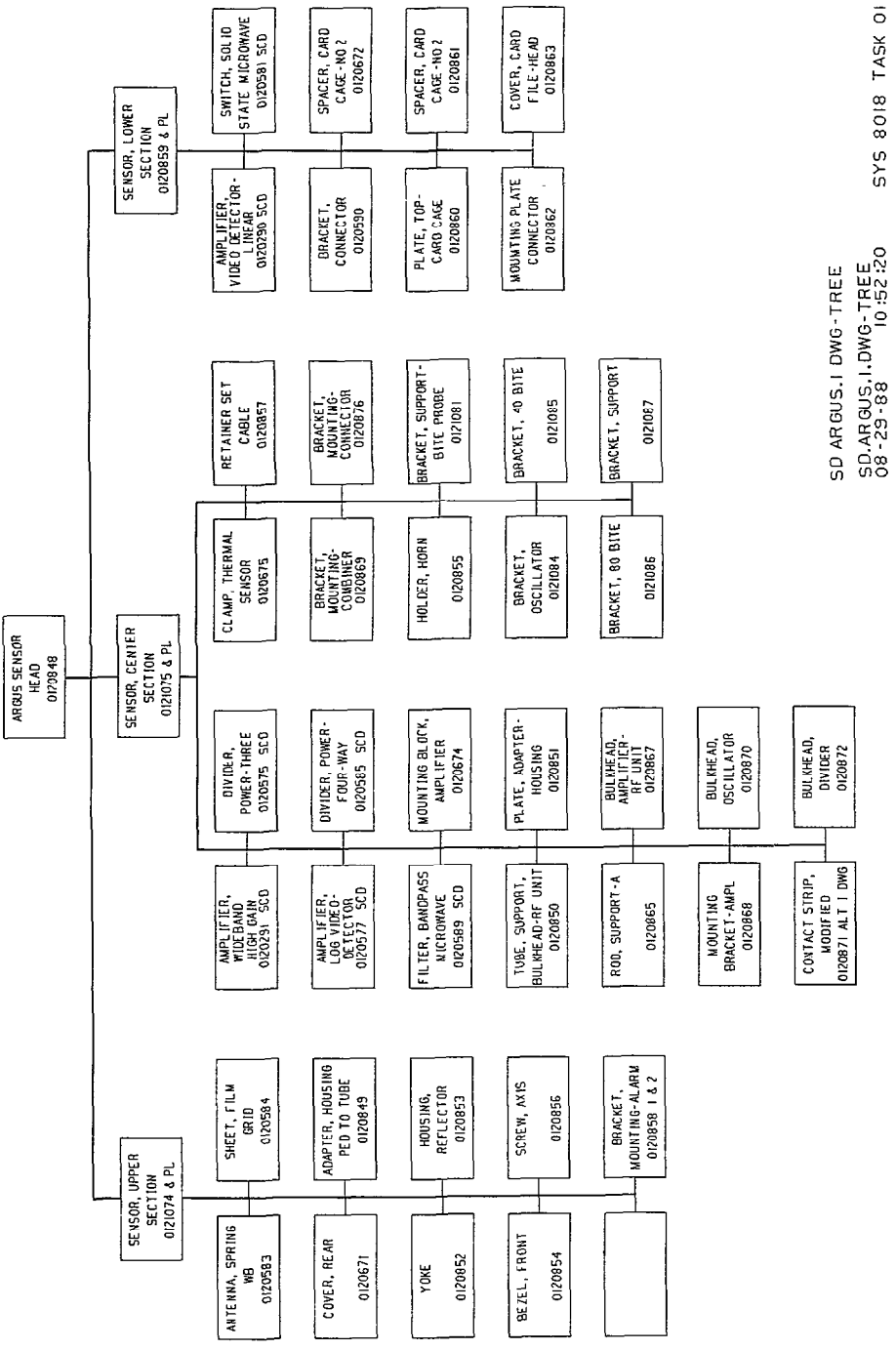


Figure 101. Example of drawing tree.

Use of the correct title and type designator is extremely important for the following reasons:

The National Stock Number and official title are not usually assigned until after an item is released for fleet use. Assignment of the correct title during the development phase of the item thus permits development history and item traceability.

Parts-provisioning-breakdown and illustrated-parts-breakdown documents are prepared prior to release of the item for fleet use. Incorrect titles of parts could cause an extensive rewrite of these provisioning documents.

HOW DRAWINGS ARE CONTROLLED. The control of the master vellum of the drawing is the responsibility of the project manager until the drawings are authenticated (approved and signed by the project manager) and released. NOSC-numbered drawings are also reviewed and approved by the Computer-Aided Design and Documentation Branch before release.

After authentication, the master vellums are released, or transferred, to the following custodians:

NOSC-numbered drawings are placed in the custody of the Computer-Aided Design and Documentation Branch.

NAVSEA-numbered drawings are placed in the custody of the Production Support Branch.

Drawings for other systems-command-numbered drawings are forwarded to the appropriate systems command or the systems command's designated data management agent.

When the vellums are transferred, the project manager must also provide a document baseline that reflects the change status of all drawings.

MICROFILMING OF DRAWINGS. After the vellums for NOSC and NAVSEA have been authenticated and released to the custodian, the custodian arranges for the drawings to be microfilmed, e.g., aperture cards (figure 102) are produced. (Project funds are used for this process.) The master microfilm of both NOSC and NAVSEA drawings is maintained by the appropriate custodian.

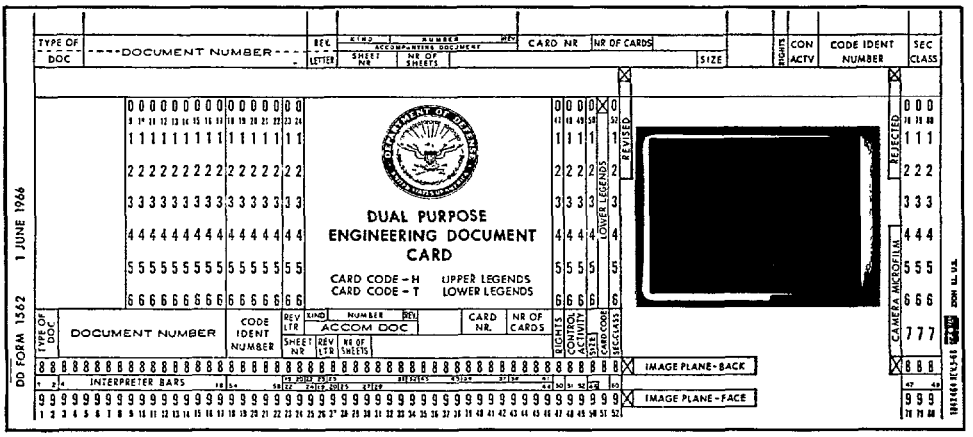


Figure 102. Aperture card of a NOSC drawing.

DISTRIBUTION STATEMENTS

What Notices Are Used. All engineering drawings (both classified and unclassified) must carry a notice concerning their availability for secondary distribution.

All drawings to be entered into a DoD repository, e.g., the Defense Logistics Agency, or to be distributed outside NOSC and the sponsoring office, must carry a formal distribution statement. This requires that the drawing package be reviewed as follows:

> Classified drawings: Branch and division heads and the Information Security Office.
>
> Unclassified drawings: Branch and division heads, the Information Security Office, and the Public Affairs Office.

All other drawings that leave the Center carry the following statement:

> Do not distribute to DTIC or other data depositories.
>
> and
>
> Distribution authorized to DoD components only; premature dissemination; (fill in date of determination). Other requests should be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

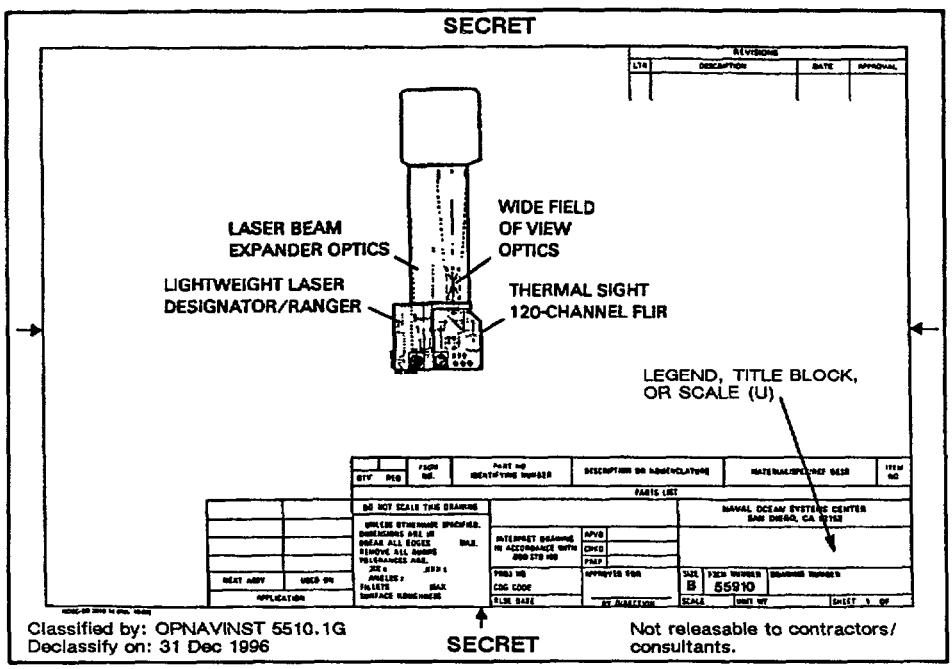
Export-Control Notice. As drawings contain detailed information, drawings with formal distribution statements must also be carefully reviewed for militarily critical technology. This is done as part of the normal routing-and-approval process.

Placement of Notices. The distribution statement and, if required, the export-control notice are placed near the title block.

CLASSIFICATION MARKINGS. Classification markings—the overall classification level and the associated classification markings—are required on all classified drawings (figure 103).

Spell out the overall classification at the top and bottom of the drawing. Place the classification symbol of the title block immediately after the title block. Spell out the associated markings—classification source, downgrading/declassification instructions, warning notices, and intelligence control markings—on the drawing. Locate these markings near the title block.

If the markings might be covered by the customary method of folding or rolling a drawing, add additional markings that are clearly visible when the drawing is folded or rolled.



Mark the drawing to show its overall classification level. Spell out the associated classification markings, and mark the classification level of the legend, title block, or scale.

If the drawing is folded or rolled, add overall classification markings that are visible when the drawing is folded or rolled.

Figure 103. Marking classified drawings.

NOSC'S General Guidelines for Preparation of Drawings

The guidelines in this section are excerpted from NOSC TD 714. They apply to level 3 drawings, but can also be used for level 1 and level 2 drawings.*

COMPLETENESS. As the purpose of level 3 drawings is to permit competitive procurement, manufacture, and inspection of items, the drawings must

> Describe items so that they can be procured, assembled, and maintained to function in accordance with performance requirements.
>
> Furnish sufficient information to permit testing, inspection, and acceptance of the item in accordance with the drawings requirements.

This information must be sufficiently complete to avoid the need for additional research, development, design engineering, or help from the preparing organization.

END-PRODUCT DRAWINGS. Level 3 drawings usually show only the desired end product. The drawings must include all dimensions, tolerances, notes, and other data necessary to describe the characteristics of the part in its completed state. This information must be provided in a manner that allows the part to be economically manufactured and verified by inspection.

Level 3 drawings should not include references to specific manufacturing practices, machining methods, or intermediate steps in the production process. (Exceptions can be made when the only known method of stating requirements is to specify the intermediate steps or processes.)

LEGIBILITY. Level 3 drawings must be of sufficient clarity for reproduction as hard copies and as microfilm.

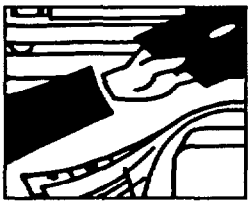
REVIEWS REQUIRED

> ***Types I, II, III, and IV.*** In addition to the routing-and-approval cycle for assignment of a formal distribution statement, NOSC requires reviews to verify the drawing's accuracy, completeness, and conformance to applicable standards. These are called type I, type II, type III, and type IV reviews (table 15).
>
> > A type I review is a preliminary check of the drawing and is not a complete or comprehensive review of the drawing. The Computer-Aided Design and Documentation Branch does the type I review before submittal of the drawing for engineering review (types II and III reviews).

* *The information in this section is only a sampling of the requirements for drawings. The preparation of engineering drawings is a detailed process that involves many standards and specifications. You should consult with the Computer-Aided Design and Documentation Branch and use NOSC TD 714 when preparing drawings to ensure that you meet all requirements.*

Table 15. Types I, II, III, and IV reviews required for engineering drawings.

Type	Items reviewed	Reviewer
I	Legibility Proofreading Other requirements as specified	Design and Documentation Branch
II	All items in Type I review Conformance to NOSC TD 714 Dimensioning (ANSI Y14.5M) Drawing title (DoD-STD-100) Adequacy of general notes Other requirements as specified	Design and Documentation Branch and project engineer
III	All items in Types I and II reviews Compatibility of interfaces with next higher assembly Documents applicable to intended application Standard parts Preparation of assembly drawing and associated lists Drawings compatible with assembly drawing Other requirements as specified	Design and Documentation Branch, Project Assurance Division, and project engineer
IV	All items in Types I, II, and III reviews Stress analysis Tolerance studies Design disclosure package Design evaluation, e.g., human factors Circuits Other requirements as specified	Design Review Board, Production Assurance Division, and program manager



A type II review includes a type I review and establishes the minimum level of review. A type II review is done before the first release for fabrication or procurement. Type II reviews are done by the Design and Documentation Branch and the project engineer.

A type III review includes types I and II reviews and establishes the full-level documentation review. This review requires a complete set of system, subsystem, assembly, or subassembly drawings to certify the completeness of the package. This review, required prior to release for unlimited production, is done by the Computer-Aided Design and Documentation Branch, Product Assurance Division, and project engineer.

A type IV review is a specialized analysis of an engineering drawing package. It can be an analysis of a complete system or an assembly, subassembly, or one component within the system. Type IV reviews can be used in conjunction with other reviews and can be requested at any phase of the program. These reviews are done by the Computer-Aided Design Review Board, the Product Assurance Division, and the program manager.

Validation. A validation signifies that the drawing has been reviewed and found to be technically acceptable. Validation is done by the project engineer.

Authentication. Authentication, which must be done by an authorized government representative, makes the drawing an official government document. The process for authentication will vary, depending upon the program's document control plan. However, at NOSC the project engineer and program manager usually authenticate the drawing.

Contracting for Drawings

OVERALL RESPONSIBILITY. The NOSC project manager is responsible for ensuring that the project's contractors provide drawings that are complete, properly formatted, legible, and applicable. They must also ensure that the drawings contain the required information, i.e., all applicable technical, engineering, and informative data required by the specifications appear on the drawings.

PROPRIETARY INFORMATION. All drawings should be checked to see if a proprietary marking has been applied. If a marking has been applied, the drawings should be given to the Office of Legal Counsel which will determine if the marking is appropriate. (See chapter VI, part 1, "Proprietary Information.")

ORDERING PROCEDURES. The basis for selecting the drawing level to be ordered should be based on the specific project. Again the following factors must be considered:

Determine the audience for the drawings, e.g., production personnel, project engineer, or maintenance personnel.

Use the lowest level necessary to communicate the information to the designated audience.

Remember that changeable design features require a less thorough disclosure than those which are firmly established and unique to the design.

Select the portions of NOSC TD 714 that apply. If ordering level 3 drawings, cite all of NOSC TD 714 as well as DoD-D-1000. For level 2 and level 3 drawings, cite DoD-STD-1000 and those portions of NOSC TD 714 that apply.

Where to Get Help at NOSC

To prepare a procurement package that includes engineering drawings: The Computer-Aided Design and Documentation Branch or the Data Management Office.

To have contractor-prepared or NOSC-prepared drawings reviewed: The Computer-Aided Design and Documentation Branch or the Quality Assurance Division.

To obtain drawing numbers for NOSC drawings: The Computer-Aided Design and Documentation Branch.

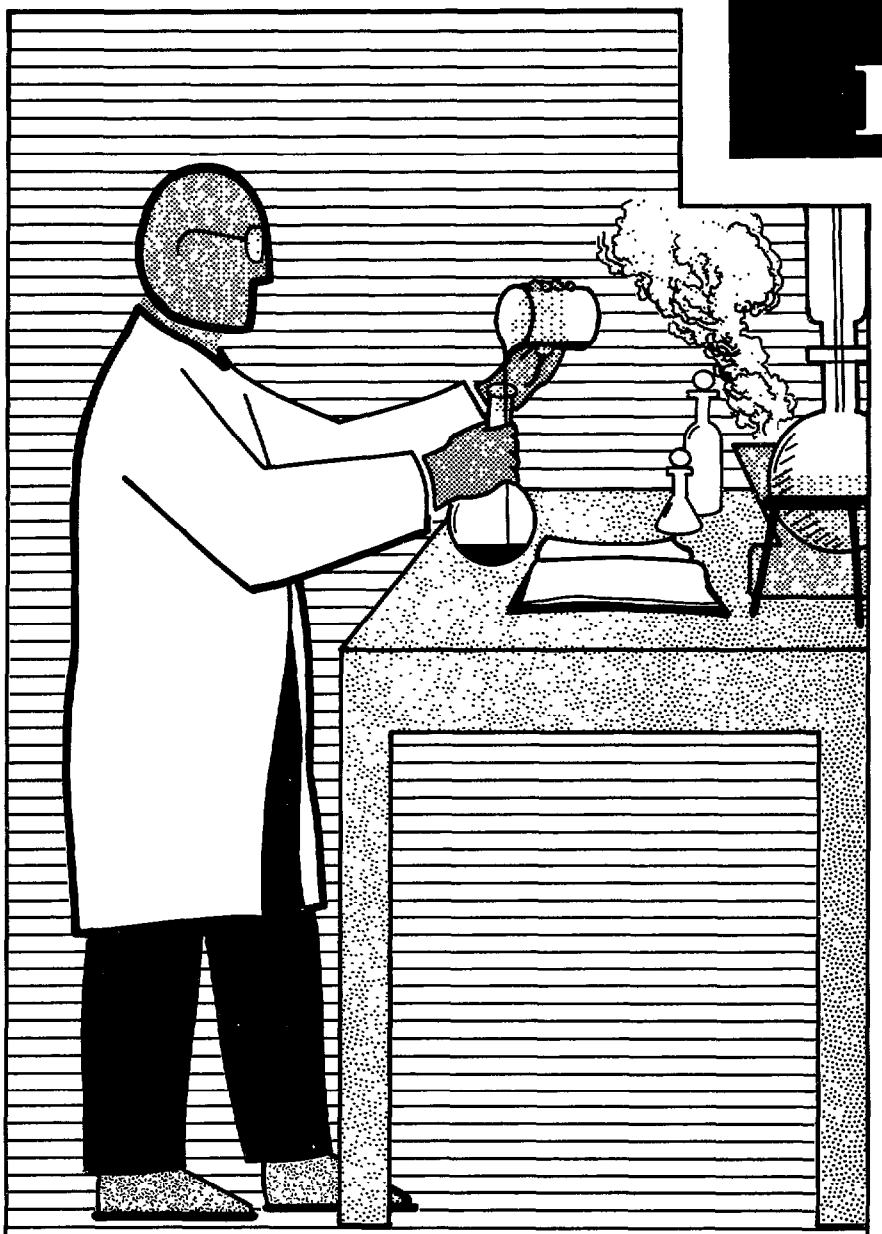
To obtain numbers for systems-command drawings: The Production Support Branch for NAVSEA numbers and the appropriate systems command for all other numbers.

To determine if a drawing is classified: The Information Security Office.

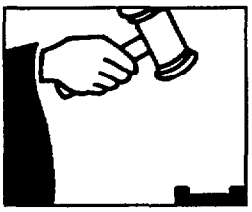
To obtain help in developing a drawing title or type designator: The Computer-Aided Design and Documentation Branch.

To have drawings microfilmed: The Production Support Branch for NAVSEA drawings; the appropriate systems command for all other system-command drawings; and the Computer-Aided Design and Documentation Branch for NOSC drawings.

IX



Records of Scientific and Engineering Work



CHAPTER 9

Records of Scientific and Engineering Work

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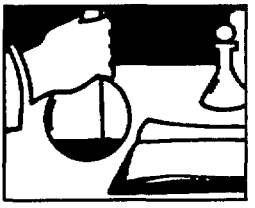


PART 1
TYPES, PRESERVATION, AND USE OF RECORDS

What types of information result from RDT&E work? How do I store this information? Can records be maintained on my computer? How is this information used?

Types of Information

Information resulting from RDT&E work generally falls into one of the following categories:

Statistical Data: Handwritten numerical data, usually readings of instruments and equipment, which are maintained in tabular form.

Machine Data: Information recorded on tapes, disks, films, and other media for mechanical or electronic preservation.

Sketches and Drawings: All forms of mechanical drawings, wiring diagrams, curves, sketches, photographs, and other forms of illustration.

Administrative Data and Reports: Project authorizations and assignments, allocations of funds, technical correspondence, progress reports, and contract deliverables.

Narrative Data: Handwritten notes expressing novel concepts, test conditions, approaches to problems, observations, modifications, formulae, unusual or significant phenomena, findings, results, and other items of interest expressed in narrative form.

Methods of Preserving Information

Both project files and laboratory notebooks are used for preserving scientific and engineering records.

Project files are established to retain statistical and administrative data, sketches, drawings, and reports. Machine data can be retained in project folders; however, the special form of such data, e.g., tapes, disks, and films, may prevent storage in the project files. In this case, the project files should reference the separately located machine data.

Laboratory notebooks (figure 104) are used to record narrative data. They are also often the best place for recording rough sketches, curves, and diagrams that illustrate ideas. Notations should be made referencing pertinent material maintained in separate locations. (See part 2 of this chapter for detailed information on entering information into laboratory notebooks.)

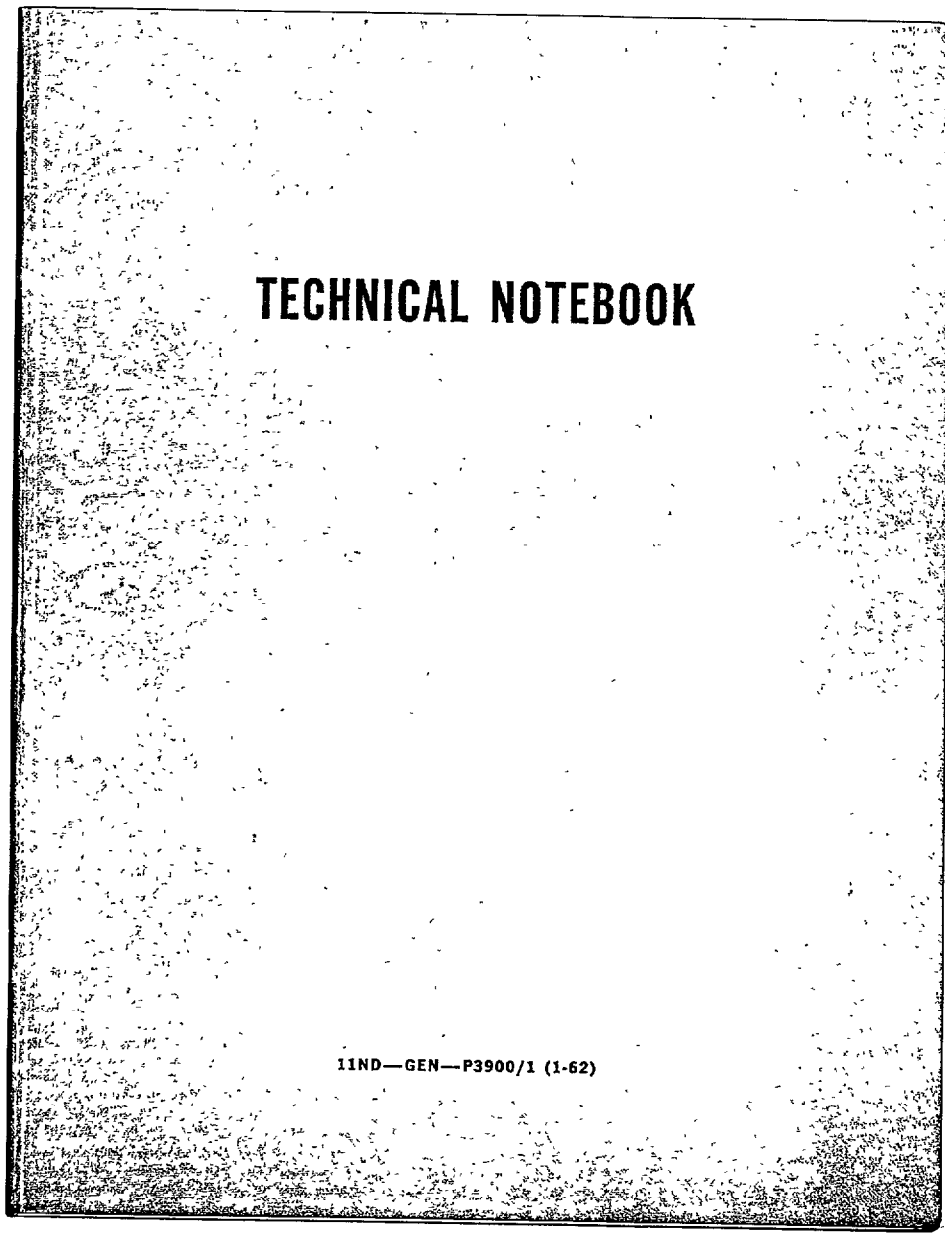
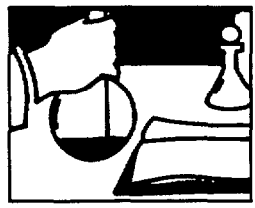


Figure 104. Laboratory notebook used at NOSC.



Personal computers may also be used to document work. However, to protect the data from the dangers of head crashes and accidental degaussing and to provide a traceable and sequential path of development, new computer entries to project files should be printed-out as paper copies at the end of each day. These paper copies should be dated and signed (or initialed) by the author. At significant points in development, the computer printouts should also be witnessed in the same manner described for laboratory notebooks.

Uses of Records

Properly kept, accurate records of scientific and engineering work preserve both the ideas and experimental data of the scientist or engineer. Records are used to inform other research-and-development personnel of the Center's work, to evaluate accomplishments, to ensure recognition for successful investigators, and to defend the government's rights in the event of patent litigation. Specifically,

Records serve as a permanent record of technical progress.

Records protect the interest of the government in what may become valuable patent rights. In cases where contractors are undertaking a portion of a development based in part on an engineer's or scientist's contribution, the records assist in defining the rights of the government and of the engineer or scientist in such work.

Records protect the interest of the inventor in what may become valuable patent rights, since records, in particular laboratory notebooks, can be used as evidence of development of the invention and of the adaptation and perfection of the invention. (The Technology Transfer Act of 1986 ensures inventors of the opportunity to retain commercial rights to which they are justifiably entitled.)

Records minimize duplication of effort by recording both successful and unsuccessful avenues of work.

Record-keeping develops a clear understanding on the part of the scientist or engineer of his or her work as it stands in relation to other fields.

Where to Get Help at NOSC

To determine what records should be kept on a project: Office of Legal Counsel, Directives and Forms Branch, Publications Branch, and Technical Libraries Branch.

To obtain information on keeping project records on a personal computer: The Office of Legal Counsel.

To establish project files: The Office of Legal Counsel.

PART 2
LABORATORY NOTEBOOKS

What information belongs in a laboratory notebook? What are they used for? Where can I get a notebook? Who reviews and controls the notebooks?

Notebook Entries

TYPES OF INFORMATION TO ENTER. The type of information you enter in your notebook is considered "narrative data." Examples of narrative data (figure 105) include

Novel concepts

Conditions of tests

Approaches to problems

Observations

Modifications

Formulae

Unusual or significant phenomena

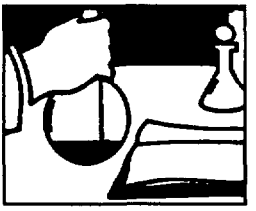
In addition, rough sketches, curves, and diagrams illustrating your ideas should be included in the notebook, and notations should be made referencing pertinent material maintained in separate locations.

As the notebooks are not diaries, administrative information should not be included.

WHEN TO ENTER INFORMATION. The narrative data to be recorded in your notebook should be entered at the same time as the work is done or the observation is made. Delays in recording the information may result in incorrect or missing data.

The amount of information written in notebooks and the length of time between entries are governed by your work. Some projects will require almost daily entries, while others will require only monthly entries.

HOW TO ENTER INFORMATION. Enter the information on consecutive pages and use both sides. Do not attempt to use separate portions of the book for different projects. (The use of consecutive pages helps establish chronological order independent of dates on individual pages.)



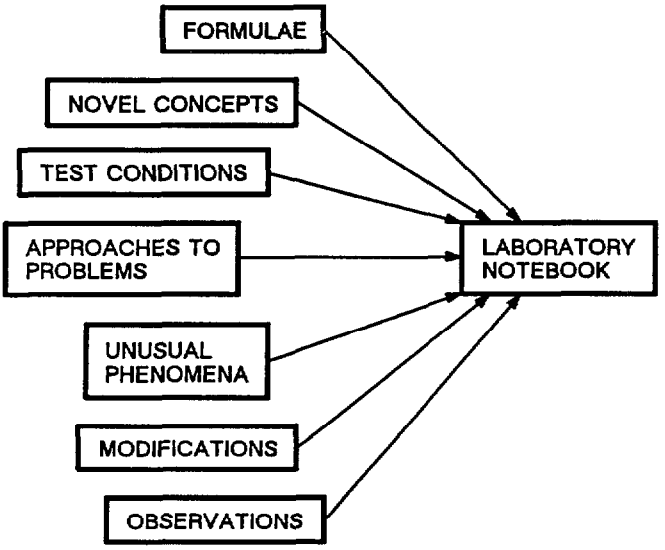


Figure 105. Types of information to include in laboratory notebooks.

All original computations and data should be directly recorded in the notebook. If you must rearrange and clarify the data, use additional pages. Sufficient explanatory material should accompany each set of notes to ensure correct interpretations at a later date. Notations should be made in the notebooks to reference other special equipment or other pertinent material maintained in case files. Also, remember to identify pertinent references.

You may use either pen or pencil to make your entries. In case of an error, cross-out the incorrect information and rewrite the affected portion. Do not under any circumstances remove pages from the notebook.

Sample pages are shown in figure 106.

MARKING ENTRIES. All entries in the notebook should be dated and signed by the writer (initials are acceptable). In addition, where a single notebook is being used to record information on more than one subject, it is good practice to precede entries with the subject of the entry. Signatures and dates are then placed at the end of the entry. (See figure 106.)

CLASSIFIED ENTRIES. If you are working on a classified project, the entries in your notebook will probably be classified. In this case, you need to mark your notebook with the appropriate classification level (confidential or secret). When recording your entries in the notebook, portion mark the paragraphs, tables, and figures, and stamp the pages with the appropriate classification level. Also, if your notebook is classified secret, have it barcoded by the Classified Material Control Center.

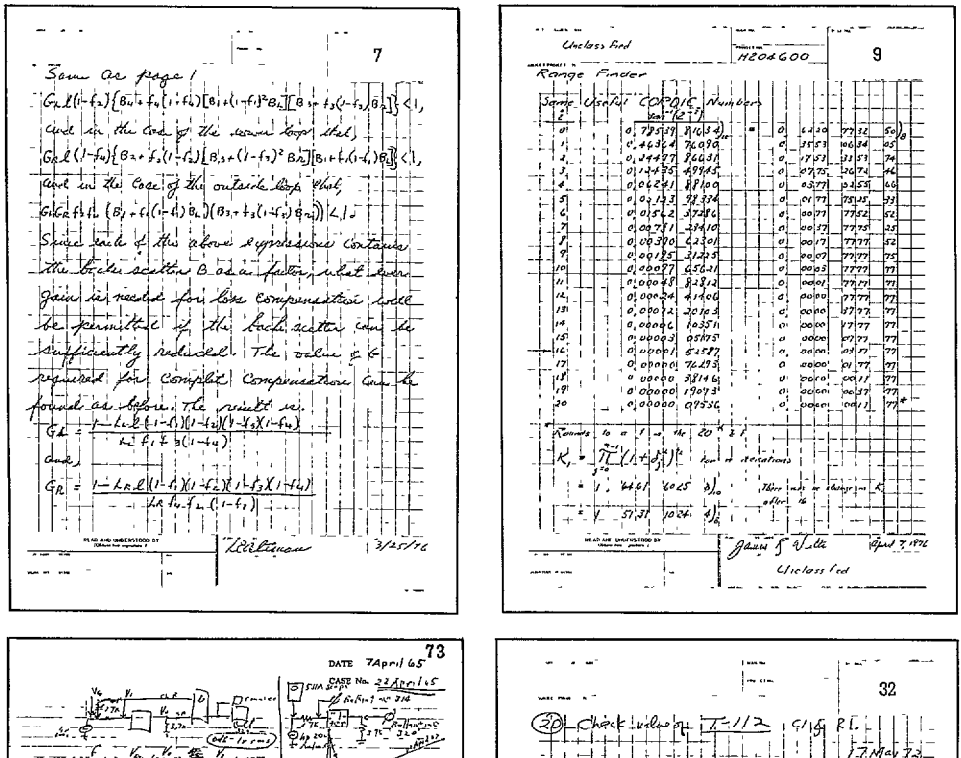
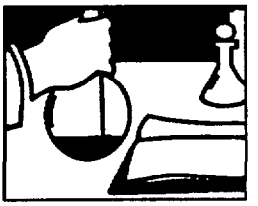


Figure 106. Sample pages in a laboratory notebook.



If you have only a few classified entries, you can record them in a separate notebook that contains only classified entries. When you use this procedure, make chronological notations in your main notebook that classified entries have been entered in a separate classified notebook.

WITNESSING OF LABORATORY NOTEBOOK ENTRIES. Entries in the notebooks are of value as evidence only when they are witnessed by an individual *other* than the person making the entry or a person directly involved with performing the documented work. When patent disputes arise, it is desirable to have the personal testimony of witnesses to verify the claims of the parties to the dispute. Thus, the signature and date of witnesses on notebook entries not only serve to authenticate the entry itself, but also serve as a record of who may be called to testify on the matter.

Because it is often difficult to recognize ideas that are patentable, NOSC requires that all entries be witnessed. You should request that someone (other than a co-inventor) who can understand the material reads and witnesses your entries (figure 107).

Where and How to Obtain a Laboratory Notebook

Laboratory notebooks are issued by the NOSC Technical Library and are available from the bayside, topside, and Hawaii locations.

When you receive your notebook from the library, you will have to sign two cards. Secretaries and coworkers cannot sign for you, and the notebooks will not be sent through the guard mail.

Notebooks can be transferred to another user, but only with your written permission. This transfer is accomplished by the following process: Following your last entry in the notebook, draw a line and add the statement "This notebook transferred to _____ (name) on _____ (date). (Signature of the original user.)" The new user must visit the library where the notebook was issued and sign the charge card. You cannot transfer the notebook by means of a telephone call, memorandum, or e-mail message.

The notebooks are to be returned to the library when you leave the Center. If you lose your notebook, you must report the loss to the library.

Notebooks returned to the library will be reviewed by the Center's legal counsel. If the notebook contains patentable data, the legal counsel will retain the notebook.

SECURITY CLASSIFICATION: Unclassified

BOOK NO: 001879

PROJECT NO: B504607

PAGE NO: 1

SUBJECT PROJECT TITLE: SDMS/ Active T Coupler

Fail Safe Active T Coupler for Data Bus use

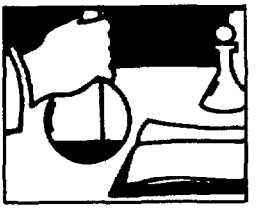
As the number of taps on a data bus increases, a point is reached where the end to end loss exceeds the capability of the transmitter, receiver combination to overcome it. At this point additional gain somewhere between the end couplers is required if further bus growth is to be permitted. An amplifier arranged to provide the required signal amplification is referred to as an active device or repeater. The classic objection to the inclusion of repeaters in otherwise passive systems is that the system reliability will thereby be decreased. Failure of the amplifier or its power source will render the entire bus inoperative.

READ AND UNDERSTOOD BY (Obtain two signatures)

SIGNATURE OF WITNESS: [illegible] DATE: 3/26/76

SIGNATURE OF RECORDER: [illegible] DATE: 3/25/76

Figure 107. Witnessing of entry in laboratory notebook.



Where to Get Help at NOSC

To obtain a laboratory notebook: NOSC Technical Libraries Branch (topside, bayside, and Hawaii).

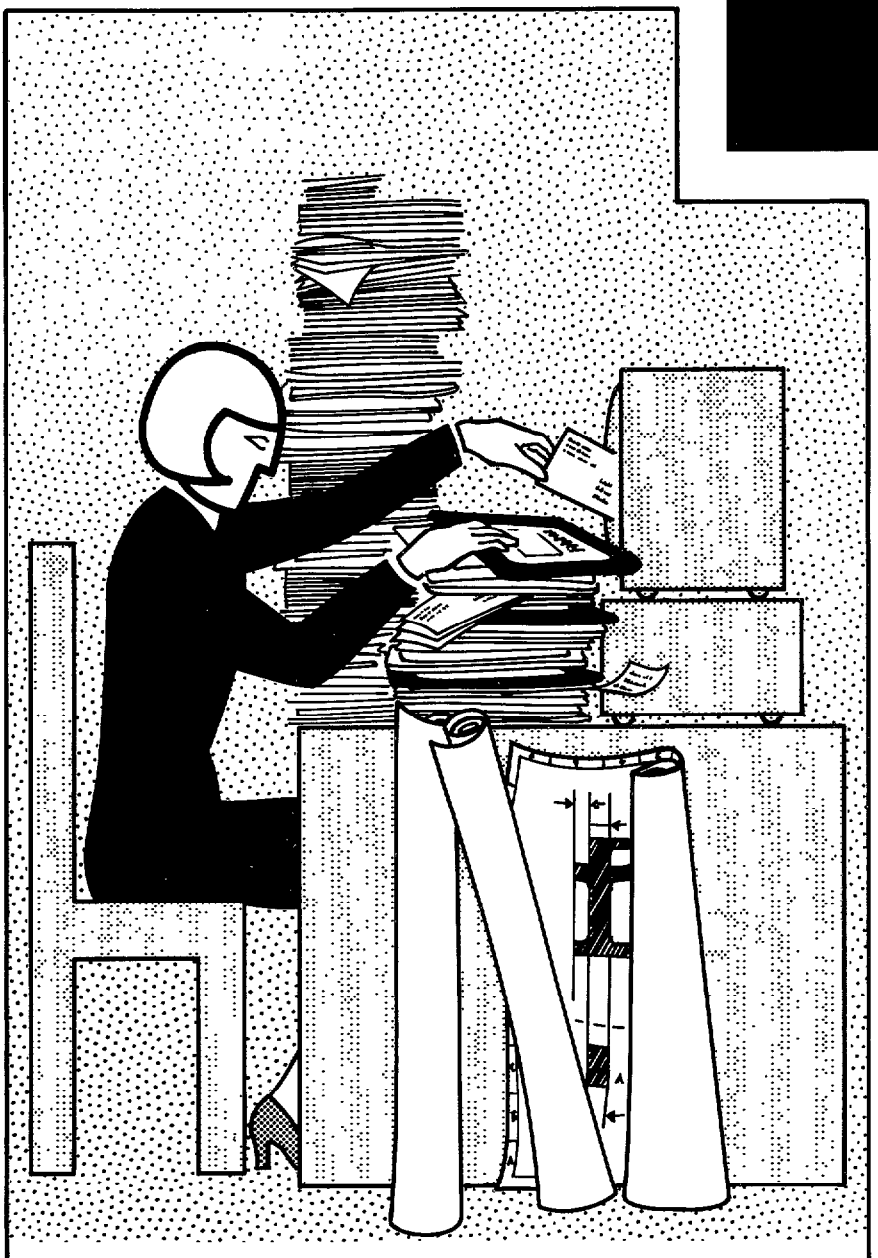
To answer questions on what information should be included and how to include that information: Office of Legal Counsel.

To return a laboratory notebook: NOSC Technical Libraries Branch (topside, bayside, and Hawaii).

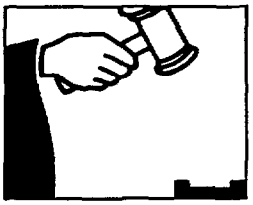
To answer questions on security aspects of notebooks: Information Security Office.

To review a notebook for patentable information: Office of Legal Counsel.

X



Project Documentation Centers



CHAPTER 10
Project Documentation Centers

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Where to Get Help at NOSC 302

PART 1
DEFINITION AND PURPOSE

What is a Project Documentation Center (PDC)? Who can establish a PDC? When can one be established?

What Is a Project Documentation Center?

Project Documentation Centers (PDCs), established by a project manager, process documentation that is either created as part of a specific project or is related to a specific project. Documentation in the PDC usually consists of documents created by NOSC and contract personnel assigned to the project, but can also include other types of documentation, e.g., correspondence with your sponsor, engineering drawings, presentation materials, engineering change proposals, or government specifications.

Why Are Project Documentation Centers Established?

The purpose of the PDC is to provide NOSC project personnel with easy access to the various types of documentation that are required for project operation. However, the PDCs are not to be used to circumvent Center policies and procedures in regard to publishing, printing, and distributing official documentation.

Where to Get Help at NOSC

To determine if a PDC is required: Publications Branch or Technical Libraries Branch.

To establish a PDC: Specific project manager.

PART 2
OPERATING GUIDELINES

Can contractor access all material in the PDC? What distribution statements should be placed on material in the PDC? How is material in the PDC distributed? How is a PDC database entered into the Center's "Database of Databases"? What about duplicate material?

General Requirements

Center policy is that the PDCs operate under procedures and policies established by the Technical Information Division (TID). TID will provide specific assistance when requested, but has established the following guidelines for general use.

Distribution Statements

The important thing to remember about distribution statements is that all technical documentation that will be sent off-Center must be marked to show its availability for further distribution. This means that all technical documentation, e.g., correspondence, engineering change proposals, drawings, or presentations, must be marked.

The intended use of the document determines the distribution statement that should be used.

INTERNAL USE AT NOSC. If the document will be used only at NOSC, no distribution statement is required.

DISTRIBUTION ONLY TO SPONSOR. If the document will be distributed only to the sponsor, mark the document with the following statements:

> Do not distribute to DTIC or other data depositories.
>
> AND
>
> Distribution authorized to DoD components only; premature dissemination; (fill in date of determination). Other requests should be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

OFF-CENTER DISTRIBUTION. If the document will have off-Center distribution in addition to the sponsor, the document must be marked with a formal distribution statement (appendix A). To verify the correct distribution statement, route the document through the appropriate routing-and-approval cycle:

Classified: Branch and division heads and Information Security Office.

Unclassified: Branch and division heads, Information Security Office, and Public Affairs Office.

Distribution of Documents

ON-CENTER DISTRIBUTION. There are no restrictions concerning on-Center distribution except "need-to-know" for both classified and unclassified, limited documents.

DISTRIBUTION TO SPONSOR. When distributing copies to your sponsor, make sure you use a transmittal letter and, if the document is classified, follow all procedures for mailing classified material.

OFF-CENTER DISTRIBUTION. Procedures for off-Center distribution depend upon the type of document.

If the document belongs in a formal database, such as the Defense Technical Information Center, then you must convert the document into a formal, NOSC-numbered publication. To make the conversion, fill out a NOSC routing-and-approval sheet (NOSC Form 5605), have the document reviewed, and send it to the Publications Branch for processing. (Chapter I, part 5, explains the type of material that should be sent to DTIC.)

If the document does not belong in DTIC, e.g., a drawing, presentation, or an engineering change proposal, use the following procedures:

Have the distribution statement approved by routing the document through the appropriate review cycle. Use NOSC Form 5605.

Have NPPS duplicate the required number of copies.

Mail the copies by using transmittal letters.

Classification Markings

All documents must be properly marked in accordance with OPNAV Instruction 5510.1. Refer to chapter V, parts 3 and 4 of this handbook instructions on marking the various types of documentation found in a PDC.

Numbering of Documents

The program manager can establish a unique numbering system to track the documents in the PDC. The system established should combine the cognizant code, project, and document number. For example, 961-AJS-0023 would refer to code 961, project AJS, document 0023.

Covers for Documents

Figures 108 and 109 show the standard covers to use on PDC documents that will be sent off-Center to the sponsor.* The cover is based on information in NOSC TD 611, "Format Guide for Contractor-Prepared Information." Special project covers are not to be developed.

NOSC has only one official cover to be used for off-Center distribution. This cover is the one used with its official publication series, i.e., technical reports, technical documents, and technical manuals. (See chapter 1, part 2.)

Duplication of Documents

If more than 15 copies of a document (or more than 250 total aggregate pages) are required, then the duplication or printing of the copies must be done by NPPS. Self-service copiers that may be located in the PDCs are not to be used for bypassing the Center's printing and duplicating requirements.

Control of Secret Material

All secret material in the PDC that is not considered a working paper** must be barcoded. It is the responsibility of the project manager to ensure that the barcoding is done.

This requirement applies to all material that may be in the PDC, e.g., drawings, engineering change proposals, correspondence, or reports to sponsors.

---

* *These requirements do not apply to formal, NOSC-numbered publications prepared by TID; to publications that have standard covers required by a specification or standard; or to correspondence.*

** *The definition of a working paper is material that is retained for less than 90 days.*

Title

Subtitle (if used)

Date

Type of Report and Period Covered

Prepared by:
Preparing Agency's name
Preparing Agency's address (street address, city, state, and zip code)*

Contract_____, DO_____,
CDRL_____*

Prepared for:
Naval Ocean Systems Center
_____Branch (Code)
San Diego, CA 92152-5000

Do not distribute to DTIC or other data depositories.

Distribution authorized to DoD components only; premature dissemination; (fill in date of determination). Other requests should be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

*Use only if document prepared by contractor.

Figure 108. Unclassified cover for publications in a NOSC project documentation center.

CONFIDENTIAL

Title ( )

Subtitle (if any) ( )

Date

Prepared by:
Preparing agency's name
Preparing agency's address (street address, city, state, and zip code)*

Contract_____, DO_____,
CDRL_____*

Prepared for:
Naval Ocean Systems Center
_____Branch (Code)
San Diego, CA 92152-5000

Source Document
Downgrading/Declassification statement

Do not distribute to DTIC or other data depositories.

Distribution authorized to DoD components only; premature dissemination; (fill in date of determination). Other requests should be referred to Commander, Naval Ocean Systems Center, San Diego, CA 92152-5000.

CONFIDENTIAL

*Use only if document prepared by contractor.

Figure 109. Classified cover for publications in a NOSC project documentation center.

Duplication of Material Within Existing Databases

Make sure that your PDC does not duplicate material that may already have been entered into another database, e.g., the NOSC Technical Library or another Center PDC. Although you should include an entry for the material, there is no need to make duplicate copies of the material.

Contractor Access to Material

You must ensure that contractors do not have access to certain types of material that may be in the PDC. For example, contractors cannot access other contractor's proposals and contract cost data. Such information could compromise the bidding process.

Registration with Technical Library

All PDCs must be registered with the NOSC Technical Library. When the PDC reports its project database to the library, the database is placed in the Center's "Database of Databases." This registration is done to ensure that the existence of the information in the PDC is made known so that work will not be duplicated.

The library staff will also provide advice on different bibliographic techniques and database programs to use in the PDC's database.

Relationship with Center's Formal Publication Program

Do not use the PDC to circumvent the Center's procedures for publishing formal NOSC-numbered publications. All information that can be used outside the sponsoring office and the PDC must be sent to the Defense Technical Information Center as a formal NOSC publication. Many times, the publications personnel can convert documents in the PDC into NOSC-numbered publications at little cost.

In addition, remember that systems commands have established stringent requirements for technical manuals. Make sure that any new technical manual product, including change packages, is coordinated with the Publications Branch. (See chapter VIII.)

Where to Get Help at NOSC

To develop the database to be used in a PDC: The Technical Libraries Branch.

To determine if a PDC is required: The Technical Libraries Branch or the Publications Branch.

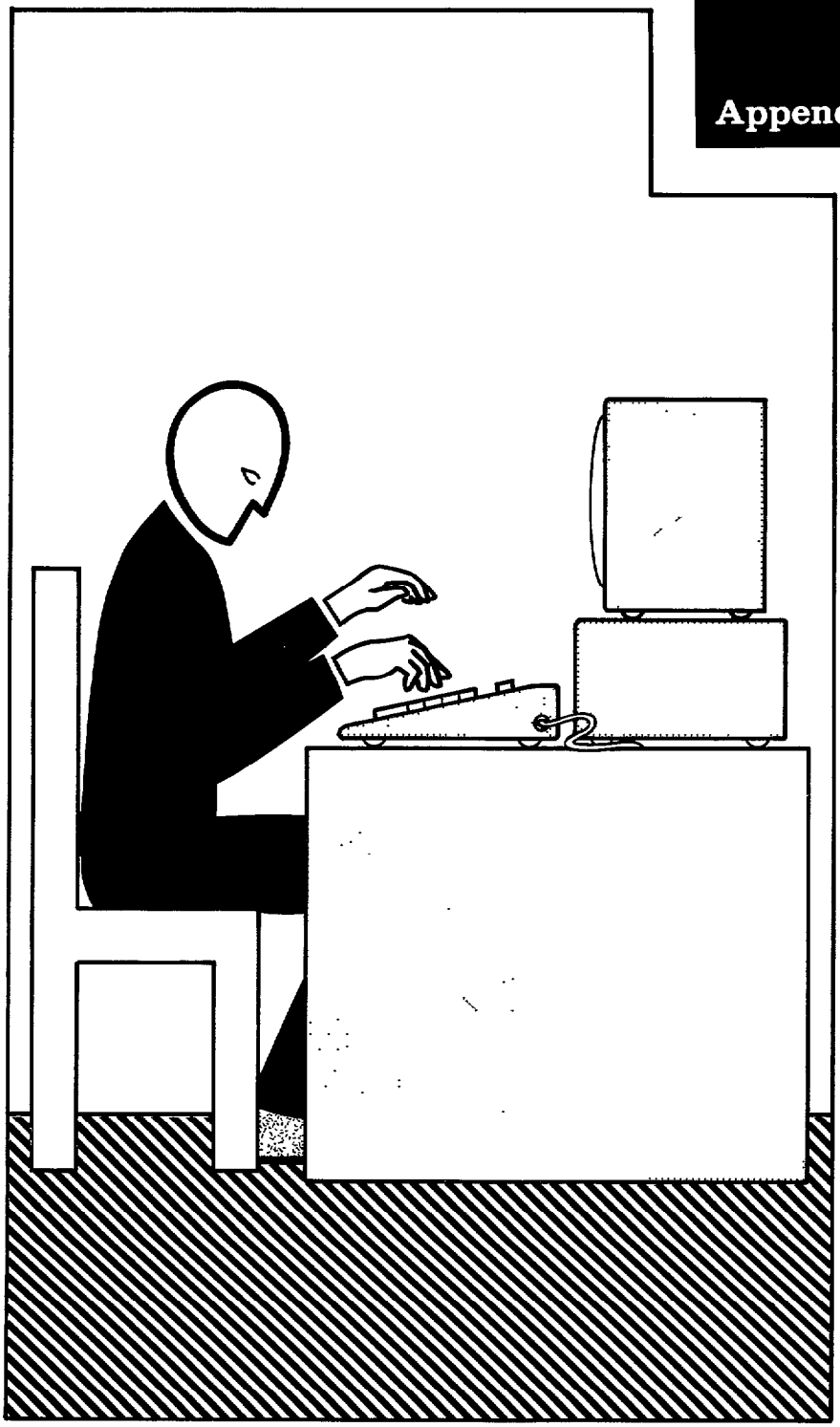
To determine if a contractor can have access to material in the PDC: The Office of Legal Counsel.

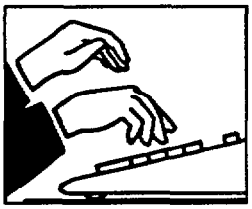
To establish a numbering system for material in the PDC: The Technical Libraries Branch or the Publications Branch.

To publish a PDC document as a formal NOSC-numbered document: The Publications Branch.

To coordinate technical manual products required in a PDC: The Publications Branch.

Appendices





APPENDIX A

FORMAL DISTRIBUTION STATEMENTS

The following distribution statements are authorized for use on NOSC publication that have been formally reviewed:

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

This statement is used only on unclassified technical publications that have been cleared for public release.

Statement A cannot be used on technical publications that were formerly classified unless these publications have been cleared for public release.

This statement cannot be used on technical publication containing export-controlled technical data.

This statement cannot be used on classified technical publications.

This statement cannot be used on technical publications with classified references.

Technical publications resulting from contracted fundamental research efforts are normally assigned statement A. Exceptions exist when there is a high probability of disclosing performance characteristics of military systems or of manufacturing technologies that are unique and critical to defense. These exceptions must be recorded in the contract or grant.

Technical publications with this statement can be exported. They are sold to the U.S. public and to foreign nationals, foreign companies, and foreign governments, including those governments considered as adversaries of the U.S.

DISTRIBUTION STATEMENT B. Distribution authorized to U.S. government agencies only (fill in reason); (date of determination). Other requests for this document shall be referred to (insert controlling DoD office).

This statement is used on classified and unclassified technical publication.

Statement B is used on classified technical publications to provide distribution limitations in addition to need-to-know requirements and to serve as a controlling statement if the publication is declassified.

Reasons for assigning distribution statement B include:

Foreign Government Information: To protect and limit distribution in accordance with the desires of the foreign government that furnished the technical information. Information of this type is normally classified at the confidential or higher level.

Proprietary Information: To protect information not owned by the U.S. government and protected by a contractor's limited rights statement or received with the understanding that it not be routinely transmitted outside the U.S. government.

Critical Technology: To protect information and technical data that advance current technology, describe new technology in an area of significant or potentially significant military application, or relate to a specific military deficiency of a potential adversary. Information of this type may be classified or unclassified; when unclassified, it is controlled by the export laws and subject to the provisions of DoD Directive 5230.25.

Test and Evaluation: To protect the results of test and evaluation of commercial products or military hardware when such disclosure may cause unfair advantage or disadvantage to the manufacturer of the product.

Contractor Performance Evaluation: To protect information in management reviews, records of contract performance evaluation, or other advisory publications that evaluate programs of contractors.

Premature Dissemination: To protect patentable information on systems or processes in the developmental or conceptual stage from premature dissemination.

Administrative or Operational Use: To protect technical or operational data or information from automatic dissemination under the International Exchange Program or by other means. This protection covers publications required solely for official use or strictly for administrative or operational purposes. This statement can be applied to manuals, pamphlets, technical orders, technical reports, and other publications containing valuable technical or operational data.

Software Documentation: To be released only in accordance with the provisions of DoD Instruction 7930.2.

Specific Authority: To protect information not specifically included above, but which requires protection in accordance with valid documented authority such as executive orders, classification guidelines, or DoD component regulatory publications. When filling in the reason, cite "specific authority (identification of valid documented authority)."

DISTRIBUTION STATEMENT C. Distribution authorized to U.S. government agencies and their contractors (fill in reason); (date of determination). Other requests shall be referred to (insert controlling DoD office).

Statement C is used on classified and unclassified technical publications.

It is used on classified technical publications to provide distribution limitations in addition to need-to-know requirements and to serve as a controlling statement if the publication is declassified.

Reasons for assigning distribution statement C include:

Foreign Government Information: Same as distribution statement B.

Critical Technology: Same as distribution statement B.

Software Documentation: Same as distribution statement B.

Administrative or Operational Use: Same as distribution statement B.

Specific Authority: Same as distribution statement B.

DISTRIBUTION STATEMENT D. Distribution authorized to the Department of Defense and U.S. DoD contractors only (fill in reason); (date of determination). Other requests shall be referred to (insert controlling DoD office).

Statement D is used on classified and unclassified publications.

It is used on classified technical publications to ensure distribution limitations in addition to need-to-know requirements and to serve as a controlling statement if the publication is declassified.

Reasons for assigning distribution statement D include:

Foreign Government Information: Same as distribution statement B.

Critical Technology: Same as distribution statement B.

Software Documentation: Same as distribution statement B.

Administrative or Operational Use: Same as distribution statement B.

Specific Authority: Same as distribution statement B.

DISTRIBUTION STATEMENT E. Distribution authorized to DoD components only (fill in reason); (date of determination). Other requests shall be referred to (insert controlling DoD office).

Statement E can be used on classified and unclassified publications. It is used on classified technical publications to provide distribution limitations in addition to need-to-know requirements and to serve as a controlling statement if the publication is declassified.

Reasons for assigning distribution statement E include:

Direct Military Support: To protect publications containing export-controlled technical data of such military significance that release for purposes other than direct support of DoD-approved

activities may jeopardize an important technological or operational military advantage of the United States. Designation of such data is made by competent authority in accordance with DoD Directive 5230.25.

Foreign Government Information: Same as distribution statement B.

Proprietary Information: Same as distribution statement B.

Premature Dissemination: Same as distribution statement B.

Test and Evaluation: Same as distribution statement B.

Software Documentation: Same as distribution statement B.

Contractor Performance Evaluation: Same as distribution statement B.

Critical Technology: Same as distribution statement B.

Administrative or Operational Use: Same as distribution statement B.

Specific Authority: Same as distribution statement B.

DISTRIBUTION STATEMENT F. Further dissemination only as directed by (insert controlling DoD office); (date of determination), or higher DoD authority.

Statement F is normally used only on classified technical publications, but may be used on unclassified technical publications when specific authority exists, e.g., designation as direct military support as in statement E.

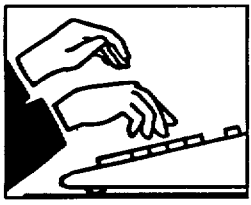
Distribution statement F is used when the DoD originator determines that the information is subject to special dissemination limitations specified by paragraph 4-505, DoD 5200.1-R.

DISTRIBUTION STATEMENT X. Distribution authorized to U.S. government agencies and private individuals or enterprises eligible to obtain export-controlled technical data in accordance with DoD Directive 5230.25 (date of determination). Controlling office is (insert controlling office).

Statement X is used on unclassified publications when distribution statements B, C, D, E, or F are not applicable, but the document does contain technical data as explained in DoD Directive 5230.25.

This statement cannot be used on classified technical publications; however, it may be assigned to technical publications that formerly were classified.

APPENDIX B
DEFINITIONS



CASE FILE. Project files that are used to retain other than narrative data, e.g., statistical data, sketches and drawings, administrative data, reports, and magnetic data.

CONTRACTOR. An individual or organization outside the U.S. government who has accepted any type of agreement or order to provide research, supplies, or services to a U.S. government agency. Includes both prime contractors and subcontractors.

CONTRACTED FUNDAMENTAL RESEARCH. Research performed under grants or contracts funded by (1) budget category 6.1 (research) and performed by universities or industry or (2) budget category 6.2 (exploratory development) and performed on campus at a university.

CONTROLLING DoD OFFICE. The DoD activity that sponsored the work that generated the technical information or received the technical information on behalf of DoD and, therefore, has responsibility for determining the distribution availability of that information. For joint sponsorship, the controlling office is determined by advance agreement and may be either a party, group, or committee representing the interested activities or DoD components.

CRITICAL TECHNOLOGY. Technology that consists of

Arrays of design and manufacturing know-how (including technical data).

Keystone manufacturing, inspection, and test equipment.

Keystone materials.

Goods accompanied by sophisticated operation, application, or maintenance know-how that would make a significant contribution to the military potential of any country or combination of countries and that may prove detrimental to the security of the United States.

DEFENSE TECHNICAL INFORMATION CENTER. DoD's central repository for RDT&E information in all fields of science and technology.

DISTRIBUTION STATEMENT. A statement used to mark a technical publication or other product to denote the extent of its availability for distribution, release, and disclosure. A distribution statement is distinct from and in addition to a security marking.

DUPLICATION. All work produced by offset, mimeograph, hectograph, high-speed electrostatic copying, or similar processes and all work produced by diazo, photostat, quick copy (Xerox, Thermofax, etc.), or similar types of photocopying.

GIDEP. Government-Industry Data Exchange Program established to eliminate duplicate work in the areas of engineering, reliability and maintainability, failure experience, and metrology.

INFORMATION REPOSITORY. Databases, such as the Defense Technical Information Center, Navy Publishing and Forms Center, and Defense Logistics Center, that perform a secondary distribution function.

KEY OPERATOR. An individual who is responsible for designated pieces of self-service copying equipment.

KEYSTONE EQUIPMENT. Includes manufacturing, inspection, or test equipment specifically necessary for the effective application of a significant array of technical information and know-how.

KEYSTONE MATERIALS. Materials specifically necessary for the effective application of a significant array of technical information and know-how.

LABORATORY NOTEBOOK. Stock notebooks designed with technical and legal effectiveness in mind. Used by personnel engaged in RDT&E work to record narrative data resulting from their work. Later used by the government in patent litigation.

MICROPUBLISHING. Production in microimage format of publications designated for general distribution as a substitute for conventionally printed material. Does not include micropublishing of administrative records, accounting reports, or similar items for archival purposes.

NARRATIVE DATA. Handwritten notes which express novel concepts, conditions, tests, or plans of approach to problems, observations, modifications, formulae, unusual or significant phenomena, findings, results, and other items of interest expressed in narrative form. (Refers to information to be recorded in laboratory notebooks.)

NAVY PUBLISHING AND PRINTING SERVICE. An industrially funded, Navy-wide organization that provides printing, reprographics (duplicating), and micropublishing services to multiple customers on a cost-reimbursable basis.

PRESENTATION. Transmission of technical information by verbal methods. Includes slides and viewgraphs used to amplify or outline the material under discussion.

PRINTING. The processes of platemaking, presswork, and binding and items produced by such processes.

PRIMARY DISTRIBUTION. Initial targeted distribution of or access to technical documents authorized by the controlling DoD office.

PROPRIETARY DATA. Intellectual property that a company has developed at its own expense and that it wants to control.

PUBLICATION. Any recorded information regardless of its medium, physical form, or characteristics.

PUBLIC RELEASE. Making technical data available without restricting its dissemination or use. This is equivalent to foreign disclosure, as no means to restrict access or further dissemination are provided.

REPROGRAPHICS. All work produced by offset, mimeograph, hectograph, high-speed electrostatic copying, or similar processes and all work produced by diazo, photostat, quick copy (Xerox, Thermofax, etc.), or similar types of photocopying.

RESEARCH. All efforts directed toward increased knowledge of natural phenomena and environment and efforts directed toward the solution of long-term defense problems in the physical, engineering, life, behavioral, and social sciences.

RESEARCH AND TECHNOLOGY WORK UNIT INFORMATION SYSTEM (R&T(WUIS)). A reporting system established by the Office of the Undersecretary of Defense for Research and Engineering to provide rapid exchange of technical and management data on DoD RDT&E efforts at the work-unit level.

SCIENTIFIC AND TECHNICAL INFORMATION (STI). Communicable knowledge or information resulting from or pertaining to the conduct and management of RDT&E efforts.

SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM (STIP). At NOSC, a coordinated structure of STI functions under the guidance of the Technical Information Division. The objective of the program is to ensure that STI generated at NOSC provides maximum contribution to the advancement of science and technology; permit timely, effective, and efficient conduct of DoD RDT&E programs; provide information support to the management of RDT&E-related programs; and eliminate unnecessary duplication of effort and resources by encouraging and expediting the interchange and use of STI.

SECONDARY DISTRIBUTION. Release of technical publications after primary distribution. Included are loaning, allowing the reading of, or releasing a publication (in whole or in part).

SELF-SERVICE COPIERS. Convenience copying equipment located in a readily accessible, uncontrolled environment.

STUDIES AND ANALYSES. Recurring examinations of a subject undertaken to provide greater understanding of relevant issues and alternatives regarding organizations, tactics, doctrine, policies, force plans, strategies, procedures, intelligence, weapons selection and mix, systems programs, or resources, and leading to conclusions and recommendations contributing to planning, programming, budgeting, decision-making, and policy development including those studies initiated by or for the program management office. It also includes research and development of related database structures and models for the support of studies and analyses.

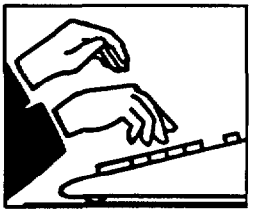
TECHNICAL DATA. Recorded information related to experimental, developmental, or engineering work that can be used to define an engineering or manufacturing practice or to design, procure, produce, support, maintain, operate, repair, or overhaul material. The data may be graphic or pictorial delineations in media such as drawings or photographs; text in specifications or related performance or design-type documents; or computer printouts. Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog-item identifications, and computer software documentation.

TECHNICAL INFORMATION. Information, including scientific information, that relates to research, development, engineering, test, evaluation, production, operation, use, and maintenance of hardware, software, and/or technology which advances the state-of-the-art or establishes a new art in an area of significant military application. Included is information related to munitions and other military supplies and equipment.

TECHNOLOGY. Scientific or engineering efforts directed toward eliminating technical barriers and providing solutions to technical problems (excluding routine engineering) encountered in RDT&E programs.

WORK UNIT. The smallest segment into which research or technology efforts are divided for local administrative control. Each work unit has a specific objective, finite duration, and results in an end product.

APPENDIX C
FILLING OUT A DD FORM 1498



Introduction

The information in this appendix explains the different blocks on the DD Form 1498 (figure C1) and the method of entry by using NOSC's Mission Management System. When you are ready to create or alter a DD Form 1498, contact either your budget analyst or the Corporate Budget Office for complete instructions on using the Mission Management System.

BLOCK 1. AGENCY ACCESSION NUMBER

DEFINITION. A two-part identification number that consists of two alphabetic characters indicating the reporting agency (in this case NOSC) and a 6-digit serial number unique to each work unit summary.

METHOD OF ENTRY. Automatically filled in by Mission Management System.

BLOCK 2. DATE OF SUMMARY

DEFINITION. Date the DD Form 1498 is created or changed.

METHOD OF ENTRY. Automatically filled in by the Mission Management System.

BLOCK 3. DATE OF PREVIOUS SUMMARY

DEFINITION. Date DD Form 1498 was originally created or the last date the form was changed.

METHOD OF ENTRY. Automatically filled in by the Mission Management System.

BLOCK 4: KIND OF SUMMARY

DEFINITION. The type of transaction being reported on the DD Form 1498:

Code	Kind of Summary	Explanation
A	New	Initial 1498 on approved work unit
R	Change	Revision to existing 1498 or reactivation of work unit previously reported as terminated or completed
H	Termination	1498 on an incomplete work unit effort that has been cancelled, suspended, or otherwise discontinued
K	Completion	Final 1498 on a completed work unit
P	Planned	Work generally agreed to with sponsor but not started
T	Proposed	Proposal submitted, but not yet accepted by sponsor

CLASSIFICATION

NOSC SD 3920 2 (Rev 12-81)

DD FORM 1 MAR 84 1498

RESEARCH AND TECHNOLOGY WORK UNIT SUMMARY

1 AGENCY ACCESSION * | 2 DATE OF SUMMARY * | REPORT CONTROL SYMBOL

3 DATE PREV SUMRY | 4 KIND OF SUMMARY | 5 SUMMARY SCTY * | 6 WORK SECURITY * | 7 REGRADING * | 8a DISBN INSTRN | 8b SPECIFIC DATA CONTRACTOR ACCESS ☐ YES ☐ NO | 9 LEVEL OF SUM A. WORK UNIT

10 NO CODES *	PROGRAM ELEMENT	PROJECT NUMBER	SUBPROJ TASK	WORK UNIT NUMBER (DIV NOSC PROJECT)
a PRIMARY				
b CONTRIBUTING				
c PRODUCT AREA CODE				

11 TITLE (Precede with Security Classification Code) *

12 SCIENTIFIC AND TECHNOLOGICAL AREAS *

13 START DATE | 14 ESTIMATED COMPLETION DATE | 15 FUNDING AGENCY | 16 PERFORMANCE METHOD

17 CONTRACT GRANT

a DATES EFFECTIVE | EXPIRATION

b NUMBER *

c TYPE | d AMOUNT

e KIND OF AWARD | f CUM TOTAL

18 RESOURCES ESTIMATE	a PROFESSIONAL MAN YEARS	b FUNDS (In thousands)
FISCAL YEAR PRECEDING		
FISCAL YEAR CURRENT		

19 RESPONSIBLE DOD ORGANIZATION

NAME *

ADDRESS *

RESPONSIBLE INDIVIDUAL

NAME

TELEPHONE

20 PERFORMING ORGANIZATION

NAME *

ADDRESS *

PRINCIPAL INVESTIGATOR Furnish SSAN if U S Academic institution

NAME *

TELEPHONE

ASSOCIATE INVESTIGATORS

NAME

NAME

21 GENERAL USE

22 KEYWORDS (Precede EACH with Security Classification Code)

* Available to contractors upon or after 1 approval

CLASSIFICATION INFORMATION GUIDANCE

CLASSIFICATION

Figure C1. DD Form 1498, the Research and Technology Work Unit Summary.

METHOD OF ENTRY. Preparer of DD Form 1498 enters code by using the Mission Management System.

BLOCK 5: SUMMARY SECURITY

DEFINITION. A code that indicates the security classification of the DD Form 1498. Use the codes U (unclassified), C (confidential), S (secret), and TS (top secret).

METHOD OF ENTRY. Preparer of DD Form 1498 enters code by using the Mission Management System. As the system currently accepts only unclassified information, the default is U. *Do not enter classified information on this form.*

BLOCK 6: WORK SECURITY

DEFINITION. A code (U, C, S, or TS) that indicates the security classification of the work which the DD Form 1498 describes. This is not the classification of the DD Form 1498 itself.

METHOD OF ENTRY. Preparer of DD Form 1498 enters code by using the Mission Management System.

BLOCK 7: REGRADING (CLASSIFICATION GUIDANCE)

DEFINITION. Information used to classify the work unit described on the DD Form 1498:

METHOD OF ENTRY. Preparer of DD Form 1498 enters information by using the Mission Management System:

If work security (block 6) is unclassified, enter "No CG applies."

If work security (block 6) is higher than unclassified,enter the classification authority, i.e., your source document, used in association with the work being performed. Also include either the date or event your work will be downgraded or declassified.

BLOCK 8A: DISTRIBUTION INSTRUCTION

DEFINITION. Code which indicates the distribution limitations to be placed on the DD Form 1498 itself:

Code	Explanation
DX	Distribution limited to DoD components and their contractors and grantees
CX	Distribution extended to other U.S. government agencies and their contractors and grantees
NN	Used on proposed or planned summaries
BF	Information furnished by a foreign government with provision that it not be released outside the U.S. government

Code	Explanation
BP	Discloses proprietary information received with understanding that it not be distributed outside U.S. government
BT	Test or evaluation of commercial or military systems or hardware; disclosure of information could be detrimental to either U.S. government or contractor
BU	Contains preliminary or planning studies or analyses or internal information on the development or evaluation of programs or technologies that could be detrimental if disclosed outside U.S.
EE	Evaluation of contractor or other government agency problems
EP	Preliminary or internally controlled information on planning, funding, aor evaluation of DoD programs, systems, studies, or technologies that need protection from premature disclosure
ES	Discloses trade secrets or other proprietary information

METHOD OF ENTRY. Preparer of DD Form 1498 enters code by using the Mission Management System.

BLOCK 8B: CONTRACTOR ACCESS

DEFINITION. Decision whether the following information can be released to U.S. contractors and grantees, regardless of the distribution limitation entered in block 8A.

Control Data

- Agency accession number
- Date of summary
- Summary security
- Regrading information

Technical Information

- Title
- Scientific and technological area
- Technical objective

General Information

- Work security
- Program element, project, task area numbers
- Contract numbers
- Name and address of responsible government organization
- Name and address of performing organization
- Name of principal investigator

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using the Mission Management System.

BLOCK 9: LEVEL OF SUMMARY

DEFINITION. A code indicating that the summary represents a work unit.

METHOD OF ENTRY. Not required. Preprinted on DD Form 1498 as "work unit."

BLOCK 10: PROGRAM ELEMENT, PROJECT NUMBER, SUB-PROJECT/TASK, WORK UNIT NUMBER

DEFINITION. Program(s) that provide funding for work unit.

METHOD OF ENTRY. Automatically filled in by Mission Management System based on inputs made in project planning.

BLOCK 11: TITLE

DEFINITION. Brief, unclassified, descriptive title for work unit.

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using Mission Management System.

BLOCK 12: SCIENTIFIC AND TECHNOLOGICAL AREAS

DEFINITION. Descriptions of scientific or technological areas related to work unit.

METHOD OF ENTRY. Preparer of DD Form 1498 enters numerical code. Listing of codes are available from the Corporate Budget Office.

BLOCK 13: START DATE

DEFINITION. Date (month and year) when work has started or will start on work unit described on DD Form 1498.

METHOD OF ENTRY. Entered by preparer of DD Form 1498.

BLOCK 14: ESTIMATED COMPLETION DATE

DEFINITION. Date (month and year) when you estimate work described on DD Form 1498 will be completed. For completed or terminated work, enter the month and year when work actually stopped. Do not enter "cont."

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using Mission Management System.

BLOCK 15: FUNDING AGENCY

DEFINITION. Agency or agencies that provided or will provide funding to perform work unit.

METHOD OF ENTRY. Automatically entered by Mission Management System based on funding plan information.

BLOCK 16: PERFORMANCE METHOD

DEFINITION. How the work will be performed:

Code	Performer	Explanation
A	Grant	Work to be performd is funded by a grant
B	Contract	Work to be performed is funded by a contract
C	In-house	Work is to be performed within NOSC
D	Other government	Work to be performed by U.S. government agency other than DoD

METHOD OF ENTRY. Preparer of DD Form 1498 enters code by using the Mission Management System.

BLOCK 17: CONTRACT OR GRANT

DEFINITION. Includes complete contract identification:

Effective date (month and year) of contract (for contract extension, use date of extension).

Expiration date (month and year) when contract or extension will end.

Complete contract number.

Type of contract (contract pricing information that is basis for payment).

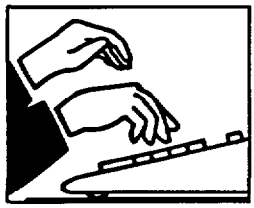
Contract amount (portion of amount applicable to work unit reported on DD Form 1498).

Contract cumulative amount (total amount provided to year on contract listed for work unit).

Type of award (identifies current kind of award) with codes:

NEW	Initial award
SUP	Provision of additional funds without extending contract
EXT	Provision of additional funds with an extension of contract
CON	Continuance of contract in time without additional funds

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using the Mission Management System. Use this block only if the performance method will be by contract.



BLOCK 18: RESOURCES ESTIMATE

DEFINITION. Funding (both monetary and workyears) for the current and preceding fiscal years.

METHOD OF ENTRY. Automatically filled in by Mission Management System based on funding plan information.

BLOCK 19: RESPONSIBLE DoD ORGANIZATION

DEFINITION. Identification of sponsor (agency and address) and responsible individual (name and phone number).

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using the Mission Management System, except for contract work where the Mission Management System defaults to NOSC and the principal investigator.

BLOCK 20: PERFORMING ORGANIZATION

DEFINITION. Identification of performing agency (name and address), principal investigator (name and phone number), and associate investigators (names).

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using the Mission Management System.

BLOCK 21: GENERAL USE

DEFINITION. Used to indicate information related to proposals and technology transfer.

PROPOSAL NUMBER. Include the proposal number if the work unit is for a previous proposal. Also if this is work that has transitioned from another work unit effort, enter that information.

TECHNOLOGY TRANSFER. Indicate whether the work unit consists of results that may be applicable to solving technology problems in the civilian sector. Use the following codes:

M	Military application only
H	High potential for civilian application
L	Limited potential for civilian application

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using Mission Management System.

BLOCK 22: KEY WORDS

DEFINITION. Single word or group of words that express major concepts of technical effort being described. Key words are used in conjunction with other terms to retrieve DD Forms 1498 by subject.

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using Mission Management System.

GENERAL TEXT

DEFINITION. Describes the objective, approach, and progress of the work unit being described:

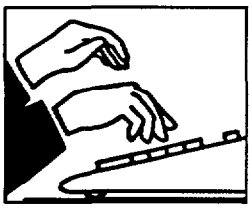
Objective: The goal or purpose of the work unit.

Approach: What methods will be used to accomplish that goal.

Progress: What has been done during a specified period to accomplish stated goal.

METHOD OF ENTRY. Entered by preparer of DD Form 1498 by using the Mission Management System.

APPENDIX D
WRITING PRACTICES



General Information

All types of written information must be clear, concise, coherent, and accurate.

To help achieve these goals, use the following writing principles:

Talk directly to the reader. Use active verbs and concrete words to explain facts and procedures in terms the reader will understand.

Use sentences that are short and straightforward, but do not sacrifice clarity for brevity. Do not invert the word order of a sentence without good reason.

Avoid the passive voice.

Do not stack modifiers. Normal word order is conversational word order. For example, no one would use an expression "convergence-zone-propagation-measurement results" in speech.

Use hyphens for clarity, but avoid excessive hyphenation. Reword to avoid the need for hyphens, if necessary. Do not use hyphens after prefixes such as "non," "sub," "micro," and "semi."

Avoid excessive capitalization. Do not capitalize the name of every project, program, system module, component, or part.

Avoid redundancy unless you have a compelling need for emphasis.

Use the technical words of your discipline, but not the jargon of your laboratory.

Make the purpose and relevance of every sentence clear and apparent.

Be clear, brief, and honest. Be forthright about omissions, inaccuracies, and errors.

Consider the needs of your audience. Tailor your information to the appropriate audience, for example, scientists, engineers, technicians, or Congressional representatives.

Do not use unnecessary adjectives or adverbs. Write with nouns and verbs to strengthen meaning. Do not use nouns or adjectives as verbs, for example, to optimize, to finalize.

Use the precise word or phrase, for example,

Criterion (singular), criteria (plural)

Medium (singular), media (plural)

Datum (singular), data (plural)

Do not use affected or imprecise words.

Just Plain English

The federal government's movement towards plain English was implemented under President Carter's Executive Order 12044, "Improving Government Regulations." This executive order was replaced with President Reagan's Executive Order 12291.

In support of these goals, the Department of Navy issued "Just Plain English." Although this publication is directed towards correspondence practices, some of the general writing principles regarding conciseness, style, organization, voice, and simplicity also apply to technical writing. The remainder of this section is excerpted from "Just Plain English," September 1981, Office of the Chief of Naval Operations (OP-09BR), Washington, D.C.

Compact Writing

Suspect wordiness in everything you write. Quarrel with the need for every paragraph, sentence, and word. The longer you take to say things, the more you blur your ideas. When deadlines permit, let your writing rest for a day and then rewrite it. To help you hunt for wordiness, here are some common sources that are easy to find and correct.

DOUBLINGS. Avoid writing about a project's importance and significance when importance will do. Pairs of words with similar meanings add needless bulk to writing.

IT IS. No two words hurt writing more than the innocent-looking "it is." They stretch sentences, delay your point, encourage passive verbs, and hide responsibility. Unless "it is" refers to something mentioned earlier, write around "it is." For example,

> "It is necessary that you revise ruthlessly" becomes "You need to revise ruthlessly."
>
> "It is realized" becomes "We realize" or "I realize."

Less common but no less wordy are "there is" and "there are." For example,

> "There are two alternatives mentioned in the report" becomes "The report mentions two alternatives."
>
> "There is a helicopter pad on the ship" becomes "A helicopter pad is on the ship."

You can avoid most of these beginnings with just a little rewriting.

SMOTHERED VERBS. Weak writing relies on general verbs, which take extra words to complete their meaning. When you write a general verb, see if a nearby word will make a more specific verb. Here are some common smothered (and unsmothered) verbs:

"...held a meeting to give consideration to (consider)..."

"...made the decision (decided) to give consideration (consider)..."

"...made the decision (decided) to give their approval to (approve)..."

THAT AND WHICH. Eliminate "that" and "which" from your writing. These words often do not help meaning or flow. Sometimes you can just drop either word:

"We believe 'that' the changes will help."

Sometimes you will have to rewrite slightly:

"A system 'which' is reliable" becomes "A reliable system."

THE _____ION OF. Shorten words ending in "ion" when the context permits. For example,

"I recommend adoption of the plan" becomes "I recommend adopting the plan."

"We want the participation of the command" becomes "We want the command to participate."

Words ending in "ion" are verbs turned into nouns. Writing is shorter when verb (action) forms are favored over noun (static) forms.

WORDY EXPRESSIONS. Wordy expressions do not give writing impressive bulk; they litter it by getting in the way of the words that carry the meaning. Verbs and nouns do the real work; long linking phrases do not deserve the attention they receive. So simplify forms of the following four common wordy expressions:

"In order to" becomes "to"

"For the purpose of" becomes "to"

"In the near future" becomes "soon"

"In the event that" becomes "if"

These wordy expressions and others appear in the section, "Simpler Words and Writing."

HUT 2-3-4 PHRASES. Although you should cut needless words, sometimes you can go too far. Avoid building hut 2-3-4 phrases, i.e., long clusters of nouns and modifiers. Readers cannot easily tell what modifies what or when such clusters will end. You may have to use official hut 2-3-4

phrases like "air traffic control radar beacon system," but you can avoid creating unofficial ones. For example,

> "Computer programs advance information" becomes "Advance information on computer programs."
>
> "Rapid operational equipment distribution" becomes "Rapid distribution of operational equipment."

By increasing the number of words, you increase reading speed.

SPECIALIZED TERMS. The overuse of specialized terms is false economy. Avoid your job's shorthand with outsiders, and use it no more than you must with the insiders. Spell out uncommon abbreviations and acronyms the first time they appear. If they will appear only twice, a good rule is to spell them out both times. The goal is to keep readers from pausing to decide your shorthand. Of course, spelling a strange abbreviation may not help much. Are you any closer to understanding SDI by knowing it means systemized dynamic interface? You will avoid using terms others do not understand by testing everything you write as if you were the reader.

Natural Writing

To avoid a bureaucratic style, make your writing like speaking. Because readers "hear" writing, the most readable writing sounds like people talking to people.

Begin by imagining your reader is in front of you. If you are writing to many different people and none in particular, picture one typical reader.

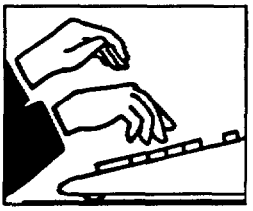
Once you have written a draft, read it aloud. Take the time to revise. For most of us, good writing really means good rewriting. It is worth the effort and will help the many who must read your writing.

RESPECT PLAIN WORDS. Use small words. "Issue" directives, do not "promulgate" them. "Start" things, do not "initiate" them. Readers may know "utilize" means "use" and "optimum" means "best," but why force them to translate? You sell yourself in your writing. Come across as a sensible person, someone who knows that good English is plain English.

USE SHORT TRANSITIONS. Prefer short, spoken transitions over long, bookish ones. Use

> "But" rather than "however."
>
> "Also" rather than "in addition."
>
> "Still" rather than "nevertheless."
>
> "So" more than "consequently" or "therefore."

The shorter transitions help set the right tone, a natural one, for the rest of what you say. Save the longer transitions for variety.



ASK MORE QUESTIONS. Reach out to your readers by asking questions. A request gains emphasis when it ends with a question mark (?). In a long report, a question can be a welcome change.

KEEP SENTENCES SHORT. For variety, mix long sentences and short ones, but average 20 words or less. Although short sentences will not guarantee clarity, they are usually less confusing than long ones.

To-the-Point Writing

Much writing follows a pattern of organization that is easy on writers but hard on readers. Most of us write the way we think, by leading up to our conclusions. From a reader's perspective, it is the clue-by-clue pattern of mystery stories. A more helpful pattern is that of newspaper articles, which open with the most important information and taper off to the least important.

OPEN WITH YOUR MAIN POINT. What is the one sentence you would keep if you could keep only one? That sentence is your main point. Whenever you can, start with that sentence.

Give commands before reasons, requests before justifications, answers before explanations, and conclusions before details. Readers need to know your main point early so they can appreciate the relevance of whatever else you say.

If no single sentence stands out, you may need to create one to keep from wandering aimlessly. Occasionally, as in a set of instructions or a reply to various questions, all your points may be equally important. In this case, start with a sentence that tells your readers what to expect: "These are the training quotas for FY 90."

USE SHORT PARAGRAPHS. Important ideas are swamped in long paragraphs. Cover one topic completely before starting another, and let a topic take several paragraphs if necessary. Keep paragraphs short, down to roughly four or five sentences. Long paragraphs will divide where your thinking takes a turn. By adding white space, you make reading easier.

Call attention to lists of items or instructions by displaying them in sub-paragraphs. When topics vary widely, use headings to catch your reader's eye.

WRITE STRONG SENTENCES. Write emphatic sentences. For example,

> Not: Reference (a) proposed double coding 21 Navy billets. The rationale was that these billets then would have more candidates. This proposal is supported.

But: We support double-coding 21 Navy billets, which reference (a) proposed.

Or: We support the proposal in reference (a) to double-code 21 Navy billets.

Or: We support the referenced proposal to double-code 21 Navy billets.

The "not" example wrongly gives the reference a major role as the subject of an independent clause. The remaining examples give the reference its proper minor roles first in a dependent clause, then in a phrase, and finally in a single adjective. As emphasis on the reference decreases, emphasis on important ideas increases.

Emphasis also increases on words that begin and end sentences. For example, the following sentence stresses "soon":

"The course will be given to middle and senior managers soon."

"Soon" would receive less emphasis if placed in the middle of the sentence. If "soon" were the opening word, its emphasis would be compounded by its placement and the reversal of normal work order. Begin and end sentences with any words you like, but keep in mind that you can make important ideas stand out by positioning them strategically.

KEEP LISTS PARALLEL. In lists, stay with one pattern. By avoiding interruptions, you set up expectations that make reading easy. Violations of parallelism occur most often when writers mix the following:

Things and actions

Statements and questions

Active instructions and passive ones

The headings in this section form a list of active instructions. The idea is to be consistent. Make ideas of equal importance look equal.

After you have mastered this kind of parallelism, go on to subtle forms that involve balancing words with words, phrases with phrases, and clauses with clauses. You will find them discussed in any grammar text.

Active Writing

Write actively most of the time. Over 75 percent of the verbs in magazines and newspapers are active. Many writers, however, make 75 percent of their verbs passive. As a result, much writing is wordy, roundabout, and sometimes confusing.

PUT 'DOERS' BEFORE VERBS. To spot passive verbs, look for any form of "to be" plus the past participle of a main verb (a verb usually ending in "-en" or "- ed"). For example

Was inspected

Has been left

Is being anchored

May be chosen

Sentences written with passive verbs are wordy and roundabout. They reverse the natural, active order of English sentences. In the passive example below, notice how the receiver of the verb's action comes before the verb and the doer comes after:

Active: The skipper *inspected* the ship.
(doer) (verb) (receiver)

Passive: The ship *was inspected* by the skipper.
(receiver) (verb) (doer)

Besides lengthening and twisting sentences, passive verbs often muddy them. Whereas active sentences must have doers, passive ones are complete without them:

Nominations must be approved beforehand. By whom?

Plans are being made. By whom?

You will be notified. By whom?

To avoid most passive verbs, find the doer of the verb's action and put it before the verb. By leading with the doer, you automatically will follow with an active verb:

Supervisors must approve nominations beforehand.

We are making plans.

I will notify you.

You can sometimes avoid a passive verb without rearranging the sentence. Simply change the verb or drop part of it:

arrived.
Your request ~~has been received~~.

Annapolis is ~~located~~ in Maryland.

Write passively now and then—when you have a good reason not to say who or what does the action; readers understand the passive voice faster than the active voice when passives are appropriately used.

WRITE DIRECT INSTRUCTIONS. Instructions deserve special attention because we write so many of them, often with so many passives. When describing how to do something, talk directly to your readers by leading with verbs. Imagine someone has just walked up to you and asked what to do.

All safes will be checked. --------> Check all safes.

Each dial must be spun. --------> Spin each dial.

To improve instructions further, apply these next techniques:

State rules before exceptions.

Stress important points.

Choose exact words.

Say who does what.

Give examples for difficult ideas.

Divide processes into small steps.

Use headings, subparagraphs, parallel lists.

Answer likely questions.

Test your material.

Rewrite to avoid ambiguity.

Nonsexist Language

Use the following guidelines to avoid language that is sexually oriented:

Avoid the use of sex references in job titles: crew member vs crewman or employee vs workman.

Avoid the use of male and female gender word forms: aviator vs aviatrix.

Include both sexes by using terms that refer to people as a whole: human beings vs mankind.

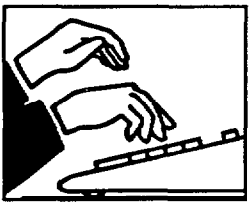
Avoid the use of masculine and feminine pronouns and adjectives in referring to a hypothetical person or persons: "The average American worker spends 20 years of his life in the work force" can be changed to "The average American spends 20 years in the work force," or "Most Americans spend 20 years of their lives in the work force," or "An average American spends 20 years of his or her life in the work force." In the first example, the sentence has been reworded to eliminate unnecessary gender pronouns and adjectives; in the second, the sentence is recast in the plural form; and in the third, masculine or feminine pronouns are replaced.

Refer to both men and women in such generic terms as economist, doctor, or lawyer. Identify sex through pronouns: "The lawyer made her final summation."

Avoid the use of stereotyped terms or expressions such as mansized job; use worker-hour versus manhours or manyears.

Avoid the generic "he" (usually used after terms such as reader or employee) by pluralizing the antecedent, pluralizing pronouns while leaving antecedents singular, using both he and she, or recasting the sentence.

Appendix D



Simpler Words and Writing

Writing does not demand big words or fancy phrases. Write naturally—in words you speak with. Those words are usually small. The basis of English is in its small, often one-syllable words. Not only do they save typing and reading time, they make writing livelier and ideas clearer.

Word	Alternative
accompany	go with
accomplish	carry out, do
accomplish (a form)	fill out
accordingly	so
accrue	add, gain
accurate	correct, exact, right
achieve	do, make
actual	real
additional	added, more, other
address	discuss
adjacent to	next to
advantageous	helpful
advise	recommend, tell
afford an opportunity	allow, let
aircraft	plane
anticipate	expect
a number of	some
apparent	clear, plain
appear	seem
appreciable	many
appropriate	proper, right
approximately	about
as a means of	to
ascertain	find out, learn
as prescribed by	under
assist, assistance	aid, help
attached herewith is	here is
attempt	try
at the present time	now
be responsible for	handle
benefit	help
by means of	by, with
capability	ability, can
category	class, group
caveat	warning

Word	Alternative
close proximity	near
cognizant	aware, responsible
combined	joint
comply with	follow
component	part
comprise	form, include, make up
concerning	about, on
conclude	close, end
concur	agree
confront	face, meet
consequently	so
consolidate	combine
constitute	merge, join, combine
construct	build
contains	has
continue	keep on
contribute	give
deem	think
delete	cut, drop
demonstrate	prove, show
depart	leave
designate	appoint, choose, name
desire	wish
determine	decide, figure, find
develop	grow, make
disclose	show
discontinue	drop, stop
disseminate	issue, send out
due to the fact that	due to, since, as
echelon	level
effect	make
elect	choose, pick
eliminate	cut, drop, end
employ	use
encounter	meet
encourage	urge
endeavor	try
ensure	make sure
enumerate	count
equitable	fair
equivalent	equal
establish	set up, prove, show

Word	Alternative
evaluate	check, rate, test
evidence	show
evident	clear
examine	check, look at
exhibit	show
expedite	hurry, rush, speed up
expeditious	fast, quick
expend	pay out, spend
expense	cost, fee, price
expertise	ability, skill
explain	show, tell
facilitate	ease, help
factor	reason, cause
failed to	did not
feasible	can be done, workable
females	women
final	last
finalize	complete, finish
for a period of	for
for example	such as
forfeit	give up, lose
for the purpose of	for, to
forward	send
function	act, role, work
furnish	give, send
herein	here
however	but
identical	same
identify	find, name, show
immediately	at once
impacted	affected, changed, hit
implement	carry out, do
in accordance with	by, following, under
in addition	also, besides, too
in an effort to	to
inasmuch as	since
in a timely manner	on time
inception	start
in conjunction with	with
in consonance with	agree with
incorporate	blend, join, merge

Word	Alternative
incumbent upon	must
indicate	show, write down
indication	sign
initial	first
initiate	start
in lieu of	instead of
in order that	for, so
in order to	to
in regards to	about, concerning,
in spite of the fact that	despite
interface with	deal with
interpose no objection	do not object
in the amount of	for
in the event that	if
in the near future	soon
in view of	since
in view of the above	so
justify	prove
legislative	law
liaise with	coordinate, talk with
limited number	few
limitation	limits
locate	find
location	place, scene, site
magnitude	size
maintain	keep, support
majority	greatest, longest
males	men
methodology	method
minimize	decrease, lessen, reduce
modify	change
monitor	check, watch
nebulous	vague
necessitate	cause, need
nonconcur	disagree
notify	let know, tell
not later than	by
numerous	many, most

Word	Alternative
objective	aim, goal
obligate	bind, compel
observe	see
obtain	get
operate	run, work
operational	working
optimum	best, greatest, most choice,
option	choice, way
parameters	limits
participate	take part
perform	do
permit	let
personnel	people, staff
pertaining to	about, of, on
point in time	point, time
portion	part
position	place, put
possess	have, own
practicably	practical
preclude	prevent
prepared	ready
previous	earlier, past
prioritize	rank
prior to	before
probability	chance
procedures	rules, ways
proceed	do, go on, try
proficiency	skill
programmed	planned
promulgate	announce, issue
provide	give, say, supply
provided that	if
provides guidance for	guides
purchase	buy
pursuant to	by, following, under
reason for	why
recapitulate	sum up
reduce	cut
reflect	say, show
regarding	about, of, on
relating to	about, on

Word	Alternative
relocation	move
remain	stay
remainder	rest
remuneration	pay, payment
render	give, make
request	ask
require	must, need
requirement	need
reside	live
retain	keep
review	check over
selection	choice
shortfall	shortage
similar to	like
solicit	ask for
state	say
state-of-the-art	latest
subject	the, this, your
submit	give, send
subsequent	later, next
subsequently	after, later, then
substantial	large, real, strong
sufficient	enough
task	ask
terminate	end, stop
therefore	so
therein	there
there is	exist
thereof	either
timely	prompt
time period	(either one)
transmit	send
transpire	happen, occur
until such time as	until
(the) use of	use
utilize, utilization	use
validate	confirm
value	cost, worth
verbatim	exact

Appendix D

Word	Alternative
viable	practical
vice	instead of, versus
warrant	call for, permit
whenever	when
whereas	since
with reference to	about
with the exception of	except for
witnessed	saw

APPENDIX E
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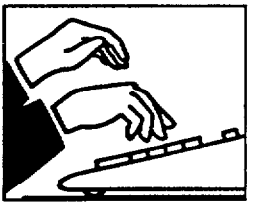

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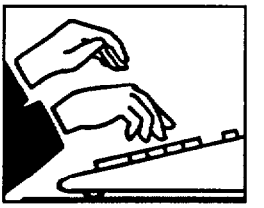
APPENDIX F
List of Acronyms

CAB	Center Advisory Board
CIA	Central Intelligence Agency
CMCC	Classified Material Control Center
CNO	Chief of Naval Operations
CNWDI	critical nuclear weapons design information; also N
COM	computer-output microfilm
COMSEC	communications security
COTR	Contracting Officer's Technical Representative
CVR	camera/video/recording
DID	data item description
DLSC	Defense Logisitics Service Center
DMA	Defense Mapping Agency
DMO	Data Management Office
DTIC	Defense Technical Information Center
EOF	end-of-file
FOMM	functionally oriented maintenance manual
FRD	formerly restricted data
FSCM	Federal Supply Code for Manufacturers
GIDEP	Government–Industry Data Exchange Program
GSA	Government Services Administration
IPB	illustrated parts breakdown
IPR	in-process review

IR/IED	Independent Research and Independent Exploratory Development
IR&D	Independent Research and Development
ISA	Intraservice Support Agreement
JCP	Joint Committee on Printing
LPS	Laboratory Program Summary
MCT	military critical technology
MCTL	Militarily Critical Technologies List
NAVAIR	Naval Air Systems Command
NAVOTTSA	Navy Office of Technology Transfer and Security Assistance
NAVSEA	Naval Sea Systems Command
NNPI	naval nuclear propulsion information
NOAA	National Oceanic and Atmospheric Administration
NOCONTRACT	not releasable to contractors/consultants; also NC
NOFORN	not releasable to foreign nationals; also NF
NPCP	Navy Potential Contractor Program
NPFC	Naval Publications and Forms Center
NPPS	Navy Publishing and Printing Services
NPPSBO	Navy Publishing and Printing Services Branch Office
NPPSO	Navy Publishing and Printing Services Office
NSDSA	Naval Sea Data Support Activity
NTIS	National Technical Information Service
OADR	originating agency's determination required
ORCON	dissemination and extraction of information controlled by originator; also NC
PDC	Project Documentation Center

PROPIN	caution—proprietary information involved; also PR
R&D	research and development
R&TWUIS	DoD's Research and Technology Work Unit Information System
RD	restricted data
REL	authorized for release to _____; also REL TO
RM	retrievable manuscript
RDT&E	research, development, test, and evaluation
SPAWAR	Space and Naval Warfare Systems Command
STI	scientific and technical information
STIP	Scientific and Technical Information Program
TD	technical document
TID	Technical Information Division
TM	technical manual
TMCR	technical manual contract requirement
TMIN	technical manual identification number
TMINS	technical manual identification numbering system
TMOP	technical manual organization plan
TN	technical note
TR	technical report
UCC	Universal Copyright Convention
USGS	United States Geologic Survey
WNINTEL	warning notice—intelligence sources and methods involved; also WN

APPENDIX G
Where to Get Help at NOSC



ORGANIZATION	AREA OF ASSISTANCE
Audiovisual Manager, Code 9603	Information on CVR equipment permits Video or photographic equipment (borrow or purchase)
Budget Office, Code 10	DD Forms 1498 Mission Management System
Data Management Office, Code 9122	Data requirements for deliverables
Computer-Aided Design and Documentation Branch, Code 935	Procurements with engineering drawings Review of engineering drawings NOSC drawings numbers Drawing titles or type designators
Information Security Office, Code 152	Classification of material Marking classified material Distribution statements Distribution of material to foreign governments, foreign nations, or foreign organizations Security clearance of contractors Registration of contractors to receive export-controlled material Duplication of classified work on self-service copiers Contractor's access to NPPS
Navy Publishing and Printing Service	Printing services Duplicating services Binding services Micropublishing Self-service copiers Paper for self-service copiers

Office of Legal Counsel (Patent Counsel), Code 0012	Laboratory notebooks—inclusion of material and review for patentable information Proprietary information—contractor's markings, duplication, and disclosure Copyright—work by NOSC employees, data delivered to NOSC, duplication Contractor access to information in a project documentation center
Operations Branch, Code 642	Optical instrumentation services
Planning, Intelligence, and Analysis Office, Code 16	Reviewing publications with intelligence data Studies and analyses to be reported on DD Forms 1498 Work breakdown structures
Product Assurance Division, Code 92	Review of engineering drawings NAVSEA engineering drawing numbers GIDEP
Program Director for Research, Code 013	DD Forms 1498 for IR work Export controls for IR work
Program Director for Technology, Code 014	DD Forms 1498 for IED work Export controls for NOSC work Changes to the MCTL
Public Affairs Office, Code 032	Distribution statements
Publications Branch, Code 961	Writing and editing services Composition services Coordination of Center's printing program NOSC publications—TRs, TDs, TMs, and TNs Hardware and software technical manuals (NOSC-numbered and system-command numbered) Distribution statements Distribution lists Liaison with DTIC—NOSC-numbered publications, journal articles, contractor-prepared publications, and software Distribution of NOSC-numbered publications Estimate of costs of publications Numbers for NOSC publications

Publications Branch (continued)	Numbers for systems-command technical manuals Brochures and flyers Requirements for project documentation centers Self-service copiers Review of contracts that include TID services
Technical Libraries Branch, Code 964	Literature searches Searches of DD Form 1498 database Registration of databases in Center's database of databases Consulting service on databases Contractor or visitor use of technical library Book acquisition Periodical acquisition Translations Interlibrary loans Maps and charts Control of laboratory notebooks
Visual Media Branch, Code 964	Presentation aids—viewgraph, slides, and posters Video productions Logos Copies of Navy seal Brochures and flyers Photographic work Distribution of photographic or video work off-Center

APPENDIX H
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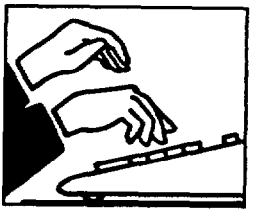

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