

# Classification Management

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# **PROGRAM**

## **THIRD NATIONAL SEMINAR**

### *Security with Economy*

**International Conference Room, Department of State,  
Washington, D.C., July 19-21, 1967**

### **Wednesday, July 19**

- 8:00 a.m. **REGISTRATION** (Enter State Department building at C Street door)
- 9:00 a.m. **CALL TO ORDER BY SEMINAR CHAIRMAN**, Howard G. Maines, National Aeronautics and Space Administration.  
**WELCOME BY CHAIRMAN OF THE BOARD**, Donald B. Woodbridge, Union Carbide Corporation, Nuclear Division.  
**BUSINESS MEETING CONDUCTED BY PRESIDENT**, Richard L. Durham, Office of the Assistant Secretary of Defense (Atomic Energy).  
**CHAPTER REPORTS:**  
Northern California — Robert D. Donovan, United Aircraft Corporation.  
Southern California — Richard J. Boberg, Aerospace Corporation.  
Washington, D.C. — Alfred E. Dupell, Department of the Navy.
- 10:45 a.m. **KEYNOTE ADDRESS**, Honorable John E. Moss, Member of Congress, Third District, California, Chairman of Foreign Operations and Government Information Subcommittee of the Committee on Government Operations.
- 12:00 noon **LUNCHEON**  
**WELCOME**, Honorable Idar Rimestad, Deputy Undersecretary of State for Administration.  
**LUNCHEON ADDRESS**, Joseph J. Liebling, Director for Security Policy, Department of Defense.

1:45 p.m. **PANEL — EXECUTIVE ORDERS AND LAWS AFFECTING CLASSIFICATION IN THE GOVERNMENT.**

Moderator — Clifford J. Nelson, Department of Justice.  
Panelists from the Atomic Energy Commission, Department of Defense, Department of Justice, and National Aeronautics and Space Administration.

4:00 p.m. **PANEL — RESEARCH IN AUTOMATED CLASSIFICATION MANAGEMENT**

Moderator — Joseph F. Cunningham, Bureau of the Budget.  
Panelists from ADP suppliers.

6:30 —

8:30 p.m. **PRESIDENT'S RECEPTION**, Eighth Floor Reception Rooms, Department of State Building.

### Thursday, July 20

9:00 a.m. **PANEL — CLASSIFICATION IN THE DEPARTMENT OF DEFENSE TODAY**

Moderator — George MacClain, Department of Defense.  
Panelists from the Army, Navy, Air Force, and Department of Defense.

11:15 a.m. **CLASSIFICATION IN THE FEDERAL GOVERNMENT**, John F. Doherty, Chairman, Interdepartmental Committee on Internal Security.

12:00 noon **LUNCHEON**

**CLASSIFICATION IN MILITARY R&D WORK**, Lieutenant General Austin W. Betts, Chief of Research and Development, U. S. Army.

1:45 p.m. **PANEL — INTERNATIONAL ASPECTS OF CLASSIFICATION MANAGEMENT**

Moderator — Richard L. Durham  
Panelists from Department of Commerce, Department of State, Joint Atomic Information Exchange Group, and National Military Information Disclosure Policy Committee.

4:00 p.m. **TECHNOLOGICAL INFORMATION AND PUBLIC RELEASE**, James J. Bagley, U. S. Naval Research Laboratory.

4:30 p.m. **CLASSIFICATION IN DEFENSE-ORIENTED CONTRACTOR FACILITIES**, N. V. Petrou, President, Westinghouse Defense and Space Center.

## Friday, July 21

9:00 a.m. **PANEL – INDUSTRIAL ASPECTS OF CLASSIFICATION MANAGEMENT IN WEST COAST DEFENSE/AEROSPACE INDUSTRY**

Moderator – Richard J. Boberg  
Panelists from major firms in Southern California.

11:15 a.m. **PANEL – CLASSIFICATION MANAGEMENT IN THE NONPROFIT RESEARCH ORGANIZATION**

Moderator – Leslie M. Redman, University of California, Los Alamos Scientific Laboratory  
Panelists from leading R&D laboratories.

1:00 p.m. **ADJOURNMENT**

Seminar Chairman Howard G. Maines, Chief, Classification Management and Industrial Security Branch, National Aeronautics and Space Administration, Washington, D.C.

Committee Chairmen

Correspondence Francis X. Jahn, Manager, Security, Westinghouse Defense and Space Center, Baltimore, Maryland.

Facilities Colonel Sidney S. Rubenstein, Industrial Security Coordinator, Mosler Safe Company, Arlington, Virginia.

Finance Eugene J. Suto, Supervisor, Security and Documents, Research Analysis Corporation, McLean, Virginia.

Program Leslie S. Ayers, Director of Classification, U. S. Arms Control and Disarmament Agency, Washington, D.C.

Registration Robert G. Niles, Assistant Chief, Classification and Policy Management, Defense Atomic Support Agency, Washington, D.C.

Reporting Leo J. Hodges, Chief, Security and Management Branch, Office of Inspector General, Andrews Air Force Base.

Special Activities Commander Dominic Brace, Jr., Head, Classification Management and Visit Control Branch, Naval Air Systems Command, Washington, D.C.

Registration fee \$30. Includes two luncheons and the President's Reception; spouses may come to the Reception.

For advance registration send check to Eugene J. Suto, 6116 Roseland Lane, Rockville, Maryland 20852 (see registration form, back page).

Seminar will be completely reported in the next *Society Journal* which will be sent to all attendees.

# COMPUTER-GENERATED INDEXES FOR CLASSIFICATION GUIDES†

By C. C. Carnes

†The work described in this article was done at Los Alamos Scientific Laboratory, University of California, Los Alamos, New Mexico, and at Rocky Flats Division, Dow Chemical Company, Golden, Colorado, under Atomic Energy Commission contracts.

## Introduction

Good indexes are essential for classification guides. The imperative nature of classification management requires the effective and reliable use of classification guides, even though the user is often not intimately acquainted with the scope, organization, and rationale of the guide contents. That requirement can be met only by accurate, detailed, and up-to-date indexes to guides. The maintenance of indexes of this high quality is made particularly difficult by the continuing revision of most guides.

Fortunately the tools required to accomplish this task with a minimum of effort have been developed and are in widespread use. Computer indexing is a well established technique. (1) In particular the Key Word In Context (KWIC) index (2) (3) is ideally suited to classification guides.

## Description of One KWIC Index

Here is a sample topic typical of those in the Dow Rocky Flats Classification Guide (4) which was the first guide to be indexed by computer:

4321.0 The fact of use of plutonium in unspecified nuclear weapons U

The number uniquely identifies the topic. The terminal letter indicates the classification of the information referred to. There were originally a total of 386 such topics in the guide. The topics ranged in length to 380 characters, not including the number and classification letter.

In Figure 1 below are the index entries that would be made from the sample topic. The key words in the topic (those not contained in a list of insignificant words) are "plutonium," "nuclear," and "weapons." The entries are arranged in the index alphabetically by the key words, with the key words appearing near the center of the line, and with as much context from the topic as there is room for on both sides of the key word. A special character is used to indicate the end of the topic (an asterisk in the example). When the remainder of the topic does not fill the line, text from the beginning is used.

All rearranging and alphabetizing is accomplished by the computer. All words in the guide topics except those in the list of insignificant words are entered as individual key words in the index. There were 2400 entries

PLUTONIUM IN UNSPECIFIED NUCLEAR WEAPONS* THE FACT	4321.0
THE FACT OF USE OF PLUTONIUM IN UNSPECIFIED	4321.0
Fig. 1 UNSPECIFIED NUCLEAR WEAPONS* THE FACT OF USE OF	4321.0

printed on 49 pages in the *KWIC Index to the Rocky Flats Classification Guide*.<sup>(5)</sup>

### *Production of Rocky Flats Index*

This index was produced on relatively unsophisticated data processing equipment. The first step was to key-punch the entire text of the guide on IBM cards. Each topic required from one to seven cards depending on the topic length. The total deck for the guide contained 733 cards. This key-punching operation, similar to retyping the guide, required several hours of keypunch operator time. When the guide is revised, cards need be punched only for changed and added topics.

The information on the cards is then transferred to magnetic tape. The computer manipulates this information to produce the index. A standard IBM program for library applications was used without modification. The complete text of a topic was treated as if it were a title for the purpose of the program. The title field has a maximum capacity of 500 characters which was adequate for this application. If any topic is longer than this it must be split for indexing purposes or the program must be modified.

The computer printout is used as the master copy for reproduction of indexes. The printout can be done on direct masters for offset reproduction, thus eliminating an intermediate step.

A list of insignificant words must be prepared prior to production of the index. The easiest way is to prepare a list of the obvious words such as articles, conjunctions, etc., and

make a trial run using this list. The index generated can then be examined for remaining garbage (we had printed out several pages of "fact of") and words can be added to the list if appropriate.

The particular program used will require decisions to be made on the use of punctuation. For example, whether the program used will index on the second segment of a hyphenated word will influence the decision as to whether the hyphens should be omitted in the keypunching operation. Printer or program limitations may preclude the use of certain characters such as parentheses.

Conventions on the use of abbreviations should be established. This is one of the niceties of editorial practice that become necessary with the use of machine methods.

The bulkiness of this kind of index may well pose a problem. Bulkiness could be alleviated by photo-reduction of the copy, but this entails an additional production step. An even greater compression could be achieved by using considerable photo-reduction and a two-column format.

### *Further Applications*

A KWIC index is currently being prepared for the new *Joint Task Force Eight Classification Guide*.<sup>(6)</sup> This guide and index use the same format as the previous example. A slight change in punched card format has been made for greater flexibility.

A KWIC index was also prepared for a draft of the *AEC-DoD General Classification Guide for Continental Test Operations*.<sup>(7)</sup> This guide is written in the conventional AEC format

using sub-paragraphs, rather than the independent entry format. The sub-paragraph format is slightly more difficult to index, and the resulting index is somewhat less useful, but in spite of these problems a workable index resulted.

### *Primary Advantages of KWIC*

The most obvious advantage of the KWIC index is ease of maintenance. This was the primary reason for the first application of this technique to a classification guide. An adequate conventional index is often prepared when a guide is first issued, but typically the index revisions do not keep pace with the guide revisions. With KWIC the production of an accurate, up-to-date, detailed index is reduced to a clerical task that can be performed by someone with no comprehension of the document's contents.

An additional advantage has become apparent during the use of KWIC indexes to classification guides. This advantage pertains to the user of the index, particularly to a user not familiar with the organization of the guide. The KWIC index gives the user confidence that he has consulted all topics relevant to his problem even if they happen to be scattered throughout the guide.

### *Derivative Advantages*

If the cards are punched early in the rough-drafting stages of the guide, subsequent drafts can be easily obtained by adding, deleting, or replacing

the pertinent cards (hopefully only a small fraction of the deck) and running the deck through a printer or a card-driven electric typewriter. If necessary the printer or typewriter can produce direct masters for offset reproduction. The finished guide could even be produced this way if the usual upper case limitation is not objectionable.

The index is also a valuable editorial tool in that it provides convenient feedback on vocabulary control. For instance, if it is desirable to use one of two synonymous terms throughout the guide, the index provides a quick check on consistency and pinpoints any remedial action necessary.

### *Alternate Format*

There are computer programs available that produce KWIC-type indexes in a somewhat different format. In one of these the key word is printed at the left of the page and is followed by the complete topic in normal word order (Figure 2).

For a guide of the "independent entry" format, that is, where the meaning of topics is not dependent on a subordinating structure, this type of index could supplant the guide itself, as the entire topic would be entered under each of its key words. The "index-guide" eliminates the cross reference operation.

Disadvantages of this format are the somewhat slower scanning because the context words are not adjacent to the

<b>Fig. 2</b>	PLUTONIUM	THE FACT OF USE OF PLUTONIUM IN		
	UNSPECIFIED NUCLEAR WEAPONS	4321.0	U	



extracted key word, and the possible separation of related topics when the index replaces the guide. Careful selection of vocabulary would minimize the latter.

### *Possible Extensions*

A natural extension of the use of the index for one document is to include other documents in the index. Classification guidance received at an installation could be keypunched and included to create a master index to all classification guidance in effect at the particular installation.

If this practice became widespread, it might be desirable to establish a uniform format and to transmit guidance by punched cards.

This technique would make practicable a master index to all classification guidance originated or approved by an agency or department, facilitating checking for consistency in guidance, and even perhaps making possible a comprehensive master guide.

### *The Ultimate*

The ultimate step in the automation of classification guidance would be to devise a formal syntax for the statement of guidance so that a computer could manipulate the logical interrelationships of topics. This syntax could be based on the mathematical approach of symbolic logic and Boolean algebra, or it could be based on the more semantic approach of classifying term relationships by means of "links" and "roles" as used in the Engineers Joint Council indexing system. (8) Such a formal syntax

would make possible computer checks on guidance consistency. In addition the computer could then be utilized in studying the "information impedance" of complex information networks. (9)

### *Reference List:*

- (1) "Automatic Indexing: A State-of-the-Art Report," *NBS Monograph 91*, 30 March 1965, U. S. Government Printing Office, \$1.50.
- (2) Luhn, H. P., "Keyword-In-Context Index for Technical Literature," *American Documentation*, Vol. 11 (1960) pp. 288-295.
- (3) *General Information Manual, Keyword-In-Context (KWIC) Indexing*, IBM Pamphlet E20-8091.
- (4) *Rocky Flats Classification Guide*, The Dow Chemical Co., Rocky Flats Div., Golden, Colorado, January 25, 1965, RFP-405, Secret Restricted Data.
- (5) *KWIC Index to the Rocky Flats Classification Guide*, The Dow Chemical Co., Rocky Flats Div., Golden, Colorado, May 10, 1965, RFP-600, Secret Restricted Data.
- (6) *Joint Task Force Eight Classification Guide* (includes the KWIC Index) to be issued in the Summer of 1967, JTF-8 Headquarters, Sandia Base, Albuquerque, N.M., Confidential Defense Information.
- (7) Index to the Draft dated Jan. 1967 of the *AEC-DoD General Classification Guide for Continental Test Operations*, CG-WT-2, DCL-599,

Los Alamos Scientific Laboratory,  
Los Alamos, N.M., Secret Restricted  
Data.

- (8) Bart E. Holm, *Information Retrieval—The Problem; Coordinate Indexing — A Solution*, Report of Engineers Joint Council, August

1963.

- (9) C. C. Carnes, "Application of Information Science to Security Classification," *Classification Management, Journal of the National Classification Management Society*, Vol. 1, No. 1, pp. 15-18.

## DOWNGRADING AND DECLASSIFICATION — SOME OBSERVATIONS

By Arthur F. Van Cook

The purpose of this article is to present some ideas of my own applicable to the problem of downgrading and declassifying information classified under Executive Order 10501. It should be understood at the outset that the ideas conveyed here do not represent, directly or indirectly, an official point of view of the Department of Defense or any of its subordinate elements. In this connection, the reader will notice that I have some observations that show that I do not believe that in all respects the existing established downgrading and declassification system is everything it should be. Anything written here that is critical of the existing system is offered so that it will provide food for thought on the part of anyone either in or outside the government who is interested in an effective and usable downgrading and declassification system.

The automatic downgrading and declassification system was established in the Executive branch in September 1961 under the provisions of Executive Order 10964 (amendment to Executive Order 10501). This

order provides that for automatic downgrading and declassification purposes, four categories of information are identified. These are:

Group 1: Information or material originated by foreign governments or international organizations and over which the United States has no jurisdiction, information or material provided for by statutes such as the Atomic Energy Act, and information or material requiring special handling such as intelligence and cryptography. This information is excluded from automatic downgrading or declassification.

Group 2: Extremely sensitive information or material that the head of an agency or his designees exempt, on an individual basis, from automatic downgrading and declassification.

Group 3: Information or material that warrants some degree of classification for an indefinite period. Such information or material is automatically downgraded at twelve-year intervals until the lowest classification is reached.

ed, but is not automatically declassified.

Group 4. Information or material that does not qualify for, or is not assigned to, one of the first three groups. Such information or material is automatically downgraded at three-year intervals and is automatically declassified twelve years after issuance.

In addition, Executive Order 10964 provides for continuing review of classified information on a document-by-document, category, project, program, or other systematic basis, for the purpose of downgrading and declassification whenever national defense considerations permit. Further, it provides that to the fullest extent practicable the classifying authority shall predetermine at the time of original classification if the information can be downgraded or declassified at a specified future date or after a specified event and shall so mark the information.

So much for the provisions of the automatic system. Now let's turn to its objectives.

The designers of the automatic downgrading and declassification system expected that effective implementation would accomplish these things:

Preserve the effectiveness and integrity of the classification system.

Eliminate classification of information that no longer requires protection, thus reducing the accumulation of classified material.

Make more information on government activities available to the public.

Reduce the costs incurred in the storage and handling of classified information.

Late in 1964, a partial study of the implementation of the automatic downgrading and declassification system indicated that it was not attaining fully the objectives for which it was designed. It was found, for example, that declassification of the Group 4 material after twelve years is not resulting in a reduction of storage and handling costs nor does such action contribute materially to informing the public on government activities. At most, declassification after twelve years makes certain information or material more readily accessible to historical researchers.

The question arises: Should we protect classified information generated today for twelve years hence and, in many cases, for longer periods of time?

To do so for certain information is understandable, such as for information over which the United States Government has no final classification jurisdiction, or for information provided for by statutes such as the Atomic Energy Act, or for information or material considered extremely sensitive such as intelligence data that reveal sources and methods. What about the remainder — for example, that great volume of information that now comprises the Group 4 category?

Experience has shown that in this day of rapid technological advance, obsolescence occurs quite early. Scientific and technical people estimate five years. The Nike Ajax, Redstone, and other weapons systems,

which a few short years ago were considered by many to be the ultimate, are now obsolete. These systems have been replaced by others of different design and capability. As the state-of-the-art advances, the new systems undoubtedly will be replaced by others. The Nike Zeus system, for example, was replaced by Nike X while still in the RDT and E stage.

The introduction of tactical nuclear weapons capability to the battlefield and the introduction of the helicopter as a weapons platform and transport vehicle brought about radical changes in military organizations, tactics, and techniques. In short, what is considered new and revolutionary today may be obsolete tomorrow, or the next day, or the next year—in most cases, in the next five years.

These types of information, when classified, carry security classification protection under the provisions of the automatic system for a minimum of twelve years. It is my considered opinion that continued protection of this information—much of it obsolete—for this extended period results in an unnecessary expense to Defense and industry and is not conducive to preserving the integrity and effectiveness of the classification system.

Under the provisions of the automatic system, classifiers are required to place on all classified material a notation\* that identifies the group

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\*Six stamps or separate notices are used under the provisions of DoD implementing instructions in connection with the automatic downgrading and declassification system—one to identify the information in each of the four groups and two "optional" stamps for Group 3 and 4 material.

or category to which the information contained therein is assigned for automatic downgrading and declassification purposes. This notation also serves to indicate the automatic time-phased downgrading and declassification period intended by the originator. A "normal" stamp usually is used for this purpose, which for Group 4 material, for example, reads: "Downgraded at 3 year intervals; declassified after 12 years." Provision is also made for the use of an "optional" stamp, which indicates the specific time, date, or event on or after which downgrading and declassification action may occur. This latter option seldom is exercised because it is simpler for the classifier to affix the "normal" stamp than to calculate the specific anniversary date.

It is quite evident that these notations are misused within the DoD and industry, causing (1) the period for automatic downgrading and declassification to be extended beyond the time intended by the originator, and (2) the same information to have two or more levels of classification at the same time. For example, if an original classifier assigns new secret information to the Group 4 category on January 1, 1967, the information should, under the provisions of the automatic system, be downgraded to confidential on January 1, 1970. However, if a derivative classifier extracts classified information from this document and incorporates it in a newly created document on January 1, 1968, and places the normal Group 4 notation on the new document—that is, "Downgraded at 3 year intervals; de-

classified after 12 years" — the same information would hold two levels of classification during the period January 1, 1970, through January 1, 1971, and the information that should be declassified on January 1, 1979, would still be classified for an additional year.

Costs associated with the handling of classified material in transit and with top secret inventories can be reduced substantially when downgrading, declassification, destruction, and retirement actions are accomplished within a reasonable time after the date of origin. The question arises: What is a reasonable time after the date of origin? The following rationale is offered in response.

When classified documents are generated within the DoD, they are believed to be active for a period of six months to a year. This is the period in which the document is being acted upon or constantly referenced; this is the most sensitive period or the time in which unauthorized disclosure is most likely to occur; this is the period in which the information is of most value to an enemy; this is the time during which the classified document should be afforded the highest degree of physical security protection. In order to assure that every precaution is taken to safeguard the classified information involved, perhaps what I have referred to as the *active* period should be extended for an additional year, after which classified documents and the information contained therein become dormant. Such extension would, of course, create additional costs, costs involved in inventories,

preparation of receipts, transmission, etc., but such costs are acceptable to ensure that the information is physically protected for the period it is most likely in the *active* stage — two years.

Downgrading top secret and secret information after two years would result in a reduction of costs of handling such material in transit and of top secret inventories. The downgraded information would still be afforded a degree of physical security commensurate with its sensitivity.

I realize that many can point to special cases where classified information contained in plans, programs, and projects is of such a nature that automatic downgrading after two years is considered to be inappropriate. In these cases the information should retain its classification for the period deemed appropriate by the originator and all recipients of such information notified accordingly.

I believe that downgrading and declassification objectives should be those that can be achieved realistically. I believe that effective implementation of a downgrading and declassification program in the Department of Defense and defense industry should accomplish these things:

Preserve the effectiveness and integrity of the classification system.

Reduce classified inventories in the DoD and defense industry to the minimum consistent with operational requirements.

Reduce costs associated with the handling of classified material in transit and with the conduct of top secret inventories.

Other objectives, such as those mentioned earlier in connection with the current automatic downgrading and declassification system—to make more information available to the public, and to reduce costs incurred by Defense and industry in the storage of classified material—are not, in my opinion, actually realistically related to a downgrading and declassification program. In regard to making more information available to the public, downgrading certainly would not achieve such a goal, and declassification outside a meaningful time frame does not contribute materially to the attainment of such an objective. Declassification makes information more readily accessible to the public but the act does not usually carry with it automatic public release approval.

Downgrading and declassification actions appear to have little or no effect in reducing storage costs. A document once classified and stored remains a document stored after the classification is lowered or removed. Classified and unclassified documents are normally filed within the DoD and industry by subject. Those once classified and filed usually are not removed from one storage container to another offering a lesser degree of physical security protection when the classification is lowered or eliminated.

Practical goals for a downgrading and declassification program should be set which, through effective classification and records management, may be achieved. Those I propose are believed to be realistic and will be further discussed here.

The first objective I mentioned

was: Preserve the effectiveness and integrity of the classification system. The classification system is based on the philosophy that information should be classified only when it needs protection and should be relieved of classification when protection is no longer needed. All downgrading and declassification actions that occur within a meaningful time frame support this basic philosophy. Therefore, to some unmeasurable degree, such actions tend to preserve the effectiveness and integrity of the classification system. This, in itself, is a philosophic justification providing some support for the establishment of a downgrading and declassification program. As a practical matter, however, a rationale for downgrading and declassification action must rest on more substantive grounds. I believe these should relate to reductions in costs and in classified inventories.

Consider first the reduction of classified inventories. Downgrading appears to have no effect on reducing the overall classified inventory. It changes the inventories at different levels but the overall classified inventory remains unchanged. The question then arises, what does downgrading do for us? At most it can be said that early downgrading may save dollars while making the downgraded information more readily accessible to those having a need for it.

Declassification, of course, will reduce classified inventories. Experience has shown, however, that declassification actions within the Department of Defense are minimal, especially when they concern information originally

top secret and secret. As a result, any benefits to be derived from such actions are not readily apparent. The beneficial impact of declassification is best felt through mass declassification such as that accomplished by the implementation of DoD Directive 5200.9 whereby significantly large inventories of classified material were substantially reduced and a great wealth of formerly classified information was made more readily accessible to historical researchers and others.

Another, and what is believed to be the most effective, means of reducing classified inventories is destruction. Destruction of classified material in the higher classification categories is presently made somewhat difficult for the operating elements through the imposition of requirements to reflect final disposition, for example, the preparation of destruction certificates, witnesses, and the modification of other records such as logs and receipts. As a result, destruction activities are believed to be less than they should be to achieve more fully the objective of reducing classified inventories. In this connection, records management plays a most important role, for it is the records management program wherein time periods are specified for destroying non-record material, and it is through the records management program that destruction of classified material may be accelerated and made easier. By this is meant such things as the introduction of special programs such as that conducted in 1965 and 1966 in the DoD for the reduction of top

secret inventories.\* Standardization and simplification of forms such as receipts, logs, destruction certificates, etc., should also serve to make the entire process more efficient. I believe that the objective of reducing classified inventories is a realistic one and may be achieved through the effective implementation of a declassification program in concert with sound records management practices and procedures.

Next to be considered is the objective of reducing costs incurred by Defense and industry in the handling of classified material in transit and in the conduct of top secret inventories. Hard data are now available to show that the costs associated with top secret inventories may be reduced substantially when top secret documents are downgraded, declassified, retired, or destroyed within a reasonable time after the date of origin. Certain cost studies have been completed showing that the costs of handling classified material in transit vary with the level of classification and that cost savings are possible if downgrading and declassification can be accomplished sufficiently rapidly so that it will occur within the normal period of active use of the material. In this light, it is evident that this objective can be obtained through downgrading and declassification within a meaningful time frame.

So much for the objectives and the rationale to support their adoption. I believe that to achieve these goals,

\*A sixty-day exercise in which the DoD top secret inventory was reduced by one-third at an annual estimated cost avoidance saving of \$125,000 for the calendar year following the close of the exercise.

the current automatic system needs change perhaps along the following lines. Establish two categories of information to substitute for the four in the present system. The first group would be what the classifier determines to warrant some degree of classification for an indefinite period and therefore would be excluded from scheduled automatic changes. This group would be comprised of (1) information originated by foreign governments or international organizations and over which the United States Government has no final classification jurisdiction; (2) information specifically covered by statute, such as the Atomic Energy Act; and (3) information identified on an individual basis by the head of a department or agency or his designee as extremely sensitive in the sense that for a period of indefinite duration its unauthorized disclosure would or could place in jeopardy a person, system, plan, program installation, or method of operation the continuing protection of which is required in the interest of national defense.

All of the remaining information would be subject to scheduled changes in classification in accordance with the following guidelines:

Top secret information would be downgraded to secret two years from date of origin and to confidential four years from date of origin and declassified ten years from date of origin.

Secret information would be downgraded to confidential two years from date of origin and de-

classified eight years from date of origin.

Confidential information would be declassified six years from date of origin.

Documents and material containing information subject to scheduled automatic changes would carry a notation indicating to the recipient in every case the specific date, time, or event on or after which downgrading and declassification action would occur, thereby assuring that the information would be downgraded and declassified at the time intended by the originator and preventing information from holding two levels of classification at the same time. In this connection, only two notations or stamps would be used rather than the six now provided for.

Based on this discussion the following concluding statements are offered:

Any downgrading and declassification system to be implemented in the Department of Defense and defense industry should (1) preserve the effectiveness and integrity of the classification system; (2) reduce classified inventories in the Department of Defense and defense industry to the minimum consistent with operational requirements; and (3) reduce costs of handling classified material in transit and of top secret inventories.

Making more information available to the public and reducing costs incurred by defense and industry in the storage of classified material are considered to be valuable side effects but are not demonstrable objectives of a downgrading and declassification program.



All downgrading and declassification actions that actually occur within a meaningful time frame support the basic philosophy that information should be classified only when it needs protection and should be relieved of classification when protection is no longer needed.

The automatic downgrading and

declassification system currently in effect is not accomplishing the task for which it was designed. Under the provisions of the automatic system, we are protecting information believed to be obsolete, thereby incurring excessive costs to the Department of Defense and defense industry.

## PROFESSIONAL QUALIFICATIONS

By Edward H. Calvert

What training and native endowments should a person have to be a good classification officer?

Since we are hopefully calling classification "the newest profession" it would seem to be important to address ourselves to this question. This article is not an attempt to answer the question, but rather to stimulate thought and discussion and to suggest a possible approach to developing an authoritative answer.

### *Required Capabilities*

Few fields of endeavor seem to require such a variety of capabilities. Donald B. Woodbridge, in his notable opening address at the first national NCMS seminar in 1965, said that "in the practice of our profession we find we must be informed in physics, engineering, and a host of other scientific disciplines. We must be expert buyers, accountants, lawyers, detectives, semanticists, masters of logic and rhetoric, we must be politicians and diplomats." And he added a sense of humor as the last but presumably not the least in his catalogue.

Such an array of requirements boggles the imagination, and particularly with the preface "expert," represents

a probably unattainable ideal. Essentially, however, it is an accurate listing of desirable qualifications for our field.

### *Where to Look?*

Considering first the matter of training, there is, of course, no curriculum that could equip a person fully to Mr. Woodbridge's specifications. And it is probably not realistic to expect that there ever will be one, or that degrees will be offered in so specialized a field as classification. But it is useful — and certainly interesting — to ponder the questions of where we should look, among graduates of existing courses of study, to find people likely to be good classification officers, and what specific courses should be taken by a person preparing for a career in classification.

Engineering training comes quickly to mind, because of the technical nature of much of the information that we want to protect. Engineers in any of the principal fields — mechanical, chemical, etc. — are well grounded in science and are oriented to practical aspects of it. An engineering graduate is sure to be an intelligent

and practical person. It is very likely that he will be able to perceive readily what the important element in a process or object is, and what information about it needs to be protected. This is to a large extent the name of our game.

There are some reservations about unhesitatingly choosing engineers as classification officers, however. As a group they are not notable for being expert in communicating with non-technical people. Some would not rate highly with respect to the Woodbridge specifications for semantics, rhetoric, politics, and diplomacy.

There is also the practical matter of the willingness of a person with engineering training to be a classification officer. If he is good he already has a well paid, useful, and respected career open to him. If he is not good, his shortcomings would probably make him a poor classification officer.

A curriculum leading to a degree in one of the natural sciences is also likely to produce capable classification people. Physics majors would seem particularly well equipped to operate successfully in several of today's important classification areas. Most of the favorable and unfavorable things that can be said about engineers as potential classification officers can also be said about straight science graduates.

### *Liberal Arts Suggested*

I suggest that a liberal arts curriculum would be the best basic training ground for a classification officer. I hasten to say I do not mean the liberal arts curriculum in which sciences and all other rigorous dis-

ciplines are carefully avoided in favor of music appreciation, etc. I mean the traditional liberal arts program aimed at providing basic understanding of both the physical and humanistic divisions of knowledge. (The etymon is *artes liberales*, meaning the knowledge suitable, in Graeco-Roman thought, to a free man — as differentiated from the slave artisan or technician — one who is expected to enter into the governing of things.) The broad scope of the good liberal arts program — natural science, social science, the humanities including communication skills — should provide the best background for the so unusually varied interests of the classification officer.

### *Some Specific Courses*

A good liberal arts curriculum for a classification officer would certainly require a strong emphasis in some natural science, at least a "minor." Even if the individual's classification career turns out to be in a nonscientific area, such as might possibly be encountered in the State Department for example, a basic understanding of science is virtually a must in this day and age. A "major" in a science would be excellent if the individual's interest ran strongly that way.

At least a second minor, and possibly a major, should be English, probably with stress on writing. Nothing is more important to a classification person than to be able to read intelligently and express himself clearly.

Formal logic should certainly be a requirement, for obvious reasons.

We could not leave out the area

of computers. The classification person is going to be unable to avoid a close and continuing association with them. So courses in computer theory, and in conjunction with that, linguistics, the science of language analysis, and library science would be included.

Rounding out the liberal arts curriculum would be psychology, history with geopolitical emphasis, public speaking, and if possible a foreign language.

I am sure that many members of the Society — there are many who have been educators — will be able to put forward better and more comprehensive ideas about curricula.

### *Other Qualifications*

But formal education alone will not assure success in classification any more than it will in other fields. What about the native abilities and temperament requirements? This of course could lead to limitless discussion, but here are a few characteristics that seem to me to be important:

—Ability to come to conclusions with reasonable promptness and to render clear decisions. This, of course, is an ability every successful person must have. But it is the first and foremost function of a classification person. His ability to answer the question "Is this classified?" is the reason he is valuable to his employer. This must be accompanied, however, by the next characteristic:

—Willingness to consult others. The good classification officer should be able to recognize when it is entirely within his competency to render

a decision, and when he should get help. He should know where to look and whom to ask.

—Inquisitiveness. He is quite willing to mind other people's business. He knows he cannot count on all the facts' being brought to his attention by others, so he pursues them for himself.

—Persistence. It is not always enough to make the decision. The classification officer has to follow up to see that the decision is honored in spirit as well as form, and that it continues to be honored. Some information keeps popping out in various disguises.

—Tact. Although the classification man has the advantage in most arguments with others about classification — he can hurl the thunderbolts of "interests of national defense" and "born classified" — he will not be successful in the long run if he is unnecessarily blunt, or impatient, arbitrary, or insensitive to the feelings of others.

—Imagination. At least enough to enable him to conceive of the possibility that he might be wrong.

—Intellectual honesty. This is perhaps the most important single characteristic. His decisions must be objective, not influenced by convenience or wishes of others including his boss. Most of us have a desire to be agreeable. There is thus an often unconscious compulsion to render the opinion the requester wants to hear. When the requester is the boss the compulsion is stronger. But in the long run the classification officer

serves best who gives objective opinions. That is really the measure of his professionalism.

If Classification Management is to enjoy the status of a full-fledged profession, it is surely desirable that we consider qualifications for entrance into it. This brief article may, perhaps, stimulate others to express their opinions on the subject. The Society may wish to appoint a committee for the purpose of making a formal study, the results to be reported at a future national meeting or in the *Journal*.

## PLAN TO COME THIRD NATIONAL SEMINAR

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July 19-21

### NATIONAL CLASSIFICATION MANAGEMENT SOCIETY MEMBERSHIP

AITKEN, M. D.  
(U. S. Army Material Command)  
6301 Pinto Place  
Springfield, Virginia 22150  
Office Phone: OXford 4-3910

ANDERSON, PAUL H.  
13010 Hathaway Drive  
Silver Spring, Maryland 20906

ANDES, DANIEL SAYRE  
Marquardt Corporation  
16555 Saticoy Street  
Van Nuys, California 91406  
Office Phone: ST 1-2121

ANTONUCCI, JOSEPH T.  
(Applied Devices)  
29-27 163rd Street  
Flushing, New York 11358

ATKINSON, CHARLES M.  
(Defense Atomic Support Agency)  
7104 Healy Drive  
Springfield, Virginia 22150  
Office Phone: OXford 5-4318

AYERS, LESLIE S.  
(U. S. Arms Control and  
Disarmament Agency)  
5327 28th Street N.W.  
Washington, D. C. 20015  
Office Phone: DU 3-8831

BAGLEY, JAMES JOSEPH  
(U. S. Naval Research Laboratory)  
6108 Vista Drive  
Bailey's Crossroads, Virginia 22041  
Office Phone: 574-2391

BEATTY, RONALD HUMPHRIS  
Lycoming  
Division of AVCO Corporation  
Stratford, Connecticut 06497  
Office Phone: 378-8211, Ext. 341

BECKNER, ROBERT L.  
TRW Systems  
One Space Park  
Redondo Beach, California 90278  
Office Phone: 679-8711, Ext. 11933

BELLERUE, VICTOR L.  
(Raytheon Co.)  
4217 Wheeler Ave.  
Alexandria, Virginia 22304

**BERKUS, JACK M.**  
(System Development Corporation)  
557 N. Orlanda Avenue  
West Hollywood, California 90048  
Phone: OL 1-1497

**BETTS, PHIL V.**  
(Edgerton, Germeshausen &  
Grier, Inc.)  
194 East Mesa Verde  
Las Vegas, Nevada 80109

**BOBERG, RICHARD J.**  
Aerospace Corporation  
2350 E. El Segundo Boulevard  
El Segundo, California 90245  
Phone: 648-8282

**BOYLE, JOSEPH J.**  
United States Air Force (AFSC)  
Air Force Missile Development  
Center  
P. O. Box 683  
Holloman AFB, New Mexico 88330  
Office Phone: GR 3-6511, Ext. 46153

**BRACE, DOMINIC JR.**  
(SAM) CDR, USN  
Naval Air Systems Command,  
Room 4812  
Washington, D. C. 20360  
Office Phone: OX 6-4280

**BRACKEN, THOMAS G.**  
(Research Analysis Corporation)  
8124 Keeler Street  
Alexandria, Virginia 22309  
Office Phone: 893-5900, Ext. 581/582

**BRICK, JACK ROBERT**  
Aerospace Corporation  
2350 E. El Segundo Blvd.  
El Segundo, California 90245

**BRIGGS, RALPH T.**  
500 Roosevelt Blvd., Apt. 128  
Falls Church, Virginia 22044

**BUNCH, JAMES E.**  
Mason and Hanger-Silas Mason Co.  
AEC Pantex Plant  
P. O. Box 647  
Amarillo, Texas 79105

**BURDETTE, JOHN J.**  
P. O. Box 152  
New Hartford, New York 13413

**BUSH, JOSEPH PAUL**  
Honeywell, Inc., Ordnance Division  
Security Division MS-843  
Hopkins, Minnesota 55343  
Office Phone: 935-5155, Ext. 8616

**BUXTON, RICHARD W.**  
(Naval Ordnance Systems Command)  
7105 Cynthia Ct.  
Annadale, Virginia 22003

**CALLISTER, PHYLLIS O.**  
(Dept. of the Navy)  
5001 Seminary Rd. No. 1224  
Alexandria, Virginia 22311

**CALVERT, EDWARD H.**  
1209 Grand Ave., No. 4  
Albuquerque, New Mexico 87106

**CARL, LEO D.**  
(OASD (International Security  
Affairs)  
Office Dep. Asst. Sec. Def. for  
International Logistic Negotiations)  
12 Mel-Mara Drive  
Oxen Hill, Maryland 20021  
Office Phone: OX 7-7887

**CARNES, CECIL C.**  
130 Rover Blvd., White Rock  
Los Alamos, New Mexico 87544

**CARNES, PATRICK F.**  
20407 Parthenia St.  
Canoga Park, California 91306

**CETONE, DANIEL FRANK**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411

**CHAPLIN, DUNCAN D., MAJOR**

**CLARK, HENRY D.**  
Columbus Division  
North American Aviation, Inc.  
4300 East Fifth Avenue  
Columbus, Ohio 43216

COBBS, ROBERT HERBERT  
Box 404  
Norton Air Force Base  
California 92409  
Office Phone: 382-6061

CORREIA, ANTONIO A.,  
MAJOR USAF  
1533 Stillman Avenue  
Redlands, California 92373  
Home Phone: 792-1071

COYNE, JOHN E.  
North American Aviation, Inc.  
1700 East Imperial Highway  
El Segundo, California 90245  
Office Phone: OR 0-9151, Ext. 3737

DAIGLE, FREDERICK J.  
(Lockheed Missiles & Space Company)  
155 Smithwood Street  
Milpitas, California 95035  
Office Phone: 742-4139

DANIELSON, CARL RALPH  
(Thiokol Chemical Corporation)  
Box 123  
Parsippany, New Jersey 07054  
Office Phone: OA 7-7000, Ext. 365

DARLING, DON D.  
Don D. Darling and Associates  
P. O. Box 358  
N. Hollywood, California 91603  
Office Phone: 769-4948

DAVIS, ALBERT S.  
The MITRE Corporation  
P. O. Box 208  
Bedford, Massachusetts 01730  
Phone: 271-2821

DAWSON, MADELINE W.  
(Defense Atomic Support Agency)  
2033 No. Woodrow  
Arlington, Virginia 22207  
Phone: OXford 5-4318

DEANE, WALTER ARTHUR  
Edgerton, Germeshausen & Grier, Inc.  
Boston, Massachusetts 02101  
Phone: 267-9700

DENECKE, MILDRED F.  
Institute of Science & Technology  
University of Michigan  
Box 618  
Ann Arbor, Michigan 48107

DONOVAN, ROBERT D.  
United Technology Center  
1050 East Arques  
Sunnyvale, California 94086  
Phone: 739-4880, Ext. 2548

DOTY, CHARLIE E.  
TRW Systems  
Space Park Drive  
Houston, Texas 77058  
Office Phone: HU 8-3530, Ext. 2521

DREYER, ROBERT C.  
Union Carbide Nuclear Company  
Oak Ridge, Tennessee 37830  
Phone: 483-8611

DuCOING, WILLIAM FRANKLIN  
Corporate Security Director  
Magnavox Company  
2131 Bueter Road  
Ft. Wayne, Indiana 46803  
Phone: 743-9721

DUDLEY, STEVEN B.  
(Lockheed Missiles & Space Company)  
265 Woodland Drive  
Santa Cruz, California 95060  
Office Phone: 742-4139

DUNCANSON, Robert L.  
System Development Corporation  
Santa Monica, California 90406

DUPELL, ALFRED E.  
(Naval Ordnance Systems Command)  
6406 25th St. N.  
Arlington, Virginia 22207

DURHAM, R. L.  
(DoD, Asst. to Sec. Del.,  
Atomic Energy)  
11232 Waycross Way  
Kensington, Maryland 20795  
Phone: OX 7-7167

**EDWARDS, SHEFFIELD**  
Sheffield Edwards Associates  
Suite 412  
1815 H Street N.W.  
Washington, D. C. 20006

**EICHELBERGER, JOHN**  
Monsanto Research Corporation  
Mound Laboratory  
P. O. Box 32  
Miamisburg, Ohio 45342

**ENGLE, ROBERT WAYNE**  
Lockheed Missiles & Space Co.  
Sunnyvale, California 94088  
Office Phone: 743-1894

**FLORENCE, WILLIAM G.**  
(Headquarters, AFSC)  
1629 Columbia Road, N.W.  
Washington, D. C. 20009

**FRENO, OCTAVA L.**  
(Defense Atomic Support Agency)  
733 California S.E.  
Albuquerque, New Mexico 87108  
Office Phone: 254-1010

**FUCHS, JOHN D.**  
Aerospace Corporation  
2350 E. El Segundo Boulevard  
El Segundo, California 90245  
Phone: 648-7466

**GALLO, SALVATORE JR.**  
Martin Company  
Division of Martin  
Marietta Corporation  
P. O. Box 1681  
Vandenberg AFB, California 93437  
Phone: 866-1611

**GARRETT, C. DONALD**  
(OASD (Administration), Directorate  
for Classification Management)  
6505 Machodac Court  
Falls Church, Virginia 22043  
Office Phone: OX 7-5568, OX 7-1917

**GARZA, ROBERTO R.**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411, Ext. 7214

**GODWIN, ELWIN B.**  
(Autonetics, Division of NAA)  
801 Cinda Street  
Anaheim, California 92805  
Phone: 772-8111, Ext. 4505

**GREEN, EDMUND A.**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411

**GREEN, JAMES B.**  
Lockheed Missiles and Space Co.  
P. O. Box 504, Orgn 80/44  
Sunnyvale, California 94088

**GREEN, ROBERT E.**  
6005 27th Avenue  
Hillcrest Heights, Maryland

**HAMEL, EDWARD J.**  
1335 Phelps Ave., Apt. 2  
San Jose, California 95117

**HEBBLEWHITE, ROBERT K.**  
Aerospace Corporation  
1111 West Mill Street  
San Bernardino, California 92410

**HEFLIN, WILLIAM ROBERT**  
(Hq., U.S. Army Missile Command,  
Redstone Arsenal, Alabama)  
503 Chadwell Circle  
Huntsville, Alabama 35802  
Office Phone: 876-5512

**HEMPEN, BOYD H.**  
(McDonnell Aircraft Corporation)  
8454 January Avenue  
Berkeley, Missouri 63134  
Phone: PE 1-2121, Ext. 2171/2924

**HERALD, VIRGIL H.**  
(General Precision, Inc.)  
351 West Linden Avenue  
Burbank, California 91506  
Phone: 245-8711, Ext. 1415

**HERLING, WILLIAM J.**  
TRW Systems  
One Space Park  
Redondo Beach, California 90278  
Office Phone: 670 2788

HEYD, JOSEF W.  
Monsanto Research Corporation  
Mound Laboratory  
P. O. Box 32  
Miamisburg, Ohio 45342  
Office Phone: 866-3311

HODGES, LEO J.  
(HQ. AFSC)  
3708 Millford Mill Road  
Baltimore, Maryland 21207  
Phone: 981-5257

HOLLEN, SAMUEL J.  
System Development Corporation  
5720 Columbia Pike  
Falls Church, Virginia 22041  
Office Phone: 481-2220

INGARGIOLA, HENRY B.  
Stanford Research Institute  
Menlo Park, California 94025  
Phone: 326-6200, Ext. 3168

INGHAM, JEAN C.  
Hughes Aircraft Company  
Building 121-M/S1  
P. O. Box 90515  
Los Angeles, California 90009

JAHN, FRANCIS X.  
(Westinghouse Electric Corporation)  
P. O. Box 1693  
Baltimore, Maryland 21203  
Area 301, 765-3981

JERNIGAN, JOHN B.  
Manager, Security Operations  
General Electric Company, RSD  
Room 6112, 3198 Chestnut St.  
Philadelphia, Pennsylvania 19101

JOHNSON, ELEANOR  
(Naval Ordnance Systems Command)  
1266 Delafield Pl., N.E.  
Washington, D.C. 20017

JOHNSON, RICHARD D.  
Hughes Aircraft Co.  
Building 6, M/S D151  
Culver City, California 90230

KAUFMAN, JEANNE  
National Scientific Labs., Inc.  
Westgate Research Park  
McLean, Virginia 22101  
Phone: EM 2-3106

KISELYK, JOHN  
3901 Lakota Road  
Alexandria, Virginia 22303

KOETHER, FRED A.  
(Advanced Research Projects Agency)  
5821 Rosemont Drive  
McLean, Virginia 22101  
Phone: 697-8904

LAWSON, JOHN D.  
Bell Telephone Laboratories  
Whippany, New Jersey 07981

LITTLE, GEORGE W.  
(Nortronics)  
1916 Bardale Avenue  
San Pedro, California 90731  
Phone: FR 7-4811, Ext. 386

LONG, JACK E.  
The Bendix Corporation  
P. O. Box 1159  
Kansas City, Missouri 64141  
Phone: EM 3-3211, Ext. 3325

LONGRIDGE, THOMAS M.  
The RAND Corporation  
1700 Main Street  
Santa Monica, California 90406  
Phone: 393-0411

LOUDENSLAGER, HARRY C.  
Columbus Laboratories  
Battelle Memorial Institute  
505 King Avenue  
Columbus, Ohio 43201  
Phone: 299-3191, Ext. 422

LUCAS, WALTER A.  
(Curtiss-Wright Corporation)  
409 Tenth Street  
Palisades Park, New Jersey 07650

LUNINE, LEO R.  
(Jet Propulsion Laboratory)  
10007 Memory Park Avenue  
Sepulveda, California 91343  
Phone: 354-3371



MacCLAIN, GEORGE  
(OASD (Administration) Directorate  
for Classification Management)  
2646 S. Ft. Scott Drive  
Arlington, Virginia 22202  
Office Phone OXford 7-5568

McANDREW, LUCILLE R.  
University of California  
Los Alamos Scientific Laboratory  
P. O. Box 1663  
Los Alamos, New Mexico 87544

McCONNELL, L. F. (LORRY)  
(System Development Corporation)  
14001 South Daphne Avenue  
Gardena, California 90249  
Office Phone: 393-9411, Ext. 7420

McCORMICK, MICHAEL E.  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411

McELHANEY, JOHN ROBERT  
USAF Ballistic Systems Division  
(BSI)  
Norton Air Force Base  
California 92409  
Office Phone: 382-6058

McFARLIN, MILTON W.  
Lockheed Missiles & Space Company  
P. O. Box 504  
Sunnyvale, California 94088  
Phone: 742-3211, Org. 27-20

MAINES, HOWARD G.  
(Director of Classification, NASA)  
301 G St., S.W.  
Washington, D. C. 20024

MANEGGIE, JAMES A.  
740 Cardigan Drive  
Sunnyvale, California 94086

MARSH, J. G.  
Sandia Corporation  
Sandia Base  
P. O. Box 5800  
Albuquerque, New Mexico 87115

MAY, FRANCIS W.  
(Hq., United States Air Force)  
728 South Lee St.  
Alexandria, Virginia 22314  
Phone: OX 6-7941

MERBACH, ROBERT H.  
TRW Space Technology Labs.  
One Space Park  
Redondo Beach, California 90278  
Phone: 679-8711, Ext. 11926

MILLSON, EDWIN H.  
COLONEL, USAF

MOGLIA, PETER J.  
Hughes Aircraft Company  
Building 6, M/S D-154  
Culver City, California 90230  
Phone: 391-0711, Ext. 6945

MORAN, JAMES D.  
(General Precision, Inc.)  
94 Young Avenue  
Cedar Grove, New Jersey 07009  
Office Phone: 256-4000, Ext. 562

MORTON, WILLIAM L.  
(Autonetics, Div. of NAA)  
8062 Andora Drive  
La Mirada, California 90638

MURPHY, JOHN T.  
Space General Corporation  
El Monte, California 91731  
Phone: 443-4271, Ext. 1172

MUSTAR, EUGENE R.  
(Sylvania Electronic Systems — West)  
1134 Blair Ave.  
Sunnyvale, California 94087

NEAL, ROBERT E., LT. COL.  
8420 Porter Lane  
Alexandria, Virginia 22308

NEWLAN, IRL E.  
Jet Propulsion Laboratory  
Calif. Institute of Technology  
4800 Oak Grove Drive  
Pasadena, California 91103  
Phone: 354-3360

**NILES, ROBERT G.**  
(Hq., Defense Atomic Support  
Agency)  
2201 South Dinwiddie  
Arlington, Virginia 22206  
Phone: OXford 5-4318

**NORVILL, ROBERT V.**  
Sandia Corporation  
Livermore, California 94550

**NOWAK, GILBERT C.**  
Northrop Norair  
3901 W. Broadway  
Hawthorne, California 90250  
Phone: 675-4611, Ext. 2331

**O'CONNOR, GEORGE F.**  
10114 S. Vermont Avenue  
Los Angeles, California 90044

**O'DEA, MILTON L.**  
Raytheon/Autometric  
4217 Wheeler Avenue  
Alexandria, Virginia 22301

**PENEZIC, ROBERT A.**  
LTV Aerospace Corporation  
Michigan Division  
P. O. Box 404  
Warren, Michigan 48090  
Phone: 539-0300, Ext. 254

**PHILIPSEN, WILLIAM R.**  
Ling-Temco-Vought Inc.  
1155 15th St. N.W.  
Washington, D. C. 20005

**POENICKE, CHARLES F., JR.**  
CMDR, USN  
Department of the Navy  
Office of Chief of Naval Material  
Washington, D.C., 20360

**POMPETTI, PETER**  
Rohm & Haas Co.  
Independence Mall West  
Philadelphia, Pa. 19105

**POWELL, MARLYN R.**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411, Ext. 7550

**RASMUSSEN, J. R.**  
Sylvania Electronic Systems  
P. O. Box 188  
Mt. View, California 91042  
Home Phone: 961-0169  
Office Phone: 966-3667

**REDER, O. JANE**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411, Ext. 7675

**REDMAN, LESLIE M.**  
University of California  
Los Alamos Scientific Laboratory  
Los Alamos, New Mexico 87514  
Phone: 75011

**RICHARDSON, DEAN C.**  
COMMANDER, USN  
(Defense Supply Agency)  
8824 Southwick  
Fairfax, Virginia 22030  
Phone: OX 8-8591

**ROZZI, GAETANO D.**  
Grumman Aircraft Engineering Corp.  
South Oyster Bay Road  
Bethpage, L. I., New York 11711  
Phone: LR 5-3910

**RUBENSTEIN, SIDNEY S.**  
(Mosler Safe Company)  
8201 16th St., N.W., Apt. 1225  
Silver Spring, Maryland 20910

**RUSHING, ROBERT J.**  
(Lockheed Missiles & Space Company)  
718 Valley Way  
Santa Clara, California 95051  
Phone: 742-8316

**SANDERS, GEORGE E.**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411

**SATTERFIELD, LYNWOOD G.**  
Westinghouse Electric Corp.  
Friendship International Airport  
P. O. Box 1693  
Baltimore, Maryland 21203

SAVINO, VINCENT GEORGE  
Controls for Radiation, Inc.  
P. O. Box 2304  
Sandusky, Ohio 44870

SAWYER, WAYNE  
Jet Propulsion Laboratory  
4800 Oak Grove Drive  
Pasadena, California 91103  
Phone: 351-5053

SCHAEFER, SYLVESTER G.  
Applied Technology Inc.  
3110 Hillview Avenue  
Palo Alto, California 94304  
Phone: 321-5135

SCHUKNECHT, LLOYD C. JR.  
Stanford Research Institute  
Menlo Park, California 94025  
Phone: 326-6200 Ext. 3875

SHUNNY, JOHN  
Sandia Corporation  
Sandia Base  
P. O. Box 5800  
Albuquerque, New Mexico 87115

SIMMONS, ROBERT D.  
Leland Stanford Junior University  
Stanford, California 94305

SMITH, JAMES A.  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411

STELLE, A. MACNEIL ✕  
Atomics International  
P. O. Box 309  
Canoga Park, California 91304  
Phone: DI 1-1000

STOBIE, WILLIAM R. JR.  
(Lockheed Missiles & Space Company)  
1019 September Drive  
Cupertino, California 95014  
Office Phone: 742-1735

SULLIVAN, WILLIAM  
(Lockheed Missiles & Space Company)  
2170 Via Escalera  
Los Altos, California 94022  
Office Phone: 743-2202

SUTO, EUGENE J.  
(Research Analysis Corporation)  
6116 Roseland Avenue  
Rockville, Maryland 20852  
Office Phone: 893-5900, Ext. 373

TAYLOR, ROBERT L.,  
CAPT. USAF  
211 Ferson Loop  
San Antonio, Texas 78236

TENNANT, THEODORE C.  
(System Development Corporation)  
926 Iliff Street  
Pacific Palisades, California 92072  
Office Phone: 393-9411, Ext. 7762

TOBIN, JOSEPH FRANCIS, JR.  
AVCO Corporation  
201 Lowell St.  
Wilmington, Massachusetts 01887  
Office Phone: 658-8911, Ext. 2474

TORMEY, JOHN CHARLES  
(Edgerton, Germeshausen &  
Grier, Inc.)  
Edson Street  
Stow, Massachusetts 01775  
Office Phone: CO 79700, Ext. 794

TROSINO, JAMES C.  
Sylvania Electronics Systems  
Western Operation  
P. O. Box 188  
Mountain View, California 94040

UHLAND, CHARLES V.  
Security Operations  
G. E. Re-entry Systems Dept.  
3198 Chestnut Street  
Philadelphia, Pennsylvania 19101

UNLAND, KENNETH R.  
(TRW, Space Technology Labs.)  
3597 Sierra Avenue  
Norco, California 91760  
Office Phone: TU 9-4411, Ext. 8391

VOGT, PHYLLIS A.  
(Defense Atomic Support Agency)  
4301 Columbia Pike, Apt. 532  
Arlington, Virginia 22201  
Phone: OX 5-4318

**VOLZ, HARRY A.**  
Grumman Aircraft Engineering Corp.  
South Oyster Bay Road  
Bethpage, L. I., New York 11714  
Phone: LR 5-3910

**WEED, HAMPTON F.**  
43263 Mission Blvd.  
Mission San Jose, California 94536

**WHIPP, ROBERT F.**  
(ACDA)  
5312 Flanders Avenue  
Kensington, Maryland 20795  
Office Phone: RE 7-5600, Ext. 7246

**WILLIAMS, DAVID H.**  
Douglas Aircraft  
3855 Lakewood  
Long Beach, California 90808

**WILSON, KENNETH E.**  
(Corporate Security Coordinator)  
Sylvania Electronic Products, Inc.  
40 Sylvan Road  
Waltham, Massachusetts 02154  
Office Phone: (617) 894-8444, Ext. 224

**WILSON, H. RICHARD**  
Lockheed Missiles & Space Company  
P. O. Box 504, Org. 80-10  
Sunnyvale, California 94088  
Office Phone: 743-0620

**WILSON, RICHARD L.**  
System Development Corporation  
2500 Colorado Avenue  
Santa Monica, California 90406  
Phone: 393-9411

**WIND, EUGENE V.**  
Lockheed Electronics Company  
U. S. Highway No. 22  
Plainfield, New Jersey 07060  
Office Phone: PL 7-1600, Ext. 441/442

**WISE, JOHN W.**  
(Lockheed Missiles & Space Company)  
2258 Montezuma Drive  
Campbell, California 95008  
Office Phone: 742-5034

**WOODBIDGE, DONALD B.**  
Union Carbide Nuclear Company  
P. O. Box Y  
Oak Ridge, Tennessee 37830  
Phone: 483-8611, Ext. 37965

**YOUNG, SETH Y.**  
(Hq., AFSC)  
6309 Colchester Drive  
Clinton, Maryland 20735

**YOUTZ, EDWIN S.**  
Westinghouse Electric Corporation  
Friendship International Airport  
P. O. Box 1693  
Baltimore, Maryland 21203

**ZIESEL, W. DONALD**  
Rohm and Haas Company  
222 West Washington Square  
Philadelphia, Pennsylvania 19106  
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## AUTHORS OF ARTICLES IN THIS ISSUE

Cecil Carnes is a staff member of the Los Alamos Scientific Laboratory, University of California, in classification work. He was graduated with a B.S. degree in physics from the University of Houston, and is soon to acquire a master's degree in library science from the University of Denver. He formerly was in classification at the Dow Chemical Company's Rocky Flats Plant in Colorado. He and his wife and four-year-old son live in White Rock, New Mexico.

Arthur Van Cook is at present assigned to the Directorate for Classification Management, Office of the Assistant Secretary of Defense (Admin-

istration) in the Pentagon. He retired from the Army in 1961 as a Lieutenant Colonel. In his military career of more than twenty years he held various posts in the intelligence and security fields, and won the Silver Star, Army Commendation Medal with Oak Leaf Cluster, and the Purple Heart. He attended Maryland University and the Army Command and General Staff College.

Edward Calvert has been in classification work for the past ten years in the atomic weapons and reactor areas. He was previously in the security field, and before that in journalism. He is a graduate of Ohio State University, and was a fighter pilot in WW II.

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## ERRATA

In the proceedings of the 1966 NCMS seminar, as reported in Volume II of the *Journal*, the reproduction of the speech of Dr. Lauror F. Carter, "National Document Handling Systems in Science and Technology," pages 96-105, was from a stenotypist transcript which contained errors, the most significant of which are corrected for the record as follows:

Wherever appearing, "Pavinski" should be "Pucinski," "Wineberg" should be Weinberg," "Cherad" should be "Sherrod," "Horned" should be "Hornig." On page 98, "108 percent" should be "180 percent," "photo reduction" should be "photo-reproduction," "docking" should be "document."

On page 99, "revolutionary" should be "evolutionary." On page 104, "I just read" should be "I will just read," "accelerate efforts" should be "accelerate its efforts," "information document handling system" should be "information and document-handling systems," "insuring the required cataloguing" should be "for ensuring the acquiring, cataloguing," "library basis" should be "legislative bases," "documentation information" should be "documentation and information," "to assume the responsibilities that I outlined previously" should be "to assume responsibility for ensuring effective information and document-handling services in agreed-upon areas of science and technology."

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