

DISSEMINATION OF SCIENTIFIC AND TECHNICAL INFORMATION
PRODUCED BY OR FOR THE FEDERAL GOVERNMENT:

A STUDY OF DISTRIBUTION CONTROLS
WITHIN THE DEPARTMENT OF DEFENSE

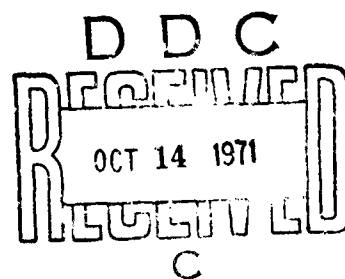
E. P. Magaha, Jr.

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The basic thesis of this study is that any attempt to develop an effective scientific and technical information system (whether intragovernmental, intranational, or international) must include the establishment of adequate and effective distribution controls designed to protect the valid vested interests extant in scientific and technical information today. Primary emphasis in this study is on one intragovernmental system, the DoD S&TI system, and the problem of distribution controls within it. The study consists of three parts. The initial part of the study is an attempt to define the fundamental parameters on which any system of distribution controls must be built. Appendix A is a reproduction of an earlier informal analysis of distribution control problems within the DoD that stimulated the preparation of the present study. Appendix B contains a discussion of possible approaches to the solution of the distribution control problem, based on points developed in the initial part of the study and in Appendix A.														
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DISSEMINATION OF SCIENTIFIC AND TECHNICAL INFORMATION PRODUCED
BY OR FOR THE FEDERAL GOVERNMENT: A STUDY OF DISTRIBUTION
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COSATI DISCUSSION PAPER

E.P. Magaha, Jr.

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Fort Detrick, Frederick, Maryland

PREFACE TO THE 1971 REPRINTING

The original impetus for this study derived from an analysis of DoD Directive 5200.20, "Distribution Statements (Other Than Security) on Technical Documents," published initially in March 1965. The study was prepared in only a limited number of copies, subsequently served as a COSATI discussion paper, and never was placed in the DDC or NTIS (then the Clearinghouse) collections. It did receive some favorable comments from the few people in the field who read it and who were faced with the resolution of some of the problems it discusses.

Subsequent and, particularly, more recent developments indicated that there might be some merit in reprinting the original study for wider dissemination. First, there were the 1966 revisions (effective 4 July 1967) to Public Law 89-487, commonly known as the Freedom of Information Act. Next, there is the now fairly long-standing and as yet uncompleted effort to produce a reasonable and workable revision of the copyright laws. Then, there was the publication of a revision of DoD Directive 5200.20 in September 1970. Finally, there was the recent case of the so-called "Pentagon Papers." All four of these items, and a variety of lesser ones, have some direct or indirect relationship to various of the factors discussed in this study.

Moreover, many of the problems discussed in the study remain unresolved to this day. For example, one of the major effects of the 1970 revision of DoD Directive 5200.20 was to initiate a massive review of documents in the DDC collection. Additionally, the "almost logarithmic growth in both the number of organizations generating documents and the number of documents being generated" referred to in the study appears to continue unabated. It long has been my conviction that no information dissemination system will continue to operate effectively and efficiently so long as document originators must massage and remassage ad infinitum any substantial portion of the documents they have placed in the system. Nor will the problem be solved, particularly in a system where new organizations are born and old ones die with fair frequency, by one big general housecleaning every 10 or 20 years.

I make no pretense that this study offers ready solutions to all or any one of the problems it discusses; I do feel it outlines some fundamental considerations that might lead to workable solutions to some of the problems. Furthermore, although the study is concerned primarily with one intragovernmental system, the discussion does concern some problems that also are basic to extragovernmental systems, and it touches on the problems involved in the interfaces among such systems. Obviously, some things have changed since the study was first prepared five years ago, particularly as regards the content of Appendix A, but I consider many of the fundamental points still valid. Criticisms, comments, and suggestions from any source will be welcomed.

I should note in closing that the views expressed herein are my own and should not be construed as representing either official or unofficial expres-

sions of either Department of the Army or Department of Defense policies or positions on the subject.

E. P. M., Jr.

Fort Detrick
Frederick, Maryland 21701
1 September 1971

FOREWORD

"An ad hoc task group from the Committee on Scientific and Technical Information has endeavored to develop the conceptual framework for an improved national network of information systems in science and technology. This is the beginning of a comprehensive attempt to develop guidelines for planning, so that the information activities within each department and agency might be developed in a coordinated, nonduplicative manner. . . . From the beginning, the task group looked upon its assignment as a systems engineering problem. Initial attention was focused on that part of the system dealing with document handling. Left for later analysis were the less well-defined areas of initial distribution of research and development results, secondary services, critical information analysis and evaluation functions, and the important oral communications network that exists throughout science and technology."

— Recommendations for National Document
Handling Systems in Science and Tech-
nology, 1965

"Inasmuch as the Federal Government now supports three-fourths of all science and technology of the United States, it has a responsibility to prevent our scientific-technical structure from becoming a pile of redundancies or contradictions simply because communication between the specialized communities or between members of a single community has become too laborious. Moreover, because good communication is a necessary tool of good management, the Federal Government, as the largest manager of research and development, has a strong stake in maintaining effective communication.

* * * * *

"The Government's attitude toward dissemination of scientific information is necessarily affected by the influence of science upon our national posture. The idealistic motivation for science and the most compelling one for the creative individual is intellectual curiosity; a society that ignored this motivation would still achieve some material progress for a brief interval, but would have stifled the spark of the deepest human aspirations. But science is not pursued solely for human edification or even for improvement of our social and material well-being; parts of research and development are aimed at maintaining our military strength to keep the peace. Results from these technical efforts cannot be transmitted as freely as can nonmilitary science and technology; on the other hand, quick discriminating communication of discoveries is essential.

The conflicting demands of secrecy and of free exchange, reflecting as they do the diversity of our technical and scientific goals, complicate the problem of effective communication.

* * * * *

"Criteria for guarding information that should not be divulged in the national interest must be established and must be kept up to date. . . . The Panel is aware of the asymmetry that exists between the ways the Communist and the non-Communist worlds handle information. We believe, on balance, that our more liberal policy leads to more security, not to less. Nevertheless we do not believe it to be in the public interest always to push automatically for more dissemination. Each case must be decided on its own merits. . . ."

* * * * *

"We believe that proprietary interests sometimes serve as barriers to proper flow of information. . . . The Panel believes that the present efforts to develop more uniform Government-wide policies on patent rights in Government research and development contracting should be expanded to cover proprietary, nonpatentable rights. . . ."

— Science, Government, and Information
(The Weinberg Report) 1963

"The nature, goals, and results of the R&D effort frequently [involve] considerations of national security, proprietary interest, industrial security, etc., so that the responsibility for the selection of documents to be released and the timing of the announcement, abstracting, and release of these documents [is] a non-delegatable responsibility of the agency. . . ."

— Committee on Scientific Information
(The Suttle Report) 1964

ACKNOWLEDGMENTS

Most of the language and opinions, and any errors of commission or omission, throughout the bulk of this study are mine. However, Appendix B represents the combined efforts of Mr. Gerald W. Beveridge and myself, between whom its language and ideas have undergone at least half a dozen revisions. I also am indebted to Mrs. Madeline D. Warnock for her editorial criticism and assistance.

ABSTRACT

The basic thesis of this study is that any attempt to develop an effective scientific and technical information system (whether intra-governmental, intranational, or international) must include the establishment of adequate and effective distribution controls designed to protect the valid vested interests extant in scientific and technical information today. Primary emphasis in this study is on one intra-governmental system, the DoD S&TI system, and the problem of distribution controls within it. The study consists of three parts: (1) The initial part of the study is an attempt to define the fundamental parameters on which any system of distribution controls must be built. (2) Appendix A is a reproduction of an earlier informal analysis of distribution control problems within the DoD that stimulated the preparation of the present study. (3) Appendix B contains a discussion of possible approaches to the solution of the distribution control problem, based on points developed in the initial part of the study and Appendix A.

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I. INTRODUCTION

Increasing concern has been expressed in recent years about the ever more urgent need for some sort of coordinated national information system, particularly for the very complex and critical areas of science and technology. The most recent results of this concern are the recommendations for national document handling systems in science and technology produced by a broadly based study conducted under the auspices of the Committee on Scientific and Technical Information (COSATI) of the Federal Council for Science and Technology.

The specific recommendations of this recent COSATI study are of no direct concern here, nor are the specific recommendations of the many earlier and related studies conducted by both governmental and non-governmental groups. The point that is of concern here can be stated in one very generalized conclusion that is common to nearly all of these studies: Any effective, coordinated, national information system for science and technology will have to accommodate a great number and variety of existing information systems, both intra-governmental and extra-governmental (and, for that matter, extranational).

As a corollary to this generalized conclusion, many of the studies have recognized (although it has not always been clearly stated) that the accommodation of this diversity of systems also will have to take into account certain "vested interests" of each of the systems. It is this problem of the vested interests of one of the major intra-governmental scientific and technical information (S&TI) systems that is the primary concern of this study.

It is generally accepted that the Federal Government today supports about three-fourths of all science and technology of the United States, which also means that a substantial majority of all scientific and technical information being generated results from Federally supported effort. Likewise, it also is agreed that the Department of Defense (DoD) is the largest Federal sponsor of science and technology, accounting for somewhat more than 50 per cent of the government effort. Thus, it is reasonable to conclude that a substantial portion of all scientific and technical information resulting from Federally supported effort is generated under DoD sponsorship.

DoD has a relatively well-developed intra-mural S&TI system. This system, which has been developing since World War II, has received considerable attention within the past ten years, and has been the subject of particular emphasis since the establishment of the DoD office of Director of Technical Information, under the Office of the Director of Defense Research and Engineering (DDR&E), in 1963.

One of the major features of the DoD S&TI system is the Defense Documentation Center for Scientific and Technical Information (DDC), which serves as a central documentation center for the DoD system. Briefly, the major connective aims underlying the establishment of DDC were threefold:

(1) To establish a center to acquire, store, announce, retrieve, and provide secondary distribution of all DoD scientific and technical documents, thus

(2) Providing timely, effective, and economical dissemination of scientific and technical documents throughout the DoD community, thereby

(3) Improving communication within and, consequently, increasing the efficiency of the DoD RDT&E program.

These major aims of DDC are strikingly parallel to some of the major aims underlying attempts to develop a national S&TI system, as the basic assumptions contained in the recent COSATI study of national document handling systems make clear. It is important to note, however, that the primary goal of the DoD system is to serve the DoD scientific and technical community, whereas the primary goal of the proposed national system will be to serve the entire national scientific and technical community, both intra- and extra-governmental.

Obviously, if a national S&TI system is to be truly effective it will have to accommodate a number of existing major systems and especially the DoD system, which currently encompasses more than one-third of all U.S. science and technology. Conversely, if an existing major system is to be accommodated within a national system efficiently and economically, then that system ought to be prepared to define clearly any attendant conditions. It is here that the difficult problem of vested interests presents itself; in contrast to incompatibilities of hardware and software, which are at least susceptible of relatively precise definition, the incompatibilities arising from differences among vested interests cannot always be readily defined. In fact, one of the basic problems is defining just what the vested interests are for a given system.

For example, there currently is considerable discussion ensuing as to just what the vested interests of the DoD are in terms of the potential dissemination of DoD-sponsored scientific and technical information both within and beyond the confines of its own intra-mural S&TI system. This discussion has arisen because the DoD intra-mural system is composed, in a very real sense, of a number of subordinate systems developed by the military services and other defense agencies. Additionally, the DoD intra-mural system has certain interfaces with other, extra-mural systems, such as those of other Government agencies like the National Aeronautics

and Space Administration (NASA), the Atomic Energy Commission (AEC), and the Department of Commerce, notably the Clearinghouse for Federal Scientific and Technical Information (CFSTI).

The difficulties in defining DoD's vested interests in its scientific and technical information may arise from what seems, at first sight, to be a contradiction between two of DoD's basic policies. On the one hand, DoD is strongly committed to the protection of the national security by safeguarding official information that requires protection in the national interest. On the other hand, DoD is properly committed to the fullest possible disclosure and dissemination (consistent with the protection of the national security) of any scientific and technical information generated under its auspices in the interests of the national and general welfare. Although these two policies may appear to be mutually exclusive, they are not; however, the important point here is that this apparent basic conflict in policies within the DoD S&TI system may be generally representative of the type of conflict that must be resolved in any national S&TI system that proposes to accommodate both intra- and inter-national systems.

It ought to be obvious that one of DoD's primary vested interests in its scientific and technical information is the protection of the national security. On one hand, there is a question as to whether this is clearly understood. On the other, the question may be justly asked: Isn't this matter of protection of the national security more or less peculiar primarily to the DoD S&TI system and a few other closely associated intra-governmental systems? If so, what possible merit is there in discussing a problem so limited in its extent?

First, even though the problem of protection of the national security may be limited to only a few intra-governmental systems, it is well to remember that these few systems account for substantially more than one-third of the U.S. scientific and technical information being generated today. The problem, however peculiar, of any system or small group of systems that encompasses such a substantial portion of U.S. scientific and technical information certainly merits discussion.

Second, it is certain that the protection of the national security is not the sole vested interest of importance to DoD in considering the dissemination of its scientific and technical information. Sponsoring as it does not only the intra-mural programs of the various military services and defense agencies but also their extra-mural programs achieved through contracts and grants to private industry and academic institutions, DoD also must be concerned with a variety of other invested interests, such as invention disclosures, patent rights, proprietary data, etc. These latter items are, of course, not peculiar to the DoD S&TI system; they are matters of rather universal concern in the disclosure and dissemination of scientific and technical information.

Finally, it frequently is the case that the disclosure and dissemination of an item of scientific and technical information involves considerations of more than one type of vested interest. For example, matters of national security and of such things as patent rights often are inextricably mixed within a given piece of information. Thus, a final decision on the dissemination of such information must be based on due consideration of all interests involved.

Some years ago, Agnes Repplier stated that "A world of vested interests is not a world which welcomes the disruptive force of candor," nor, we might add, is such a world readily amenable to innovations that augur infringements of its vested interests. Today, the world of science and technology is, in large measure, a world of multiple and various vested interests. However, there has been increasingly clear recognition that some reasonable balance between the protection of vested interests and the broad and rapid dissemination of scientific and technical information must be achieved if the nation and the world are to reap the maximum benefits from current scientific and technological efforts.

Current studies aimed at the development of a national S&TI system represent a major step toward achieving maximum benefits from current science and technology. As noted, any such national system will have to accommodate many intra-national systems, including the DoD S&TI system. The DoD system, itself, not only is composed of a number of intra-mural systems but also interfaces with a number of extra-mural systems. Thus, any discussion of problems related to the vested interests of the DoD S&TI system should have some relevancy to similar problems that unquestionably will be involved in any attempt to coordinate a variety of systems into an effective national system. Moreover, achievement of a clear understanding of the vested interests involved in the DoD S&TI system ought to increase the efficiency and economy with which it can be integrated in a national system. It is with these points in mind that the present study is offered.

This study consists of three parts: a relatively brief basic section and two supporting appendixes. The basic section is an attempt primarily to achieve two goals:

- (1) To identify those fundamental parameters that define the vested interests affecting the disclosure and dissemination of DoD scientific and technical information, and

- (2) To determine the basic assumptions that must be considered in the development of distribution controls (the means for protecting vested interests) that will make possible the effective, efficient, and economical dissemination of DoD scientific and technical information.

Appendix A is a reproduction of an earlier informal analysis of one recent DoD regulation on distribution controls; the analysis is intended to illustrate some of the major problems involved in defining adequate distribution controls. Appendix B presents one possible approach to the resolution of DoD distribution control problems, based on information set forth in the basic section and Appendix A.

II. THE CONTEXT, CAUSES, AND COMPLEXITY OF THE DISTRIBUTION CONTROL PROBLEM

A. THE CONTEXT

At the outset of this study, it is essential to establish clearly the context within which it will be cast, so as to limit what otherwise could become too voluminous a discussion. Fortunately, the context can be stated in rather brief and specific terms:

This discussion is concerned with the problem of distribution controls for all technical documents falling within the purview of DDC operations as established by DoD Instructions 5100.38 and 5200.21.

Generally, then, this study concerns the control of distribution of documents primarily among DoD agencies and their contractors, grantees, and the like who participate in the DoD Industrial Security Program. However, it is of some importance that there are other organizations that may obtain DDC services, and it is pertinent to note them:

(1) Non-DoD components of the Executive Branch of the Government, together with their contractors, grantees, and the like, who also participate in the DoD Industrial Security Program.

(2) Non-DoD components of the Executive Branch of the Government, their contractors, grantees, and the like who do not participate in the DoD Industrial Security Program.

(3) Components of the Legislative and Judicial Branches of the Government, their contractors, grantees, and the like who do not participate in the DoD Industrial Security Program.

It is of particular importance to note that the last two types of organizations listed operate outside of one of the major bases for distribution control within the DoD S&TI system, i.e., the DoD Industrial Security Program.

B. THE CAUSES

Before proceeding to the discussion of any problem, it usually is helpful to have at least some general understanding of the underlying causes of the problem. Here again, with regard to the problem of distribution control within the DoD, the causes can be stated rather simply; they are threefold:

(1) An almost logarithmic growth in both the number of organizations generating documents and the number of documents being generated,

(2) A more and more concentrated effort to provide integrated and centralized document distribution services for all organizations generating and using documents, and

(3) An almost complete lack of effort directed toward the detailed analysis, development, and universal implementation of integrated distribution control procedures.

A look at the little six-page DDC chronology entitled "DDC: Origins and Milestones" will give you some feel for the growth of the first two causes.

If you list all of the DoD Directives, DoD Instructions, Air Force regulations, Navy regulations, Army regulations, and any other DoD agency regulations that pertain either directly or indirectly to distribution control, and then analyze how well all of these promulgations are integrated either within or among the various agencies, you will begin to appreciate the third cause.

Obviously, the three causes noted above are not peculiar to the DoD. The first two especially, are widely recognized as the underlying causes of most current information problems, both intranationally and internationally. Whether the third is as widely recognized is moot, but it seems certain that it represents a fundamental cause of information transfer problems that will have to be considered in any attempt to develop coordinated information systems anywhere.

C. THE COMPLEXITY

The DoD distribution control problem is complex, and the complexity arises from two very simple things: numbers and variety. This seems like a ridiculous, over-simplified, and, perhaps, a meaningless statement. But apply "numbers" and "variety" as descriptors to people, organizations, documents, regulations, directives, distribution control factors, and any other hard and manifest items that are important parts of the information system. Then apply "numbers" and "variety" as descriptors to such soft and elusive items as attitudes and interpretations that are inextricable parts of anything in which people are involved, particularly people with vested interests. This should provide some appreciation of why numbers and variety, though rather common words, are of particular importance to an understanding of the complexity of the DoD distribution control problem—and to any attempt to achieve a satisfactory solution.

All solutions to complex problems composed of a heterogeneity of factors almost always must start with the same approach: a search for common ground.

III. VESTED INTERESTS AND DOD DISTRIBUTION CONTROLS

Because this discussion is concerned with distribution controls, and because distribution controls may be defined generally as means of protecting vested interests, the search for common ground might well start with a search for common vested interests. Initially, it would seem that there are two types of vested interests common to the problem of distribution control throughout the entire DoD community. These can be defined generally as (1) those related to the protection of the national security, and (2) those related to factors other than the protection of the national security.

A. PROTECTION OF THE NATIONAL SECURITY

By virtue of the nature of its Government mission, it seems irrefutably clear that the primary vested interest of the DoD, in any information produced by or for it, is the protection of the national security. To this end, DoD has developed over the years a well-defined, rather widely known, and relatively clearly understood system for the security classification of information that requires protection in the national interest.

Recently, and possibly as an outgrowth of the concentrated efforts to improve the dissemination of RDT&E information through centralized document services, a very serious misunderstanding about the security classification of information apparently has arisen, particularly in relation to the problem of distribution control. Some people apparently equate classification with distribution control; they apparently assume that the mere act of classifying and marking information automatically ensures adequate control of the distribution of the information. This is an invalid assumption. The classification and marking of a given bit of information indicates only that the bit of information requires a certain degree of protection in the national interest. The control of distribution of the classified information is based on the determination of the need-to-know of all potential recipients. The fact that a potential recipient is authorized to receive information at a given level of classification does not mean that he automatically has a need-to-know for all information of that level of classification. Thus, classification per se does not equal adequate distribution control.

If classification and distribution control are not synonymous, then what does the protection of the national security require in terms of distribution controls for classified and security-sensitive information? The answer to this question might best be approached by attempting to define the basic types of information that are related to, and require distribution control in the interests of, the national security. Three such basic types of information can be defined, namely:

- (1) Classified information,
- (2) Unclassified unclassified information, and
- (3) Cleared unlimited-release information.

In the context of this discussion, classified information can be relatively simply and precisely defined as any information determined to require a classification of Confidential or Secret as prescribed by DoD Instruction 5210.47, "Security Classification of Official Information."

Likewise, cleared unlimited-release information can be relatively simply and precisely defined as any information determined to be suitable for public release as prescribed by DoD Directive 5230.9, "Clearance of Department of Defense Public Information."

The third type of information, unclassified unclassified information, is not as susceptible of simple and precise definition. Generally, it may be defined as information that is neither classified nor cleared. However, this is a rather negative definition, and it may be more meaningful to define it in a positive manner as unclassified information having potential value as technical intelligence, or, in short, unclassified technical intelligence. Individual bits of this type of information may not be of sufficient importance to the national security to warrant classification. Nevertheless, the collective or proximate disclosure of numerous bits of information of this type too soon following their generation could result in a compromise of the national security. Thus, the establishment of adequate distribution controls for this type of information is of substantial importance. Moreover this type of information constitutes substantially more than two-thirds of all scientific and technical information currently generated by the DoD RDT&E program. (For a more detailed discussion of this type of information, see Appendix A, Section IV, D, 1 through 3.)

Briefly, then, because of its vested interests in the national security, any distribution controls that DoD establishes must be adequate to accommodate the three types of information described above. This area of vested interest, protection of the national security, is almost unique to the DoD among government agencies, although there are a few other agencies with an identical interest but of lesser extent. However, DoD is responsible for by far the greatest amount of all scientific and technical information related to this area of interest and, therefore, logically ought to be expected to assume the lead in development of adequate distribution controls for such information.

B. PROTECTION OF NON-SECURITY-RELATED INTERESTS

Although its vested interest in protection of the national security may be practically unique to the DoD, there are other vested interests, with which DoD must concern itself in establishing distribution controls,

that are of almost universal concern to distribution controls for any S&TI system. Because of the context of this discussion, and for want of better nomenclature, these other vested interests may be generally described as non-security-related interests. This is an awkward description, but it does have the advantage of making a clear distinction between the two fundamental bases of those primary DoD interests involved in DoD distribution controls, namely, security and other than security.

Thus, we can add a fourth basic type of information that requires distribution controls: non-security-related information. In an attempt to be a little more descriptive, non-security-related information might be defined as all information (1) that does not require distribution controls because of vested interests related to the national security, but (2) that does require distribution controls because of vested interests pertaining to the owner or provider of the information.

Theoretically, the potential list of specific vested interests that may be involved in non-security-related information is infinite. Within the context of this discussion, however, the vested interests involved in this type of information may be separated generally into two broad categories. First, there are those interests protected by contractual agreements (acts-in-the-law), the compromise of which is legally contestable. Second, there are those interests initially disclosed in confidence but unprotected by contractual agreements, the subsequent disclosure of which is not legally contestable. In other words, there are (1) those interests that must be protected primarily because of legal considerations and (2) those interests that must be protected primarily because of ethical considerations.

Obviously, the protection of an interest provided under an act-in-the-law involves both legal and ethical considerations. But, in the context of this discussion, the delineation of legal considerations and ethical considerations, as individually distinct primary bases underlying the establishment of distribution controls, is of particular importance. This importance stems from the fact of distribution per se and is heightened by the evolving concept of centralized distribution centers.

This point warrants further explanation, and, for the sake of discussion, let me briefly define a few pertinent terms:

(1) Distribution - Dissemination of information by a distributor.

(2) Distributor - Any individual or organization responsible for distribution. Distributors may be further defined as:

(a) Primary distributor - Any individual or organization responsible for (1) the initial distribution of a bit of information and (2) the protection of any interests contained in that information via the prerogatives either of having originated the information or having received it under a contractual agreement or in confidence.

(b) Secondary distributor - Any individual or organization (1) receiving a bit of information as a direct or indirect result of initial distribution and (2) effecting any subsequent dissemination of that information. (Secondary distributors must be considered as having no first-hand or detailed knowledge of the interests requiring distribution controls on the information they disseminate.)

(3) Distribution control - The primary distributor's means of protecting any interests involved in the information he (or it) distributes.

Now, if a primary distributor disseminates information subject to distribution controls based on legal considerations, and if the interests contained in this information subsequently are compromised by a secondary distributor's failure to comply with the distribution controls, then there is reasonable assurance that the owner of the interests will obtain a redress of grievances because the interests are protected by an act-in-the-law.

On the other hand, if a primary distributor disseminates information subject to distribution controls based on ethical considerations, and if the interests contained in this information subsequently are compromised by a secondary distributor's failure to comply with the distribution controls, then there is no assurance that the owner of the interests will obtain a redress of grievances because the interests are not protected by an act-in-the-law. In such a case, there would be a reasonable assurance of obtaining a redress of grievances only if the distribution controls per se were so promulgated as to constitute an act-in-the-law.

Whether the distribution controls of concern within the context of the present discussion can or should be promulgated so as to constitute an act-in-the-law is moot (and beyond the context of this discussion). For the purposes of this discussion, the importance lies in clear recognition of the fact that any distribution controls established for DoD scientific and technical information must provide adequate protection for any information involving interests disclosed under circumstances that make legally incontestable the subsequent compromise of such information. Thus, any controls established must either (1) be so promulgated as to constitute an act-in-the-law, or (2) be so widely recognized and so clearly understood as to reduce the possible chance of compromise of legitimate vested interests to an absolute minimum. Anything less can only result in the ultimate and complete failure of the information system.

Some of the specific types of vested interests that fall within the category of non-security-related information include inventions, other patentable data, property rights, trade secrets, copyrightable material and the like, and any other valid information provided in confidence for some legitimate reason. Obviously, any such information could be provided under circumstances requiring the imposition of distribution controls because of either legal or ethical considerations.

C. THE ADMIXTURE OF SECURITY AND NON-SECURITY INTERESTS

Two fundamental bases of interests that must be considered in the establishment of DoD distribution controls have been described, namely security and other than security. Likewise, four basic types of information resulting from these fundamental bases have been defined, namely:

- (1) Cleared unlimited-release information,
- (2) Unclassified uncleared information,
- (3) Classified information, and
- (4) Non-security-related information.

It is important to establish one additional major point concerning these bases of interest and types of information; namely, that neither a single basis of interest nor a single type of information is always involved in establishing the distribution controls for a given bit of information: combinations of bases of interests and types of information frequently do occur.

For example, consider a technical description of a patentable process that provides the United States with a new and substantial technological and military advantage over its potential enemies. Obviously, the establishment of distribution controls for this information will have to accommodate both security and other than security interests, even though both interests are inextricably bound together in the same bit of information. Accommodation of only one of these interests will not provide adequate distribution control. Any recipient of this information must have both (1) a need-to-know for the information on the basis of security interests, and (2) a right-to-know for the information on the basis of other than security interests (i.e., the patentable data). In short, this technical description of a patentable process related to the national security represents a combination of two of the four basic types of information previously described.

What, then, is the total number of basic types of information and possible combinations thereof that must be considered in the establishment of distribution controls for DoD purposes? There appear to be six:

- (1) Cleared unlimited-release information. By definition, this type of information is devoid of any vested interests of any kind, either security-based or other-than-security-based.
- (2) Unclassified uncleared information. Solely security-based interests are involved.
- (3) Non-security-related information. Solely other-than-security-based interests are involved.

(4) Unclassified unclassified information plus non-security-related information. Both security-based and other-than-security-based interests are involved.

(5) Classified information. Solely security-based interests are involved.

(6) Classified information plus non-security-related information. Both security-based and other-than-security-based interests are involved.

These permutations can be identified more readily in tabular form:

BASIC TYPES OF INFORMATION
AND THEIR POSSIBLE COMBINATIONS

	Cleared	Unclassified Uncleared	Non-Security Related	Classified
1.	Yes	No	No	No
2.	No	Yes	No	No
3.	No	No	Yes	No
4.	No	Yes	Yes	No
5.	No	No	No	Yes
6.	No	No	Yes	Yes

If they are to provide adequate protection for all legitimate vested interests, DoD distribution controls must accommodate all six of these types and combinations of types of information.

The problem of establishing adequate distribution controls would be complex enough if it involved only the protection of vested interests by the accommodation of a relatively limited number of basic types of information. Unfortunately, that is not the total extent of the problem. If an S&TI system is to function effectively, efficiently, and economically, the distribution controls it employs not only ought to provide adequate protection of vested interests, but also ought to resolve some other major problems that are (1) incident to the protection of such interests and (2) characteristic of information dissemination.

IV. THE CHARACTERISTICS AND BASES OF DISTRIBUTION CONTROLS

One of the major deficiencies of manual S&TI systems lies in the fact that they cannot adjust to the so-called information explosion without a logarithmic increase in personnel and paperwork. In fact, it seems reasonable to state that manual S&TI systems probably could not provide adequate service under present-day circumstances even if their personnel resources were unlimited. Manual systems simply cannot approach the speed of available hardware in the performance of many routine operations. Thus, the emphasis on conversion to automated systems.

Even with automated systems, there will be certain functions that must be performed manually. However, if an automated system is to operate at maximum efficiency and economy, it follows that the number of functions still to be performed manually should be reduced to the lowest point possible commensurate with effective operation.

The problem of distribution controls is one that involves not only certain initial functions directed toward the protection of vested interests, but also various subsequent functions either directly or indirectly related to such interests. Thus, for the sake of efficiency and economy, any solution to the problem of distribution controls ought to reduce to a minimum the number of subsequent functions that must be performed manually. It is the purpose here to define and illustrate some of these subsequent functions.

A. AUTOMATIC, TIME-PHASED DOWNGRADING OF DISTRIBUTION CONTROLS

At the outset of any discussion concerning "automatic, time-phased downgrading," it is essential to establish one point quite clearly. There are now widely known and clearly understood procedures for the downgrading and declassification of official defense information that originally was security-classified in the interests of national defense (reference DoD Directive 5200.10). Those procedures and the ones that will be discussed in this section are essentially two distinct and separate procedures.

First, the downgrading and declassification procedures established by DoDD 5200.10 are concerned solely with the problem of the appropriate level of security classification for official defense information, regardless of whether it includes scientific and technical information. Second, the "automatic, time-phased downgrading" procedures for distribution controls to be discussed here are concerned solely with the problem of protection of vested interests in DoD-generated scientific and technical information, regardless of whether it is security-classified. Actually, any procedures established for the automatic, time-phased downgrading of

distribution controls ought to serve as an adjunct to existing procedures for the downgrading and declassification of security-classified material. The important point is that both types of procedures are requisite to any system for DoD-generated scientific and technical information.

Obviously, the DoD and its associated scientific and technical community plus a few other segments of the Federal Government are the only potential participants in a national S&TI system that are faced with the problem of a duality of vested interests—both security-based and other-than-security-based. However, all potential participants in a national S&TI system will be faced with the problem of protecting some vested interests by some system of distribution controls. Thus, if DoD can develop an effective system of distribution controls, some of the fundamentals involved in that development ought to be applicable to the broader problem of controls for a national system. This seems particularly true in the area of automatic, time-phased downgrading of distribution controls.

The prime thesis here is that, if any procedures for distribution controls are to work effectively, efficiently, and economically on a long-term basis, then they must contain some realistic provisions for the automatic, time-phased downgrading of the controls. A detailed discussion of why this is true in one current system is presented in Appendix A, Section IV, A, C, and D, 2 and 3; only a summary of the fundamental considerations will be presented here.

In the preceding section of this study, four basic types of information were defined. Of these four types of information, only one is completely non-time-oriented as regards distribution control. This is cleared unlimited-release information; if a document is cleared for public release, there are no time factors governing its subsequent distribution. All of the remaining three types may involve factors that are time-oriented and that will affect the control of distribution at some point in time following initial distribution. A few examples should suffice.

Example 1: A document composed solely of classified information of particular sensitivity that requires initial distribution to be limited solely to primary addressees. The particular sensitivity of such a document may diminish or disappear with the passage of time, after which the document could be made available to a wider audience. The point in time at which this particular sensitivity diminishes sufficiently or disappears may or may not be predeterminable at the time initial distribution controls are established. Adequate distribution controls would cover both alternatives.

Example 2: A document composed of information that is, at the same time, both classified information and non-security-related information; for example, a technical report of a classified invention. The information might be of sufficient importance to the national security to warrant

a classification of Secret, but the mere application of this security classification and the appropriate classification markings is no guarantee that the patentable aspects of the information will be adequately protected. Thus, the distribution controls must insure protection of the patentable aspects of the information for a period possibly ranging from two to five years, depending upon the actual date the patent issues. However, the security aspects of the information may require protection for a much longer period, and the degree of distribution control required because of security could vary within this period. As noted in example 1, at the time the information is generated, security considerations may indicate that only a relatively small number of recipients have a valid need-to-know for the information, but this number may increase with the passage of time. Thus, adequate distribution controls would provide both the protection of the dual vested interests involved and the automatic downgrading of such controls if the time factor could reasonably be predetermined.

Example 3: A document composed of a combination of unclassified unclassified information and non-security-related information, such as a technical report including information involving property rights not owned by the Government. The property rights involved may require protection either for a relatively brief or for a prolonged period of time, depending upon the nature of the rights themselves. In addition, the unclassified information may be unclassified at the time it is initially generated, but may become eligible for public release at some point in time following initial distribution. In any case, adequate distribution controls ought to insure proper protection for whichever vested interest (security-based or other-than security-based) it is that remains in force for the longest time period. Additionally, the distribution controls ought to allow for the automatic downgrading of all controls at the point in time where neither vested interest requires protection if such a point in time can be realistically predetermined.

In short, with the passage of time, it is possible for distribution controls to be degraded because of the expiration of the vested interests the original controls were designed to protect. Unless a system of distribution controls can be developed that provides for this degradation for a majority of documents in an S&TI system on an automatic time-phased basis, then the downgrading of the controls is going to have to be handled manually. If such downgrading had to be done completely manually for any S&TI system of substantial size, the potential burden of personnel time and paperwork involved could well lead eventually to the complete deterioration of the effectiveness of the system. Under such circumstances, all participants in the system would have to maintain suspense files on all of their documents, and there would be an endless stream of paperwork among primary distributors, recipients, distribution centers, and so on. Thus, the development of some system of automatic time-phased degrading for distribution controls warrants serious consideration as a prime requisite for any S&TI system.

Obviously, too, there is no single "magic number" that will resolve simply the problem of automatic time-phased downgrading of distribution controls. The variety of vested interests is too great, and the considerations on which the protection of these interests must be based do not all expire at the end of identical time periods. One could pick a magic number like "50 years," after which all vested interests could reasonably be expected to have expired, but such a selection would be completely contrary to some of the fundamental purposes underlying the development of S&TI systems. Thus, the development of automatic time-phased distribution controls will require the selection of some finite number of time periods adequate for the protection of all major varieties of vested interests.

B. REPRODUCTION AUTHORIZATION

Technical documents not only involve various factors that require distribution controls, but they also involve various factors that require reproduction controls.

In the DoD S&TI system, there is currently only one general statement defining reproduction control that is frequently used as an adjunct to existing distribution control procedures. This statement authorizes reproduction only by the system's secondary distribution center (DDC) and takes essentially the following form:

Reproduction of this document, in whole or part, is prohibited without specific authorization of (the originating agency); however, DDC is authorized to reproduce the document for U.S. Government purposes.

This statement is fine as far as it goes, but it does not go far enough. There are cases when a primary or secondary recipient of a document has a legitimate and unanticipated need to reproduce either an entire copy or a portion of a document generated by another organization. If the recipient plays according to the ground rules quoted above, correspondence (paperwork) will be required by both the recipient and the originator of the document, with attendant delays.

Obviously, there will be instances in which correspondence is the only alternative. Just as obviously, there will be many instances in which reproduction authorization ought to be susceptible of integration with distribution control procedures, thus saving a substantial amount of paperwork; i.e., reducing the degree to which another function of the S&TI system must be handled manually.

In fact, it seems reasonable to expect that there might be a parallel relationship between distribution controls and reproduction controls. If this is so, then serious consideration should be given to incorporating reproduction controls in the system of distribution controls wherever possible.

C. THE MULTIPLICABILITY OF DISTRIBUTION CONTROL FACTORS

Any attempt to establish adequate distribution controls for any S&TI system must consider the "multiplicability" of distribution control factors. This is particularly true of the DoD S&TI system, although it certainly is not peculiar to it. This multiplicability results from the interplay between and among (1) the three underlying causes of the distribution control problem enumerated earlier in this study, and (2) the multiplicity of and within all of the factors fundamental to distribution control. In other words, the factors determining distribution control consist of a large number of multipliers and multiplicands, and the potential product of these is almost infinite.

Consider the number of organizations that are concurrently originators, distributors, and recipients of technical documents. Add to this consideration the fact that few of these organizations operate with identical standards for distribution control. In other words, a very large number of organizations participate in distribution control, and these organizations have a large variety of technical disclosure practices designed to protect the vested interests involved in the information they generate. And it is important to note that there could be valid bases for all of these different disclosure practices (i.e., distribution controls).

Consider the four basic types of information involved in distribution control. Three of these types are security-related, and the basic control of each of these types is relatively simple. However, the fourth type is non-security-related and is essentially a catchall; the individual kinds of information that can fall within this fourth type are almost limitless. Additionally, there can be, and often are, various combinations of the fourth type of information with two of the other three types of information, thereby complicating distribution control.

Consider the fact that the basic considerations that determine the establishment of initial distribution controls for a given document can change with time, thereby changing the distribution control parameters. Moreover, there may not be just a single type of change involved, and at least two progressive changes can occur for a given document.

Hopefully, the three preceding paragraphs provide some feel for what has been labelled the "multiplicability" of distribution control factors. This multiplicability is per se probably the single most important factor involved in distribution control because it dictates the approach that must be taken to resolve the problem of adequate distribution controls.

D. THE COMMON BASES OF DISTRIBUTION CONTROL

The great variety of and within factors involved in distribution control makes it impossible to select any single one of these factors as a basis for the establishment of adequate distribution controls. Thus, this multiplicability dictates a search for some common ground from which distribution controls can be developed. There are, in fact, two things common to any organization concerned with adequate distribution control of its scientific and technical information.

First, each organization has its own established technical disclosure practices based on its organizational mission and the nature of the vested interests involved in information it generates. Of course, there may be cases in which a given set of technical disclosure practices may apply to a more or less homogeneous group of organizations. Then, too, it is conceivable that a single office could have a set of technical disclosure practices peculiar unto itself. In any case, all organizations generating documents will have established practices related to the disclosure (distribution) of these documents. Moreover, any attempt to establish universal distribution controls for all of these organizations must assume, at least initially, that all of the technical disclosure practices of these organizations are validly based.

Second, technical disclosure practices of any organization are implemented on one common base: need-to-know. Because the term "need-to-know" customarily is associated with security-classified information, it might be more appropriate here to speak of right-to-know. Actually, considering the security-based and other-than-security-based interests involved in the context of the present discussion, it probably is most nearly correct to use a combination of the two; namely, need-and-right-to-know. Whatever the term, the point is that, regardless of the type of information involved, an organization will determine the distribution of a document on the basis of the protection required by the information in the document. In other words, the originating organization will determine which of all potential recipients have a need and a right to know the information contained in a given document.

For example, an originating organization may be able to determine that some information requires no protection and any potential recipient may receive it. In other cases, the originating organization may determine that only a very select list of recipients may receive certain information. In still other cases, an originating organization may determine that a certain homogeneous portion of all potential recipients may have access to certain information. (In fact, in the context of this discussion, the latter type of case will be quite common because the total potential group of recipients consists of a number of homogeneous subgroups. These usually are characterized by their own more or less common technical disclosure practices.) Finally, an originating organization may be able to predetermine that some information must be restricted to a given group of recipients

only for a given time period, and, thereafter, it may be made available to a broader group. Obviously, any universal system of distribution controls must allow originating organizations the latitude to make this variety of choices if the system is to work effectively.

E. MAINTAINING THE INTEGRITY OF DISTRIBUTION CONTROLS

If the points set forth in the immediately preceding paragraphs have any validity, it becomes apparent that the integrity of any system of universal distribution controls will rest in the universal acceptance of two basic principles.

First, responsibility for specifying appropriate distribution controls to a given document must rest with the originator of the document. In this context, "originator" may be defined as either (1) the organization that actually originated the document, or (2) the organization that directed the preparation of the document.

Second, every potential recipient of technical documents must accept full responsibility for protecting all documents received in exact accord with the controls established by the originator. In this context, "recipient" may be defined as including primary recipients, secondary distribution centers, and secondary recipients.

Obviously, universal adherence to these two principles will require exceptionally clear communication and comprehension among all participants in the distribution cycle, particularly as regards the scope and intent of established distribution controls.

F. THE LANGUAGE OF DISTRIBUTION CONTROLS

Exceptionally clear communication and comprehension requires clear and concise language. Additionally, it requires a precise and universally accepted definition of terms. Ambiguity and inconsistency will lead to a breakdown in communication. A detailed discussion of the type of problems resulting from ambiguity and inconsistency in distribution controls in one current system is presented in Appendix A, Section III, E, 6, a and b. A repetition of that discussion is unnecessary here; a reiteration of the conclusion resulting from the discussion should suffice:

Any system of distribution controls, including controlling statements and the rationales on which they are based, must be couched in uniformly and precisely defined language that has an identical meaning for every participant in the distribution cycle.

G. DISTRIBUTION CONTROLS—SIMPLE OR COMPLEX?

If the preceding portions of this study have been at all successful in describing the manifold character of the many factors involved in distribution control, one point should be obvious. There is no simple, uncomplicated solution to the distribution control problem.

Particularly, the problem is not going to be resolved by the mere promulgation of four or five very simple "distribution statements." It has been said that there must be as many as "1,000 different statements" appearing on the documents presently processed by DDC. This is certainly indicative of the great variety of, and variation within, the factors involved. Moreover, even if some common basis can be defined upon which to construct adequate distribution controls, the manifold character of the factors involved will make it exceedingly difficult, if not impossible, to reduce the control problem to a matter of a few brief statements, at least in the sense that we are currently accustomed to thinking of them.

As an example, observe any recent issue of the DDC Technical Abstract Bulletin (TAB; see issues since 1 January 1966). In a box centered on the front cover there appears a reproduction of one of the current statements used for distribution control. Presumably, this statement is sufficient for distribution control. It is interesting to note, however, that on page iii of the TAB there also appears a considerably larger box containing two paragraphs entitled, "Controlled Access to TAB." These two paragraphs consist of six sentences, five of which, in effect, describe the distribution controls applying to TAB. Of course, it is possible that an extra description always may be required for TAB, regardless of how the distribution control problem is resolved, because of the very nature of TAB and its use. TAB probably is one of the two finest unclassified technical intelligence documents extant in the U.S. today. (The other is U.S. Government R&D Reports issued by CFSTI; for a discussion of the problem of unclassified technical intelligence, see Appendix A, Section IV, D, 1 through 3.) But even though TAB might be considered a special case, the fact that it requires an explanation of distribution controls in addition to existing control statements is indicative of the fact that existing control statements are too general for adequate control.

Now, it is possible that, to meet the requirements of an automated system and also to provide quick visual recognition of distribution controls applicable to a document being distributed, a series of very short code designations could be developed as substitutes for distribution statements. For example, a document could be very prominently marked on its face with a code designation, such as CLASS B-1. Additionally, such a code designation might also be susceptible of incorporation as a part of the document's accession number for machine use. If such a code designation had a precisely defined and universally understood meaning in terms of distribution

control, a system based on the use of such coded distribution "statements" might provide adequate and effective control. Obviously, however, such a coded system would have to be supported by the equivalent of a "primer" on distribution control, and the primer would have to (1) be universally distributed throughout the DoD S&TI system, and (2) contain unambiguous detailed definitions of the distribution codes.

V. SUMMARY AND CONCLUSIONS

In summary, the basic thesis of this study is that any attempt to develop an effective S&TI system (whether intra-governmental, intra-national, or international) must include the establishment of a system of adequate and effective distribution controls designed to protect the valid vested interests extant in scientific and technical information today. The absence of effective controls from any S&TI system can only result in decreased efficiency of the system and, potentially, augurs the complete deterioration of the system.

As far as the system of primary interest here (the DoD S&TI system) is concerned, the major general conclusions of this study can be stated rather simply: The problem of distribution control within the DoD S&TI system is very complex. It will not be resolved by any starkly simple solution involving a few very elementary distribution control "statements." A more broadly based approach to the solution of the problem is required.

Specifically, the development of an adequate and effective system of distribution controls for the DoD S&TI system ought to be based on the following major considerations:

- (1) Protection of all valid vested interests, whether security- or non-security-related, involved in information distributed within the DoD system,
- (2) Protection of all types of vested interests, whether they occur singly or in admixture, within a given bit of information,
- (3) Provision for the more or less automatic accomplishment of functions subsequent to primary distribution, such as the time-phased degrading of distribution controls and reproduction authorization,
- (4) Provision for appropriate future interfaces of the system with other intra-governmental, intranational, and international systems, and
- (5) Implementation of the controls within the DoD S&TI system in such a manner that their intent and specific applications are universally understood, and represent the consensus of, all participants in the system.

This last consideration cannot be too strongly stressed. Whatever the final solution to the DoD distribution control problem is, it must represent the consensus of all DoD participants, and it must be implemented uniformly throughout the DoD and any other organizations having access to the DoD S&TI system. One basic, comprehensive, and clearly stated primer on distribution control ought to be issued, and it ought

to be enforced as the mandatory guide for all participants in the DoD system and subject to change only on the consensus of all direct DoD participants.

In this study and various portions of Appendix A, a considerable and necessary amount of emphasis is placed on clarity and precision of language as related to effective distribution controls. One of the major contributing causes of the present DoD distribution control problem is the fact that there are too many unintegrated directives, memos, instructions, regulations, and the like, all of which are couched in imprecise, contradictory, and confusing language because each participating organization has exercised its prerogative to "say it its own way." We can no longer afford the luxury of masticating language merely to see ourselves in print; unless this is clearly understood, the problem of effective distribution control, and the development of an effective DoD S&TI system, will never be resolved.

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APPENDIX A

AN ANALYSIS OF DOD DIRECTIVE 5200.20

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FOREWORD

This analysis of DoD Directive 5200.20 was begun in October 1965 and completed in January 1966. The circumstances causing it to be in preparation for such a protracted period, and the final condition of the manuscript, warrant a few prefatory remarks.

Unfortunately, I could not afford the luxury of going into isolation and concentrating my entire efforts on this analysis exclusively. Thus, it was written in between and among the press of normal duties, with all of the attendant interruptions that this implies. As a result, the analysis represents essentially a first draft.

Second, I will be frank to admit that, when I started this analysis, I was not exactly sure what the problem was or where I was headed. The only thing I did know with some certainty, probably intuitive, was that DoD Directive 5200.20 offered no real solution to the problem of distribution control. Again, I could not afford the luxury of a lot of pre-analysis and pre-planning; the situation demanded immediate attention, and the only realistic approach was to get to it and get the job done, so that writing and analysis were concurrent. As a result, there are places where the analysis rambles and is rather blunt.

I. INTRODUCTION

DoD Directive 5200.20 (29 Mar 65) established "non-security-related" distribution statements for the controlled distribution of all DoD technical documents. The statements established by this directive subsequently were implemented by the Department of the Army for the controlled distribution of all Army technical reports, via DA Regulation 70-31 (21 Jul 65). Both the directive and the regulation directed implementation at the operating level by 1 January 1966.

Copies of the directive and regulation were received at this installation during September 1965. An initial review of both documents raised questions concerning (i) the interpretation and attendant judgment related to, and (ii) the long-term operational impact resulting from, application of the statements. Further critical review indicated that these two points might be of major and serious concern.

Consequently, this detailed analysis of DoD Directive 5200.20 was undertaken with two primary aims. First, the analysis sets forth the local interpretation of the directive so that, if our concern is a result of local misinterpretation and misunderstanding, it can be corrected. Second, if the causes of concern are not a result of local misinterpretation or misunderstanding, the analysis delineates the problem areas and makes recommendations for their resolution.

A. SCOPE OF THE DISCUSSION

Generally, the present discussion is concerned with three major points:

- (1) The intent of DoD Directive 5200.20, and whether or not the directive, as presently constituted, will achieve its actual intent,
- (2) The distribution statements established by the directive, and whether or not they are readily susceptible of uniform interpretation and application throughout the DoD, and
- (3) The long-term operational impact that may result from implementation of the directive in its present form.

Specifically, I am primarily concerned with the directive as it affects operations at the installation level, especially as it affects people who, like me, are faced with the exercise of judgment in the application of the statements established by the directive. I also am primarily concerned with the results of application of the new distribution statements to technical reports (as defined in paragraph II, D, of 5200.20).

B. BACKGROUND

Because DDC (Defense Documentation Center) is the common destination of documents covered by DoDD 5100.20, it seems practical at this point to review the role of DDC in their control and distribution. Briefly, as I understand them, the major interrelated aims underlying the establishment of DDC were threefold:

- (1) To establish a center to acquire, store, announce, retrieve, and provide secondary distribution of all DoD scientific and technical documents, thus
- (2) To provide timely, effective, and economical dissemination of scientific and technical documents throughout the DoD community, and thereby
- (3) To improve communication within, and consequently increase the efficiency of, the DoD RDT&E program.

With regard to the subject under discussion here, efficient accomplishment of these aims by a center such as DDC presupposes the existence of standards that can be readily recognized and uniformly applied to govern the distribution of documents. Until the issuance of DoDD 5200.20, there was a uniform, readily recognizable set of such standards commonly known as the "DDC Availability Notices." Although these notices were uniform and readily recognizable throughout the DoD community, whether or not they were readily and uniformly interpreted and applied is moot. Presumably, the lack of uniform interpretation and application of these original notices throughout the DoD community is one major factor underlying the issuance of DoDD 5200.20.

DoDD 5200.20 establishes a new set of uniform standards governing the distribution of DoD documents and provides guidance for their interpretation and application throughout the DoD community. These new "DoD Distribution Statements" replace the old DDC Availability Notices. Supposedly, these new statements will be more readily and uniformly interpreted and applied than were the old notices, and thus will result in the more efficient accomplishment of S&TI aims both by DDC and by all participating DoD activities. Whether this supposition is true is also moot.

C. DISTRIBUTION CONTROL FACTORS

Generally, within the DoD, there are two major types of factors governing the distribution of documents: (i) security factors, and (ii) "non-security-related" factors. The security factors constitute a relatively homogeneous and fairly well-defined group; "non-security-related" factors constitute a heterogeneous and considerably less well-defined group.

Basic DoD guidance concerning the effect of security factors on the distribution of DoD documents is contained primarily in DoD Directive 5200.1 and DoD Instruction 5210.47. The effect of a substantial portion of existing non-security-related factors on the distribution of DoD documents is contained primarily in DoD Directive 5200.6.

Presumably, it should be possible to make a clear and unequivocal distinction between security factors and non-security-related factors governing the control of DoD documents.

II. GENERAL INTENT OF DOD DIRECTIVE 5200.20

Before proceeding into any discussion of specific details, it first is necessary to establish an understanding of the broader aspects of the directive. Whether or not my understanding of the broader aspects is correct will, of course, determine the validity of any subsequent detailed interpretations.

A. PURPOSE OF THE DIRECTIVE

The title of the directive is "Distribution Statements (Other Than Security) on Technical Documents." Thus, I assume that the basic purpose of the directive is to make a clear distinction between (a) distribution limitations required because of security factors, and (b) distribution limitations required because of non-security-related factors. Further, I assume that the directive seeks to achieve this purpose by the establishment of a series of non-security-related distribution statements. If these assumptions are correct, they lead to the development of two premises:

Premise 1: The distribution of a classified document may be controlled either (i) by security factors alone, or (ii) by both security factors and non-security-related factors. If this premise is valid, it leads to the conclusion: Some classified documents will not require any of the distribution statements established by DoDD 5200.20.

Premise 2: The distribution of an unclassified document will be controlled solely by non-security-related factors. If this premise is valid, it leads to two conclusions:

(1) All unclassified documents will require one of the distribution statements established by DoDD 5200.20.

(2) No unclassified document can contain any official information affecting, either directly or indirectly, the national defense of the United States. If this conclusion is valid, it means, for example, that no unclassified document can contain any official information having any potential as technical intelligence (see definition, para II, DoD Instruction 5210.47) for enemies of the United States. (This point will be discussed in detail later.)

B. SCOPE OF THE DIRECTIVE

In order to understand the implied scope of the directive, it first is necessary to consider the definitions of document, technical document, technical report, and technical information as set forth in paragraphs IV, B through E, of DoDD 5200.20, and the definition of munitions as set forth in paragraph I, H, of Inclosure 1 to DoDD 5200.1. Consideration of these definitions leads to the development of the following premises:

Premise 3: A document must contain technical information to qualify as a technical document. Thus:

Premise 4: Any document containing technical information that relates to research, development, engineering, test, evaluation, production, operation, use, or maintenance of munitions qualifies as a technical document. If the broad definition of munitions in 5200.1 applies, and if this premise is valid, it leads to the conclusion: Essentially any technical document originated by a DoD activity and containing technical information that in any manner relates to the RDT&E program of the DoD must be considered as falling within the purview of either or both 5200.20 and 5210.47. This conclusion is supported by paragraph V, E, of 5200.20.

Premise 5: All technical reports are technical documents, but all technical documents are not technical reports. This premise also is supported by paragraph V, E, of 5200.20. If this premise is valid, it leads to the conclusion: Many informal technical documents will be subject to the provisions of DoDD 5200.20, but will not be subject to the provisions of DoDI 5100.38 (DDC Charter).

C. BROAD APPLICATION OF THE DIRECTIVE

In order to arrive at some understanding of the broad application of the directive, it is necessary to consider the intent of paragraphs V, B through E, of 5200.20.

Paragraph V, B, states that ". . . each technical document . . . requiring a distribution statement will use the most nearly appropriate statement. . . ." This is rather loosely worded and is subject to misinterpretation:

Interpretation 1: Every technical document must use the one statement most nearly appropriate to its content.

Interpretation 2: Only those technical documents containing non-security-related technical information that requires limited distribution will use the one statement most nearly appropriate to their content.

Obviously, these two interpretations are mutually exclusive. Additionally, Interpretation 1 is incompatible with Premise 1, and, therefore, if Premise 1 is valid, Interpretation 1 is incorrect. In this discussion, I am assuming that Premise 1 is valid.

Assuming that Premise 1 is valid, and Interpretation 2 is correct, we can then recast paragraph V, B, thus:

Premise 6: Effective 1 January 1966, all copies of any technical document containing non-security-related technical information requiring limited distribution must be marked with the single statement most nearly appropriate to their content, exactly as worded in paragraph V, A, of DoDD 5200.20. If this premise is valid, it leads to the conclusion: No other statements will be used. This conclusion is supported by paragraph V, E, and also is stated as policy by paragraph III, A, 1, of DoDD 5200.20. The fact remains, however, that this conclusion is contradicted by other provisions of DoDD 5200.20.

For example, paragraphs, V, C and D, pertain solely to technical reports. Here, recall that we are assuming that all technical reports are technical documents (Premise 5).

Paragraph V, C, pertains only to unclassified technical reports and makes an exception for contractors' unclassified technical reports that contain a limited rights clause. The manner in which paragraph V, C, is worded implies that unclassified technical reports containing a limited rights clause will not require any of the statements established by DoDD 5200.20. This implication, however, contradicts the implication of paragraph IV, A, that contractors' unclassified technical reports may contain both a limited rights clause and one of the statements established by DoDD 5200.20.

On the other hand, the manner in which paragraph V, C, is worded also indicates that, if an unclassified technical report does not contain a contractor's limited rights clause, then it must contain one of the statements established by DoDD 5200.20. Thus, paragraph V, C, implies that every unclassified technical report per se contains non-security-related technical information requiring distribution limitations. (Obviously, this last statement is false in light of the unlimited distribution established by Statement 1. The point is, however, that Statement 1 implies the absence of both security factors and non-security-related factors, but Statement 1 is established in a directive purporting to pertain solely to non-security-related factors.)

Now, paragraph V, D, pertains only to classified technical reports and makes no exception for contractors' classified technical reports that contain a limited rights clause. Thus, paragraph V, D, implies that contractors' classified technical reports could contain both a limited rights clause and one of the Statements numbered 2 through 5 from paragraph V, A, of DoDD 5200.20.

Obviously, if Premise 6 is valid, then there is something wrong with paragraphs V, C and D. The opposite, of course, is equally true.

I shall assume that Premise 6 is invalid. Additionally, I shall assume that paragraphs V, C and D, are confusing because (i) they contain the words technical reports where these words are not really required, and (ii) they are poorly written when considered in conjunction with other provisions of the directive.

On the basis of these assumptions, I can now recast Premise 6:

Premise 6-A: Effective 1 January 1966:

(1) All unclassified technical documents that do not contain a contractor's limited rights clause must contain the single distribution statement most nearly appropriate to their contents, and their distribution will be governed solely by the applicable statement.

(2) The distribution of all unclassified technical documents that contain a contractor's limited rights clause, and that do not contain any other non-security-related technical information requiring distribution limitations, will be governed solely by the limited rights clause.

(3) All unclassified technical documents that contain a contractor's limited rights clause, and that also contain other non-security-related technical information requiring distribution limitations, also must contain one of the Statements 2 through 5 most nearly appropriate to their contents. In such cases, distribution of the documents must be governed by joint consideration of both factors, but, generally, the more restrictive

statement will be the prime determinant of distribution. [Such cases are neither inconceivable nor, indeed, highly improbable. Consider, for example, a contractor's document that contains his own proprietary data plus either "information furnished by a foreign government" (one of the bases for Statement 2) or information "relating to inventions by DoD personnel" (one of the bases for Statement 5).]

(4) All classified documents that contain neither a contractor's limited rights clause nor any other non-security-related technical information requiring distribution controls will not require any of the statements established by DoDD 5200.20. Distribution of such documents will be governed solely by security factors and the provisions for the distribution and release of classified information established by DoDD 5200.1 and DoDI 5210.47.

(5) All classified documents that contain a contractor's limited rights clause, and that do not contain any other non-security-related technical information requiring distribution controls, will not require any of the statements established by DoDD 5200.20. Distribution will be governed by joint consideration of the distribution limitations imposed by both the security factors and the contractor's limited rights clause.

(6) All classified technical documents that do not contain a contractor's limited rights clause but that do contain other non-security-related technical information requiring distribution controls will require one of the Statements 2 through 5 most nearly appropriate to their contents. Distribution will be governed by joint consideration of the distribution limitations imposed by both the security factors and the non-security-related factors.

(7) All classified technical documents that contain both a contractor's limited rights clause and other non-security-related technical information requiring distribution controls will require one of the Statements 2 through 5 most nearly appropriate to their contents. In such cases, distribution of the documents must be governed by multiple consideration of all three controlling factors, and, generally, the most restrictive factor will be the prime determinant of distribution.

If Premise 6-A is valid, and if the discussion immediately preceding it is soundly based, they lead to the conclusion: There are eight classes of technical documents. However, because I am concerned here primarily with technical reports, particularly in relation to DDC operations, I am going to state this conclusion in a version limited to these concerns and cast as another working premise:

Premise 7: There are eight classes of technical reports (the permutations of the three bases for control-security, non-security factors, and contractor's limited rights clause):

(1) Unclassified cleared technical reports.

(2) Unclassified technical reports that contain non-security-related technical information requiring distribution controls.

(3) Unclassified technical reports that contain contractor's data obtained with only limited rights.

(4) Unclassified technical reports that contain both non-security-related technical information requiring distribution controls and contractor's data obtained with only limited rights.

(5) Classified technical reports that contain non-security-related technical information requiring distribution controls.

(6) Classified technical reports that contain contractor's data obtained with only limited rights.

(7) Classified technical reports that contain both non-security-related technical information requiring distribution controls and contractor's data obtained with only limited rights.

(8) Classified technical reports that contain neither non-security-related technical information requiring distribution controls nor a contractor's limited rights data.

Now, in view of all the preceding discussion, and assuming that Premise 7 is valid in its entirety, two of the major questions concerning DoDD 5200.20 can be stated in context:

Question 1: Do the statements established by 5200.20 effectively cover the eight classes of technical reports that may be originated within the DoD? If so,

Question 2: Can the statements be readily and uniformly interpreted and applied to all technical reports by all DoD components?

There is, of course, a third question relative to Premise 7, namely:

Question 3: Are there only eight classes of technical reports relative to distribution control factors?

To approach the answers to the first two questions, it next is necessary to examine the statements per se established by DoDD 5200.20.

III. THE DISTRIBUTION STATEMENTS

A. INTRODUCTION

Before proceeding to detailed discussions of the individual statements, a description of the context of the discussion is necessary. For simplicity, I am going to ignore the fact that there are both classified and unclassified versions of each statement, and concentrate on discussion of the primary versions of each statement; the question of classified and unclassified versions will be covered later. I also should note that the statements will not be discussed in chronological order. Rather, I shall discuss first those statements that seem to be the clearest and least confusing, and reserve the more complex and confusing statements for last. Additionally, these discussions will be limited primarily to problems of interpretation of the statements; discussions of the long-term impact of the statements and other provisions of DoDD 5200.20 will be covered in detail in Section IV.

B. ANALYSIS OF STATEMENT 1

1. The Statement: "Distribution of this document is unlimited."
2. Rationale for Statement: "Document has been cleared for public release by competent authority."
3. Effect of Statement: Makes distribution completely unlimited so that subject documents become essentially public property with no distribution restrictions either domestic or foreign. Technical reports containing this statement are automatically releasable through DDC to the Clearinghouse for Federal S&TI.
4. Application of Statement: Applies specifically and solely to unclassified documents that have been cleared for public release; i.e., technical report class 1 described in Premise 7.
5. Comparison with LDC Availability Notices: DoDD 5200.20 Statement 1 is a completely new statement; it bears no direct relationship to any of the five DDC Availability Notices that preceded it. Statement 1 does cover a class of technical reports that was not previously covered by the old DDC Availability Notices.
6. Comment on Statement:
 - a. Both the grammatical and semantic senses of the statement per se are unequivocally clear.
 - b. The rationale on which the statement is based is unequivocally clear.

c. Generally, no major problems are envisioned in the basic interpretation and application of the statement to technical reports.

d. Requestors interested in the secondary distribution of technical reports containing this statement can be conveniently referred to either DDC or the Clearinghouse, whichever is applicable. In other words, after clearance, there is no "controlling DoD office" for technical reports containing Statement 1.

C. ANALYSIS OF STATEMENT 5

1. The Statement: "This document may be further distributed by any holder only with specific prior approval of (the controlling DoD office)."

2. Rationale for Statement:

- a. Portion 1: "Protection of documents containing administrative data;
- b. Portion 2: "Protection of staff studies containing evaluation of other DoD components;
- c. Portion 3: "Disclosure considerations relating to inventions by DoD personnel;
- d. Portion 4: "And related causes requiring strict approval of all disclosures or releases by the controlling DoD office."

3. Effect of Statement: Restricts distribution of subject documents solely to the primary addressees established by the originating agency. No secondary distribution of such documents can be made by any holder of the documents without specific prior approval of the controlling office.

4. Application of Statement: Generally, may apply to either unclassified unclassified or classified documents; also may apply to documents containing the Limited Rights Clause. Specifically, (a) may apply to any of the following classes of technical reports described in Premise 7 - 2, 4, 5, and 7, but (b) never is applicable to any of the following classes of technical reports described in Premise 7 - 1, 3, 6, and 8.

5. Comparison with DDC Availability Notices: DoDD 5200.20 Statement 5 essentially is semantically identical to the old DDC Availability Notice: "All distribution of this report is controlled. Qualified DDC users shall request through (controlling DoD office)." However, there is one very important difference when Statement 5 is considered in the context of DoDD 5200.20: Statement 5 may be used to impose distribution controls only on technical reports involving non-security-related factors, whereas the comparable DDC Availability Notice could be used to impose distribution controls on technical reports involving either or both non-security-related factors and security-related factors (particularly need-to-know). This raises pertinent questions concerning the control of classified technical reports on a need-to-know basis, which is completely omitted from consideration in DoDD 5200.20 and is not covered in any other existing directive or instruction.

6. Comment on Statement:

a. Both the grammatical and semantic senses of the statement per se are clear.

b. Re the "controlling DoD office":

(1) For all cases of domestic release, and those cases of foreign release for which specific exchange agreements and local approval authority exist (primarily Quadripartite), these laboratories would be the controlling office.

(2) For all cases of foreign release for which neither specific exchange agreements nor local approval authority exists, these laboratories would be the office recommending release or non-release, but the Assistant Chief of Staff, Intelligence, DA, would be the office exercising final control.

c. Portion 1 of the rationale for Statement 5 is both grammatically and semantically clear. However, the type of data covered by Portion 1 never is involved in our technical reports (see definition in paragraph II, D, DoDD 5200.20). Additionally, this type of data is not releasable to DDC (see paragraph II, B, DoDI 5100.38).

d. Portion 2 of the rationale for Statement 5 is both grammatically and semantically clear. However, the type of data covered by Portion 2 never is involved in our technical reports. Is this type of data releasable to DDC? Isn't this type of data also essentially administrative data and, therefore, not releasable to DDC?

e. Portion 3 of the rationale for Statement 5 is both grammatically and semantically clear. The type of data covered by Portion 3 is occasionally involved in some of our technical reports. There apparently is either some duplication in coverage or a lack of clarification of coverage among Portion 3 of the rationale for Statement 5 and various portions of the rationale for Statements 2, 3, and 4. This problem will be discussed in detail in the analysis of Statement 4, where the problem is most apparent and complex.

f. Portion 4 of the rationale for Statement 5 is not clear. Was this really meant to say "related causes" (see diagram in paragraph C, 2, above), or was it supposed to say merely "other causes"? In either case, just what does this catchall phrase include? Was this intended to mean "and any other non-security-related cause for which the originating agency can provide valid justification of such distribution restrictions"? I cannot make any valid comment on the frequency of application to our technical reports of this portion of the rationale in its present form and in the context of DoD 5200.20 because I do not know what it means. My guess is that, in the present context of 5200.20, this portion of the rationale seldom, if ever, would be applicable to our technical reports.

D. ANALYSIS OF STATEMENT 3 AND THE LIMITED RIGHTS CLAUSE

In their present forms, both Statement 3 and the Limited Rights Clause are generally similar in their effects. Thus, there seems to be some merit in discussing them together.

1. The Statements:

a. Statement 3: "Each transmittal of this document outside the agencies of the U. S. Government must have prior approval of (the controlling DoD office)."

b. Limited Rights Clause: "Furnished under United States Government Contract No. (number). Shall not be either released outside the Government, or used, duplicated, or disclosed in whole or in part for manufacture or procurement, without the written permission of (the contractor), except for: (i) emergency repair or overhaul work by or for the Government, where the item or process concerned is not otherwise reasonably available to enable timely performance of the work; or (ii) release to a foreign government, as the interests of the United States may require; provided that in either case the release, use, duplication, or disclosure hereof shall be subject to the foregoing limitations. This legend shall be marked on any reproduction hereof in whole or in part."

2. Rationale for Statements:

a. Statement 3:

(1) Portion 1: "Ethical considerations relating to test or evaluation of commercial products;

(2) Portion 2: "Protection of property rights not owned by the government and not protected by a contractor's limited rights statement."

b. Limited Rights Clause: Protection of data obtained by the government with only limited rights as defined in Armed Services Procurement Regulation, Section IX, Part 2.

3. Effect of Statements:

a. Statement 3: Restricts distribution of subject documents presumably to official departments and agencies of the U. S. Government except with prior approval of the controlling DoD office.

b. Limited Rights Clause: Restricts distribution of subject documents presumably to official departments and agencies of the U. S. Government, except with prior written permission of the originator and, even then, only under two specifically stated conditions.

c. Generally, the basic distribution restrictions of both of these statements are the same; they vary only in the degree of specificity of their controlling conditions and procedures.

4. Application of Statements:

a. Statement 3: Generally, may apply to either unclassified unclassified or classified documents. Specifically, never is applicable to classes 1 and 8 of technical reports described in Premise 7; otherwise, might be applicable to any of the remaining six classes, although its application to classes 3 and 6 would be redundant.

b. Limited Rights Clause: Generally, may apply to either unclassified unclassified or classified documents. Always applicable to classes 3, 4, 6, and 7 of technical reports described in Premise 7 and to all reproductions thereof in whole and some reproductions thereof in part. Never applicable to the remaining four classes of technical reports described in Premise 7.

5. Comparison with DDC Availability Notices:

a. Statement 3: Essentially, this statement is semantically identical to the old DDC Availability Notice: "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through (the controlling DoD office)." Here, again, in the context of DoDD 5200.20, Statement 3 may be used to impose distribution controls only on technical reports involving non-security-related factors, although there were some occasions in the past when the old DDC Availability Notice was used because of security-related factors, specifically need-to-know.

b. Limited Rights Clause: This clause also is essentially identical semantically to the DDC Availability Notice cited in the preceding paragraph, although it is more specific in terms of its distribution control conditions and procedures.

6. Comment on Statements:

a. Statement 3:

(1) The grammatical sense of this statement per se is clear, the semantic sense is not. The lack of clarity centers around the phrase "agencies of the U. S. Government" when compared with similar controlling phrases, either stated or implied, in Statements 2 and 4 and in the Limited Rights Clause. This problem is discussed in Section III, G, of this analysis.

(2) Re the "controlling DoD office":

(a) For all cases of domestic release, and those cases of foreign release for which specific exchange agreements and local approval authority exist (primarily Quadripartite), these laboratories would be the controlling office.

(b) For all cases of foreign release for which neither specific exchange agreements nor local approval authority exists, these laboratories would be the office recommending release or non-release, but the Assistant Chief of Staff, Intelligence, DA, would be the office exercising final control.

(3) Both portions of the rationale for Statement 3 are clear. However, the type of data covered by both of these portions seldom, if ever, is involved in our technical reports (see definition in paragraph II, D, DoDL 5200.20).

(4) I seriously question the need for Statement 3 on the basis of the rationale given for it and because of the apparent duplication in coverage when compared with portions of the rationales for other statements; see detailed discussion under analysis of Portions 3 and 4 of the rationale for Statement 4.

b. Limited Rights Clause:

(1) The same comment applies here as that in paragraph (1) on Statement 3, above.

(2) Re the "controlling DoD office": The same controls apply here as those described in paragraph (2) for Statement 3, above.

(3) Generally, the Limited Rights Clause is the simplest, most straightforward and easily understood statement in terms of the type of technical data and technical reports to which it applies. Obviously, this is because it applies to one, and only one, type of data.

E. ANALYSIS OF STATEMENT 4

1. The Statement: "Each transmittal of this document outside the Department of Defense must have prior approval of (the controlling DoD office)."

2. Rationale for Statement:

- a. Portion 1: "Negotiations between U. S. Government agencies;
- b. Portion 2: "Protection of statements that evaluate programs of contractors or other agencies;
- c. Portion 3: "Protection of trade secrets;
- d. Portion 4: "Consideration of differences in
property right protection or technical disclosure procedures;
- e. Portion 5: "And related causes requiring disclosure only
within the Department of Defense."

3. Effect of Statement: Restricts distribution of subject documents to the Department of Defense, except with the prior approval of the controlling DoD office.

4. Application of Statement: Generally, may apply to either unclassified unclassified or classified documents. Specifically, never is applicable to classes 1, 3, 6, and 8 of technical reports described in Premise 7; otherwise might be applicable to any of the remaining four classes, although its application to classes 4 and 7 is dependent upon the definition of the controlling phrase "Department of Defense" (see discussion in Section III, G).

5. Comparison with DDC Availability Notices: Generally, Statement 4 is comparable to old DDC Availability Notice: "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through (the controlling DoD office)." In the context of DoDD 5200.20, Statement 4 may be used to impose distribution controls only on technical reports involving non-security-related factors, and this is primarily the manner in which the old DDC Availability Notice was used, at least at these laboratories.

6. Comment on Statement:

a. The grammatical sense of this statement per se is clear, the semantic sense is not. The lack of clarity centers around the phrase "the Department of Defense" when compared with similar controlling phrases, either stated or implied, in Statements 2 and 3 and in the Limited Rights Clause. An examination of the phrases involved in these four statements is pursued in Section III, G. With regard to the application of the statement, if "Department of Defense" is defined as "official departments and agencies of the DoD exclusive of their associated contractors, grantees, consultants, and the like," then Statement 4 can be applied to classes 4 and 7 of technical reports, and in such cases, Statement 4 would take precedence over the Limited Rights Clause.

b. Re the "controlling DoD office" for Statement 4:

(1) For all cases of domestic release, and those cases of foreign release for which specific exchange agreements and local approval authority exist (primarily Quadripartite), these laboratories would be the controlling DoD office.

(2) For all cases of foreign release for which neither specific exchange agreements nor local approval authority exists, these laboratories would be the office recommending release or non-release, but the Assistant Chief of Staff, Intelligence, DA, would be the office exercising final control.

c. Re Portion 1 of the rationale for Statement 4: Generally, this portion of the rationale is clear. However, the type of information involved rarely, if ever, would be included in our technical reports (see definition in paragraph II, D, DoDD 5200.20). Additionally, isn't this type of information administrative data, and, therefore, excluded from DDC by DoDI 5100.38?

d. Re Portion 2 of the rationale for Statement 4: The same comments apply here as those in the preceding paragraph for Portion 1.

e. Re Portion 3 of the rationale for Statement 4: Both the grammatical and the semantic senses of this portion of the rationale are clear. Confusion begins to arise, however, when one considers Portion 3 of the rationale for Statement 4 in relation to various portions of the rationale for other statements. For example, consider the following:

(1) Portion 3 of the rationale for Statement 4 covers "protection of trade secrets." (NOTE: Distribution of documents containing Statement 4 is restricted to "official departments and agencies of the DoD exclusive of their contractors, grantees, consultants, and the like.")

(2) Portion 3 of the rationale for Statement 5 covers "disclosure considerations relating to inventions by DoD personnel." (NOTE: Distribution of documents containing Statement 5 is restricted "solely to the primary addressees established by the originating agency.")

(3) Portion 2 of the rationale for Statement 5 covers "protection of property rights not owned by the government and not protected by a contractor's limited rights statement." (NOTE: Distribution of documents containing Statement 3 is restricted to "official departments and agencies of the U. S. Government exclusive of their contractors, grantees, consultants, and the like.")

(4) The Limited Rights Clause rationale covers the protection of data obtained by the government with only limited rights; i.e., essentially proprietary data. (NOTE: The distribution restrictions applying to documents containing the limited rights clause are identical to those applying to documents containing Statement 3.)

Now, I do not claim to be an expert in patent law, trade secrets, property rights, etc., but it has become necessary for me to become generally familiar with these subjects in recent years. However, I fail to discern the fine shades of distinction among such phrases as "trade secrets," "property rights," and "proprietary data" in the various portions of the rationale for the various statements, particularly as they are split up among the statements for distribution control purposes.

For example, does the U. S. Government, per se have "trade secrets"? If not, and if the "trade secrets" used in Portion 3 of the rationale for Statement 4 refers to privately owned data, then what is the fundamental distribution distinction between these "trade secrets" and the "property rights" covered in Portion 2 of the rationale for Statement 3? Specifically, why is the distribution of documents containing "trade secrets" restricted within official departments and agencies of the DoD in contrast with the distribution of documents involving "property rights," which are restricted within official departments and agencies of the U. S. Government (a much broader distribution)?

As another example, why should information on inventions by DoD personnel (here interpreted to exclude contractor, grantee, consultant, and similar personnel) be restricted solely to primary addressees in contrast to trade secrets, which may be distributed to all official departments and agencies of the DoD? Distribution within the DoD for official purposes has not been ruled to constitute "publication" from the standpoint of patent law (see Ex parte Suozzi, 125 USPQ 445, and Ex parte Brendlein, 105 USPQ 453). In fact, statements such as the old DDC Availability Notices and new statements established by DoDD 5200.20 serve to reinforce the position taken by the review board in Ex parte Suozzi. Thus, I cannot see why technical reports containing information relating to inventions by DoD personnel should not be available to all official departments and agencies of the DoD, particularly when one considers that, by the time this information appears in a report, invention disclosures have been filed and patent applications normally are in preparation or process. Assumedly, either information relating to inventions by DoD personnel or information relating to privately owned trade secrets might make a contribution to the achievement of DoD R&D program goals. Why, then, should these two legally similar kinds of information be differentiated for distribution control purposes?

In short, what are the specific factors that differentiate the following kinds of information for distribution control purposes: trade secrets, property rights, proprietary data, and DoD inventions. If such factors exist, I have no idea what they are, and I seriously question whether any substantial number of the personnel at the operating level, who will have to exercise judgment in the application of control statements, knows what they are.

I suspect that what we have here is a certain genus of legal information, together with a number of species that fall within the genus. Apparently, we are trying to control the distribution of the individual species when, in fact, the control of the genus is what really concerns us, and the manner in which we are trying to control the individual species is causing the confusion. To me, all this is indicated by the implications of Portion 4 of the rationale for Statement 4, to which I shall now turn.

As a final note on Portion 3 of the rationale for Statement 4, and for consistency's sake, let me first state that trade secrets, as such, probably never are included in our technical reports.

f. Re Portion 4 of the rationale for Statement 4: This portion of the rationale states: "consideration of differences in property right protection or technical disclosure procedures."

I assume that what really is meant here is "differences in the property right protection and technical disclosure practices of the Department of Defense as compared with such practices of other U.S. Government agencies (and other governments?)." If this interpretation is correct, then I gather that we in the DoD must lack confidence in the efficacy of the property right protection and technical disclosure practices of outside agencies. Frankly, this is not merely an assumption on my part; it also is a statement with which I happen to agree.

The point is, however, that what is stated here as a portion of the rationale for one statement really is a statement of one fundamental consideration underlying not only DoDD 5200.20, but also all other directives, instructions, and the like dealing with distribution control, including, in large measure, the control of classified official information.

In short, "differences in protection and disclosure practices" is one fundamental consideration underlying all distribution control. Thus, among the basic purposes of any promulgation on information distribution control are these two:

(1) To establish standards that will eliminate internal differences in protection and disclosure practices, and

(2) To establish guidelines on external differences in such practices to insure that distribution beyond the parent organization does not expose the information to compromise.

Thus, I submit that the phrase, "consideration of differences in property right protection or technical disclosure practices," is completely misplaced as a portion of the rationale for a single statement, i.e., as Portion 4 of the rationale for Statement 4. Rather, this phrase should become a part of the statement of purpose and applicability of the directive. Additionally, the directive should contain sufficient guidance related to this phrase, either by explanation within the directive or by reference to other related directives, so that the two basic purposes enumerated above can be achieved.

For example, although I may have some general impressions and scattered knowledge concerning the differences in property right protection and technical disclosure practices within the DoD as compared with those of other Federal agencies and other governments, I am sure that I have no exhaustive delineation of such differences, nor a complete appreciation of their ramifications. On the other hand, I also would consider it rather unreasonable of me to expect to be provided with an exhaustive delineation of such differences and a complete description of their possible ramifications. I do feel, however, that it is reasonable for me to expect

to be provided with sufficient guidance on these matters, in the form of new and/or referenced previously established standards and procedures, so that I can exercise rational judgment in the application of distribution controls. Without such guidance, I am asked to prostitute my intelligence and my integrity by exercising judgment on something about which I have neither sufficient knowledge nor recourse to workable standards. In such circumstances, I could have only one judgment to make: "Nothing is released."

As a related example, DoD Directive 2000.3 establishes policy and delineates certain procedures governing the international interchange of patent rights and technical information, but DoDD 2000.3 is not referenced in DoDD 5200.20. Yet, it is obvious that DoDD 2000.3 is also directly applicable to many documents covered by DoDD 5200.20, and that both these directives must be jointly considered in determining distribution controls and procedures for documents to which both apply.

I consider the preceding points of basic importance to this entire discussion of DoDD 5200.20, and I will elaborate on them later when I try to arrive at some delineation of sufficient guidance and workable standards. For the moment, I will merely state the following question: If DoD has a reasonable doubt about the efficacy of the property right protection practices of other Federal agencies and other governments, then why shouldn't the distribution of all technical reports containing certain designated types of information be restricted within DoD, subject to exception by prior approval?

g. Re Portion 5 of the rationale for Statement 4: This portion states "and related causes requiring disclosure only within the Department of Defense."

Here, the problem is almost identical with that presented by Portion 4 of the rationale for Statement 5.

Was this really meant to say "related causes" (see diagram in paragraph E, 2, above), or was it supposed to say merely "other causes"? In either case, just what does this catchall phrase include? Was this intended to mean "and any other non-security-related cause for which the originating agency can provide valid justification for limiting distribution within DoD"? If this latter modification were used, and depending upon the final resolution of the points raised in the preceding section, this portion of the rationale might be applicable to a number of our technical reports.

F. ANALYSIS OF STATEMENT 2

1. The Statement: "This document is subject to special export controls, and each transmittal to foreign governments or foreign nationals may be made only with prior approval of (the controlling DoD office)."

2. Rationale for Statement:

- a. Portion 1: "Information included that was furnished by a foreign government;
- b. Portion 2: "Commercial competition with foreign firms;
- c. Portion 3: "Protection of technical know-how relating to critical products or manufacturing processes;
- d. Portion 4: "Tests and evaluation of military operational weapon systems and installations;
- e. Portion 5: "And other technology restricted by U. S. Export Control Acts, references g and h."

3. Effect of Statement: Specifically restricts documents containing technical information or data within the scope of the Export Control Act of 1949 from distribution to foreign governments or nationals, except with the prior approval of the controlling DoD office. Thus, generally restricts distribution of subject documents within the U. S. Government; this is subject to at least three alternative interpretations, as discussed separately in Section III, G.

4. Application of Statement: Generally, may apply to either unclassified uncleared or classified documents. Specifically, never is applicable to class 1 of technical reports described in Premise 7; otherwise, may be applicable to any of the remaining seven classes, depending upon the content of individual reports within each class.

5. Comparison with DDC Availability Notices: Generally, Statement 2 is comparable with the old DDC Availability Notice: "Foreign announcement and dissemination of this report by DDC is not authorized." In the context of DoDD 5200.20, Statement 2 presumably was promulgated to impose distribution controls solely on technical reports involving non-security-related factors. In contrast, the old DDC Availability Notice, although employed only on unclassified uncleared reports, can hardly be described as having been employed to impose distribution controls required solely by non-security-related factors. In fact, whether it was intended this way or not, I will venture the appraisal that the basic consideration in the use of the old DDC Availability Notice was primarily security-related.

6. Comment on Statement:

a. The grammatical sense of this statement per se is clear, the semantic sense is not, particularly in the context of DoDD 5200.20. This will be discussed in more detail in the analysis of the various portions of the rationale, below.

b. Re the "controlling DoD office" for Statement 2:

(1) For all cases of foreign release for which specific exchange agreements and local approval authority exist (primarily Quadripartite), these laboratories would be the controlling office.

(2) For all cases of foreign release for which neither specific exchange agreements nor local approval authority exists, these laboratories would be the office recommending release or non-release, but the Assistant Chief of Staff, Intelligence, DA, would be the office exercising final control.

c. Re Portion 1 of the rationale for Statement 2: The intent of this portion of the rationale is clear. If data of this type were included in our technical reports, it most probably would be security-related, and thus would fall within the purview of paragraph IV, E, of DoDI 5210.47. Even if such data were unclassified, they would fall within the purview of paragraph IV, C, of DoDD 5200.6. Neither DoDI 5210.47 nor DoDD 5200.6 is based on the Export Control Act. Thus, this portion of the rationale does not seem appropriate to Statement 2; it would seem more appropriate in either Statement 4 or 5, and probably would be best located in a statement imposing the type of control intended by Statement 4. The type of data covered by this portion of the rationale is only rarely involved in our technical reports (see definition in paragraph II, D, DoDD 5200.20).

d. Re Portion 2 of the rationale for Statement 2: The intent of this portion of the rationale is not clear, and a close reading of the Export Control Act of 1949 is of no value in clarifying it. Just what does this mean? Does it imply protection of information that might provide foreign firms with a competitive advantage over U. S. firms? Conversely, does it imply protection of information that might place foreign firms at a competitive disadvantage with U. S. firms? Considering the first two broad statements of policy in Section 2022 of the Export Control Act, either of these interpretations seems feasible, and additional interpretations also seem possible. Depending upon the correct interpretation of this portion of the rationale, and in the absence of specific guidance on the type of data subject to the provisions of the Export Control Act, it is conceivable that the distribution of every unclassified uncleared contract report prepared for the DoD could conveniently and logically be controlled with Statement 2 on the basis of portion 2 of the rationale. Obviously, this is not what is intended; nor is the promulgation of "expedient" (Webster's Unabridged, def. 2) statements for convenience any real solution to the long-term problem of distribution control.

e. Re Portions 3, 4, and 5 of the rationale for Statement 2: The general intent of these three portions of the rationale is clear, and their general relationship to the broad policies outlined in the Export Control Act is relatively understandable. However, the specific manner in which these portions of the rationale are to be applied to classified and unclassified official information in technical reports of the DoD RDT&E program is very uncertain, perhaps because of the lack of guidance concerning the DoD interpretation and implementation of the Export Control Act at the installation level, where judgment must be applied on the use of these statements. This also is complicated by the lack of a clear delineation of the relationships between the non-security aspects of the Export Control Act (as they supposedly have been used as a basis for DoDD 5200.20), and the security aspects of paragraphs IV, F, 1 and 2, of Part 2, of Inclosure 1 to DoDD 5200.1 (which supposedly has no relationship whatsoever with the statements established in DoDD 5200.20). This raises some serious questions as to whether Statement 2 really meets the "Other Than Security" criteria included in the title of DoDD 5200.20. These questions will be discussed in detail in Section IV, D, because they are fundamental to the whole problem of distribution control. Depending upon the resolution of these questions, Statement 2 could be applicable to a substantial number of our technical reports that include the type of data covered in Portions 3, 4, and 5 of the rationale.

G. THE LANGUAGE OF DISTRIBUTION STATEMENTS

In preceding parts of this section, I have made occasional references to the semantics of the various distribution statements. Illustrative of this problem of semantics is the difference in meaning of two simple and common words, "to" and "within." For example, consider the meaning of two signs:

"Smoking is Restricted within this Building" - meaning either "You may smoke only within certain parts of this building," or "Smoking is prohibited inside this building; go outside to smoke." Or,

"Smoking is Restricted to this Room" - meaning "don't smoke around here except in this room."

At the risk of belaboring the point, this discrepancy is symbolic of the difficulties to be encountered in applying the statements in DoDD 5200.20. Do they mean what they say, or what they apparently were intended to say?

The variations in terminology describing authorized recipients in the various statements is particularly confusing. Because the clear delineation of recipients is fundamental to sound distribution control, the problem merits additional discussion.

1. The Problem

The phrase of concern in Statement 3 is "agencies of the U. S. Government." It is interesting to note that this is the only statement in which the words "agencies of" are used to modify the primary entity, such as "U. S. Government" or "Department of Defense." If one then considers the rationale on which Statement 3 is based and the type of data Statement 3 is designed to protect, it leads to the conclusion that the phrase "agencies of the U. S. Government" must imply a more restrictive meaning than is readily evident from Statement 3 per se. In other words, Statement 3 will be effective in protecting the type of data involved only if the phrase "agencies of the U. S. Government" is interpreted to mean "official departments and agencies of the U. S. Government exclusive of associated contractors, grantees, consultants, and the like."

The phrase of concern in the Limited Rights Clause is "the Government." Here, it is interesting to note that the primary entity, "the Government," is not preceded by "agencies of," "U. S.," or any other modifier, even though such modification may be implied. Considering the rationale on which the Limited Rights Clause is based and the type of data it is designed to protect, again, the conclusion must be that the Limited Rights Clause will be effective in protecting the type of data involved only if the phrase "the Government" is interpreted to mean "official departments and agencies of the U. S. Government exclusive of associated contractors, grantees, consultants, and the like."

The phrase of concern in Statement 4 is "the Department of Defense." Again, it is interesting to note that the primary entity stands unmodified, even though some modification may be applied. Considering the rationale on which Statement 4 is based and the type of data it is designed to protect, once again, the conclusion is that Statement 4 will be effective in protecting the type of data involved only if the phrase "Department of Defense" is interpreted to mean "official departments and agencies of the Department of Defense exclusive of associated contractors, grantees, consultants, and the like."

The phrase of concern in Statement 2 is "foreign nationals or foreign governments," which, in this case, defines the entities to which distribution is prohibited. This is, of course, in contrast to the phrases in the preceding three statements, where the entities defined are those to which distribution is restricted (actually, within which distribution is permitted). Thus, for Statement 2 it is necessary to determine by implication the entity to which distribution is restricted. Generally, considering the rationale on which Statement 2 is based and the type of data it is designed to protect, it seems probable that the entity within which it implies that distribution is permitted is "the U. S. Government." However, considering the type of data involved and the possible distribution required for defense purposes, it also seems highly probable that "the U. S. Government," in this case, implies an entity of different complexion

from that described above for Statement 3 and the Limited Rights Clause. For example, one of our technical reports might contain technical information furnished by a foreign government with the proviso that the information can be used for U. S. defense purposes but cannot be released to a third government. Thus, distribution of our report would be controlled by Statement 2, but this would not prohibit release of the report to one of our contractors or to another department of the U. S. Government outside the DoD. Similar legitimate examples exist for all other portions of the rationale for Statement 2. What, then, is the precise definition of the entity to which Statement 2 restricts distribution? The information available does not make it possible to arrive at a single, indisputable definition; however, it does allow the establishment of three possible alternatives:

(1) Alternative 1: Statement 2 restricts distribution within the "U. S. Government," which is interpreted to mean "all official departments and agencies of the Federal government plus their associated contractors, grantees, consultants, and the like."

(2) Alternative 2: Statement 2 restricts distribution within the "U. S. Government," which is interpreted to mean "official departments and agencies of the Department of Defense plus their associated contractors, grantees, consultants, and the like, and all other official departments and agencies of the Federal government exclusive of their associated contractors, grantees, and the like."

(3) Alternative 3: Statement 2 restricts distribution within the "Department of Defense," which is interpreted to mean "all official departments and agencies of the Department of Defense plus their associated contractors, grantees, consultants, and the like."

Now, all of the preceding discussion may seem like so much ring-around-the-rose with semantic trivia. I submit, however, that such is not the case. I suspect that the lack of uniform application and interpretation of the old DDC Availability Notices was, at least in part, a result of the lack of precise definition of the entities involved. For example, I have repeatedly heard DoD contractors referred to as "agencies of" the DoD; this may be true in a general semantic sense, whereas it may or may not be true when one is concerned with distribution control and the protection of technical data. This is nowhere more apparent than in the comparison of Statement 3, which uses the phrase "agencies of the U. S. Government," and the Limited Rights Clause, which says merely "the Government." Obviously, "agencies of" was intended to imply a more restrictive distribution; just as obviously, on the basis of the type of data involved, "the Government" was not intended to imply any less

restrictive definition than the phrase "agencies of the U. S. Government." This really is a ring-around-the-rose. The fact remains that we are dealing with words that people must use as a basis for the exercise of judgment. Thus, the less uniform we are in the use of groups of words, and the less precise we are in our definitions of groups of words in a given context, the greater the confusion and variation is likely to be in the judgments exercised on the basis of these words.

2. Recommendation

All distribution statements used for the control of technical data throughout the Department of Defense should use uniform groups of words to describe entities within which or from which distribution is restricted, and the entities that these groups of words describe should be uniformly and precisely described, with their interrelationships if appropriate. Additionally, every effort should be made to insure that the uniform groups of words and their descriptions are uniformly used throughout DoD Instructions, DoD Directives, the ASPR's, and any other DoD promulgation in which the problem of distribution control is involved.

H. SUMMARY

In summary, and as a conclusion for this section, let me set forth the major points of concern resulting from my examination of the statements. First, let me reiterate the major parameters of that concern: I am primarily interested in the application of the new distribution statements to technical reports, especially in relation to operations at the installation level involving people who like me, are faced with the exercise of judgment in the application of the statements. In this context, the major problems revealed by my examination of the statements are:

1. The evident lack of sufficient guidance and workable standards for determining the correct application of the statements to technical reports. I have examined six statements (the five statements of DoDD 5200.20 plus the Limited Rights Clause) and 18 phrases purporting to describe the bases (rationale) on which the statements are to be applied. Of the 18 phrases, it seems highly probable that three never will be applicable to our technical reports. Nine of the phrases apparently will seldom or only occasionally apply to our technical reports. The frequency with which the remaining six phrases will apply is not at all clear and will depend upon the final interpretation of the meaning of the individual phrases.

2. The lack of uniform and precise definition of the entities to which distribution is restricted. This is treated in some detail in Section III, G, above.

3. The confusion resulting from the fact that generically similar information is subject to varying degrees of control even though there is no apparent reason for the variation. This is treated in some detail in Section III, E, 6, e, above.

4. A serious question as to whether the five distribution statements all do meet the fundamental "other than security" criteria established by DoDD 5200.20. This question was mentioned briefly in Section III, F, 6, e, and will be discussed in substantial detail in Section IV covering the third factor that prompted this entire discussion: the long-term operational impact that could result from implementation of DoDD 5200.20 in its present form.

IV. LONG-TERM OPERATIONAL IMPACT OF DODD 5200.20

A. INTRODUCTION

Two major facets of DoDD 5200.20 concern me because of their long-term operational impact.

First, there are the statements. They are imprecise, and they do not cover all major types of information and all major degrees of distribution control extant. In short, the statements have been reduced (presumably for simplicity) considerably below the level of complexity of the actual distribution control problem; clarity and effective control have been sacrificed for brevity. Not only will this lead to forcing documents under the control of statements that do not fit their information, but it also will lead to a lack of clear understanding and consequent confusion concerning the purposes and means of distribution control. Certainly, such a situation would represent no substantial improvement over the present one.

Second, there are the provisions of paragraph V, F, of DoDD 5200.20. DoDD 5200.10 establishes policies and procedures for the time-phased automatic downgrading and declassification of classified official information. Essentially, paragraph V, F, of DoDD 5200.20 attempts to accomplish the same thing for documents containing "non-security-related" technical information. In other words, paragraph V, F, provides for the automatic downgrading of distribution controls, particularly with respect to unclassified information. This is a very commendable idea, and one worthy of further consideration; however, in my best judgment this will not work in the context of DoDD 5200.20 as the directive is presently constituted. I am particularly concerned that it will not work even with the imposition of a prohibitively time-consuming and costly logistical burden on all organizations that originate documents subject to the provisions of 5200.20.

To provide some background for my doubts regarding this Directive, I shall cite some examples related to my own organization. I do not feel that these examples are peculiar to us, but rather that they are typical of problems to be faced by any organization at any level generating technical information subject to the provisions of DoDD 5200.20.

B. TECHNICAL MANUSCRIPTS

One of our series of in-house publications is known as Technical Manuscripts. The series is described as:

Primarily unclassified results of RDT&E effort of general interest to the scientific community. Most Technical Manuscripts involve brief information on techniques, findings, etc., related to basic research.

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Almost all of the publications in this series actually are manuscripts prepared by local scientists and submitted for clearance either for publication in the open literature or for presentation at open scientific meetings.

When these manuscripts are first submitted, we initiate two concurrent actions: (i) clearance processing and (ii) processing for publication in our Technical Manuscript series. Clearance processing requires an average of 9.0 calendar weeks, about 2.5 weeks in-house and 6.5 weeks for processing through external channels. On the other hand, processing, publication, and distribution as a Technical Manuscript requires an average of 6.0 calendar weeks. Thus, a Technical Manuscript is published and distributed an average of 3.0 calendar weeks prior to the completion of clearance processing.

Technical Manuscripts generally are published and distributed as unclassified but uncleared documents. They are forwarded to DDC under the control of the "qualified requestors" statement, and they are not initially releaseable to the Federal Clearinghouse, even though most of them are cleared shortly after publication. I shall explain our reasons for this shortly.

Now, our major purposes for publishing this Technical Manuscript series are twofold. First, the information contained in these manuscripts results from DoD-funded RDT&E effort, and it is our conviction that this information should be readily available, at least to the defense community, at the earliest possible date. However, it is our experience that the average elapsed time between clearance of a manuscript and its publication in the open literature is 10.1 months, with a range of anywhere from 4 or 5 months to 2 or 2½ years. Additionally, the fact that a manuscript is cleared for publication is no guarantee that it will be accepted and published. Moreover, even if a manuscript is accepted and published, there is no guarantee that the journal in which it appears will be readily available in the defense community; the recently completed OAR Report 65-10 on the availability of OAR-sponsored research to the Air Force technological community following publication solely in the open literature is interesting in this regard. Thus, our publication of the Technical Manuscript series insures that this DoD-generated RDT&E information will be readily available to the defense community almost a year, on the average, prior to the time it would be available otherwise. Under some circumstances, it might never be available.

Second, it has been our experience that about one-third of our manuscripts proposed for clearance for open release are intended for publication, whereas the remaining two-thirds are intended for presentation. It also has been our experience that only a small number of the manuscripts intended for presentation are subsequently published in complete form, although some may appear in abstract form in published meeting agendas or

proceedings. However, if a manuscript contains sufficient information to be considered worthy of presentation to a scientific meeting, then this information certainly ought to be available in readily retrievable form. Thus, our publication of the Technical Manuscript series also insures that information prepared for presentation and not subsequently published is made readily available.

By this action, we are providing DDC with publications that are eligible for release to the Clearinghouse shortly after their receipt by DDC. Let me emphasize, however, that we do not want these manuscripts released to the Clearinghouse as soon as they become eligible for such release. Why? One of the prime concerns of any R&D organization these days is maintaining a competent technical staff, and DoD and the Federal government, generally, certainly are no exceptions to this concern. One consideration in maintaining a competent technical staff is providing staff members the opportunity to publish or present some of their results to their world-wide professional colleagues via the media of technical journals or meetings. And such publication or presentation is subject to certain traditionally accepted ethical standards. For example, most scientific journals will not consider for publication any manuscript that has been previously published in the openly available literature or that has been submitted concurrently to more than one journal for consideration. I do not want to delve here into the question of who really holds the "copyright" on articles reporting the results of government-funded research, which is beyond the scope of this analysis. But I do want to make clear that we do not want to compromise the ethics of our technical staff by taking action contrary to the accepted standards of their profession, thereby exposing them to censure. Thus, we want to make sure that the information contained in the Technical Manuscripts is readily available at least to the defense community at the earliest possible date, and we also want to insure that it is not released to the Clearinghouse, at least until after it has been presented or published. Then, of course, we run into the problem that the Clearinghouse does not distribute material that already has been published in the open literature.

As DoDD 5200.20 is presently constituted, it contains no combination of statements, basis for statement, or statement expiration that fits this particular case. For example, because the Technical Manuscripts contain information resulting not only from DoD-sponsored, but more generally from government-sponsored, research, they ought to be available via DDC to any qualified requestor to whom the information may be of benefit for government purposes. To meet this criterion, Statement 3 would be the statement of choice, but the rationale given for Statement 3 has no connection whatsoever with the specific distribution problem involved. Additionally, Technical Manuscripts containing information eventually published in the open literature presumably should not be released to the Clearinghouse, but Statement 3 expires at the end of three years, and the Technical Manuscripts then would be released automatically

to the Clearinghouse. The only way to preclude automatic release to the Clearinghouse would be to use Statement 2, which purportedly is required as a result of the Export Control Act and obviously has no connection whatsoever with these Technical Manuscripts. On the other hand, Technical Manuscripts containing information that was presented but not subsequently published ought eventually to be released through the Clearinghouse. This could be accomplished by using Statement 3, which would avoid any compromise of the author's professional ethics for a sufficient period and then result in the automatic release to the Clearinghouse at the end of three years. Again, however, the rationale given as the basis for Statement 3 has no direct connection with the actual facts of the case.

Notice that there are two important points about the preceding discussion.

First, it is evident that an originating agency could choose some pseudo-combination of statement, basis for statement, and statement expiration that would achieve the desired effect; it is important to understand, however, that although the reasons for the selection of this pseudo-combination might be clear to those who selected it, it is quite doubtful whether the reasons would be clear to anyone else. Additionally, placing people in the position of having to select pseudo-combinations certainly represents no improvement over the present distribution control practice.

Second, I think it is obvious not only from the preceding discussion but also from the detailed discussion in Section III and Appendix B that one of the primary problems with 5200.20 is inadequate and inaccurately placed rationales. Let me state here that I do not feel that it is necessary to compile an exhaustive list of rationales; in fact, I feel this would be misplaced emphasis. I do feel that it not only is possible but also essential to compile a precisely described, applicable, and accurate listing of the major distribution parameters involved in the control of DoD-generated technical information. Such a listing should provide any originating agency with (i) a clear understanding of all major parameters involved in distribution control, and (ii) sufficient latitude to allow the selection of the correct degree of distribution control for any type of technical information generated. I will pursue this point in Section V.

C. CONTRACT REPORTS

Contract reports represent another general area in which the use of DoDD 5200.20 in its present form will result in problems similar to those described for Technical Manuscripts. Once again, I am sure that these problems will not be peculiar to our laboratories but also will be applicable to any other organization involved in similar types of contract effort.

For efficient production and distribution of contract reports, it is important to be able to predetermine the distribution controls that will apply in as many cases as possible. In other words, in the majority of cases, we should be able to incorporate in the contract document the distribution control statements that will apply to most, if not all, of the contractor's reports. For example, generally, we require formal pre-publication review only for final contract reports; we do not require formal pre-publication review of interim technical reports, such as quarterlies, semiannuals, etc., although these usually receive an informal review by our technical project officer. To require formal pre-publication review of all interim progress reports not only would be uneconomical but also would result in undue delays in publication and distribution.

The prime product of most of our R&D contracts is technical information, as compared with hardware. As a result, by far the great majority (at least 95 per cent) of our contract products are purchased with unlimited rights. In other words, very few of our contracts involve use of the limited rights clause, and, additionally, very few involve other non-security-related information requiring peculiar distribution controls. Moreover, about 85 per cent of our contract reports, on the average, are unclassified documents. Thus, a very substantial portion of our contract reports are unclassified but uncleared documents.

So, once again we are faced with the problem of choosing the correct combination of statement, basis for statement, and statement expiration from the current DoDD 5200.20 that will properly control this substantial portion of our contract reports.

Of course, we could elect to initiate clearance processing for these reports as soon as they are published. As a starter, this would mean that we would have to increase the number of copies of reports required under such contracts by at least seven (the absolute minimum required these days for clearance processing beyond these laboratories). But this still wouldn't solve the basic problem of predetermining the correct statements; we wouldn't know which statement to apply until we knew whether or not the contract reports were cleared (about 9 weeks). Additionally, I question the propriety (from a security standpoint) of clearing and releasing publicly 85 per cent of the contract effort of these laboratories as soon as the information is available in published form. (I will discuss this last point in more detail later.)

What other choices are there? Because our primary concern with these unclassified uncleared reports is "differences in technical disclosure practices," we could elect to use Statement 4. However, Statement 4 expires automatically at the end of three years. Thus, we would have one of two alternatives: (i) initiate clearance processing for the report about three months prior to the expiration of the three-year period, or (ii) send a letter to all original primary addressees informing them that the control was to be extended for an additional period.

The first alternative would require that, three years after a report was published, we reproduce at least seven copies of the report (probably by Xerox), assemble them, prepare the necessary paperwork, and forward all through channels for clearance. This impresses me as a ludicrously time-consuming, expensive, and unnecessary proposition. Of course, we could have the seven extra copies printed during the initial publication process and hold them for two years and nine months and then initiate clearance processing; this seems no less ludicrous when I consider that, following the first 33-month period, we'd have an average of about 2,100 extra copies of reports sitting around during any given month, and would be processing about nine reports (in seven copies each) each month.

On the other hand, the second alternative above seems even more absurd than the first—all it does is delay the agony. In the first place, it would require the establishment of suspense files and files of primary distribution lists. In the second place, after the expiration of the first 33-month period, we would be faced with the preparation, addressing, and distribution of about ten letters of notification per month, each of which would go to an average of 30 addressees. And, worst of all, toward the end of the second three-year period, we'd be right back where we started—facing the same two alternatives we started with almost six years previously.

Is there any other possible choice? Yes, we could elect Statement 2, which, first of all, has no automatic expiration date. As I noted previously in the detailed discussion of Statement 2, this would be a very "convenient" statement to use because it has no automatic expiration date. We could place a substantial portion of our documents under the control of Statement 2 and forget them. That would certainly save us a lot of trouble, but I think it can be safely said that this would be absolutely contrary to the whole idea of graded distribution controls and the effective dissemination of information. Moreover, if we decided that reports under Statement 2 should be changed at a later date, we still would be faced with some of the same problems associated with the alternatives described in the preceding paragraphs.

Of course, the same problems described here for unclassified, unclassified contract reports also apply to unclassified, unclassified reports among our formal in-house reporting series. Exclusive of the Technical Manuscripts described previously, the remainder of our formal in-house reports are split about 50-50, on the average, between classified reports and unclassified, unclassified reports.

Thus, about 77 per cent of all technical reports generated by or for our laboratories will fall in a distribution control category subject to potentially burdensome logistical problems described in the preceding paragraphs. I doubt that this situation is substantially different for other R&D organizations similar to ours, and I hesitate to estimate what the cost of the logistical burden would be if DoDD 5200.20 is effected in its present form throughout the DoD.

D. THE "OTHER-THAN-SECURITY" MYTH AND GRADED DISTRIBUTION CONTROLS

I will now attempt to draw together and elaborate upon a few basic points that I have alluded to earlier, and that are, in my opinion, the primary underlying causes of difficulty with DoDD 5200.20 as it is presently constituted. The major points I will cover include: (i) the so-called "other-than-security" basis of DoDD 5200.20, and, in relation to this first point, (ii) Statement 2, the so-called Export Control statement, (iii) the clearance of DoD technical information, and (iv) the automatic, time-phased downgrading of distribution controls.

1. The "Other-Than-Security" Myth

As the outset of this part of the discussion, I would like to ignore completely any influence from one portion of DoDD 5200.20. To clear the air and attempt to approach the problem from a new perspective, I ask you to forget all of the so-called "bases for statements" in paragraph V, A, of DoDD 5200.20, completely if only temporarily. Let me only state that I recognize that information pertaining to such things as "property rights" and "technical know-how relating to critical products" does constitute types of information requiring control. I submit, however, that a listing of types of information together with over-generalized statements in a directive that purports to be based on "other-than-security" factors results in misplaced emphasis leading to obfuscation of the basic problem. So, if the bases for statements have been properly discarded, at least for the present, let me start from a new tack.

First, let me state what to me is a truism:

Any technical document resulting from DoD-sponsored RDT&E effort must be considered to be "security-related" until it has been cleared.

Let me re-state it in other words:

No technical document resulting from DoD-sponsored RDT&E effort can be considered non-security-related unless it has been cleared.

A third way of stating it is:

The mere fact that a document is unclassified does not mean per se that the document is (1) completely non-security-related, (2) suitable for public release, or (3) cleared.

Now, I have stated that these things are truisms to me. I also am sure that they are truisms to others in the Department of Defense. On the other hand, I also am sure that they are not truisms, not only to many in the Department of Defense but also (and especially) to most

people in other non-defense agencies and departments of the Federal government. And it is this lack of clear understanding and acceptance of these truisms that is the major basic cause of "differences in technical disclosure practices"—any considerations of listings of non-security-related factors (bases for statements) aside.

For years, one of our most persistent problems has been educating people who request material from us that there is a difference between unclassified cleared material and unclassified uncleared material. And this is an area that DoD 5200.20 does not cover effectively. In fact, the area is hardly mentioned in the directive, although there is an indication of some awareness of the problem in Statement 2.

This raises the question of what is required to establish adequate distribution controls for technical material. First, there must be some clear and fundamental distinctions made concerning the primary types of technical material. For example, there is material that is cleared versus material that is not cleared. Among the uncleared material, there is unclassified material versus classified material. In short, there are three primary types of information involved for purposes of distribution control:

- (1) Cleared material,
- (2) Unclassified material, and
- (3) Classified material.

Clear recognition and differentiation of these three fundamental types of material are basic to any attempt to establish adequate distribution controls. But additionally, it should be clearly recognized that any attempt to establish separate and unintegrated controls for each of these three major types of material can only result in a lack of understanding and subsequent confusion. Only after these three types of material are clearly recognized, and only after it is understood that an integrated approach to all three is required if adequate distribution controls are to be established, can one begin to consider all of the other numerous and widely varying factors that affect distribution control. In other words, one cannot begin to consider the multitude of rationales (the so-called "bases for statements," or, if you will, the exceptions) related to the so-called "other-than-security" factors until those fundamental and interrelated parameters common to the control of all material are clearly recognized.

I think it can be stated that cleared material and classified material are the two rather clear-cut and widely recognized fundamental types of material. On the other hand, the third fundamental type of material, unclassified material, apparently represents neither as clear-cut nor as widely recognized a type as the other two. Thus, I will first pursue a more detailed discussion of this third type of material in an attempt to arrive at (i) a definition of what it is, and (ii) an understanding of the factors governing its distribution.

I will start with the Export Control Act. The third broad statement of policy in the Export Control Act states: "(c) to exercise the necessary vigilance over exports from the standpoint of their significance to the national security of the United States." (Underscoring added.) Additionally, the Export Control Act defines "exports" to include "technical data," and, thus, this must include any technical information concerned with technical data (e.g., technical reports).

First, I think it is of particular importance to understand that, when the Export Control Act speaks of things "of significance to the national security," it is not speaking in the restricted sense of security-classified things, whether they be critical materials or technical data. Obviously, there exist both classified and unclassified technical data. The question that arises, of course, is: Can technical data be unclassified and also of significance to the national security? Or, stated another way: Does the fact that technical data is of significance to the national security mean per se that the data must be security-classified? My answer to the first question is Yes, to the second, No.

Let me state the matter positively:

Unclassified data can be of significance to the national security. "Significance to the national security" does not automatically mean "classification is an absolute requirement."

To some, this may sound like heresy. Let me see if I can present a valid defense against such charges. To do so, it will be necessary to start with some obvious generalities.

Since World War II, this nation's defense RDT&E program has mushroomed. This growth of the RDT&E program has been directly related to the mushrooming growth of science and technology. More and more, information, and particularly technical information and technical data, have become an increasingly important part of the backbone of the nation's defense RDT&E effort.

Next, I think it is reasonable to state that any technical data or information resulting from the DoD RDT&E program must be considered of potential significance to the national security. I will even go one step further. I think it is reasonable to state that any technical data or information produced by the nation (whether in the DoD RDT&E program, in private industry, in academic institutions, or by some reclusive genius in his basement workshop) can be considered of potential significance to the national security.

Obviously, it is impractical, if not impossible, to security-classify the entire nation.

The question then becomes: Is it possible, practical, and necessary to security-classify the entire DoD RDT&E program and all data and information emanating therefrom? Obviously, this is within the realm of possibility. Just as obviously, at least in my own view, such a prospect is impractical, from the standpoint of efficiency and economy of operations, and unnecessary, from the standpoint of effective national security. This view, although not explicitly stated, is supported by the context and implications of various portions of DoDI 5210.47, "Security Classification of Official Information."

Where, then, does this leave us? It leaves us with a considerable amount of unclassified unclassified information of potential significance to the national security. On the one hand, the individual bits and pieces of this information are not of sufficient significance to the national security to warrant classification; they do not constitute unusually significant scientific breakthroughs, they are within the state-of-the-art of those nations of military concern to the United States, and they do concern subject matter in which it is generally known that the United States has a military interest. On the other hand, if these individual bits and pieces are evaluated collectively, they may be broadly indicative of our state-of-the-art in various areas at a given time; in this regard, they are of significance to the national security because they could have a significant effect on technological lead time.

In short, when we speak of unclassified information generated by the DoD RDT&E program, we are speaking of technical data and information that can be described, in essence, as unclassified technical intelligence. Individually, the bits of information are not of sufficient significance to warrant security classification, and to do so would be inappropriate, inefficient, and uneconomical. Collectively, the bits of information are of security significance, and their collective release as soon as they are generated would not be in the best interests of the national defense. The problem thus resolves itself to one of establishing a clearly understood means of controlling the distribution and release of this material until such time as its potential impact on our lead time has been negated or reduced to a reasonable minimum.

A similar problem has been recognized in regard to classified information, and the problem has been rather satisfactorily resolved through the development of automatic, time-phased downgrading and declassification procedures (DoDD 5200.10). The problem for unclassified information, however, has never been effectively approached, much less resolved, even though DoDD 5200.20 and DoDD 5230.9 represent partial approaches to the problem. The difficulties with these latter two directives lie in the fact that they both cover primarily what are, essentially, exceptions to the basic problem. For example, DoDD 5230.9 establishes procedures governing the clearance and public release of information, and I will wager that by far the greatest majority of information cleared under this directive is prepared initially with the idea of clearance and release in mind. In short, I suspect that, in more than 80 per cent of the cases involved, the procedures established by DoDD 5230.9 are used for the processing of information for which immediate release is desired.

On the other hand, DoDD 5200.20 does at least establish the idea of automatic, time-phased distribution controls for certain types of unclassified information. Additionally, by the inclusion of Statement 2, DoDD 5200.20 either purposely or inadvertently recognizes the "security-related" aspects of the problem of control of unclassified unclassified information. I have already stated and, I believe, established that the control of unclassified, unclassified material must be considered as a "security-related" problem. Thus, it is this very point—the inclusion of Statement 2 and its implications—that causes me to label the modifying phrase "Other Than Security" in the title of DoDD 5200.20 a myth. In my view, perpetuation of this myth in DoDD 5200.20 in its present form would not represent any improvement whatsoever over past distribution control practices and would, in fact, lead to an even worse deterioration in distribution controls.

2. Statement 2 and The Export Control Act

There are two aspects of Statement 2 that are of concern on a long-term basis. First, there is the use of the Export Control Act as the stated primary basis for Statement 2. Second, there is the fact that Statement 2 has no automatic expiration date. Previously, I have touched briefly on both these points; now, I would like to examine them in more detail in light of the discussion in the preceding portions of this section.

As enacted by Congress, the Export Control Act establishes controls on the release (export) of materials and data, whether security-classified or not, that are of significance to the national security. These controls apply not only to the defense establishment but also to the resources of the entire nation.

It was necessary for me to read the Export Control Act and become generally familiar with it as a part of this analysis. This I have done. The fact remains, however, that the Export Control Act per se is written in very general terms and contains nothing in the form of specific guidelines that would be helpful in the use of the Act as a practical working basis for the distribution control of technical material and data. This, in effect, I'm right back where I started, with no particularly good basis for judgment in the initial application of distribution controls at the operating level.

I doubt that I am peculiar in this regard. I seriously question whether any substantial number of those people at the operating level who are responsible for the initial application of distribution controls (i) are generally familiar with the Export Control Act, or (ii) would have a better basis for judgment in the application of distribution controls if they did become familiar with the Act per se. Even for those people who are aware of the existence of the Export Control Act, I suspect that the controls the Act establishes are thought of much more frequently in relation to materials and hardware than they are in relation to technical

data and information. In particular, I seriously question whether any substantial number of people give any thought to the Export Control Act as a basis for the control of distribution of, for example, technical reports.

I have previously stated that I do not feel it is necessary or practical to prepare an exhaustive list of specifics governing distribution control; rather, I feel it is essential to compile a description of the major parameters governing distribution control. Likewise, I also have stated that the language used should be uniform and clearly understandable. Let me examine Statement 2 further in the light of these two viewpoints, and also in relation to the three fundamental types of information I have described: cleared, unclassified, and classified.

Just what is meant by saying "This document is subject to special export controls?" Essentially, this means "this document is not releasable to foreign nationals or governments without prior approval by appropriate authority." Now this is a major distribution parameter that is, I feel, rather widely and clearly understood, especially in regard to the distribution of classified material and data. Moreover, this is a parameter that already has been clearly established without reference to the Export Control Act. Paragraph IV, F, 2, of DoDD 5200.1 states:

Under no circumstances, however, will classified documents not having a special handling notice attached be released or disclosed to foreign nationals without proper authorization in accordance with policies prescribed within the military departments and other agencies of the Department of Defense. Special handling notices will be used solely for the purpose of indicating to holders and other handling personnel that the documents involved have already been reviewed by the office of origin or other responsible authority, and that disclosure to foreign nationals is not authorized. (Under-scoring added.)

In other words, DoDD 5200.1 clearly establishes that any classified document considered for release to foreign nationals or governments must be reviewed by and have the prior approval of appropriate authority before such release can be made. I know this distribution control parameter is clearly established within the Department of the Army (see the discussion of "controlling DoD office" in Section III), and I suspect it also is in the other military departments and defense agencies, without any reference to the Export Control Act. Moreover, the procedures for review and approval within the Department of the Army have been long-established and, in recent years, have been working effectively and efficiently.

Cleared material, of course, becomes a part of the general body of world knowledge, and the Export Control Act has no applicability to this type of information. There are certain considerations involving the fulfillment of direct requests from foreign nationals for cleared information that they have not been able to obtain readily from public sources. However, these considerations, and the procedures involved, also are clearly established and work well, and they are only indirectly related to the Export Control Act.

This leaves us then with the considerable body of unclassified uncleared material described in preceding paragraphs of this section. Now, the Export Control Act might be considered to cover this material in part; i.e., with respect to foreign release. As regards this unclassified, uncleared material, however, we are concerned not only with foreign release but also with domestic public release. And neither the Export Control Act, Statement 2, or any other statement in DoDD 5200.20 makes it clear that lack of approval for public release is a major parameter governing the distribution control of purely unclassified material (material that is unclassified and also devoid of any "non-security-related" factors requiring additional distribution controls).

In the Department of the Army, at least, it is clearly established that no material, whether classified or unclassified, is releaseable to foreign nationals unless specific exchange agreements exist or unless specific approval of appropriate authority has been obtained, and the procedures for accomplishing the latter work effectively and efficiently. Whether or not this also is broadly true for other military departments and defense agencies, I do not know. I do know that the present context of DoDD 5200.20 will do nothing to increase the awareness of this major distribution control parameter for anyone presently unfamiliar with it. More importantly, the directive establishes no means of clearly informing recipients of material of the distribution control parameters applied to the material by the originator. Particularly is this true for that considerable bulk of purely unclassified material that could for convenience only be lumped under Statement 2 and forgotten.

Which brings us back to the second primary concern with Statement 2: the fact that it is a single statement with no allowance for the long-term downgrading of controls. Statement 2 together with the "no-expiration" provision establishes an inflexible situation devoid of any latitude for reasonable and efficient long-term distribution control. Actually, the other three statements (3, 4, & 5), together with the fact that they all expire automatically at the end of identical time periods (three years), do not represent any appreciable improvement over Statement 2. They certainly do not represent any markedly more reasonable latitude for long-term controls; the most that can be said of them is that they are slightly more efficient. Before pursuing this point, however, let me summarize briefly my comments concerning Statement 2 and the Export Control Act.

My main concerns with Statement 2 are, briefly, (i) lack of clarity, and (ii) inadequacy of control.

I have no idea why someone chose to say "This document is subject to special export controls" in preference to "Release of this document to foreign nationals or governments is prohibited without specific prior approval of (appropriate authority)." Perhaps, the former seems more politically expedient than the latter. I submit, however, that neither political expediency nor brevity is any substitute for clear understanding. The basis for the latter statement is clearly understood, and procedures for review of foreign release requests are established and work effectively. I see no merit in confusing something that works well.

Statement 2 and its no-expiration provision might be considered to provide adequate long-term control, not only for all foreign releases, but also for domestic releases of unclassified uncleared material by providing a convenient, inflexible dumping ground. I submit, however, that neither inflexibility nor minimum inconvenience is any substitute for well-planned, reasonable, and efficient controls that consider all major factors involved in the effective long-term dissemination of technical material.

3. Clearance of DoD Technical Information

Because clearance, or the lack of it, is one of the basic factors involved in distribution controls for technical material, a broad understanding of the potential impact of current clearance procedures on any proposals for distribution control is essential. In various portions of the preceding discussion, I have raised a number of points concerning the subjects of clearance and clearance procedures and their relationship to distribution controls. I will collect and reiterate these points:

- a. The mere fact that material is unclassified does not mean that it can be released to the public until it has been reviewed and approved for such release by appropriate authority.
- b. A substantial portion of DoD technical material is purely unclassified information for which clearance, or the lack of clearance, is the major basic factor determining distribution controls.
- c. Because this purely unclassified information constitutes, essentially, technical intelligence, clearance of the material as soon as it is generated would not be in the best interests of the national defense.
- d. The automatic expiration provisions of DoDD 5200.20 have no practical relationship to existing clearance requirements, primarily because the expiration provisions originally were designed (i) with "other-than-security" factors in mind and (ii) without sufficient consideration of purely unclassified information.

e. In my opinion, present clearance procedures (DoDD 5230.9 and associated derivative regulations) are used primarily to process information for which release immediately following generation is desired.

f. Clearance of purely unclassified information postponed for some prolonged period following generation of the information, and in accordance with present clearance procedures as implied by DoDD 5200.20, will result in a prohibitively time-consuming and costly logistical burden for every organization involved in the generation or clearance of such information.

g. Resolution of the problem of clearing purely unclassified material at some prolonged period of time following generation of the material rests in the establishment of some clearly understood and practical means of controlling the distribution and release of the information until such time as its potential value as technical intelligence has been negated or reduced to a reasonable minimum.

If it is not already apparent, the point I am leading to is simply this: Procedures should be established for time-phased, automatic (i) downgrading of distribution controls, and (ii) clearance, of purely unclassified technical material. These procedures should be similar to those for the automatic, time-phased downgrading and declassification of security classified information. I cannot reiterate this point too strongly; anything less not only will be impractical, uneconomical, ineffective, and confusing, but also will make it impossible ever to achieve one of the ultimate aims of the DoD S&TI program, namely, the broadest and most effective dissemination of information possible on a long-term basis consistent with the national security. Let me cite a few more facts pertinent to this point.

During calendar year 1962, the Directorate of Security Review, Office of the Assistant Secretary of Defense for Public Affairs (DSR, OASD-PA) reviewed 13,983 submissions for suitability for clearance and public release. Of this total, 206 items, or about 1.5 per cent, originated at these laboratories, and these items all were prepared specifically for clearance and immediate release. If, during the same period, we also had submitted all of our other purely unclassified information generated either (i) during the period, or (ii) three years previously, our total number of submissions would have more than doubled. I suspect the situation would have been substantially the same for the other organizations that submitted similar material in the remaining 13,777 cases during CY 1962. Thus, if DoDD 5200.20 had been in effect during CY 1962, I think it is highly probable that the DSR, OASD-PA, workload (and that of all the other organizations involved) would have been close to double. This is relatively inconsequential, however, because it represents only a small part of the total problem.

For example, I have before me three recent Technical Abstract Bulletins (TAB's). For anyone interested in checking the data, these are TAB's 65-21, 65-22, and 65-23 issued on 1 November 1965, 15 November 1965, and 1 December 1965, respectively.

These three TAB's contain accession information on 7,107 documents. Of this total, 2,475 (34.8%) appear in the white section, presumably were cleared by appropriate authority, and were released to the Clearinghouse for Federal Scientific and Technical Information (CFSTI). The remainder consisted of 3,216 unclassified unclassified documents (45.3%) and 1,416 classified documents (19.9%). Stated another way, of the 7,107 documents listed in these three TAB's:

- (1) 34.8 per cent were cleared and released to CFSTI,
- (2) 65.2 per cent were restricted to DDC and available only to qualified DDC users, and
- (3) Of the 4,632 documents restricted to DDC:
 - (a) Less than one-third (30.6%) were classified, and
 - (b) More than two-thirds were unclassified, unclassified documents.

Now, I have made a spot comparison of these three TAB's with other issues of TAB covering recent years, and these three TAB's appear to be generally representative of the proportions of fundamental types of technical material handled by DDC. In short, of all the material handled by DDC in recent years, about 35 per cent is cleared material, about 45 per cent is unclassified unclassified material, and about 20 per cent is classified material. Of that material initially retained within the DDC collection, about 69 per cent is unclassified unclassified material and about 31 per cent is classified material.

What do these data imply on a long-term basis? Currently, DDC is accessioning new documents at a rate of about 55,000 per year. If the breakdown in fundamental types of material enumerated above remains generally consistent, this means that DDC is accessioning about 19,250 cleared items, 24,750 unclassified unclassified items, and 11,000 classified items per year. There is no good basis on which to estimate the annual rate of increase in new DDC accessions. During the past ten years, the number of new documents received each year by DDC has fluctuated considerably, from as low as 18,000 (1958) to a high of 50,600 (1965). However, it is significant that the number has sustained an upward swing and more than doubled in the past four years, from 24,000 (1962) to 50,600 (1965). I have no idea what all of the causes are for this substantial upsurge during the past four years. I am sure that a good part of it is a result of increased emphasis on the DoD S&TI program and the issuance in 1963 of specific instructions DoD-wide for the orderly transfer of secondary distribution functions to DDC. In any event, I think it would be reasonable to expect an annual rate of increase in new DDC accessions of anywhere from 2 to 10 per cent over the next decade.

Now, the points I am getting at here are these: First, the cleared material is no problem as regards distribution controls; it's cleared, it goes to CFSTI, and that's that. Second, generally speaking, the classified material per se presents no particular problem; there are clearly established and relatively practical procedures for the automatic, time-phased downgrading and declassification of this material, and, although these procedures still represent some logistical burden, it is one that must be borne in the interests of national defense. It is important to understand, however, that classified material does still represent a problem as regards distribution controls, the latter being separate and distinct from security downgrading and declassification considerations.

Third, and finally, there is that substantial amount of unclassified uncleared material that is being added to the DDC collection each year; each year about 69 per cent of the new material received and retained within the DDC collection falls within this category. I have no idea how much old material in this same category is released to the CFSTI each year, but I seriously doubt that it comes anywhere near the annual DDC intake. Likewise, I have no reliable estimate of DDC's current total holdings, but I gather from information available that it must be approaching something between 450,000 and 500,000 documents in readily retrievable form from the Master File. Here again, it is probable that something between one-half and two-thirds of these total holdings fall in the unclassified uncleared category.

Thus, DDC is accumulating a considerable store of unclassified uncleared documents that is growing steadily year by year. And it is going to continue to grow without surcease because there is no simple, realistic, and practicable method of reducing it on a continuing basis.

Now, I seriously question the degree of significance much of this material had for the DoD RDT&E program, either individually or collectively, at the time it was generated. Even more important, however, is the question of the degree of significance this material has for the DoD RDT&E program and the national security after the material has aged for any protracted period of time. But the important possibility remains that the individual pieces of this material may have some significance for some human endeavor somewhere. Under present circumstances, however, the chances that this material will be released to make any contribution is infinitesimally small. The logistical burden involved in getting it released, either under present circumstances or under the conditions established by DoDD 5200.20, is just more work than the present or future capacity for paper-shuffling traffic can reasonably be expected to bear. And it is my very considered opinion that this is just the type of wasted effort that DoDD 5200.20, as it is presently constituted, will produce.

The most important question, of course, now becomes: Is there any solution to this problem? The problem must be resolved or, at least, reduced to an acceptable minimum; anything short of this will negate one of the major aims of both the DoD and the government-wide S&TI programs.

4. Distribution Controls and Automatic, Time-Phased Downgrading

I have made repeated reference throughout this section to the "automatic, time-phased downgrading of distribution controls." I also have stated repeatedly that what I mean by this is something similar to the procedures established for the automatic, time-phased downgrading and declassification of security-classified material. At this point, however, it is essential to describe the differences between the latter procedures and those that will be proposed for distribution controls. The automatic expiration provisions established by DoDD 5200.20 and the automatic, time-phased procedures in force for classified information are identical in one basic aspect, and this is one of the major weaknesses of DoDD 5200.20. I will try to explain this point clearly, beginning with the procedures for classified information.

DoDD 5200.10 establishes policies and procedures for the automatic, time-phased downgrading and declassification of classified defense information. The directive establishes four material groups or categories for downgrading and declassification purposes, and each of these four groups has its own specifically associated provisions for downgrading and declassification. In other words, these four combinations of material groups and associated provisions constitute rigid and inflexible categories, and this rigidity and inflexibility work because there is only one basic factor underlying the entire DoDD 5200.10: namely, the security classification of defense information. In short, when a single factor is involved, there are no possible permutations, and rigidity and inflexibility are tolerable.

Now, DoDD 5200.20 tries to do essentially the same thing in that it establishes five material groups, each with a single expiration provision. In other words, the combinations of groups and associated provisions established by DoDD 5200.20 are just as rigid and inflexible as those established by DoDD 5200.10. In this case, however, the rigidity and inflexibility will not work because there is more than one major and basic factor underlying the problem to which DoDD 5200.20 is addressed. In short, the available combinations of groups and associated provisions in DoDD 5200.20 are inadequate to cover all of the major permutations resulting from the multiple factors involved in distribution control. Let me explain further.

Any attempt to arrive at a realistic approach to resolution of the problem of adequate distribution controls for technical material must consider at least four major and basic factors. These factors actually can be described in terms of the fundamental types of material subject to distribution controls, namely:

- (1) Cleared material,
- (2) Unclassified uncleared material,
- (3) Classified material, and, finally,
- (4) The so-called "other-than-security-related" material.

As I have tried to show in preceding portions of this analysis, both the distinctions and the relationships among the first three types of material must be clearly understood before any realistic approach to the problem of distribution controls can be achieved. Then, and only then, can we begin to consider the additional problems presented by the so-called other-than-security-related factors requiring peculiar distribution controls. For, not only are there permutations both within and among two of the first three types of material, but there also is an entirely new and more complex range of permutations added as a result of combinations of the fourth type of material with other types. In fact, when this latter kind of combination is considered, the potential permutations become almost infinite.

In contrast, the first type of material, cleared material, is per se subject to no permutations. The important point here, however, is that there must be some automatic, time-phased method of transferring other types of information, or their combinations, into the first type whenever those factors expire that determined their original type.

Development of a workable method for this purpose becomes almost impossible, though, if one starts from the premise that there must be a control specifically applicable to each potential permutation within and among the fundamental material types. Thus, the only reasonable approach seems to be in the establishment of a finite number of controls that will be capable of accommodating all potential permutations. Such a group of controls seemingly should be composed of two sets, namely:

- (1) Set 1, a listing of those entities to which distribution is restricted or, in other words, beyond which distribution is prohibited.
- (2) Set 2, a listing of provisions for the automatic, time-phased downgrading of the restrictions imposed by Set 1.

Let us remember that there are two characteristics that must be common to both of these sets. First, construction of both sets must rest on two common bases: (i) need-to-know, and (ii) differences in technical disclosure practices. Second, individual statements in one set must be

capable of being used in combination with individual statements in the other set. The second provision is the only arrangement that will make it possible to accommodate an infinite number of permutations with a finite number of controls.

The distribution controls established by DoDD 5200.20 do not have either of the characteristics noted in the preceding paragraph, and this is the main reason that DoDD 5200.20 will not work in its present form. As regards the second characteristic, I already have noted that the controls established by DoDD 5200.20 are too rigid and inflexible to cover the range of permutations that are necessary for adequate control. I also have indicated or implied in previous portions of this analysis how DoDD 5200.20 lacks the first characteristic. Perhaps a final brief discussion will make this point more clear.

The main reason DoDD 5200.20 lacks the first characteristic is, of course, that it was designed to control only one fundamental type of material, the so-called other-than-security-related material. As I have tried to show, no system of distribution controls can possibly maintain its integrity unless it includes all four fundamental types of material for which distribution controls are required. I would guess that there was one major mistaken assumption made in the preparation of DoDD 5200.20, namely:

Classification per se implies
adequate distribution controls.

This simply is not true. Classification per se is not an adequate distribution control. The integrity of distribution controls for classified material does not rest in classification as such; it does rest in the awareness and understanding of (i) so-called need-to-know and (ii) differences in disclosure practices by both the originator and any subsequent recipient of the material. And there is no allowance for this in DoDD 5200.20; I will cite just one example.

Statements 2 through 5 in DoDD 5200.20 all have two versions, an unclassified version and a classified version. The classified versions of these four statements all begin with an identical phrase:

"In addition to security requirements that apply
to this document and must be met, . . ."

Please remember that the final portions of all of these statements apply solely to "other-than-security" factors by virtue of the directive in which they are established. Now, if this is so, just what does this introductory phrase for all of the classified versions really mean? Following is a literal translation:

"This document is classified, and the classification per se is adequate to control its distribution as regards security requirements."

I'm sorry, but this really won't do, you know. There will be some items of classified material that I as the originator will not release to DDC if this is the only distribution control granted for classified material. The mere fact that an organization has a certified FOIR on file with DDC and an appropriate facility clearance does not mean that it has a carte blanche need-to-know for every piece of classified information in the DDC collection falling within the organization's FOIR and level of facility clearance. For example, there must be provisions for making a classified document a so-called "L" document, even though it contains no "other-than-security-related" information; as presently constituted, DoDD 5200.20 makes no provisions for this.

In short, establishment of adequate distribution controls will require the inclusion of some statements that say, in essence:

"Because of security requirements (this or that can or cannot be done with a document)."

"In addition to . . ." is inadequate.

V. CONCLUSIONS AND RECOMMENDATIONS

At the very beginning of this whole discussion, I stated my concern with three major points, namely:

- (1) The intent of DoDD 5200.20, and whether or not the directive, as presently constituted, will achieve its purpose.
- (2) The distribution statements established by the directive, and whether or not they are readily susceptible of uniform interpretation and application.
- (3) The long-term operational impact that may result from implementation of the directive in its present form.

If any substantial portion of the opinions, interpretations, and data presented throughout the ensuing discussion are valid, then it is my best judgment that the following conclusions can be drawn concerning the three points enumerated above:

CONCLUSION 1: The intent of DoDD 5200.20 is misdirected in that it treats with only one small part of the total distribution control problem, and the directive will not achieve its purpose in its present form.

CONCLUSION 2: The distribution statements established by DoDD 5200.20 are not susceptible of uniform interpretation and application, and the statements represent no improvement whatsoever over their predecessors, the so-called DDC Availability Notices; in fact, the DoDD 5200.20 statements are worse.

CONCLUSION 3: Implementation of DoDD 5200.20 in its present form will have an intolerable long-term operational impact on the DoD S&TI program because it will impose a prohibitively costly and time-consuming logistical burden on any and all organizations concerned with distribution control and will still not do the job.

On the basis of these three conclusions, the following recommendations are made:

RECOMMENDATION 1: DoDD 5200.20 should be either (i) withdrawn and replaced with an entirely new directive, or (ii) completely revised and re-issued, at the earliest possible date.

RECOMMENDATION 2: Any revision of DoDD 5200.20 or any new directive should (i) cover all fundamental types of material involved in distribution control, and (ii) be written in uniformly and precisely defined language that is clearly understandable by all people involved in distribution control.

APPENDIX B

AN APPROACH TO DISTRIBUTION CONTROLS

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I. INTRODUCTION

A. THE APPROACH

Any study designed to examine the causes of, and the parameters governing the resolution of, a problem ought at the least to indicate possible approaches to the resolution of the problem; criticism for the mere sake of criticism is of little help in solving problems. Thus, the purpose of this Appendix is to set forth possible approaches to the problem of distribution control within the DoD S&TI system.

The approaches offered here are based on a consideration of all the factors summarized in the basic section of this study and discussed in more detail in Appendix A. It would be presumptuous to believe that the approaches described here constitute the ultimate resolution of the problem of distribution control for the DoD S&TI system. We are firmly convinced, however, that the approaches set forth here are based on those fundamental factors that must serve as the basis for any approach to a final resolution of the problem.

B. THE BASIC CRITERIA

If the major points developed in the basic section of this study and Appendix A are valid, they indicate that resolution of the problem might lie in the formulation of a sort of field-of-interest register that would allow an originator to indicate who could receive his documents.

In other words, if responsibility for the application of distribution controls does rest with the originator, and if this application is based on the originator's technical disclosure practices, which in turn are based on the originator's knowledge of potential recipients' need-and-right-to-know, then any system of distribution controls should allow the originator to designate what specific portion of all potential recipients may receive his information. It should also provide him with standard, unequivocal controls capable of accommodating all potential permutations evolving from the multiplicability of control factors, but with the least possible numbers of specific controls.

Additionally, the system of distribution controls should allow the originator to specify how long the initial distribution controls are to remain in effect.

It also would be helpful if the controls could be designed to cover such other elements as reproduction authorization and any constant factors that are common to the distribution of any or all types of information.

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In summary, any system of distribution controls developed ought to be designed to protect the real prerogatives of any organization participating in distribution control. Such a system should standardize the implements used for distribution control; it should not attempt to standardize their use. In other words, the system ought to provide the greatest latitude possible to every participating organization in the maintenance of its own established technical disclosure practices. The approaches offered here are based on these considerations.

II. DISTRIBUTION CONTROLS

A. DISTRIBUTION STATEMENTS

A distribution system that meets the preceding criteria seemingly must be composed of at least two separate sets of controls. The number of criteria involved indicate that more than two sets would be necessary; however, certain parallel relationships among the criteria make it highly probable that two sets will be sufficient. They can be described as follows:

(a) Set 1, a listing of those entities to which distribution is restricted, or, in other words, beyond which distribution is prohibited. This listing also should contain the miscellaneous provisions, such as reproduction authorization, that bear a parallel relationship to the entities involved.

(b) Set 2, a listing of provisions for the automatic, time-phased downgrading of the restrictions imposed by Set 1.

There is one additional requirement for these two sets that must be met if practical controls are to be achieved. Individual statements in one set must be capable of being used in combination with individual statements in the other set. This is the only method that will make it possible to cope with the great number of permutations involved with a finite and reasonable number of controls.

Figure 1 contains two sets of distribution controls designed on the basis of the Set descriptions given above. No detailed analysis of these controls will be presented here; however, a few general remarks seem warranted.

A considerable amount of effort has gone into the design of these two sets of controls; they have been revised, condensed, and polished repeatedly. Their design was based on all of the major factors discussed in the preceding portions of this study. The precision of their terminology was checked

against standard texts and their interpretation tested with co-workers. In order to understand this design in depth, it will be necessary to digest both the basic study and Appendix A.

Next, it is important to note that these two sets of controls are designed solely for use within the DoD S&TI system. This approach was dictated by the previously stated assumption that the primary goal of the DoD system is to serve the DoD scientific and technical community. Revision of these controls to accommodate the interfaces of the DoD system with other intra-governmental systems will be discussed in Section III of this Appendix.

It also should be noted that these two sets of controls are designed in the form of "distribution statements" to conform to the presently accepted practice of achieving distribution control within the DoD system. The possibility of implementing adequate controls by some mechanism other than "statements" will be discussed in Section II, C, of this Appendix. Meantime, a few comments on the individual sets of statements in Figure 1 are in order.

Regarding Set 1, the first reaction may be that they are too long and too complex. Actually, the statements are relatively short and simple in comparison with the complexity of the distribution control problem. The only real concern about these statements should be whether they are too condensed; brevity is no substitute for specificity, particularly when specificity is critical to clear understanding.

Regarding Set 2, two points should be clearly established. First, Set 2 pertains solely to the automatic, time-phased downgrading of distribution controls; it does not pertain to the downgrading and declassification of security-classified material. (It is unfortunate that the term "downgrade" must be used for two separate actions, but no other term is equally precise.) Second, the one aspect of Set 2 that may seem questionable is the time periods specified. These time periods were not capriciously selected; serious consideration was given to all factors involved, and the time periods finally selected are, in our view, realistically based. Of course, it is possible that additional time periods may be required to offer a broader range; those in Set 2 represent the minimum.

Set 1 establishes 11 classes of material, nine of which are subject to automatic, time-phased downgrading provisions. Set 2 establishes six classes of downgrading provisions. Considering all possible combinations of Sets 1 and 2, there are 34 initial controls or combinations of controls available with these two sets of statements. If we consider the automatic progressive changes available as a result of Set 2, then there are six additional permutations available, making a total of 40.

Set 1

CLASS A: This material is approved for domestic and foreign public release. There are no restrictions whatsoever on its distribution or on its reproduction in whole or in part.

CLASS B: This material, although unclassified, is not approved for domestic or foreign public release. It may be distributed to all U. S. Government organizations, including their contractors, grantees, and the like, for the conduct of official business. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction in whole or in part is authorized for official U. S. Government purposes.

CLASS C: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to U. S. Government organizations, excluding their contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction of the material in whole or in part is authorized for official U. S. Government purposes.

CLASS D: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to the Department of Defense, including its contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction of the material in whole or in part is authorized for official DoD purposes.

CLASS E: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to the Department of Defense, excluding its contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction of the material in whole or in part is authorized for official DoD purposes.

CLASS F: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited solely to the primary addressees. Distribution beyond these limits, or any reproduction of the material in whole or in part, requires the specific prior approval of the controlling DoD office.

CLASS G: This material is classified and is subject to the provisions of DoI Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Otherwise, the material may be distributed to any organization possessing a certified need to know and appropriate facility clearance. Reproduction of the material in whole or in part is authorized within the Department of Defense, excluding its contractors, grantees, and the like; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS H: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Further, its distribution is limited to U. S. Government organizations, excluding their contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the controlling DoD office. Reproduction of the material in whole or in part is authorized within the Department of Defense; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

Figure 1. Distribution Control Statements for DoD S&TI System.

CLASS J: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Further, its distribution is limited to the Department of Defense, including its contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the controlling DoD office. Reproduction of the material in whole or in part is authorized within the Department of Defense, excluding its contractors, grantees, and the like; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS K: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Further, its distribution is limited to the Department of Defense, excluding its contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the controlling DoD office. Reproduction of the material in whole or in part is authorized within the Department of Defense; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS L: This material is classified and is subject to the provisions of DoD Directive 5200.1. Further, its distribution is limited solely to primary addressees. Further distribution, or any reproduction in whole or in part, by primary addressees is prohibited without specific prior approval of the originating agency.

Set 2

The original distribution control in Set 1:

CLASS 1: Expires 3 years from the original date shown on the material; material then becomes Class A.

CLASS 2: Expires 6 years from the original date shown on the material; material then becomes Class A.

CLASS 3: Expires 3 years from the original date shown on the material; material then becomes Class B. Three years from the date the material becomes Class B, this limitation expires, and the material automatically becomes Class A.

CLASS 4: Expires automatically 3 years from the original date shown on the material; material then becomes Class G. Subsequent distribution limitations will be subject solely to the provisions of DoD Directives 5200.1 and 5200.10.

CLASS 5: Expires automatically 6 years from the original date shown on the material; material then becomes Class G. Subsequent distribution limitations will be subject solely to the provisions of DoD Directives 5200.1 and 5200.10.

CLASS 6: Remains in effect until changed by specific action of the originating agency.

One of the most important points that can be made about these statements is that they augur no appreciable change in DDC operations. The statements will increase the variety of so-called "limited" documents, but this change represents only a change in types, not in the actual number of limited documents; that is, the increase represents no actual change from present circumstances. The same number of degrees of limitation exist now; a major part of the distribution control problem lies in the fact that the present system of control does not accommodate all of these degrees of control accurately. The recently developed DDC Form 55, Request for Limited Document, is completely compatible with the control statements proposed here.

There even is a distinct possibility that the statements proposed here could simplify DDC operations to some extent. The 11 statements composing Set 1 have been assigned alpha descriptors, and the six statements composing Set 2 have been assigned numeric descriptors. Thus, it is possible to construct a modified AD number (e.g., AD 123 456 B1) susceptible to programming for the automatic, time-phased downgrading of controls.

B. A DISTRIBUTION CONTROL FORM

Figure 2 is a form designed to indicate clearly the distribution controls applicable to scientific and technical material. A few words concerning the proposed form are warranted.

First, and probably most important, is the question: "Why propose a form for distribution control?" Let me cite a pertinent experience as justification. Some time ago, DDC issued rather detailed instructions for the correct preparation of a form letter for requesting limited documents. These instructions were clearly stated, contained an example, and were published and widely disseminated in the DDC Digest and other publications. All such letters requesting release of limited documents generated by our installation come across my desk, and I am not exaggerating when I say that I probably have seen 50 versions of this letter. I even have seen different versions of the same letter from the same requesting organization. Moreover, at least 50 per cent of these letters were so inaccurately prepared that we could not correct them, and they had to be returned to the requesting organization for re-preparation. DDC finally had to design and issue a standard form (DDC Form 55) for the purpose.

The problem of requesting a limited-release document is a relatively simple matter. Even with the issuance of detailed instructions, however, the myriad requesting organizations could not be depended upon for the uniform preparation of a simple request. In the preceding portions of this study, great emphasis has been placed on the multiplicability of the factors involved in distribution control. Obviously, the complexity of the distribution control problem far exceeds the complexity involved in requesting a limited-release document.

DISTRIBUTION CONTROL FOR SCIENTIFIC & TECHNICAL MATERIAL			
1. IDENTIFICATION OF MATERIAL:			
2. ORIGINATING AGENCY		4. APPLICABLE CONTROL PERIODS	
a. Mailing Address:	Original	Interim	Final
	Class ____ until _____	Class ____ _____ to _____	Class ____ after _____
	This material is subject to the type of control indicated in Blocks 5 & 6 for the time period shown above. Do not complete this section if the material is either Class A or Class G; Block 4 must be completed for all other classes.		
b. Telephone: Autovon: IDS: Commercial:			
3. CONTROLLING DoD OFFICE:			
5. MATERIAL CONTROLS: (This section must be completed; place a large X in the single appropriate box.)			
Class	Class	Class	
A ☐	E ☐	J ☐	
B ☐	F ☐	K ☐	
C ☐	G ☐	L ☐	
D ☐	H ☐		
6. EXPIRATION OF CONTROLS: (Do not complete Block 6 if the material is either Class A or Class G; Block 6 must be completed for all other classes. Place a large X in the <u>single</u> appropriate box.)			
Class	Class		
1 ☐	4 ☐		
2 ☐	5 ☐		
3 ☐	6 ☐		
7. REASON FOR CONTROL: (Block 7 must be completed for all classes other than A or G.)			

FORM Figure 2. Form for Distribution Control of DoD S&TI Material.

Set 1

CLASS A: This material is approved for domestic and foreign public release. There are no restrictions whatsoever on its distribution or on its reproduction in whole or in part.

CLASS B: This material, although unclassified, is not approved for domestic or foreign public release. It may be distributed to all U. S. Government organizations, including their contractors, grantees, and the like, for the conduct of official business. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction in whole or in part is authorized for official U. S. Government purposes.

CLASS C: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to U. S. Government organizations, excluding their contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction of the material in whole or in part is authorized for official U. S. Government purposes.

CLASS D: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to the Department of Defense, including its contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction of the material in whole or in part is authorized for official DoD purposes.

CLASS E: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to the Department of Defense, excluding its contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the controlling DoD office; within these limits, reproduction of the material in whole or in part is authorized for official DoD purposes.

CLASS F: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited solely to the primary addressees. Distribution beyond these limits, or any reproduction of the material in whole or in part, requires the specific prior approval of the controlling DoD office.

CLASS G: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Otherwise, the material may be distributed to any organization possessing a certified need to know and appropriate facility clearance. Reproduction of the material in whole or in part is authorized within the Department of Defense, excluding its contractors, grantees, and the like; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS H: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Further, its distribution is limited to U. S. Government organizations, excluding their contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the controlling DoD office. Reproduction of the material in whole or in part is authorized within the Department of Defense; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS J: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Further, its distribution is limited to the Department of Defense, including its contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the controlling DoD office. Reproduction of the material in whole or in part is authorized within the Department of Defense, excluding its contractors, grantees, and the like; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS K: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the controlling DoD office. Further, its distribution is limited to the Department of Defense, excluding its contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the controlling DoD office. Reproduction of the material in whole or in part is authorized within the Department of Defense; any reproduction by any other recipient is prohibited without specific prior approval of the originating agency.

CLASS L: This material is classified and is subject to the provisions of DoD Directive 5200.1. Further, its distribution is limited solely to primary addressees. Further distribution, or any reproduction in whole or in part, by primary addressees is prohibited without specific prior approval of the originating agency.

Set 2

The original distribution control in Set 1:

CLASS 1: Expires 3 years from the original date shown on the material; material then becomes Class A.

CLASS 2: Expires 6 years from the original date shown on the material; material then becomes Class A.

CLASS 3: Expires 3 years from the original date shown on the material; material then becomes Class B. Three years from the date the material becomes Class B, this limitation expires, and the material automatically becomes Class A.

CLASS 4: Expires automatically 3 years from the original date shown on the material; material then becomes Class G. Subsequent distribution limitations will be subject solely to the provisions of DoD Directives 5200.1 and 5200.10.

CLASS 5: Expires automatically 6 years from the original date shown on the material; material then becomes Class G. Subsequent distribution limitations will be subject solely to the provisions of DoD Directives 5200.1 and 5200.10.

CLASS 6: Remains in effect until changed by specific action of the originating agency.

No further comment on why a form is being proposed should be required, but a few comments on the design of the form may be of interest. The front of the form sets forth the major parameters governing the distribution control of the material involved. The reverse of the form contains a complete reproduction of the two sets of distribution controls. The primary purposes of the form are twofold:

(1) The form is designed to allow the originator to provide a complete and accurate description of the distribution controls applying to its material. In addition, the form should provide all recipients with a complete and accurate description of the distribution controls governing the material they receive.

(2) The form is designed to make it easy for all recipients to understand clearly how and why the controls apply and whom they can contact for additional information.

Figures 3 through 6 are additional copies of the form prepared as samples to illustrate various points discussed throughout this study.

C. ALTERNATIVES TO DISTRIBUTION STATEMENTS

As noted previously, it is our firm conviction that the DoD distribution control problem is not susceptible of resolution with a very limited number of starkly simple distribution statements. This should be obvious from the previous discussion and the sample statements set forth in this Appendix. The character of these statements, their length and complexity, and the space that would be required to reproduce them on documents as we do now naturally gives rise to the question of whether distribution "statements" represent the only means of indicating distribution controls.

A primer on distribution control could be a part of one possible alternative. In fact, such a primer seems worthy of consideration even if the customary statements are retained. The primer would explain clearly and succinctly, in language devoid of jargon and Federalese, the parameters governing distribution control and the manner in which they apply throughout the DoD S&TI system.

As an adjunct to these statements, the primer could contain a distribution control classification system for documents. For example, analysis of the sets of statements in Figure 1 (and, to be discussed later, Figure 8) indicates that the statements can be reconstructed to present a Linnean-like taxonomic classification system. Thus, by reading down the classification index and selecting those characteristics that apply to a given document, one would come up with a class designation, such as B1. This short designation, CLASS B1, then could be prominently marked at appropriate places on the document to indicate the applicable distribution controls.

DISTRIBUTION CONTROL FOR SCIENTIFIC & TECHNICAL MATERIAL			
1. IDENTIFICATION OF MATERIAL: Fourth Quarterly Report on Contract DA-18-064-AMC-123(A), XYZ Company, Inc., January 1965			
2. ORIGINATING AGENCY		4. APPLICABLE CONTROL PERIODS	
a. Mailing Address: Commanding Officer U.S. Army Biological Center ATTN: SMUFD-B-AE-T Ft. Detrick, Frederick, Md. 21701		Original	Interim
b. Telephone: Autovon: 231-1350-6278 IDS: 1625-6278 Commercial: 301-663-411-6278		Class <u>B2</u> until <u>Jan 1972</u>	Class <u> </u> _____ to _____
3. CONTROLLING Jod OFFICE: Same as in Block 2.		Final Class <u>A</u> after <u>Jan 1972</u>	
This material is subject to the type of control indicated in Blocks 5 & 6 for the time period shown above. Do not complete this section if the material is either Class A or Class G; Block 4 must be completed for all other classes.			
5. MATERIAL CONTROLS: (This section must be completed; place a large X in the single appropriate box.)			
Class	Class	Class	
A ☐	E ☐	J ☐	
B ☒	F ☐	K ☐	
C ☐	G ☐	L ☐	
D ☐	H ☐		
6. EXPIRATION OF CONTROLS: (Do not complete Block 6 if the material is either Class A or Class G; Block 6 must be completed for all other classes. Place a large X in the <u>single</u> appropriate box.)			
Class		Class	
1 ☐	4 ☐		
2 ☒	5 ☐		
3 ☐	6 ☐		
7. REASON FOR CONTROL: (Block 7 must be completed for all classes other than A or G.)			
The information in this report has not been approved for public release.			

FORM

Figure 3. Example of Use of Suggested Form.

FORM

Figure 6. Example of Use of Suggested Form.

Given a primer with a classification index, the use of a distribution control form is greatly simplified. If a form were used in conjunction with a primer and an index, reproduction of the statements on the reverse of the form might be eliminated.

III. DISTRIBUTION CONTROLS FOR INTERFACES WITH OTHER SYSTEMS

As noted, the distribution statements in Figure 1 were designed solely for the DoD S&TI system. We mentioned early in the basic study, however, that there are various non-DoD organizations that have access to or participate at least partially in the DoD system. Obviously, if distribution controls could be developed that were adequate for all participants in the system, they ought to augur well for the increased efficiency and effectiveness of the system and its interfaces with other systems.

Figure 7 of this Appendix contains another combination of two sets of distribution controls evolved in an attempt to satisfy the requirements of all participants in the DoD system, whether DoD or non-DoD organizations. Basically, the design of these two sets of controls is identical to that used for Figure 1; the only real difference lies in some minor, but exceedingly important, changes in wording within Set 1.

Here, again, meticulous consideration has been given to the wording and construction of the statements. The words of particular importance here are contained in the descriptive terms "originating organization" and "cognizant organization." These are defined as follows:

(1) Originating Organization - the organization responsible for assigning distribution controls to the document. Thus, an originating organization may be either (i) the organization that actually originated the document, or (ii) the organization that directed preparation of the document.

(2) Cognizant Organization - the parent organization of the originating organization. Examples of cognizant organizations include DoD, AEC, NASA, the Department of Agriculture, and the like.

Obviously, there could be times when the originating organization and the cognizant organization would be the same. Most frequently, they probably would be different. For example, for S&TI generated by our installation, we would most frequently be the originating organization, and the cognizant organization normally would be either the Department of the Army or the Department of Defense. Similar examples will certainly occur to readers who are members of non-DoD organizations.

The statements contained in Figure 7 also are susceptible of use with essentially the same form illustrated in Figure 2. The form would require only minor changes in wording in Blocks 2 and 3; Block 2 would become Originating Organization, and Block 3 would become Cognizant Organization. The examples given in Figures 3 through 6 will also be pertinent for non-DoD organizations, so only one sample form was prepared (Figure 8).

Set 1

CLASS A: This material is approved for domestic and foreign public release. There are no restrictions whatsoever on its distribution or on its reproduction in whole or in part.

CLASS B: This material, although unclassified, is not approved for domestic or foreign public release. It may be distributed to all U. S. Government organizations, including their contractors, grantees, and the like, for the conduct of official business. Distribution beyond these limits requires the specific prior approval of the originating organization; within these limits, reproduction in whole or in part is authorized for official U. S. Government purposes.

CLASS C: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to U. S. Government organizations, excluding their contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the originating organization; within these limits, reproduction of the material in whole or in part is authorized for official U. S. Government purposes.

CLASS D: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to the cognizant organization, including its contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the originating organization. Reproduction of the material in whole or in part is authorized for official purposes within the cognizant organization.

CLASS E: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited to the cognizant organization, excluding its contractors, grantees, and the like. Distribution beyond these limits requires the specific prior approval of the originating organization. Reproduction of the material in whole or in part is authorized for official purposes within the cognizant organization.

CLASS F: This material, although unclassified, is not approved for domestic or foreign public release. Further, its distribution is limited solely to the primary addressees. Distribution beyond these limits, or any reproduction of the material in whole or in part, requires the specific prior approval of the originating organization.

CLASS G: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the originating organization. Otherwise, the material may be distributed to any organization possessing a certified need to know and appropriate facility clearance. Reproduction of the material in whole or in part is authorized within the cognizant organization, excluding its contractors, grantees, and the like; any reproduction by any other recipient is prohibited without specific prior approval of the originating organization.

CLASS H: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the originating organization. Further, its distribution is limited to U. S. Government organizations, excluding their contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the originating organization. Reproduction of the material in whole or in part is authorized within the cognizant organization; any reproduction by any other recipient is prohibited without specific prior approval of the originating organization.

Figure 7. Distribution Control Statements for All Participants in DoD System.

CLASS J: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the originating organization. Further, its distribution is limited to the cognizant organization, including its contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the originating organization. Reproduction of the material in whole or in part is authorized within the cognizant organization, excluding its contractors, grantees, and the like; any reproduction by any other recipient is prohibited without specific prior approval of the originating organization.

CLASS K: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the originating organization. Further, its distribution is limited to the cognizant organization, excluding its contractors, grantees, and the like. Distribution beyond these limits is prohibited without specific prior approval of the originating organization. Reproduction of the material in whole or in part is authorized within the cognizant organization; any reproduction by any other recipient is prohibited without specific prior approval of the originating organization.

CLASS L: This material is classified and is subject to the provisions of DoD Directive 5200.1. Release to foreign nationals or governments is prohibited without specific prior approval of the originating organization. Further, its distribution is limited solely to primary addressees. Further distribution, or any reproduction in whole or in part, by primary addressees is prohibited without specific prior approval of the originating organization.

Set 2

The original distribution control in Set 1:

CLASS 1: Expires 3 years from the original date shown on the material; material then becomes Class A.

CLASS 2: Expires 6 years from the original date shown on the material; material then becomes Class A.

CLASS 3: Expires 3 years from the original date shown on the material; material then becomes Class B. Three years from the date the material becomes Class B, this limitation expires, and the material automatically becomes Class A.

CLASS 4: Expires automatically 3 years from the original date shown on the material; material then becomes Class G. Subsequent distribution limitations will be subject solely to the provisions of DoD Directives 5200.1 and 5200.10.

CLASS 5: Expires automatically 6 years from the original date shown on the material; material then becomes Class G. Subsequent distribution limitations will be subject solely to the provisions of DoD Directives 5200.1 and 5200.10.

CLASS 6: Remains in effect until changed by specific action of the originating agency.

DISTRIBUTION CONTROL FOR SCIENTIFIC & TECHNICAL MATERIAL			
1. IDENTIFICATION OF MATERIAL: Final Report on Contract DA-18-064-AMC-000(A), A to Z Corporation, January 1966			
2. ORIGINATING ORGANIZATION		4. APPLICABLE CONTROL PERIODS	
a. Mailing Address: Commanding Officer U.S. Army Biological Center ATTN: SMUFD-B-AE-T Ft. Detrick, Frederick, Md. 21701 b. Telephone: Autovon: 231-1350-6278 IDS: 1625-6278 Commercial: 301-663-4111-6278		Original Class <u>E3</u> until <u>Jan 1969</u>	Interim Class <u>B1</u> <u>Jan 1969</u> to <u>Jan 1972</u>
3. COGNIZANT ORGANIZATION: Department of Defense		Final Class <u>A</u> after <u>Jan 1972</u> This material is subject to the type of control indicated in Blocks 5 & 6 for the time period shown above. Do not complete this section if the material is either Class A or Class G; Block 4 must be completed for all other classes.	
5. MATERIAL CONTROLS: (This section must be completed; place a large X in the single appropriate box.)			
Class A ☐ B ☐ C ☐ D ☐	Class E ☒ F ☐ G ☐ H ☐	Class J ☐ K ☐ L ☐	
6. EXPIRATION OF CONTROLS: (Do not complete Block 6 if the material is either Class A or Class G; Block 6 must be completed for all other classes. Place a large X in the single appropriate box.)			
Class 1 ☐ 2 ☐ 3 ☒		Class 4 ☐ 5 ☐ 6 ☐	
7. REASON FOR CONTROL: (Block 7 must be completed for all classes other than A or G.)			
Contains information on which patent application is pending.			

FORM

Figure 8. Example of Use of Form for Distribution Control of S&TI Material for all Participants in DoD System.

IV. CONCLUSION

We do not insist that the proposals discussed in this Appendix represent total or final solutions to the DoD distribution control problem. We do feel that the fundamental parameters on which these proposals are built represent the only sound basis from which the ultimate solution of the problem can proceed. It is in this spirit that the proposals are offered as a basis for further discussion.

We cannot reiterate too strongly our view that, whatever the final solution, it will have to be widely disseminated and clearly understood by all participants in the DoD system who are involved in distribution control in any capacity. This will entail a substantial informational and educational effort, but anything less could well negate even the best possible solution.