Classification Management

JOURNAL OF THE NATIONAL
CLASSIFICATION MANAGEMENT SOCIETY

VOLUME VI 1970

Published semiannually. Annual subscription, $10. Editorial address: 14001 So. Daphne Ave., Gardena, Calif. 90249. Lorimer F. McConnell, Editor. Views expressed by individuals herein do not necessarily represent views of their employers or of NCMS.

CONTENTS

PAPERS FROM THE SIXTH NATIONAL SEMINAR

SEMINAR PROGRAM

Tuesday, July 14

8:30- 9:30	REGISTRATION AND RE-ACQUAINTANCE PERIOD
9:30-	CALL TO ORDER—OPENING CEREMONIES Mr. George L. Chelius, McDonnell Douglas Astronautics Company, Western Division INVOCATION—Chaplain Phillip C. Peace
9:40-	PRESIDENTIAL WELCOME AND AWARDS PRESENTATION— Mr. Richard J. Boberg, The Aerospace Corporation
10:00-	WELCOME ADDRESS— The Honorable Ed Reinecke, Lieutenant Governor of California
10:30-	KEYNOTE SPEAKER—CLASSIFICATION MANAGEMENT—CURRENT AND FUTURE TRENDS— Mr. Joseph Liebling, Deputy Assistant Secretary of Defense (Security Policy)
11:15-	SOME THOUGHTS ON CLASSIFICATION IN THE ATOMIC ENERGY COMMISSION Mr. Donald Woodbridge, Union Carbide Corporation
12:00- 1:30	LUNCHEON—CLASSIFICATION CONFRONTS "IT"— Dr. Everett T. Welmers, Assistant to the President, The Aerospace Corporation
1:45-	ORIENTATION FOR WEAPONS SYSTEM CLASSIFICATION— Mr. William Florence, Deputy Assistant for Security, Office of the Deputy Chief of Staff for R&D, Hq. USAF
2:30-	TECHNICAL INFORMATION AND CLASSIFICATION MANAGEMENT— Mr. Fred A. Koether, Director, Technical Information, Advanced Research Projects Agency
3:15-	COFFEE BREAK
3:30-	CONFIGURATION MANAGEMENT EFFECTS ON ENGINEERING EFFICIENCY— Mr. D. V. Magill, McDonnell Douglas Astronautics Corporation, Western Division
4:00-	POSITION PAPER ON SPECIAL ACCESS PROGRAMS— Mr. Richard J. Boberg, Aerospace Corporation
4:15-	BRIEFING ON WORKSHOPS FOR THE SECOND DAY Mr. Willard N. Thompson, Program Chairman, Space and Missile Systems Organization, USAF
6:00- 8:00	PRESIDENT'S RECEPTION

Wednesday, July 15

9:00-12:00 THREE WORKSHOPS—

Number One. DEVELOPMENT, COORDINATION AND DISSEMINATION OF CLASSIFICATION REQUIREMENTS. Discuss the coordination of classification requirements within user agency headquarters and with personnel of a contractor's organization. Determine how inconsistencies can be resolved between two user agencies and explore means whereby various user agencies would automatically receive copies of classification guidance for similar technologies.

Mr. James J. Bagley, U.S. Naval Research Laboratories (Moderator)
Mr. Robert E. Green, Naval Material Command
Mr. Robert B. Ruether, Texas Instruments

Number Two. IMPLEMENTATION OF CLASSIFICATION REQUIREMENTS. Explore the means of implementing classification requirements. Discuss where conflicts of interpretation can best be resolved.

Mr. Charles Uhland, General Electric, Reentry Systems Division (Moderator)
A. A. Correia, North American Rockwell, Autonetics Division
Mr. Frank Marlor, General Electric, Reentry Systems Division
Mr. Herb Herron, AVCO Corporation
Captain James L. Stehn, Space and Missile Systems Organization, United States Air Force

Number Three. RETENTION OF DOCUMENTS AND CLASSIFICATION OF INDEPENDENT RESEARCH. Discuss problems related to the retention of classified material upon contract termination or completion. Discuss the possibility of the inclusion of a retention clause in the original contract. Explore the complexities of independent research and how to protect the information where there is no contractual commitment with government activities.

Mr. Robert Donovan, United Technology Center (Moderator)
Mr. Joseph Brantley, Defense Contract Administration Services Region, Los Angeles
Mr. O. P. Norton, LTV Aerospace Corporation
Mr. Wayne Wilcox, ARINC

12:00- 1:30 LUNCHEON. BUSINESS—GOVERNMENT PARTNERSHIP TO HELP SOLVE URBAN PROBLEMS—

Dr. Francis D. Tappaan, Vice President for Urban Affairs, North American Rockwell Corporation

1:45- 3:00 THREE WORKSHOPS CONTINUED

3:00- 3:15 COFFEE BREAK

3:15-	CLASSIFICATION FUTURES— Mr. Frank May, Chief, Classification Management, Hq. USAF
4:00-	DATA PROCESSING APPROACH TO CLASSIFICATION MANAGEMENT— Mr. Charles Prohaska, Sandia Corporation, Albuquerque, New Mexico

Thursday, July 16

9:00-	REPORTS BY WORKSHOP MODERATORS
10:15-	COFFEE BREAK
10:30-	A "CAS" LOOK AT CLASSIFICATION MANAGEMENT— Col. George Zacharias, Chief, Office of Industrial Security, Hqs. Defense Supply Agency (Contract Services Administration)
11:00-	DEMONSTRATION OF AN OPERATING CONVERSATIONAL COMPUTER INFORMATION RETRIEVAL SYSTEM— Mr. Richard A. Lickhalter, System Development Corporation
12:00- 1:30	LUNCHEON—PROBLEMS OF SECRECY— Dr. Edward Teller, Associate Director of Physics, Lawrence Radiation Laboratory
1:30- 4:30	BUSINESS MEETING

PRESIDENTIAL WELCOME AND AWARDS PRESENTATION

Richard J. Boberg

Members of the National Classification Management Society, friends of our society and honored guests, I want to welcome each and every one of you to this our Sixth National Seminar. I do hope that you will be comfortable here in the City of Los Angeles, and I would like to extend to you the assistance of the Board of Directors of our society as well as the seminar committee. I hope you will call upon any or all of us if there is anything we can do to make your stay here more enjoyable. If there are any problems that we can help you with, please let us know.

Five years ago, this very week, in the impressive International Meeting Room of the State Department in Washington, D. C., a group very much like this one assembled and bravely announced to the world that their intention was to hold the first seminar for a still rather obscure society known as the National Classification Management Society. That group was not nearly as impressive as the one I look out on this morning, but what we lacked in size, we more than made up for by our enthusiasm in entering into discussion on the subjects presented to us. I can recall, and a great many of you who were there can as well, that I was very pleased to find that many of the problems that I had found in this relatively new field were not mine alone. The problems were shared by almost everyone there. But most importantly, people were willing to discuss the problems openly, at length and without prejudice. I can still recall how moved I was at seeing industry and government representatives standing in turn to better the discussions, probing, inquiring, always responding in a real attempt to understand the problem itself and the other fellow's viewpoint, and together attempting to find an answer—not always with success; but work at it we did, and with meaningful results. I might add it continues to be in evidence today. That seminar was not in every way a technical and aesthetic success. I still recall that we did not have formal lunches with formal presentations as we are having this year and have had for several years in the past. And I can remember very well wandering off in the State Department Building trying to find the State Department cafeteria. When I got there and sat down with a group, we continued to discuss and probe some of these subjects with our new-found peers. I enjoyed that. While all this was going on, the seminar chairman Dick Durham was wringing his hands quietly in the corner worrying about those who had gone off into town to lunch and wondering if they were coming back in time for the afternoon session, or at all. My view of that seminar is still that it was our most successful in many ways. It set a theme for subsequent seminars: honest and wholesome participation by everyone in attendance. And that, my friends, was the real highlight of that first seminar. And that too became the key to the success of our

subsequent seminars. We learned that participation by all concerned was what made it all worthwhile. It gave us the capability to get at those problems, and solve many, and bring those that we could not solve into a perspective so that we could find a way to live with them.

Today, we begin our Sixth National Seminar and certainly many things have changed. We have a great many more of you to look out at this morning and those of us in the Los Angeles Chapter and on the Board of Directors are most pleased that we do. We have a much more mature society, a larger society. We think we are more active and we think we are more professional as a society. We may not have much concern about where we are going to go to lunch on any of the three days, because we have provided for you three prominent luncheon presentations. But one thing has not changed, the need for you to participate. Using a "now generation" term, we want to initiate a "dialogue" among all of us—the speakers, the attendees, the panel members, everyone.

This, I might remind you, is a seminar. As we learned some years ago from our Society Counsel, Don Woodbridge, a seminar means "seedbed". We intend to plant many seeds, but like any other living thing, these seeds will need attention. They will need care. They will need your active participation, if they are to grow and to prosper. Your harvest will come, perhaps not today or Thursday, or next week, but it will come, and its value will be in direct proportion to each of your own contributions.

George Chelius, our General Seminar Chairman, and his very able and hard working committee members have brought together what I think is the outstanding program to date for any of our seminars, and this is as it should be. Like our Society itself, we continue to grow, we continue to do a better job in this very important business that we have involved ourselves in, and which is linked so closely to our nation's security.

Let me take a moment to review with you, if I might, the highlights of the program that is about to begin. Those of you who have looked at your programs are anticipating along with me all of the presentations of the particularly outstanding individual speakers that will be heard from this podium throughout the seminar. That prominent group will be led off this morning with a welcoming address from California Lieutenant Governor Ed Reinecke. Following Lieutenant Governor Reinecke's remarks will be our keynote address by Mr. Joseph J. Liebling, Deputy Assistant Secretary of Defense (Security Policy) and a very fine and old friend of our Society. On Thursday, Dr. Edward Teller will close out what I might call the academic portion of our seminar with his luncheon remarks. In between, throughout the three days, the list of speakers is equally impressive. I can only urge you in every way to listen with an open mind to all of these presentations. And I assure you if you do, your harvest will grow proportionately.

I think it important for all of us to remember that most of our individual speakers are not members of our Society, and, as such, are probably not aware of our particularly unique language such as "DD-254", "document retention authority" and other

such things. They only know about what we do from the other side of the fence, the side many of us have never seen. This is an important opportunity for all of us to see ourselves through their eyes.

Now tomorrow—that is, for those of you who survive the President's reception tonight—each of you will be provided the opportunity to participate in a series of workshop sessions on subjects which the Seminar Committee feels a discussion of which must benefit any working classification management specialist. Again, participation must be the name of the game. All in all I am satisfied that George Chelius and his committee have provided the basis for the most outstanding seminar we will have ever participated in. All the seeds are there. Now it is time for all of us—you and I—to participate in bringing those seeds to fruition. Only in time will we be able to measure the harvest, but it will come.

Before going on to the presentation of awards for this year, I would like to give you a few notes from our Board meeting that are important at this time. On Thursday afternoon at 1:30 we will have a business meeting and the business of the Society will be discussed, but there are several things I want to bring to your attention now. We recently had an election of Board members to fill the openings on the Board this year. It gives me great pleasure to announce that the following have been elected for three year terms on your Board of Directors, commencing with the end of the seminar: From our Washington chapter, always active in the Society's activities, last year's Seminar Chairman, Jim Bagley. Jim, would you stand? Congratulations. From our own Southern California chapter, this year's Seminar Chairman, George Chelius. Also from our Washington chapter, another very active classification management specialist and former chapter chairman, Lynn Satterfield. My congratulations to all three. In addition, the Board accepted with regret a resignation. Ken Wilson, a gentleman who has been on the Board for the last two years and who had one year left in his term submitted his resignation because of the press of business. It was regretfully accepted by the Board, and in his place for the year of his unexpired term, we appointed the first runner-up in the recent balloting, Mickey Aitken, from our Rocky Mountain chapter. We also had an election for officers of the Society. These officers will take office on Thursday afternoon. I'll let you know now who they are. These are your officers elect: President, Jim Marsh. Our new Vice President is George Chelius. Our new Secretary is Jim Bagley, whom you met just a moment ago. And our next Treasurer is in fact our old Treasurer. He did such a good job that we asked him to come back and serve again, Fred Daigle.

Each year our Society attempts to recognize the outstanding contributions of one or more of our individual members. This year is no exception. This year however, rather than an individual, it is a class of people or a group. This group can probably best be recognized by the whiteness of their hair, worried marks around their eyes, and the fact that they are a little bit more nervous than they used to be. I am speaking of the former

Seminar Chairmen of our Society. Having been through that myself, I can assure you that it is one of the most demanding j bs we can ask any of our members to do. On the other hand, it has a great many rewards. This is the fellow who worries the night before and doesn't sleep at all, believe me. He worries about such things as whether the keynote speaker will have an attack of appendicitis and he will be told at 9:30 in the morning that he will not be there. He worries about the kind of rooms that you have. Every hotel has, I think, what I call the laundry rooms, where about 1:00 in the morning the thing goes from wash to rinse and the room starts going around, or the trains and planes start coming through. I am sure some of you got one of those rooms. He worries about how many people are going to arrive. He concerns himself with when we go across the way for our luncheon, whether the catering manager will say, "What luncheon?" Believe me, these are very real fears. These are agonizing fears. So, we want to honor this year our previous seminar chairmen, and I will mention them now. Starting with last year's chairman, I would like to ask that each of these individuals come forward as I read the plaques. Jim Bagley, would you come forward: "Certificate of Appreciation: The National Classificaton Management Society acknowledges with appreciation the services of James J. Bagley for his unselfish contribution to the future of this Society as Chairman of the 5th National Seminar, July, 1969. Jim, Congratulations. Each of these plaques make the same statement, so I won't read them all.

I think you may all recall the last seminar we held on the West Coast, in the city of San Francisco in 1968. We stayed at the St. Francis Hotel, and we had a delightful time. The Seminar Chairman was Fred Daigle. Fred, will you come forward, please.

Washington, 1967, State Department. Howard Maines was our Chairman that year. Another one of our series of outstanding seminars. Howard, would you come forward. Congratulations.

Unfortunately, the recipient of the Certificate of Appreciation for our first national seminar, Dick Durham, is not with us. He was one of the few people who did not make it this year. He is still in Washington, D. C. I trust, at his desk. That was probably our most significant seminar in many ways. I would like to ask Wayne Wilcox who is the Chairman of the Washington Chapter to come forward to accept this award. Please give our congratulations to Dick.

That concludes this portion of the program. I understand that Jim Marsh, our President-elect would like to make some remarks. Jim, if you would come forward, this may be an appropriate time.

Jim Marsh

Thank you ladies and gentlemen. The thing that wasn't talked about was the second seminar, right down the road on Wilshire Boulevard. With due respect, I think the second seminar here in Los Angeles was another milestone. Unfortunately, Dick did not say anything, so I intend to take care of what should have been done. I think that Dick should receive recognition for his unselfish contribution to the future of this

Society as Chairman of the Second Seminar, July, 1966. Dick, you are too modest.

Dick Boberg

Thank you Jim, that was an unexpected honor. I see that the Lieutenant Governor and George Chelius are on their way in. During the business meeting Thursday afternoon, I would like to point out to you that we will have a good deal of Society business to discuss. Members and friends of the Society are invited to stay. We will go over the accomplishments of our Society during the last year, our financial situation and all the details of our Society's operations.

Lieutenant Governor Reinecke will be introduced by George Chelius.

George Chelius

We are most fortunate to have with us Lieutenant Governor of California, Ed Reinecke. I would like to relate some of his personal data to you. He is a Navy veteran of World War II. He has a Bachelor of Science degree in Mechanical Engineering from the California Institute of Technology. Mr. Reinecke was appointed Lieutenant Governor on January 21, 1969. He is President of the Senate. He works on the Governor's Task Force for narcotic enforcement. He is a member of the Board of Regents and the Board of Trustees of the state college system in California, and he is Chief Executive Officer in the area of environment. Mr. Reinecke was elected to Congress in November, 1964, November, 1966 and November, 1968. I would like to present the Honorable Ed Reinecke, Lieutenant Governor of California.

WELCOMING ADDRESS

Lt. Governor Reinecke

Thank you very much and good morning ladies and gentlemen. I am particularly pleased to be here. I am glad to welcome you officially to the State of California. We are very much concerned about classification and information access, the area of confidentiality. These are words we talk about a good bit in Sacramento these days. And I am certain, as you realize, as we become more and more products of data processing, that there will be greater and greater degrees of classification. I hope that you people in your discussions, recognizing primarily that you are looking perhaps from a national security orientation, will realize that this is going to be a very significant thing to us in the future in government. Confidentiality or the lack thereof is something that we want to address ourselves to because we are very seriously concerned. There are proposals before the Legislature that would open up many of the files of the state government that are presently classified to anyone who desires to request, and for many reasons we are very much concerned. I want you to know that we are very interested in this whole concept of confidentiality. We are delighted that you can be here.

California certainly is a place that has generated a tremendous amount of information that has had the need for classification on the basis of national security. I must confess I have had one interesting little experience in my time. I was in the Navy and I had a classification clearance. Four years later I was elected to the

Congress and had access to all sorts of information even though there was no classification check of any kind. So it is an interesting little concept. Anyone who gets elected to Congress has immediate access to all of the information of the Armed Services Committee or anything else which presents, I am sure, many interesting little problems for yourselves. I left the Congress and came out here to become Lieutenant Governor and found out they wouldn't let me serve on the Board of Regents of the University of California without getting a secret clearance. So, we go from one extreme to the other, I guess. It is well-justified though, because of the work for the Atomic Energy Commission.

I do want to extend a very warm welcome to you folks here. I hope that if there is anything we can do to make your meeting here more productive and successful, you will give us that opportunity. We are delighted that you are here and we welcome you to stay around just as long as you can. Thank you very much.

George Chelius

Our next speaker, our keynote speaker, certainly needs no introduction to most of the people in the audience. He is a man who has distinguished himself in civil service and has done a tremendous job in support of the classification program. Mr. Liebling received the Exceptional Civil Service Award in 1956 and the Air Force Association Citation of Honor Award in 1966. In 1957 he was the recipient of the Junior Chamber of Commerce RPS Planning Award and in 1969, Mr. Liebling was the recipient of the National Civil Service League Award as one of the ten outstanding career men in U.S. Government. He is a member of the Society of International Law, The American Academy of Political and Social Sciences, The American Society for Industrial Security, and the Air Force Association. We present Mr. Liebling.

CLASSIFICATION MANAGEMENT—CURRENT AND FUTURE TRENDS

Joseph J. Liebling

Gentlemen:

I am most appreciative of your kind invitation to participate in this, the Sixth Annual Seminar of your growing Society.

I extend greetings on behalf of Secretaries Laird and Packard and my immediate boss, Secretary Froehlke, the Assistant Secretary of Defense (Administration).

Bob Froehlke, while appearing on the DOD's "Pentagon Forum" TV Program, said, in part, "If you are going to work with people, all the people with whom you are associated —you've got to communicate constantly. You are asking them to do something that is impossible for them to carry through if they don't know the whole story."

In keeping with his remarks and consistent with my own philosophy, I welcome the opportunity afforded

me here today to, first, communicate with the people with whom my office is associated and, second, to tell as much of the story as will bring you up to date on the subject of Classification Management—certain aspects of which are currently topics of discussion among the top management in the Pentagon.

During this past year, I have discussed the subject of classification management with individual groups such as Aerospace Industries Association of America, National Security Industrial Association, Council of Defense and Space Industry Associations, and American Society for Industrial Security. I am convinced that since its inception in early 1963 the Defense Classification Management Program has, with your cooperation and continued interest made significant progress. However, I am aware as I know you are, that there is room for improvement in certain areas.

During the course of this presentation, I'll reflect briefly on what has already been accomplished from a DOD standpoint in the Classification Management field and will dwell more fully on what I believe needs to be accomplished and how we in government, and you, in industry, can best achieve our common Classification Management goals. In my remarks thus far, I have used the term "Classification Management" several times. I found in my discussions with different groups around the country that varied interpretations have been given to the term. Before I proceed further, therefore, I would like to tell you what Classification Management means to me.

Classification Management in the Department of Defense is a responsibility which rests in my office for providing the standards, criteria, procedures and guidance for identifying information which, under statute, Executive Order, or regulation, requires security classification. This responsibility also involves the exercise of management prerogatives to force initiative, consistent with security, for positive, progressive and complete downgrading and declassification on a timely basis. In carrying out this responsibility my people are continually examining the program with a view to providing the means and establishing the requirement for acceptable cost accounting methods and procedures to identify and quantify the security costs, or cost reductions, applicable to classification, downgrading and declassification, and classification management procedures. We are further placing special emphasis on devising ways and means, practices, procedures, and motivation to minimize, consistent with security classification guidance, the classification of information or of elements or areas of work or operations required in the performance of official duties or contract performance. All of these things are, to me, a part of the classification management function.

The Defense Classification Management Program reaches all DOD components, and through participation in the Department's industrial security program, eleven agencies outside of DOD and defense industry. The program objectives are basically: (1) to provide a more effective DOD information security program; (2) increase the flow of information to the public so that the American people will be better informed concerning major issues and national de-

fense policy and significant activities of the DOD; (3) increase and accelerate the flow of technical information to American industry and the scientific and technical community in order to advance the art of weapons technology, avoid and reduce duplication of effort in research and development, and facilitate production of weapons systems and military equipment in the interest of national security, and finally, to eliminate unnecessary expense to the Department of Defense and defense industry incurred in protecting information which no longer requires security protection.

To achieve these goals it is necessary, in the first instance, to classify accurately and then follow-on with a progressive downgrading and declassification program. In connection with the latter, I want to make it clear that there is no intent on the part of the department to downgrade and declassify for the sake of playing the "numbers game". Downgrading and declassification actions will be based on achievable goals consistent with security and reasonable return. We, who are involved in classification management, must assure protection of our defense secrets, while, on the other hand, see to it that our national policy of keeping the American people informed of significant defense activities, within the bounds of security, is fully implemented.

We first found it necessary to develop and issue a policy document (5210.47) which not only defined the three authorized classification categories but which spelled out for the first time in DOD classification principles and criteria in comprehensive language. At the same time, we limited original classification authority to certain DOD officials in a move to control classifications to the minimum consistent with operational requirements. From that point, we concentrated on the subject of security classification guidance.

We issued policy statements (5210.47) which fixed responsibility for the preparation of classification guidance and established review procedures within DOD. We then developed and issued detailed instructions (DOD 5120.34-H) on how to prepare classification guidance. A new format and instructions for use of DD Form 254 were established to furnish comprehensive classification guidance to our contractors. All of these policies and procedures are now fully implemented, and you, as Classification Managers, are familiar with their scope and applicability. We, in Defense, recognize that the development and issuance of complete and current security classification guidance is vitally important to the achievement of our Classification Management goals.

Last year, we instituted a program through the User Agencies and Defense Supply Agency's Defense Contract Administration Services (DCAS) organization to review and update all DD Forms 254 in the country.

One facet of the program called for the DCAS organization, through its field inspectors and classification management specialists, to examine DD Forms 254 furnished to contractors for the purpose of determining whether those currently in use had been changed in substance over the period of one year. In those cases where no change in substance had been made, we asked the DCAS Regional Offices to send notices to the

User Agency activity having responsibility for preparation of the DD Form 254 reminding them of their annual review responsibilities and of our interest in OSD in seeing to it that the guidance was kept current. Over fifteen hundred of these notices were dispatched. In 60% of the cases, responses were received. Follow-up queries have been sent to the remainder. Of the replies received, the indication is that changes involving downgrading and declassificaton were made in some 20% of the cases. That's progress!—and I would like to take this opportunity to thank those User Agency and DCAS personnel in the audience and those not present who were involved in this program for a job well done.

Another part of the program involved the mandatory, substantive, in-depth review by DOD User Agencies of DOD Forms 254 which were, during the six-month period the program was conducted, one year old.

Based on reports received from defense User Agencies, over 13,000 DD Forms 254 were reviewed during the six months program and during the immediately preceding six months. Of this total, a reported average of 7½%, or close to a thousand DD Forms 254, were revised so as to require downgrading and declassification actions. As a result of these actions, substantial dollar amounts in the form of cost avoidance are expected to be accrued to both defense and industry. For example, one Military Department reported that 12 contracts involving Secret and Confidential information with a face value of over four and a half million dollars were affected by these actions. They estimate that approximately one quarter of a million dollars in security costs will be avoided on follow-on contracts. This Department also reported that as a result of this review program, a substantial number of classified technical orders were downgraded, declassified or rescinded—the result being that costs associated with the handling, storage and transmittal of close to 100,000 copies of these orders will be reduced by an estimated $210,000. Other benefits derived from this program included but were not limited to: (1) more comprehensive classification guidance was developed to clarify some gray areas; (2) some programs were initiated for the complete overhaul of program guides with a view to downgrading and declassifying elements of information within the bounds of security; (3) the effectiveness of our capability to provide security protection was increased by concentrating our protective resources where they are needed; and (4) for the first time we are getting identifiable costs the validity of which will be worked out by our comptroller and contracting people.

From these results, it is quite evident that substantial savings can be accrued to government and the defense industry if all of us will continually make people aware of the need for the judicious application of security classification guidance when classifying in the first instance and of following on with a program for progressive downgrading and declassification. It is my intent to concentrate heavily in this area within the Department of Defense in the months

ahead. Effectiveness of this program depends to a large degree on the amount of "body English" that those of us in this room give it.

Cost figures for maintaining inventories for classified information are high—for instance, one DOD element reports that it costs in excess of three million dollars annually to maintain its classified inventory of over one million documents. You can use your own imagination when considering the costs expended by both DOD and the defense industry in maintaining our classified inventories on a worldwide basis. These costs can be reduced, and I intend to take appropriate action to get the job done.

One way is to get old classified documents and other material out of the on hand inventory either by downgrading, declassification, destruction or retirement. In this connection, it came to my attention not long ago that one of our contractor facilities, a research laboratory, had on hand some 3800 linear feet of classified holdings (documents, tapes and IBM-type cards) stored in 408 security containers. It immediately occurred to me that such holdings had to be excessive for a facility of its size with only one current classified contract, and that this classified inventory undoubtedly could be reduced. I asked my classification management people to look into the matter. The result of this inquiry was most gratifying. Within six months, the facility substantially reduced its classified holdings, primarily by destruction and declassification, thereby eliminating the need for 56 expensive security containers and reducing the costs associated with the handling and inventorying of material formerly held classified. Further, the possibility of compromise of classified information is reduced and, as I mentioned earlier, the ability of the facility to provide effective security protection for information which continues to require protection is enhanced. This particular facility earns a "well done". It is my sincere hope that each and every contractor facility in the country would undertake to accomplish the task of reducing its classified holdings in a like manner. You, as classification managers, as action people, can greatly assist in getting the job done.

In the way of current actions, we are exploring whether certain special access programs can be eliminated. It looks promising. Also, we have developed a proposal for a mass declassification program which is currently being evaluated and refined.

This proposal would, in substance, declassify or downgrade to SECRET, all TOP SECRET information originated prior to a specified date in the late fifties. Certain categories, such as, for example, crypto and intelligence information, Restricted Data, foreign originated material, and certain other critical information, would be excepted but the remainder of the information originated prior to the specified date would be subject to mass declassification. It would also require that the information or material excepted from mass declassification or that which is downgraded but not declassified, be purged from current files within a limited time either by destruction or retirement. In short, this

proposal is in consonance with our long standing objective of reducing on hand classified inventories both in defense and industry. Substantial economies could be realized.

In connection with the foregoing or any other downgrading and declassification program, it should be borne in mind that classified documents or other material are not downgraded or declassified until such time as they are appropriately re-marked. It will be said that manhours expended in the technical review and re-marking process are time consuming. True. However, the job needs to be done; and it needs to be done but once.

Within the past few months, I have participated in meetings with Dr. Foster, the Director of Defense Research and Engineering, the Assistant Secretaries of the Military Departments for R&D, and others involved in research and development activities as well as those in the intelligence community. The main topic of discussion at these meetings was the findings and recommendations of a task force of the Defense Science Board established to consider the inhibiting effects of security classification upon the flow of RDT&E information and whether steps could be taken to improve that situation. Certain conclusions were reached. Since final approval of some very significant staff recommendations in connection therewith is still pending, it would be premature for me to disclose substantive information at this time. We are enthusiastically anticipating accrual of major national benefits to more effective security, economy and the scientific and technical community as a whole.

Secretary Froehlke has expressed his personal concern with overclassification. We continue to examine all the roads which may lead us to a solution of this problem. I'll try to keep you abreast of our program in the months ahead.

Turning to another subject, I have heard reports that contractors around the country are reluctant to question security classification guidance furnished to them by User Agencies on the basis that they don't wish to "annoy" their customers with whom they anticipate receiving future contracts. I can assure you from a Defense standpoint that the basis for such reluctance is unfounded. Where the quality of classification guidance is concerned, I am most desirous of seeing contractors act to obtain adjustment, not simply react to it. If the classification guidance received from User Agencies is inadequate, the contractor's voice should be heard. To emphasize the point, in those cases where contractors have alerted User Agencies to apparent deficiencies in classification guidance, substantial savings have been accrued to both the contractor and the government. For example, one of my Classification Management people attended a meeting in Alabama which was called at the suggestion of a defense contractor. The purpose was to discuss the feasibility of eliminating the classifications of certain items of information involved in a number of contracts. I was told by my people that the discussion was a most amiable one, and that the User Agency personnel agreed to review the entire program with a view to downgrading and declassifying certain of the classified

elements contained therein. We have learned that resulting changes in guidance will cause about 90% of the classified items to be either downgraded or declassified. I am pursuing the matter closely to learn the impact on security costs.

I sincerely hope that those of you in this audience who are involved in the review and application of security classification guidance will, in the future, act when it is found that the classification guidance is incomplete or that certain items earmarked for classification should be downgraded or declassified.

We need now to keep up and increase the momentum which has been started in that part of the Classification Management Program which involves progressive downgrading and declassification. Toward this goal, we hope to accelerate the time phases for automatic downgrading and declassification in order that such actions occur within a more meaningful time frame than is now provided.

I hope I have provided you with a basis for future discussion here and at your local chapters in the future. Please bear in mind that I am receptive to new ideas in Classification Management—particularly in the downgrading and declassification area. When new concepts grow out of your future discussions, act on them.

Together we should aim to eliminate overclassification, find ways and means to develop better classification guidance and, most importantly, to develop new concepts for removing classification protection when it is no longer required, thereby reducing security costs.

In achieving this goal, it should be borne in mind that we are not a government of secrecy. Classification Managers within and outside of government should strive to strike a reasonable balance between two imperatives: that which truly needs safeguarding must be protected for national defense in the interest of international peace but all else must be permitted the maximum possible free flow to those who need it for domestic gains.

Thank you.

QUESTIONS AND ANSWERS

(Answers are by Mr. Liebling. Identity of questioners is unknown—Editor.)

Q. About four years ago, Mr. Liebling, we sent in a paper on the question of downgrading and time-phasing, indicating that it was possible for a production contract after a period of time to have material put out Unclassified, Confidential and Secret; and we suggested that perhaps looking into the possibility of using the DD-254 as the means of determining downgrading. Has anything been done on this?

A. You suggested to the Government that included in the form you would have a guide for downgrading?

Q. Yes.

A. I don't think there's been any consideration of this. I've not come across any mechanics of this, but I would presume that it wouldn't be the proper instrument for this sort of thing unless we can build in the particular points which we are not considering. In other words, in two years hence or four years, and so forth, within the current classification cate-

gories, and then it may be possible to put it on the Form 254.

Q. As it stands now you can't have three different classifications on a production contract. You couldn't have "Declassification After Twelve Years." You couldn't have production rolling out at a confidential level on the contracts.

A. I think this will be resolved after a substantial review and I think through the review we will see much of the hardware being declassified. It's a very good thing. I think you'll find it happening more and more. Thank you very much.

Q. My question is directed at the policy that we apparently have been getting from the GAO to the user agencies which indicates that the contracting officer apparently cannot relinquish his responsibility on the contract until all classified information has been returned or destroyed. In other words, the contractor can no longer retain classified information. Do you have any comments on this or is this the policy, and if so, where did it derive from?

A. Yes, the policy is established for the protection of the information. A review was made as to whether the information was returned to the department or agency with the particular interest in the first place. I don't know what your point is.

Q. Well, we have noticed that this has added a burden on the user agencies in you're allowing retention of classified information. A lot of times there are conflicts between the Government contracting agency and the industrial agency. There is a policy in the industrial regulation and the industrial manual which will indicate the current position by which we got the retention of documents offered by the contracting agencies for particular purposes. Which is a start.

A. When you say there are resulting conflicts, I don't know whether you are saying it in the vernacular or what. Exactly what should I address myself to.

Q. What I'm talking about is the conflict between retaining classified information which a contractor feels is justified to retain to support his contract accomplishments.

A. We're talking about entirely different points. One is classification management which is a procedure in itself, and the other is the responsibility of the contracting activity under an individual contract. So you have two completely different fields of interest. In fact, in the classification management business, even though the contracts are different, the format is with the legal contracting representative, dependent upon the information contained in the contract between the Government and the user agencies. So it's two different and separate functions there.

George Chelius: I'd like to make a comment on that. Within the industrial organizations, most of them are configured in a way that they are employed in certain areas of technology, and I believe that you can go to another contracting officer and ask him to transfer material originated by other contracts into his contract. I think that this is going to relieve some of the problems that we've had here before. Then it becomes his material and it's an open contract until the end of the retention period. And

then, of course, you would get another follow-on contract.

Q. I don't intend to further discuss this question, but I happen to know that there is a working paper coming up this afternoon and I'd like to direct this to the problems we're facing in the control of nuclear warfare documents.

A. There is no sensitivity in these things. This is why I alluded to all of you representing a point of view of the Government that each one of these contracts is checked out. I'm referring to the presentations which were made publicly and were viewed with alarm by us. It was discussed partially with the Assistant Secretary of Defense for Atomic Energy. I did this myself and my staff people participated in this, too. And we are now establishing rules and procedures to accommodate certain cases which we feel are necessary or have indicated warranted changes in our judgment. But whether we agree with you or not, is another matter. It is being reviewed now and there is a specific redraft of procedures and policies in connection with that field of information.

George Chelius: I'd like to comment on that. In March of 1969, or somewhere close to that period of time, that was corrected. (I know from personal experience that Don Garrett of Mr. Liebling's staff and George McClain have worked very closely with the Assistant Secretary of Defense for Atomic Energy.) There is now out to many contractors and certainly within the Department of Defense and the Military Services an adequate classification guide defining CNWDI. I think it will minimize the problems in the future and I think you'll find some of the material that we have dealt with in CNWDI perhaps isn't really CNWDI. It might be FRD.

Mr. Liebling: I believe Mr. MacClain also talked about a field of interest that is outside the jurisdiction of the Department of Defense. It's the Atomic Energy Commission and any dealing would be had with that agency.

Q. Has the Department of Defense studied the impact of the updating of the DD 254? What I'm getting at is that we're concerned with the 80% which state "no change" and result in a chain reaction from the contractor's standpoint. Would any agency disseminate the DD 254 or letters saying "no change?" We have a tremendous volume of correspondence coming from the contracting officer, all stating "no change."

A. I presume you are using simple mathematics, because I said only 20%. We checked responsibility jointly with the user agencies and tried to look into the subject. The first alarm indicated, based on the many years that I've been in this business, that what was being done is that the contractor doesn't have sufficient time to review the contract and they're using one that may be eight or ten years old.

George Chelius

Our next speaker of course is no stranger to this Society; Don Woodbridge is a charter member of NCMS. He has served on the Board of Directors, has been President, and currently is counsel to the Society—a new position which the Board has created and which recognizes Don's contributions

to the Society, of which we are justly proud. His professional career has been in the area of development engineering in Oak Ridge, Tennessee. Mr. Woodbridge taught physics and mathematics in Charleston and Brooklyn. He taught physics until 1943 when he joined SAM Lab in New York as a research physicist. Mr. Woodbridge is a member of the American Physical Society, American Physics Teachers, Phi Beta Kappa. It is an honor to introduce Don Woodbridge.

SOME THOUGHTS ON CLASSIFICATION IN THE AEC

Donald Woodbridge

When the program committee did me the honor of inviting me to address this seminar, I suspect that one of the things they had in mind was the value of keeping the Atomic Energy Commission represented—even if remotely—in the face of the overwhelming DOD preponderance. At the same time, they recognized that although I am fascinated by words and the ways words are put together and manipulated, I am one of the world's worst procrastinators when it comes to putting words on paper. And so they told me I could use the talk I gave at the famous Rocky Mountain Seminar in Albuquerque last November—the show put on by Jim Marsh and his friends. (I think it was the friends who did most of the work; but that's the mark of a good chairman, I understand.) The name of my talk was "Some Thoughts on Classification in the AEC." As I remarked at the time, it is a wonderful title because it ties me down to nothing, makes no demands for coherence or a single theme, and allows me to ramble and interject as I please. I, too, felt that the AEC should have a representative, even though the AEC might not want one, or, wanting one, might have exclaimed, "Good God, not Woodbridge!" and when the committee made the path of duty so smooth and even, I accepted happily, knowing how much I would enjoy making a captive DOD audience think thoughts about the AEC after all the years I have listened to thoughts about DD254.

Fortunately, as things turned out, the AEC image does not have to depend on me. Tomorrow it will be ably supported by Chuck Prohaska from Sandia.

I also welcomed the chance to improve my talk in spots and add to it here and there. The committee and I agreed that there would likely be very few of the Albuquerque audience here—travel problems being what they are—so that we could generously permit anyone to leave the room who felt that once was enough. On the other hand, the repeaters can look on the earlier performance as a rehearsal and amuse themselves by seeing whether they remember well enough to pick out what's new.

Enough of introduction and apology.

The circumstances that surround the birth of a creature on this planet of ours and the stories of those circumstances are often illuminating. They shed light not only on the

creature but also upon the people who preserve the legends and tell the tales. Jonny Astorbilt was born with a silver spoon in his mouth. Poor little Alice was born in sin. And Scaramouche, according to his creator Rafael Sabatini, was born with the gift of laughter and the sense that the world was mad. Many of us today, I daresay, share that sense. Some are born under lucky stars, others are star-crossed. It is symptomatic of the world's madness that more and more people—some in earnest and some only half believing—look to the stars to find some understanding of their souls and to plan their futures.

I find reading discourses on the meaning of horoscopes curiously like reading analyses of the stock market—especially this summer. Every statement of attribute and personality, every prediction, is so hedged with ifs, ands, and buts, to say nothing of "on the other hand," that there is something in it for everyone. I do not know what the favorable signs are for a classification manager. It would be interesting to take a group of us and compare horoscopes. Was the Sun in Scorpio with Sagitarius rising when we were born? Today we are said to be in the Age of Aquarius. I am not sure what that means or how you prove it, but it seems to be an age when classification managers may find the going tough.

In many ways the most fascinating stories of birth and genesis are the stories preserved for us by mythology. The births of gods and heroes are always prodigious. Venus, the goddess of love, whose Greek name, Aphrodite, means foam-born, rose in all her unadorned beauty from a sea that had been rendered fertile by an extraordinary sequence of events that I'll not go into here. Athena, the goddess of wisdom sprang not only full-grown, but fully armed, from the head of Zeus, who had achieved this paternity by the unusual expedient of swallowing Athena's mother, a Titaness by the name of Metis. It is reported that Zeus established the all-time world's record for headaches during the gestation.

Archaeologists and anthropologists tell us that the myth of Athena's birth is representative of the upheaval following the invasion by the Achaeans—a partriarchal society—into the matriarchal culture indigenous in the Greek peninsula. Zeus, chief god of the invaders, swallows Metis, the local patroness of wisdom and knowledge. Then, by his remarkable feat of cerebral parturition he demonstrates that wisdom no longer resides in the matriarchy but is now a male prerogative; for although Athena inherited her mother's attributes, Zeus not only sired her, he gave her birth. Needless to say, this masculine prerogative has not remained undisputed.

One wonders what the mythographers would make of the current feminist assault on masculine sanctuaries. I suspect they would be hard put to account for one striking difference between the ancient devotees of the Moon Goddess and our modern priestesses of the Feminine Mystique. I refer to today's indignation at being regarded as sex objects—I believe that's the phrase.

By now you have probably guessed that I have been leading up to a look at another prodigy—a world where

information is born classified. The circumstances attending this birth were indeed prodigious. The sky flamed brighter than a thousand suns. Earth's unsplittable elements broke asunder. Death and destruction in unbelievable form and of incredible ferocity stared mankind in the face. When you are responsible for the welfare of a nation—of mankind—what do you do about the fruit of the tree of knowledge? You may remember that Almighty God worried about this problem when he planted the garden eastward in Eden and made to grow every tree that is pleasant to the sight and good for food--including the tree of the knowledge of good and evil. Realizing how dangerous a tree it was, God made the tree of knowledge Top Secret and told Adam and Eve they were not on the access list. That tree was born classified. Now wherever there is Top Secret information there will, of course, always be diabolical foreign agents in various disguises, and so the serpent comes upon the scene more subtle than any beast of the field. Adam and Eve fall for his subversive wiles and promptly lose their clearances as a consequence of the world's first security infraction.

At this point, I cannot resist a small digression to comment on what to me is the most fascinating verse in the story of the Garden of Eden. "And the serpent said unto the woman. Ye shall not surely die." As we listen to the story of Genesis told with all the impersonal quality, the majesty and epic simplicity of classical myth, suddenly there comes this intensely personal, extraordinarily sophisticated insinuation of the serpent. Those few words raise theological questions that theologians will never finish discussing. And, I might add, the words seem appropriate to the climate of present-day security. In spite of our infractions, we know that we shall not surely die, notwithstanding the grim words of Chapter 18 of the Atomic Energy Act.

Now let us get back to the information that is born classified. This phenomenon, too, is representative of a great upheaval. We were invaded, as it were, by a tribe of people peculiar in their possession of the knowledge of the fissioning atom. Peculiar, too, in that they could be trusted to keep that knowledge a tribal secret. And so, because man's welfare—indeed man's survival—was deemed to depend on it, the tribal knowledge was decreed to be Restricted Data, inaccessible to people outside the tribe except after a special initiation ceremony, known mysteriously as Q.

And so we were swept into the new age; and along with a flood of new knowledge, new hopes, and new perils we had to cope with a new concept in controlling information.

The premise that our welfare can be enhanced by segregating a body of information and enforcing that segregation by governmental authority is often challenged and the framers of the Atomic Energy Act recognized that challenge when they wrote:

> The dissemination of scientific and technical information relating to atomic energy should be permitted and encouraged so as to provide that free interchange of ideas and criticism which is essential to scientific and industrial progress and public under-

standing and to enlarge the fund of technical information.

That is a splendid statement and I don't think you can improve upon it. But it laid the foundation of a lasting schizophrenia, beginning with the definition of Restricted Data itself. Though some of you may know the definition by heart, I trust you won't mind my repeating it.

> "The term 'Restricted Data' means all data concerning (1) design, manufacturer, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the Restricted Data category pursuant to section 142."

Everything is fine 'til we get to the word "but". Items 1, 2, and 3 sum up the contents of the tribal wisdom neatly and with devastating inclusiveness, but that "but" always throws me. Somehow, it seems to say, "Everything is Restricted Data except what isn't", or else, "Everything atomic is Restricted Data, but some things atomic are not Restricted Data." Then I pull myself together and say to myself, "Woodbridge, pull yourself together, you know that they are trying to tell you." I hope I do.

On Monday nights I go down to the recording studio and read for the blind. For some weeks we have been struggling with the Works of Aristotle. Have you ever tried reading Aristotle—out loud? It tends to put me in a state bordering on a trance, not unlike the effect of reading an IBM programmer's manual for System 360, which I have also had to do. I am sure my blind client understands it all much better than I do, but some of it rubs off, like the game of putting things into syllogisms. You know: all A is B, C is A, therefore C must be B. But when you try this on our celebrated definition you get something like: All A is B, but some A is not B. However, as I say, I think I know what they are trying to tell me.

An interesting feature of the Act is itself tacit assumption that everyone knows what classification is. There are 27 definitions in Chapter 2, including Restricted Data. We find out what an operator is, and what is a person, what is meant by research and development and by the term 'design'. Chapter 2 also contains the famous definition of an atomic weapon so dear to the hearts of our legal friends. But no definition of classification. There is a section (Sec. 142) entitled "Classification and Declassification of Restricted Data", which has nothing to say about Classification but which exposes an interesting chicken-and-egg problem: viz. which comes first when the Commission decides to make information available to the public—declassification or removal from the category of Restricted Data? How would you answer that one?

Another term the Act fails to define is Formerly Restricted Data. The concept is there, to be sure—you can find it in Section 142—but not the term. I don't know whether the framers of the Act were clever, malicious, shrewd, innocent, careless, or stupid in this matter, but they certainly prepared the stage for those who came later to exhibit some of

these characteristics. The chicken-and-egg problem should have been ample warning to the inventors of this demoralizing phrase. (I was tempted to say Alice-in-Wonderland phrase, but I remembered how we have overworked poor Alice.) They can hardly have failed to see that the Act associates removal from the Restricted Data category first with declassification and only secondarily with what has come to be known as transclassification or transposition. Now we have to live with a paradox that asserts that there is some information that was once Restricted Data but, nevertheless, is not formerly Restricted Data. It's as though the Attorney General were to rule that only divorcees who married a second time could be considered formerly wed. And spelling Formerly with a capital F does not help much. I know it is all water over the dam and that nothing can be done about it now; but every time one of my innocent, well-meaning clients remarks with a beaming smile, "Oh, formerly restricted data—that means I can publish," I groan again under the load of this semantic monstrosity. It would have been so simple to call it something like Restricted Defense Information; which indeed is what it is. But of course. with such a name, an important tribal symbol would have been abandoned.

The definition of defense information offers another puzzle. Defense information (says the Act) means any information in any category determined by any Government agency authorized to classify information, as being information respecting, relating to, or affecting the national defense. Again, I think I know what they are trying to tell me, but it is only by very tortuous inference that I can conclude that defense information is information that requires protection. I see that word 'classify' and I am tempted to ask, is defense information born classified, too?

One cannot expect, of course, that any piece of legislation will succeed in anticipating all the problems it will raise or provide ready answers to every cavilling commentator. Least of all can we expect perfection in an act as complex in its subject matter and as far-reaching in its consequences as the Atomic Energy Act. And whatever we may think about certain details, we must recognize that the Act has been extraordinarily effective in providing an orderly transition into the atomic age and establishing a framework within which our country and much of the rest of the world, too, can derive maximum benefits from the fissioning atom without too great a relaxation of security. It is ironical that the Commission in its current efforts to hasten these benefits and to avoid a catastropic dearth of power in the coming decades has run into so much suspicion and opposition. Of course, you expect conflict from professional anti-establishmentarians and you welcome accurate scientific criticism, but the way conflict and criticism have enlisted the emotions of what you might expect to be a neutral citizenry comes as a shock. It is a phenomenon of the times to be reckoned with. Somehow the works of the atom seem to be equated with the works of the devil, and the only good atom is one that won't fission. We may face

one that won't fission. We may force the devil into good works, but that does not make him any less a devil. And what's more, a government in league with the devil is not a government to be trusted. So runs man's thought in the Age of Aquarius.

I see I have digressed again. Back to the Act. Deficiencies in legislation have to be corrected and interpretations have to be provided by legislative history and executive action. Executive action in the AEC is distilled, recorded, enshrined, and, some might say, entombed in the five-foot (or is it ten-foot) AEC Manual—a combination of encyclopedia and bible. If you can find your way to Chapter 3400, you can make a start on learning what the AEC does about classification.

Now it is characteristic of sacred scriptures that they comprise a central oracular core around which there grows up a considerable body of exegetical writing. A good oracle must stand the test of time and that means it must not say too much. What it does say must have an unassailable universality, which some oracles take to mean universal ambiguity. (The oracle at Delphi, you may remember, was particularly adept at equivocation, as when it advised Croesus, the king of Lydia, that if he crossed the river Halys, which lay between him and the Persian army, he would destroy an empire. As Croesus remembered too late, the oracle omitted to say whether that empire were Persia or Lydia.) In the AEC Manual we find a somewhat similar arrangement. The Chapters proper give what we might call the universals. They state policy, establish authority, describe organization, say what must be done, but, generally not how to do it. Then there are the Appendixes, which get down to the nuts and bolts, tell you what the policy means, and give you the details on how to go about your end of the business. Of particular interest to us in Classification is Appendix 3401, called Classification and Declassification Handbook. The latest edition was approved December 21, 1967.

One of the first things this Handbook attempts is to deal with the question, what is classification? I wish I had had the time and means to delve into the history of this word and discover when it took on its security connotation. I am too remote from the sources. It would be a good piece of research for one of our NCMS scholars in Washington.

Dictionaries present interesting sidelights. In the early and middle sixties they show signs of having got wind of what we are doing. Random House says classification is the "category (U. S. Gov., Mil.) restricted, confidential, secret, or top secret to which information, a document, etc. is assigned based on the degree of protection considered necessary to safeguard it from unauthorized use." And to classify is to limit the availability of information or documents to authorized persons. Funk and Wagnals does not even mention categories. With them to classify is to declare or designate as of aid to an enemy and restrict as to circulation or use, as a document, weapon, or item of information. We don't know, of course, who supplied these definitions, but you can see how restric-

tion, authorization, and security have become uppermost in the lexicographer's mind.

Webster's Second International is innocent of our speciality, but the controversial Third International has caught up with us I like its definition best.

> The classifying of esp. documentary information into groupings (in the U.S. usu. designated top secret, secret, and confidential) according to the stringency of the measures to be taken to prevent its falling into the hands of an enemy or potential enemy.

It's a good definition and it does not do violence to the fundamental meaning of the word "classify". I like that word 'stringency'; it adds punch.

I think I can guess how our word has evolved. As so often in the history of language, a derivative or associated meaning has become the primary meaning. Some examples that come to mind are:

> PREVENT, which really means come before or precede, but now means hinder, since what is up ahead is so often in the way.
>
> UNDERTAKER is no longer just someone who takes on a job, but one who takes on the particular job of disposing of your mortal remains.
>
> TOILET started out as a little cloth around your shoulders while you were shaving or having your hair dressed. Now it's a place for disposing of you know what.
>
> WEALTH meant well being back in King James' day and it is a cogent commentary on mankind's ever growing materialism that the meaning of the word has become so specialized that St. Paul in the King James Bible sounds like a handbook for unscrupulous stockbrokers when he writes to the Corinthians, "Let no man seek his own, but every man another's wealth."

And so, I daresay, CLASSIFICATION began to take on its security connotations as it was recognized that information can and should be put into different classes depending on the degree of protection required. In the minds of most of us, classified information has come to mean primarily information that the law requires us to protect, rather than information that has been put into a particular class. This semantic confusion doesn't bother us very much ordinarily, but it becomes important when we are considering the mystique of Restricted Data and when we choose to regard the phrase "born classified" as other than a metaphor.

Let us see how the Handbook resolves this trinitarian conflict between semantics, etymology, and usage. We find this compromise.

CLASSIFICATION OF INFORMATION IS

a. the determination that information requires protection in the interest of the common defense and security.
b. the determination of the category (RD, FRD, DI), and
c. the determination of the level of sensitivity of information and the assignment of the level (C, S, TS).

And then, to make sure you don't

forget, the Handbook adds

NOTE: RD requires protection in accordance with the Atomic Energy Act. It is gratifying to discover that this definition is not too different from that in DOD Instruction 5210.47.

That is what we might call the primary definition of classification. The Handbook also provides a secondary definition recognizing that after information has been determined to require protection we then have to take care of the media that convey information. Thus we find

> CLASSIFICATION OF DOCUMENTS AND MATERIALS—placement of an item (document or material) under security control, by markings or otherwise, upon determination that it reveals classified information.

The distinction between classification of information and classification of documents is important. Failure to recognize it has led to confusion of thought and misunderstanding of the functions of classification management.

The distinction epitomizes the difference between the role of Headquarters and the role of classification officers in the field. It is a misleading half-truth to say, "We don't classify hardware, we classify information." It depends on whom you mean by "we". Unless your office is in Headquarters, classifying hardware is probably one of the things you do.

We are now in a position to agree that Restricted Data is born classified. The law has determined that it requires protection in the interest of the common defense and security. But where does that leave us? Back in the early days before the Commission had removed large areas of information from the Restricted Data category, before we had invented Formerly Restricted Data and transclassification, 'born classified' was a real punch line that answered all arguments and put everybody in his place. The classification officer cannot help thinking of them as the good old days when the livin' was easy. But today, much as some of us might still want to, we can no longer flaunt that banner as we used to and expect the troops to rally round. The ensign is tattered and faded. The tribe has spread far beyond the historical hunting grounds. Classification Management has become a melting pot. People working for the AEC deal daily with defense information that is not RD; daily they generate information that does not fall into the categories of Restricted Data or Formerly Restricted Data. Conversely, those working for other branches of government find themselves increasingly involved with Restricted Data. We might now paraphrase Malvolio in Shakespeare's Twelfth Night and say of information, some is born classified, some achieves classification, and some has classification thrust upon it.

The AEC Handbook recognizes this complexity and diversity in that it does not require a declassification action as an indispensable first step before the issuance of a document as unclassified. But before anyone concludes that avoiding this step relieves him of any responsibility, let him take the following words to heart.

It must be born in mind that

even though original issuance as unclassified does not involve the removal of stamps from a previously classified document, the same action takes place, that is, a determination that the document does not contain classified information. Therefore, in determining that a document may be issued as unclassified one must be able to establish that the information disclosed has not been identified as classified (in the case of DI) or has been previously declassified (in the case of RD or FRD).

The Handbook goes on to require a dual review before publication of any research and development report prepared under AEC auspices when there is any chance that the work may be classified—review by a classification officer and review by a technical expert knowledgeable in classification matters. The expert is supposed to appraise the work under review in the light of all that has been published in the field. Experts are not too hard to come by, but experts who are knowledgeable in classification, sympathetic, and willing to spend the time are rare indeed.

At first glance, the dual review seems onerous, but it can be turned into a very useful management tool. If you choose experts high enough up the administration ladder, their reviews can also serve to screen out papers that ought to be withheld for reasons unrelated to classification. Many a paper that offers no threat to the common defense and security would, nevertheless, do better buried in the burn basket than clogging the Central Clearing House.

As has been pointed out many times, one of the greatest deficiencies in classification management is the inevitable tendency to overclassify coupled with tardiness and timidity in declassification. The FBI won't get after you just because your hand is too heavy on the Secret stamp. To a very considerable extent this weakness is rooted in the dearth of experts —the knowledgeable, sympathetic, willing experts, that is. Our Handbook describes how the AEC has supplied at least a partial answer with its formalized system of reviewers—Responsible Reviewers and Senior Reviewers—men who are on call to provide advice, counsel, and recommendations to the Division of Classification and whose influence, especially that of the Senior Reviewers, is strong and constructive. Scientists from the Age of Aquarius who habitually lament lost freedoms and decry the stultifying effect of security, should recognize that they do indeed have friends in the enemy camp—eminent men whose concern for the freedom of information and the advancement of science is no less genuine for being tempered with realism and, like Scaramouche, a recognition that the world is mad. I would suggest, too, that the Aquarian scientists take an honest look at the enormous body of information that has been declassified.

Basically, whether we are AEC or DOD, we all do the same thing and have the same responsibilities, though our points of view and our starting points may differ. It is like one of those eye-foolers, an array

of shaded hexagons, for instance, that appear to stand out in relief when you look at them in one way and then revert to intaglio when you blink your eyes. To do our jobs we, all of us, have to know what has been classified and what has been declassified.

How we get this knowledge is another matter. And this brings me to the subject of classification guides. The Handbook describes the AEC hierarchy; Policy, Program, and Local Guides. Policy guides must be approved by the Commission (which means the Commissioners) and Program Guides by the Director, Division of Classification, Headquarters (which means our good friend Charlie Marshall). Prior to the 1967 issue of the Handbook, Local Guides could be approved by the cognizant field-office manager—that would be General Donnelly in Albuquerque today and Sam Sapirie in Oak Ridge, for example. But in 1967, in a move toward centralization, this authority was made to revert to Washington, a move that, as far as I know, did not disturb the cognizant field-office managers. I sometimes wonder just how cognizant they were. I should add that managers of field offices are still responsible for preparation of local guides, even though they have not the authority to approve them. The reversion of authority to Washington in this case upset a certain symmetry that I found appealing. At one time, you see, it was possible to differentiate the three types of guide very neatly on the basis of who was authorized to approve them. Differentiation on the basis of content is more difficult.

Although there are undoubtedly differences of opinion about the distribution of authority, the theory of the AEC guide system is fundamentally sound and in keeping with the intentions of the Atomic Energy Act. In practice the system works surprisingly well—which is a tribute to the diligence, good sense, knowledgeability and flexibility of our classification personnel. Although I don't want to except anyone from this encomium, I feel we can point with particular pride to the contribution of the Sandia Corporation and the Lawrence Radiation Laboratory at Livermore.

A basic dilemma in the promulgation of classification guidance is how to strike a balance between the hazard that wide distribution may lead to misuse and the danger that uniformed classifiers may in their ignorance innocently and unwittingly release sensitive information. The Handbook approaches this dilemma in a realistic way by making a clear distinction between authorizing the use of guide for making classification decisions and making it available simply for information. You may argue that if a man has a guide in front of him, he is inevitably going to use it to make classification decisions; and in a sense that is true. But the point is: if he is not authorized he has no defense if he uses an unclassified topic in the guide to justify an unclassified release when somebody higher up gets him on the carpet and he discovers too late that he did not know the whole story. On the other hand, awareness of the clas-

sified topics in this guide he has in front of him may alert him in time to forestall a serious leak. I don't know of any cases where Washington has taken us to task for being too cautious.

The freedom to make guides available for information is as you know, particularly valuable in the early stages of programs where there are interfaces between the AEC and the DOD. Without such interchange each side can go merrily along nullifying the other's classification until such time as the cumbersome machinery of joint committees and working groups establishes a common ground. I think it is safe to say that the members of the Restricted Data Tribe—Chiefs and Indians alike—stand ready to foster this open-door policy. As long as the initiation ceremony has been properly performed, that is.

Within the tribe, the weapons complex offers what to my mind is an outstanding example of early and effective information exchange. I am not saying it could not be better, but on the whole it is remarkable. This interchange receives a blessing and a mandate in a special passage, new in the 1967 Handbook, that not only provides for the interchange of local guides within the weapons complex, but empowers field-office managers to authorize these guides for use by their contractors. If that strikes you as unexpected laxity, don't forget that all these guides will have been blessed in Washington.

At this point I would like to pay tribute to the diligence of the Headquarters staff, who must match the industry of workers in the field with equal perserverence and acumen, if guidance is to be put to use promptly and when it is needed. The blessing of guides sometimes seems to have a certain resemblance to the process of beatifying saints. Those who are responsible seem to feel the same need for careful, minute scrutiny verification, authentication—and skepticism Moreover, perserverence and acumen, even when available, may not be enough when the action is 3,000 miles away.

I would like to explore further what the Handbook has to offer, the types of classifying officials, for instance, and that interesting phenomenon sometimes referred to as Private Restricted Data. Then there is the remarkable Guide to the Unclassified Fields of Research, which defies the old adage, "How we classify is classified." But my thoughts have rambled long enough and with too many digressions. It is time to summarize, if I can.

The Handbook recognizes at the outset the important distinction between the classification of information and the classification of documents and materials. Within the AEC this distinction is perhaps more sharply defined than in other departments and agencies. The reason, of course, is our old friend Restricted Data and the law that says only the Commission may remove information from that category. But the situation outside the AEC is not fundamentally different. Decisions to classify information are policy decisions and should be held at the policy-making level—a level where most of us sel-

dom find ourselves. For most of us, authority is limited to stipulating how this or that document or material is to be marked or tagged, based on our knowledge of what someone else, someone with authority, has decided is classified or unclassified information. Out in the field we identify information as classified—we do not classify it. This is the importance of the duality in our definitions of classification. And this is why the hierarchical system of classification guides is vital.

I have talked about rules and procedures, guides, manuals, and handbooks. And I have talked about the Garden of Eden and the tree of knowledge. But more than talk is needed. In the last analysis, you and I know that true protection of information begins and ends at the working level, in the field, where ideas turn into design and design into hardware. We can defeat the best of systems and make the poorest work somehow. We know, too, that an essential ingredient in any successful system is communication. That is why a society like NCMS is and should be welcome in the field of classification management.

Dick Boberg: "The time has come, the walrus said, to talk of many things; of shoes and ships and sealing-wax and cabbages and kings."

These classic words from the pen of Lewis Carroll are quoted from the presentation given to the second annual seminar held at the Ambassador Hotel here in Los Angeles in 1966. That presentation entitled "Science in CS Land" or "Through the Looking Glass" was to many of us that attended the seminar the most meaningful and thought provoking presentation we heard at any of our sessions before or since. Since that time, there have been consistent requests to ask the author of that presentation to return, and I am pleased to report to you that we have succeeded in doing just that. Ladies and gentlemen, please join me in welcoming back our luncheon speaker today, Dr. Everett Welmers.

CLASSIFICATION CONFRONTS "IT"

Everett T. Welmers

I had initially considered beginning my speech this noon by comparing the problems of security with the problems of good and evil in the Garden of Eden; but I understand that this has been well covered by others. So I will use another approach. It was not long ago that the Pope made a visit to the United Nations. After all the elaborate ceremonies were over, the Holy Father expressed a desire to see and talk with ordinary people in New York. So, in the garb of a priest, he was driven to one of the poorer sections of the city, where he and his aide began walking along the crowded sidewalks. Eventually, they stopped to talk with a little Italian man at a sidewalk pushcart. The man seemed impatient with the conversation until the aide said, "Don't you know who this is? This is the Pope." At this, the man became quite incoherent, fell on his

knees, and kissed the Pope's ring. Beckoning him to rise, the Pope said, "I really am interested in your opinions about the church and my office; don't hesitate to speak frankly." But all that resulted was, "Il Papa, Il Papa." Finally the Pope asked, "What do you think about my pronouncements on birth control?" After a few more mutterings, the man blurted out, "Il Papa, if you don't want to play the game, you shouldn't make the rules."

I am somewhat like the man in this story. I play the security game, but I don't really make the rules. This noon I would like to discuss some of the changes in the game that have and are taking place, and allow you to consider how the rules of security are affected.

Long before the beginnings of recorded history, "security" had already begun to appear. There were very few people, but they did compete—for hunting and grazing areas, for water, and for land on which to settle. They were concerned with only a few primitive resources, but in addition, greed and thirst for power began to appear. As a result, tribes evolved to assure that necessities for life could be provided and protected. Conflict became an inherent and essential part of existence, and security in its rudimentary form was required. This could be maintained only if the individuals involved were reliable, and maintenance of security could be encouraged by the cutting out of tongues or the cutting off of heads of those who violated primitive rules.

The population of the earth has expanded with increasing rapidity. Today's concern and one of its catch phrases is "population explosion". As nations evolved out of primitive tribes, the leaders could not know all the characteristics of each of their followers. In addition, the ability of an individual to contact others showed a pronounced increase. No longer was face-to-face confrontation required to transmit information; today telephones, radio, and television transmit messages over thousands of miles, collapsing distances, and expanding audiences.

Regardless of whether we consider primitive tribes or modern nations, problems of security are based on individuals and on their power to communicate. Throughout history, control of these problems has always involved two basic concepts, the concepts of trust and fear. The reliability of individuals, coupled with penalties, has been the foundation of security management for the tribal leader as well as for business and national defense officials in American society today.

WRITING

Even before history began, security management was confronted with "IT"—Information Technology. Among the earliest confrontations of technology was the development of writing by primitive man. Men first wrote on rocks or on the walls of caves. Then it was found that one could write on soft clay, dry or bake it, and carry the message from one place to another. The possibility of movement of information without a vocal intermediary in the process existed.

The problems of bulk and breakage of clay tablets encouraged the use of

vellum and paper, on which messages could be imposed by use of certain fluids, now called ink. This permitted recording of information in a retainable form which was easily carried. Covers could be used, manuscripts could be rolled, and appropriate seals could be applied to prevent access by others than the desired recipient. Information, whether on tablets or documents, took on a physical form, an identifiable structure. Security could now be based on physical controls.

Information technology was and is characterized by the methods for recording information. Initially very few people were able to write. Even when this capability became common, it still was very time-consuming. Monks in medieval monasteries spent their entire lives copying only a few documents. However, once the manuscript had been prepared, anyone with access to it and the ability to read could obtain the information contained in it, whether or not it was desirable that they should do so. Writing was the only significant technology supplementing oral communication as late as the 15th century. Even today the little scraps of paper on which scientists write rough drafts of their investigations become critical documents for security management—difficult to control and easy to read.

PRINTING

The next advance in information technology was associated with printing. As early as the year 1000 AD, the Chinese were utilizing block printing techniques, in which a page was carved onto a wood block, inked, and pressed onto silk or paper. In the western world, in the German city of Mainz, shortly after 1450 a man by the name of Gutenberg revolutionized information retention and transmittal through the invention of movable type. In this case, each letter was carved on a separate wooden block; these letters were assembled to form the words of a page. After a page had been printed, the blocks were rearranged for the next page. The first book believed to use this technique, the Gutenberg Bible published in approximately 1456, remains one of the most magnificent books ever produced. Wood cuts for illustrations were used in books printed in 1461, combining words and pictures to convey information. The first edition of Euclid's Geometry in 1482 included some 420 wood engravings of geometrical figures. Color printing appeared as early as 1485. By the end of the year 1500, some 38,000 editions of books had been produced. These are called incunabula, meaning the earliest.

Movable type continued to dominate the printing process until this 20th century. The newer methods which are now being employed are, curiously enough, more similar to the Chinese block printing than to moveable type. A plate is produced for a complete page or sheet and is discarded once the copies have been made. The result of applying newer and lower cost methods has been an explosion in the amount of printed information. In the libraries of the world, 10^{15} bits of information (a one followed by fifteen zeros) are estimated to exist. Five bits are required to identify a single letter of the alphabet and twenty to twenty-five are

needed for a word. Almost a tenth of that is concerned with science and technology. Even more important than this bulk is the rate of increase; it is estimated that the amount of information doubles in about ten to fifteen years.

This technology permitted large numbers of volumes containing the same material to be produced. This might constitute a few hundred, as was probably the case with the Gutenberg Bible and continues to be true of limited editions today, or millions. For each such volume, there could be many readers. Therefore, security management demanded control over the number of copies produced as well as control of their distribution and access. But since the process of printing remained clearly identifiable and constituted a major effort, and since the documents resulting possessed physical size and could be traced, controls continued to be possible. As a result, security management was able to confront this development in information tecnology successfully.

DUPLICATION

About the time of World War II, a new IT appeared. Developments in cameras, particularly 35mm, 16mm, and even smaller, permitted photography under unfavorable conditions, either with or without flash units. This began what can be called the era of duplication, eliminating the necessity of going back to the printing press as a source of copies. Duplication of documents was possible independent of either the pen or the press. A further extension of this capability was the Polaroid-Land camera, which permitted not only taking of pictures, but also their immediate development—thus insuring successful duplication.

Within the past two decades, another development in information technology has made an even more significant impact. This is the process of duplication most often associated with the name Xerox. I am not sure that security management has completely coped with this IT. An essentially perfect reproduction of material is possible, usually without leaving the office area; it can be done by anyone with access to a machine and capability to push a button; it is difficult to control the number of copies made even if the act of duplication is discovered.

MICRO-INFORMATION

As technology marches on, other areas of criticality appear. Most of you are familiar with the necessity of compressing information for storage and recovery. Microfiche cards, generally 4″x6″, store from 60 to 225 images, each of which may consist of a page to two of text. They can be optically projected into readable size without difficulty. If a few of the images are utilized for identification, retrieval is simple. By means of a double photographic process, original documents can be reduced by a ratio 150 to 1, thus permitting storage of from 200 to over 2,000 images on 4″x6″ cards; these are called ultrafiche. Without appropriate reading equipment, it is no longer possible for the observer to determine the exact nature of the information on such a card. Physical identification becomes so difficult that security management using conventional techniques is no longer possible.

INVISIBLE INFORMATION

Although reduction in size is an important development in information technology, it is overshadowed in significance by the rise of completely invisible information. This may soon overtake other methods in the amount of information handled, although not in bulk or physical volume required. Completely invisible storage is possible through magnetic characters on magnetic tapes, through magnetic cores or magnetic films, or through monolithic storage devices utilizing circuits microscopic in size. Magnetic documents or magnetic discs, particularly those described as data-packs, are also standard items of equipment. These are usually associated with computers for input, for output, and for processing of information existing in these memories.

From a security management point of view, this type of invisible information did not pose a particularly critical problem a few years ago. Storage devices associated with computers were extremely expensive, very difficult to obtain in adequately large sizes, and "obviously" would never be used for the retention of information that was not absolutely essential for a particular mathematical problem which was in the computer. However, in a few years the situation has changed drastically. It is rapidly becoming more economical to store a page of information in a computer memory than to store it in a steel file. We suddenly have devices of very large size in which rapid access to information—measured in thousanths of a second—is possible. Billions of bits of information can be stored.

A few weeks ago, we were discussing some problems of data storage, data retrieval, and automatic establishment of criminal patterns with the Police Department of the city of Los Angeles. They wished to place many of their police records in a computer memory and correlate the patterns in which crimes were being committed. In this particular case, seven of the seventeen precincts in the city of Los Angeles were to be used and not all the information of interest to these precincts was to be recorded. As many as a billion bits of storage capacity were required. In most cases, very little utilization would be made of this information, but it was necessary to have it available for comparisons.

When you couple the massive capabilities for storage of information with rapidity of access, an entirely new field opens up. Within a computer, information can be moved around at rates of as high as five million operations a second. Access from and to the outside world is simple and extremely fast, possibly faster than would ever be wanted for anything but the most sophisticated calculations. The outputs may be on extremely high-speed printers or directly from the computer to a microfilm for optical perusal. Magnetic tape to microfiche cards is possible in currently commercially available equipment.

From a security management standpoint, there are a number of aspects of these developments that are very challenging. There is the necessity to prevent access of these data to those who are not permitted such access. Also there is the necessity for insur-

ing the integrity of these data. A business firm will be extremely unhappy if there is a method by which its accounts, as stored in a computer, can be modified and information presented to its executives changed; an entirely incorrect picture of the business operation could result. We are also concerned—as was the case in Los Angeles a few weeks ago—about the application of computers to election returns. Can elections be influenced by computer prediction, by announcement of early returns, or even by incorrect programming within the computer? In one case, inconclusive election results were delayed and an election trend influenced by scheduling the precincts first processed to indicate an impending landslide.

Similarly, it would be unfortunate if criminal interests were able to modify criminal records on computer tapes that exist throughout the nation and maybe tied in with networks of computers. It is essential for security management groups to become involved not only in ways of preventing access to computers but also in generating appropriate software that will make it impossible to modify what is in the computer or to extract out information if such is not authorized. Protective devices must be built in by computer manufacturers both in the machine itself and in the software which it utilizes. Physical access, protective hardware design, and software programming are all essential for security.

Based on some of these computer ideas, it is not entirely unreasonable to imagine an office which operates in the following manner. When memoranda are generated, these are typed not on a typewriter producing a paper copy, but directly into the storage devices of a computer. As an individual comes into work in the morning, he sits down at his desk, pushes a button, and on the screen in front of him appears the sequence of memoranda that have been addressed to him during the preceding day. Only if the particular memorandum indicates that he is to see it will it be possible for him to have access to it. If, for some reason or other, he wishes to obtain a copy, he pushes another button on the console and the copy will be delivered to him in the mail before the end of the day. Terminal operations to support such a procedure already exist. The possibility of storing vast amounts of data and information in alphabetical, numerical, and even pictorial form already exists. Computer output to microfilm and computer input from microfilm are already realities. The office of the future is likely to have little paper moving from one desk to another, but rather the entire body of working information located within computer memories, entirely invisible.

Under these conditions, you no longer have the kind of control that can state "here is a document, I know where it is, I know who has looked at it". Instead, somewhere within the organizational structure and integrated computer equipment, the information is located. With all these changes possible, it should, however, be noted that one part of the system has changed very little; that is the man himself. The problem as to how he can be coupled in or how effective-

ly he can utilize the information, the techniques of storage, and the process of retrieval is not completely solved.

Classification management for invisible information should not deny access, but rather make access easier for qualified individuals. The challenge posed by this latest advance in information technology is likely to prove the most difficult that security management has as yet faced. The storage, the processing, the retrieval, and the control of invisible information is the new confrontation between classification and IT.

ORIENTATION FOR WEAPON SYSTEMS CLASSIFICATION

William G. Florence

My subject is "Orientation for Weapon System Classification." Originally, I wanted to talk about specific systems. But my plan was changed as a result of recent action in OSD to improve procedures for classifying research and development information. The purpose was to eliminate unnecessary classification and overclassification.

These practices have become so widespread, that our defense classification system is literally clogged with material bearing classification markings. For quite some time, a classification marking has contributed very little restraint, if any, on the dissemination of our technical information around the country and the world.

Elimination of unnecessary classification has been my own objective for many years. In line with the new OSD interest I will discuss reasons for the practice. I will speak for a while; then there will be ample time for questions.

My office has technical program security responsibility, including:

Classifying and declassifying technical information.

Developing the Air Force position on applications for munitions export license.

Coordinating releases of classified information to foreign governments.

Coordinating proposed releases of technical information to the public.

My comments regarding classification policies must not be taken as criticism of any office or individual. As a matter of history, I personally developed some of the DOD policy language that I now say is very much in need of updating.

I believe that Government instructions and actions by Government personnel, as referred to in the following five items, invite or cause most of the unnecessary classification and overclassification of information.

1) PURPOSE OF CLASSIFICATION.

Basic policy for classifying information is in Executive Order 10501, which is invoked for contractor consideration by paragraph 2i of the DOD Industrial Security Manual. According to that order, before an item of official defense information can be assigned any classification there must be a determination, by

appropriate Government authority, that the item is of such significance that its unauthorized disclosure could be prejudicial to the defense interests of the nation. In other words, not even an item of advanced technology, generated by the Department of Defense for military application, would qualify for the lowest classification category, unless appropriate authority determines that something prejudicial to the nation's defense interests could actually result from unauthorized disclosure.

The Department of Defense has an instruction which purports to give specific guidance on classifying technical information under the Executive Order. However, the references are in an attached list, as follows:

A) Research, development, production, and procurement of munitions of war.

B) Performance characteristics, test data, design, and production data on munitions of war.

Those items seem to read well, but they include anything that could be called munitions of war. They do contribute to unnecessary classification.

For years we have condoned the practice of individuals placing classifications on technical information simply because they, personally, consider it to be important.

The individuals believe that a classification marking will, in itself, provide security protection. They do not realize that a classification will accomplish nothing, unless (a) the information was generated under effective Government security control and (b) it can remain under such control. Neither do they reflect consideration of the fact that possession of knowledge by a potential enemy regarding an item of equipment is not necessarily harmful to our defense interests.

I constantly hear individuals claim that we should maintain a classification on some particular equipment or the enemy will know about it. But only rarely could an individual cite any harmful effect that would result from the disclosure.

Let me give you an example of what I am talking about. The external configuration of the F-15 air superiority fighter was given the usual routine SECRET classification. This was supposed to protect the dimensions from a potential enemy, and keep him from learning the general performance data. Eventually, however, it was decided by more enlightened authority that (a) the general performance parameters had already become known publicly during Congressional consideration of the proposal to build the airplane, and (b) knowledge of the configuration and the general performance data would not help a potential enemy or an enemy, to do anything prejudicial to our defense interests.

We finally declassified the F-15 configuration last month. Incidentally, the elimination of need for security measures to protect the configuration resulted in a cost avoidance of perhaps two million dollars.

Another reason why existing policy on whether to use a classification does little good is the current strong emphasis on devising lists of examples of classified information, such as the two munitions-of-war items

attached to the DOD instruction. People file the lists in a handy drawer for reference. They want a simple guide that they can glance at, and that is all they will use for marking information if you give it to them. Thus, instead of judgment classification, we get file-drawer classification.

If we want more judgment classification in the future, and better orientation, we should update our directives regarding the purpose of classification categories.

2) NEWNESS OF DEVELOPMENTS.

Of major concern is the provision in the DOD Instruction for classifying munitions-of-war information as SECRET, if the technological development, technique, material or modification is new. The prime interest is newness.

Generally speaking, most of us have the erroneous idea that every technological development qualifies for a security classification because we consider it to be new. Electronic gear, jet engines, and all sorts of other items get classified SECRET, or possibly only CONFIDENTIAL, under the "New-Development" idea when they simply constitute a normal, logical improvement.

Here is one example of problems which stem from this misconception. Two competing contractors recently submitted proposals for building a fighter aircraft engine. They were required to classify the design data. The winner's engine retained certain classifications to protect the specific performance of the aircraft which it will power. But the loser's engine also was kept classified, even though it will not power any military aircraft. The mock-up is still classified because some individuals say that the engine's newness qualifies it for a classification. I believe this will be changed this month.

We certainly should either explain what we mean by the word 'new," or drop it from our classification instructions.

3) ASSOCIATION CLASSIFICATION.

All too frequently, we encounter a classification on information solely on the basis of association with other information. The persons responsible had not been informed of the fact that information qualifying for classification cannot be divided into separate unclassified elements. In other words, zero-classification plus zero-classification can never become CONFIDENTIAL! There must be an additional ingredient warranting that classification.

4) PRIVATELY OWNED INFORMATION.

Perhaps the majority of all cases involving unnecessary classification of research and development information stem from the belief of Government people that they can classify, or require the classification of, privately owned information. They do not understand that Executive Order 10501 permits the assignment of classification only to official information of the Government.

This limitation applies to all privately generated information, including a contractor's independent research and development (IR&D). DOD Policy in ASPR 15-205.35 defines a contractor's IR&D as that research and development which is not sponsored by a contract, grant or

other arrangement. It is programmed independently by contractors.

Although the Government may share with a contractor the costs of a particular IR&D effort, the Government does not acquire any right to the information that was developed.

Therefore, as stated in the most recent legal ruling:

A) Information generated through IR&D programs is not information owned by, produced by, or subject to the control of the Government.

B) There is no basis for applying an official security classification to information generated through a contractor's IR&D effort.

Another area of misunderstanding about this limitation of Executive Order 10501 involves applications for patent as submitted by private inventors. Quite a large proportion of people mistakenly believe that if the application qualifies for a secrecy order under law, it must also be assigned an administrative classification.

The question is sometimes asked, "Isn't it dangerous for the Government to permit a private firm to develop an item of information, as important as a Government classified item, and not require that the private firm classify its information?" The answer is, that someone is holding an unnecessary classification on the Government information. The Government should cancel the security restriction on its own effort, not attempt to put a blanket of security on the private development. Only last month, laboratory representatives at Wright-Patterson Air Force Base complained to the security office that a firm in Texas had circulated as unclassified some privately generated infrared information that was more advanced than some of the Government's CONFIDENTIAL infrared information. You are correct if you assume that the Air Force did not ask the Texas firm to classify its information.

I would urge that the Industrial Security Regulation and the Industrial Security Manual, as well as the Armed Services Procurement Regulation, reflect clearly the fact that privately generated information is not subject to any Government defense classification. Perhaps Workshop Number Three will explore this suggestion during its session here tomorrow on IR&D and the retention of documents.

5) AUTHORITY TO CLASSIFY.

The first four items I have discussed involve questions as to the efficacy of policy and the orientation of individuals. The most serious deficiency in our classification system, however, is in the delegation of authority to classify.

Practically everyone considers himself as authorized to classify whatever he does or reviews. Unquestionably, the looseness of so-called derivative classification authority, as opposed to the strictness for original classification, invites widespread personal assumption of classification authority in DOD. Using the "derivative" concept in DOD Instructions, any individual who can sign a document, or who is in charge of doing something, may classify the information that is involved if he believes it to be so much as closely related to some other information that bears a classification.

Elimination of derivative classification authority definitely would help stamp out unnecessary classification of technical information. After the original classifying authority designates an item of information as being CONFIDENTIAL or higher, material containing a copy or other reproduction of that information necessarily must be marked accordingly. No one needs classification authority to do that, derivative or otherwise.

Incidentally, subparagraphs 10c(1) and (2) of the Industrial Security Manual adequately reflect the fact that an employee who is responsible in a contracting firm for an item of material containing classified information must assure that the material is marked correctly, according to Government requirements. He exercises marking responsibility, not classification authority.

Of course, paragraphs 10e(4) and 6a(15) of the Manual make things a little hazy. They require a special, costly inventory and reporting system to record the exact number of employees, at any specific time, who are authorized to apply a classification, at each of the three classification categories. This is a contradiction. The actual number of employees is controlled by factors involving a fixed marking responsibility, and can change momentarily. The marking responsibility must be exercised, regardless of authorization or lack of authorization. That report would seem to be unjustifiable.

Now, back to the Government. What we should do in DOD is concentrate in the Office of the Secretary of Defense, the original classification authority for all weapon systems. This would be a simple matter since practically every facet of a weapon system from concept to condemnation must be reviewed at OSD level. Original classification authority for other research and development information should be delegated, possibly, no lower than military department level. Thus classification authority for a given item of technical information would only be exercised at a level that would be qualified to determine:

A) Whether effective security measures actually could be maintained, and

B) Whether unauthorized disclosure actually could be prejudicial to the defense interests of the nation.

There are other reasons for unnecessary classification and overclassification of technical information by Government personnel, but those which I have discussed are the most common.

Of course, industry also contributes lavishly to the volume of material with unnecessary classification markings. Based on my experience, the primary reason is the failure of contracting firms to challenge effectively the unwarranted classifications assigned by the Government. Each contractor obligates himself in Section I(B) of his Security Agreement to help preclude overclassification. But I do not see contracting firms seriously objecting to unrealistic Government classifications.

I know that individual employees frequently make a strong case against such classifications. But their companies do not back them up by going to the top procuring authority, or to OSD, as they would do if the Government made an error, on the short

side, in payment for work accomplished.

The second most common reason for unnecessary classification by industry is the same belief that some Government people have regarding privately owned information. Many companies clearly understand the restriction against using defense classifications on their information. But others either deliberately mark their privately generated information with a classification, or accept a classification assignment from some indivdual in the Government.

The greatest number of these cases come to light when the owner attempts to get a munitions export license. I hope that the number will be eliminated or reduced drastically as a result of the new requirement for an export application to explain any classification markings that appear on the material involved.

To assure that we all know what I'm talking about, I'll make some brief references as follows:

1) Recently, a Los Angeles firm developed a missile site location and monitoring system. They classified the descriptive brochure SECRET on the basis of advice received from a Government employee who believed that the marking would keep a potential enemy from knowing the U. S. capability. An application was then made to the Department of State for a license to export the technical data to ten countries. The firm was advised that the data, as SECRET, could only be released to three foreign Governments through the U. S. Government.

The owner came to my office to find out what could be done to eliminate that sort of Government control over his information. After ascertaining that the data was developed entirely by private effort, and did not incorporate any Government information, we advised the owner to cancel the SECRET markings which he had applied, since the Government could not declassify something that had never constituted classified information in the first place. At the same time, we arranged for the Department of State to issue a license permitting export to all ten countries on a commercial basis. The erroneous classification, however, had been very costly in terms of wasted time and effort.

2) An electronics firm developed a data link communications set and classified it CONFIDENTIAL. They arranged to sell it to a foreign Government. Then my office was asked to process an agreement for the foreign government to safeguard the information. We wrote back last month and advised that we could not ask a foreign government to honor a classification assigned by a commercial firm.

3) A few days ago an application came in from a company for a license to export a document that was marked CONFIDENTIAL. It had a notation advising that the information was privately owned, since it was a product of the company's independent research and development. We called the company to explain about the restriction against classifying IR&D information. But we were told that the company marked the material because it believed that a DOD directive covering similar Government information must be

adhered to by industry, even though there is no contract covering the information, and it is privately owned. Of course, we processed the application for export license as involving no classified information.

This problem of unnecessary classification and overclassification has become so serious that corrective action is essential now! We must reaffirm the integrity of defense classification categories, as applied to research and development, and reserve them for such items of official defense information as actually require effective security protection.

Also, we must end needless and extremely costly restrictions that serve only to keep our own people, in and out of Government, from the full benefit of technical information. The strength of national defense lies in the superiority of technological accomplishments, not in compartmentalizing scientific and technical knowledge.

It seems obvious, that procedures for classifying research and development information could be improved considerably. We need to assure that an item of official information is classified only if its unauthorized disclosure actually would have a harmful impact on our defense interests.

In addition to other changes, I would urge the promulgation of policy to provide incentives for proper classification of technical information initially, and for declassifying information when security protection is no longer required, or practical. There is nothing of the sort in DOD today.

In conclusion, I recommend that each National Classification Management Society Chapter establish programs to educate people to the need for eliminating unnecessary classification of research and development information.

QUESTIONS AND ANSWERS FOLLOWING MR. WILLIAM FLORENCE'S PRESENTATION

(Some of the questions and comments at the conclusion of Mr. Florence's presentation were not recorded clearly enough for transcription. Others could only be partially transcribed. Those reproduced below reflect most of the discussion.—Editor)

Robert Niles: Mr. Florence, was your speech reviewed and approved by the Air Force?

William Florence: The Air Force reviewed the speech and stated "NO OBJECTION." I have it in writing, officially.

George Chelius: Gentlemen, one of the strengths of our Society is the ability to communicate and exchange ideas. We should not be inhibited by questions whether comments are official industry policy or whether something is official DOD policy. We want the free exchange of ideas, unconstrained by the question whether they reflect official policy. We want different speakers to have different opinions, and we want a free discussion.

Pete Moglia: Mr. Florence, could you cite the legal opinion you referred to that Independent Research and Development (IR&D) material would not be classified?

W. Florence: It was given by the Air Force General Counsel.

George MacClain. I want to ask several questions. In order to engage

in IR&D effort at a contract facility is it essential that the facility, first of all, separate itself actually, and as nearly as possible intellectually, from all classified information to which it has had access previously?

W. Florence: No, it is not. Knowledge of technology is not classified. IR&D work can be performed in locations adjacent to Government work and never include any Government information.

G. MacClain: Do you believe that it is possible for a person engaging in IR&D, as you define it, to perform his work without incorporating classified information to which he has been previously exposed?

W. Florence: Yes. Naturally, an engineer is going to use his knowledge of technology. As a practical matter, however, he does not reproduce information which the Government has already designated as Confidential, Secret or Top Secret. That would not be IR&D. He would be defeating the purpose of the IR&D program if he simply used that which had already been developed.

G. MacClain: I think I understand what you're saying, but I'd like to be sure. I think what you are saying is that IR&D, as you are using it here, is a product from a commercial firm which is unique, first-time used information. It would not be the product, directly or indirectly, of any existing classified information held by that firm. Is that correct?

W. Florence: You're quite right. That's exactly what I've been talking about.

G. MacClain: Then could I take the position that if a product of IR&D activity did somehow include information that had been classified in the past, such product would not be IR&D activity information?

W. Florence: Yes, you could, as a general rule. But regardless of whether a product is truly IR&D, as that term is used by DOD, such project must carry the appropriate classification marking if Government classified information actually was reproduced, with or without Government approval.

G. MacClain: If the facility engaging in IR&D activity also has access to classified information, but is not really sure whether it included classified information in the product of its IR&D activity, wouldn't you consider that it would be a wise thing to submit that product for analysis by the Government, and for that purpose to give it a tentative classification?

W. Florence: That problem would not exist, really. The basis for my answer is that, as a practical matter, companies do know, definitely and without question, whether they used Government information previously designated officially as CONFIDENTIAL or higher. I have surveyed project work in many contracting firms throughout the country and have observed the procedures used to control, record and account for the effort expended by each engineer or other technician. However, in a given case, if a company had reason to believe that some employee had actually incorporated Government classified information in the IR&D effort, there is more involved than just the question of applying the assigned classification marking to the information that was reproduced. In

that situation, the company is faced with a possible violation of contractual restrictions on the use of classified information.

Dean Richardson: Mr. Florence, I would like you to comment on the term "official information." It is a serious problem when someone in the Government mistakenly wants to classify a contractor's information and tries to tell him that it is official information. I think that what you meant in your speech was that the Government must contract or otherwise acquire jurisdiction over a man's information before it can be official and be classified. Is that correct?

W. Florence: Yes. According to the Air Force General Counsel opinion which I cited, it would be necessary for the Government to acquire control of the information before it could be officially assigned a defense classification.

Speaker Unidentified: I've been in this business for many years and run across many people, one of whom had created a so-called bigger and better bomb. The people in his company said that he had not been paid to work on it and it had no particular value to them. However, this man submitted his idea to an Atomic Energy Commission Agency, and the agency representatives flew in and immediately confiscated all his working papers and notes on his theory. This is a prime example of what we're talking about with IR&D. Now, I would not know the technical significance of the information this man had, but it obviously had some value because the AEC exercised an interest in it even though there was no security classification involved. You can take the technical definition of IR&D and apply it across the board. You have to have people with common sense when it comes to security classifications. I just point that out as an example to confirm what Mr. Florence has said concerning IR&D.

W. Florence: I am sure that the information referred to in your example was considered to be Restricted Data as defined in law. It has been made clear to me by those who are qualified to speak for AEC that Restricted Data is subject to Government control through the Atomic Energy Act, even though it is privately generated. What I've been talking about involves information other than Restricted Data.

Robert Green: I'd like to comment on the example that was given a moment ago. I think it's very important that we distinguish, in the area of privately owned information, between that which is Restricted Data under the statute and that which is not Restricted Data. I just wanted to confirm what Mr. Florence said. I believe that AEC would confirm that what a man discovers privately might fall into the category of Restricted Data by definition of law. And if it does, the AEC does have an approach to that problem.

W. Florence: Thank you, Mr. Green.

Speaker Unidentified: I want to ask about the contribution of dollars to IR&D. Each year or so, various firms work up agreements similar to contracts. Each firm agrees to spend a certain amount of money to study a particular technical area. The Government either agrees or disagrees to

support that area in terms of dollars. Now, if the industrial firm chooses to go ahead and study something that the Government did not agree with, I would say that you are 100% right about there being no basis for classifying that information. But, if the Government chooses to support a particular study, then I would say that the agreement does constitute a contract.

W. Florence: The answer depends on the actual terms of the agreement, including the statement of consideration as well as the statement of work. The IR&D that I am talking about is that which DOD defines as not being sponsored by a contract, grant, or other arrangement. Only this past May I encountered what was referred to by certain individuals as an IR&D agreement with a contractor in Ohio. However, close examination revealed that it was what we call a Contributing Engineering agreement, not IR&D. It included a Government statement of study to be accomplished. It also specified a payment of 28 million dollars for accomplishing the work described, not as a payment just for an IR&D effort. Therefore, the Government classifications that were assigned on a DD Form 254 to the information developed are valid since the information belongs to the Government.

Speaker Unidentified: You spoke about privately owned information and the protection of it. I think the Industrial Security Manual says to put a tentative classification on an unsolicited proposal or handbook until it is reviewed and the classification confirmed or denied. What are your thoughts on that?

W. Florence: First, paragraph 10f(2) of the ISM prohibits using any classification or any designation similar to a Government classification on non-Government information. Second, the ISM gives specific suggestions to contractors for effectively protecting their information. Also, Government regulations reflect legal requirements for Government agencies to protect privately owned information which they receive, even though it does not qualify for a defense classification.

Mr. Liebling: I am talking for the Department of Defense. What Mr. Florence is explaining is the legal definition of that which is solely the product of independent research. It would be unrelated to any information which was previously made available on some contract. But certain information not yet assigned a classification may seem to require classification. Then, the contractor would have to assign a tentative classification and submit the information to a responsible agency of the Government for a ruling.

W. Florence: There is no authorization to assign any classification to privately owned information, unless the Government gets control of it.

Speaker Unidentified: Many companies are asked by the Government to review and conduct research, if they wish to do so, in various specifically defined defense problems. The Air Force sends out Technical Objectives Documents (TODs) stating its problems. The Army uses QDRs and the Navy uses TACs. Frequently, the stated objective or problem carries a classification of CONFIDENTIAL or SECRET. Should a company doing

work on one of these problems classify its information the same as the classification on the description of the problem?

W. Florence: No, the company should not assign any classification to its own product. Of course, the company may protect its information quite effectively without resorting to classification procedures. If the company reproduces the Government classified information, such reproduction would, of course, require the appropriate classification marking. But the Air Force TOD agreements normally prohibit reproduction of classified technical objective information.

Speaker Unidentified: In IR&D work, at what point in time must a contractor go to the Government for an advisory opinion on classification if he decides that some information which he developed actually should be classified? Paragraph 10f(2) of the ISM requests that the contractor protect the information until an advisory opinion is obtained. When is he required to get it?

W. Florence: It is entirely up to the company to decide. The company need not come in at all if it does not wish to do so.

Speaker Unidentified: I would like to comment about that. In my company, when a man comes to me with an item of information which he believes warrants protection, we take the necessary time to write a formal paper so that the expertise can be evaluated. I then transmit the paper to DOD or other interested agency of the Government for evaluation of the idea, making clear that it is not an unsolicited proposal. In the case of a new volume of information such as that which we are talking about, we want to find out right away whether the Government is interested. We do not want to wait for a couple of years for the man to develop his ideas completely and then go forward with an unsolicited proposal to find out whether they are worthwhile. But, if we get a determination back from someone in the Government that the man's ideas are classified information, we are stuck with a classified document, and that's a problem. Later, we are asked, "By what authority do you retain the document?"

Speaker Unidentified: Mr. Florence, we must consider the question of protecting information in relation to the question about classification. Can you give us the legal interpretation that would apply to protecting and controlling technical data under IR&D procedures during the period before the data could qualify for classification as official information?

Mr. Florence: As privately owned information resulting from IR&D, a Government security classification would not be authorized. The contractor could protect his information as stated in the ISM. As for Government controls, if an application for patent should be submitted, the Government could impose a secrecy order under existing law. Also, if application should be made for a munitions export license, such proposed export could be denied under existing law.

Mr. Liebling: I think this is worth talking about to bring out some of these points. In reviewing questions regarding classification application, Government departments consider that we have regulations for control-

ling what we call advanced technology. That's what we are talking about. Protection can be by regulation as permitted under law.

W. Florence: When I speak about eliminating unnecessary classification of IR&D programs, I have in mind eliminating all sorts of problems that result from unnecessary classification. These include the waste of money, time and effort by a company trying to obtain retention authority for its privately owned information which bears classification markings. The company simply should cancel the markings. I have in mind one company that privately developed some ferrite material. Eventually, the Government assigned a CONFIDENTIAL classification to such of the material that the company was directed to produce for use on a military aircraft. The company accepted the classification, which applied to the wastage as well as the end-items. By the time the contract was completed, the company had accumulated 27,500 pounds of the ferrite waste. It can only be destroyed by reduction to molten iron at great cost. The ISM requires that a contractor surrender all contractual classified material to the Government upon completion of a contract. But in this case, the Government has not yet agreed to pay for shipping the material to a Government location. Neither has the company been given any money to pay for destruction. At this moment, the company is now trying, unsuccessfully, to get the Government to cancel the contractual classification. That is only one example of problems which stem from the erroneous practice of classifying privately owned information.

Mr. Chelius: Any more questions?

Mr. Florence: One more comment, please. Two weeks ago, the Air Force began reviewing the security classifications assigned to every Air Force research and development project, including each weapon system. The review will be based on the following criteria discussed today:

(1) No classification on privately owned information.

(2) No classification on basic research.

(3) No classification on information other than that which qualifies and actually needs it. Thank you.

TECHNICAL INFORMATION AND CLASSIFICATION MANAGEMENT

Fred A. Koether

Ladies and Gentlemen:

For those of you who may never have heard of ARPA (The Advanced Research Projects Agency), I would like to present a brief outline of what ARPA is and what it does.

ARPA is an operating entity of the Office of the Director for Defense Research and Engineering (ODD-R&E) in the Office of the Secretary of Defense. The organization was created in February, 1958, in response to the urgent need for centralized management of selected research projects resulting from promising advanced ideas requiring long-range study, and especially those projects not definitely identified with a particular weapons system or a specific

military mission. The establishment of the Advanced Research Projects Agency was also a result of the pressures created by the launching of SPUTNIK late in 1957. No single Defense agency at that time was responsible for long-term research. Moreover, it became clear that the rate of technological progress and its significance to the national security was such that the Secretary of Defense needed a full-time, quickly responsive, highly competent technical and managerial body to direct and accelerate high priority military research efforts.

Although ARPA in the beginning was considered THE Space Agency, having made possible the launching of the first U. S. Satellite, it rapidly transferred its civilian space programs to NASA when that agency was established, and its military space programs to the Air Force.

Present project responsibilities, assigned by DDR&E, are managed by ARPA's small staff of scientific, technical and managerial personnel and comprise project offices in the following areas of research:

1. Strategic Technology
2. Nuclear Monitoring Research
3. Overseas Defense Research
4. Advanced Engineering
5. Advanced Sensors
6. Information Processing Techniques
7. Materials Sciences
8. Behavioral Sciences

In general, an assignment to ARPA results from a decision that centralized management of a program in the Office of the Secretary of Defense is desirable or from a determination that the contemplated research is not peculiar to one military Service or identified with a specific category of military systems. ARPA is frequently assigned responsibility because it has the staff and the required technical capability to initiate the appropriate program in a relatively short time.

Generally, the goal in most projects is the determination of feasibility of a technique or of a system. Once feasibility is established, the projects are usually transferred to one or more of the military departments to continue the development and exploitation of the results of our research. ARPA's mission in the great majority of cases is Defense related research. Work beyond these stages, i.e. development and testing, is undertaken only when required to meet an urgent and short-term objective related to the primary mission.

ARPA relies on the procurement activities of the military services to issue and monitor the many contracts sponsored under its assigned projects.

I presented the foregoing so that I may give a brief outline of the functions of the ARPA Technical Information Office and its relationship to security classification management.

The ARPA Technical Information Office, as the name implies, is primarily responsible for providing scientific and technical information services to the ARPA staff and ARPA contractors. This comprises both input and output to the projects and programs sponsored by ARPA and includes Department of Defense in-house as well as contract activities.

Since the major portion of ARPA research projects are classified, it nat-

urally follows that TIO has been assigned the functions associated with the National Security Program established by EXO 10501, since information is information whether it is communicated orally, visually or by means of documents.

Security classification guidelines are established by the responsible project officer and are issued to the contracting agent who, in turn, issues them to contractors by means of the DD Form 254.

The establishment of the guide lines is accomplished in cooperation with Service organizations who might have an interest in a particular area of research, i.e., as a purely hypothetical example, basic research concerning a hand carried personal radar for detecting enemy infiltration at a forward command post. The very fact that such a radar might be feasible would be classified because it would give the U. S. a technological advantage.

The foregoing was a brief introduction to ARPA and leads up to the main theme of my talk, namely the use of restrictive markings on documents above and beyond the security classification marking requirements.

Although I know that all of you are familiar with the security classification marking requirements, I would like to review them briefly. It is important to re-emphasize at this point that these are the only authorized markings to denote the security classification of information.

Depending upon the assigned classification, information is classified either as TOP SECRET, SECRET or CONFIDENTIAL.

There are really three types of so-called "security classification markings:" (1) the actual security classification markings enumerated above; (2) the supplementary markings identifying certain types of classified information such as RESTRICTED DATA; and (3) distribution limitation statements. These three types of markings have become known as security markings because of their togetherness, although as I stated before, TOP SECRET, SECRET and CONFIDENTIAL are the only classification markings.

After the actual security classification markings come, the type (2), or supplementary markings. These include, but are not limited to the following:

RESTRICTED DATA
FORMERLY RESTRICTED DATA
NATO etc.

After that are the type (3) or dissemination limitation markings which include

NOFORN
SPECIAL ACCESS REQUIRED

or the famous, or infamous, five statements authorized by DOD Directive 5200.20.

The distribution limitations exemplified by NOFORN and the statements of DOD Directive 5200.20 are the most troublesome to people in the business of managing technical information services. As an example, the distribution statements authorized by Directive 5200.20 were designed to limit distribution of documents for reasons other than security. However, because of the requirements of implementing service instructions and the togetherness syndrome, these restrictive statements

are being used for security purposes to control distribution of documents.

Of particular annoyance is Statement No. 2, which, to refresh your memories, reads as follows:

> "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 (controlling office)."

This statement, which is used only on UNCLASSIFIED documents, alerts U. S. citizens against exporting technical data without a State or Commerce Department export license and is designed to protect significant U. S. strategic industrial know-how in the interest of national security.

However, there is also a No. 2 statement for classified material and some Service directives even make it mandatory that the No 2 statement appear on ALL documents, classified or unclassified. Ostensibly this is done to assure that unclassified documents or those becoming unclassified, under the automatic time phase downgrading system, do not automatically go into the public domain. Some lower echelon instructions even specify more than one restrictive statement.

To make matters worse, I have found that this statement has gradually become established in people's minds as meaning "Not releasable to Foreign Nationals" or the convenient term "NOFORN." Consequently, people who are responsible for and authorized to assign original classification to information automatically associate a classification with the term NOFORN.

Here I'd like to elaborate on the NOFORN marking by quoting from DOD Directive 5200.1, Safeguarding Official Information in the Interests of the Defense of the United States.

Under Par. VII D 5 e (3), SPECIAL HANDLING NOTICE. "Whenever the holder of classified documents or other material determines that the anticipated distribution, transmission or handling would make it liable to inadvertent disclosure to foreign governments or foreign nationals, the material shall be marked noticeably as follows:

"SPECIAL HANDLING REQUIRED
NOT RELEASABLE TO FOREIGN NATIONALS."

It goes further to state that—"Heads of DOD components shall establish procedures to ensure that the notice is used as a special handling marking only."

The misuse of the OFORN marking on documents, specially if it is based on the No. 2 statement, creates considerable difficulties in the expeditious flow of essential information in a two-fold manner; Firstly, it implies that the information has been reviewed and it has been determined by competent authority that it is not releasable to foreign nationals; and secondly, to people who are not involved in official foreign disclosure matters, or knowledgeable about the National Disclosure Policy, it would signify that the absence of the marking would make the material releasable to foreign nationals. The disclosure or release of classified U. S. information to foreign nationals is accomplished in accordance with the National Disclosure Policy and DOD

Directive 5230.11, through very specific channels, at high levels of the U.S. Government.

The industrial members of the NCMS involved in classification management know that the NOFORN marking provision does not occur in the Defense Industrial Security Program and is conspicuously absent from the ISM.

Be that as it may, the NOFORN marking crops up every now and then on DOD or contractor documents as an unauthorized requirement of a contracting officer or a user agency. Each time I see the NOFORN marking on an ARPA sponsored document, I challenge its validity and request its removal. Moreover, I have expressly prohibited the arbitrary use of distribution statements or other restrictive markings on documents produced by our Federal Contract Research Centers, such as IDA, RAND, LINCOLN LAB., etc. There are exceptions, of course, when a document contains derivative information from sources such as intelligence documents legitimately bearing the NOFORN or CONTROLLED DISSEMINATION caveats.

One of the chief reasons for the use of restrictive markings on classified documents has been the great proliferation of classified projects among government laboratories and industrial contractors. There are so many organizations qualified to have access to classified information that some government officials sometimes feel that the security classification system is not adequate under all circumstances and that control beyond security classification are necessary.

For example, classified documents deposited in DDC may be withdrawn by qualified users. A "qualified user" is any organization whose facility clearance certification is on file at DDC and whose Field of Interest Register (DD Form 1540) has been certified by his contracting activity. Moreover, the system is such that a classified document cataloged into DDC can be withdrawn by a "qualified user" even though he may not have a need-to-know. I won't go into a lengthy explanation of this statement because it is too complicated and could be the subject of a separate paper, nevertheless it is true. This fact, of course, is the reason for the L-system at DDC. The L, which is a symbol assigned to the AD number, signifies that it is limited and all requests for such documents must go through a procedure where a need-to-know is established specifically for that document with a specific release approval by the controlling office, the only exception being those doc's. marked with the No. 2 statement.

This L system reverts right back to the basic principle of establishing specific need-to-know on an individual basis. I, for one, am an advocate of letting the security classification system as established by Executive Order 10501, be the controlling factor for the dissemination of classified information. In this connection, I might mention that DOD Dir. 5200.20 is under revision. In essence it is proposed that the five distribution limitations be cancelled and only two statements would be authorized: These will be Statement No. 1, to be applied only to UNCLASSIFIED

information, which has been officially cleared for "Public Release;" and the former Statement No. 3, FOR GOVERNMENT USE ONLY, to be applied to either classified or unclassified documents, WHEN WARRANTED, and within the exceptions of the Freedom of Information Act. All other documents are to be controlled by security classification alone.

I am an optimist at heart, so I will leave the rest unsaid.

Ladies and Gentlemen, it has been a pleasure to address you and I am grateful to the program committee to have given me this chance to express my thoughts and opinions.

P.S.—I'm sure glad I didn't mention CNWDI,—pronounced "Sinwiddie."

Thank you very much.

QUESTIONS AND ANSWERS FOLLOWING MR. KOETHER'S PRESENTATION

Fred Daigle: A little while ago you were heading up a project which had a set program in which you involved the Air Force, the Army and the Navy. As I recall we spent many, many weeks building a case where we could go to you for some help in getting the classification removed. We had a paper which said we were no longer required classification on any documents. So you kind of destroyed our efforts. My comment is that I wish that you could document the methodology by which you arrived at the removal of this special requirement which you considered a detriment.

Fred Koether: I'll have to be very careful the way I term this. It was discovered that a certain technique of measurements gave information which was available to anyone. In other words, you could actually consider the technological breakthrough of this. It was already classified. My office was made responsible because of the general success of the program. When there is something that is related to all of the services and not unique to one service, the project is assigned to our office. We were given advanced research on the technique and it was decided to put a strict limitation on it for six months and then review the program and see whether we should continue or whether we should cancel this access. It wasn't really a special access. It was only for those who were working with it; no one else could even get a foot in the door. This was the purpose of it. After six months we reviewed it and we decided that certain aspects should be upgraded to top secret and all special access should be controlled. Does that answer your question?

Speaked Unidentified: The interpretation lies with the Defense Department. They say that any information generated under this program has to be under special access and not just that information which you had originally yielded. The six-month review bumped us out.

Fred Koether: The program didn't need to be special access. There were only specific areas of information that required it.

George Chelius: I know you can't tell exactly where you're going with a particular project for six months to a year, perhaps even two years, but I think it is a credit to Mr. Koether and also to Mr. Liebling and Mr.

MacClain that they did take some action to remove these particular programs from the required access list.

Fred Koether: May I suggest and I believe you all will concur that the majority of government officials do not concern themselves with a problem that a particular company has.

Speaked Unidentified: I might mention that in looking over a DOD directive last week, I saw that it specified the Statement "A" and Statement "B" system. Is that the directive you are taking about?

Fred Koether: I'm speaking of 5200.20 which classified these statements. I've only seen it one day and haven't had a chance to review it. But I'm sure you are all familiar with 5200.20.

CLASSIFICATION MANAGEMENT EFFECTS ON ENGINEERING EFFICIENCY

Donald V. Magill

The classification management / engineering management interface is experiencing a change made necessary by the Government's changing approach to the development of defense systems. This new environment emphasizes advanced development and stockpiling of advanced systems and technology knowledge to guarantee a posture of readiness without major financial and political commitment. The result is increased reliance on an increased number of contractor programs that are relatively small and short term. These encompass programs costing from $200,000 to $10,000,000 and lasting for a few months up to two years.

Classification management of these small, short term programs is subject to the same requirements as a major undertaking. But program management, particularly engineering management, is necessarily geared to the program creating new situations for classification management. The objective of this paper is to define contractor engineering management approaches for advanced systems and technology programs and to describe the interaction with classification management as it influences the efficiency of the engineering work.

Some of the engineering management techniques necessary for these programs are:

1. Initiation of technical work in advance of the release of a Request for Proposal (RFP).
2. Comprehensive program planning including alternate paths for schedule and cost shortcuts.
3. Organization configurations enabling operation at the point of critical mass.
4. Methods for rapid access to classified technical data.

With today's competitive conditions, contractors interested in advanced systems and technology programs will often undertake technical work well in advance of the release of a RFP. In many cases this practice is indispensable to a competitive technical proposal. Since a part of a pre-RFP activity is normally financed by burden of government contracts, it is beneficial to the government to

assist industry in making this work as efficient as possible.

Significant benefit can be derived from the release of applicable classification management guidelines in advance of the RFP. Such an information package, issued by the procuring agency, might contain one or more of the following:

1) The RFP number
2) A list of applicable documents
3) Classification guidance Form DD-254
4) An outline of the statement of work.

Early knowledge of the applicable documents and availability of the RFP identification number will enable contractors to make application for needed documents through established channels. This process usually takes longer than the proposal response time and lack of references causes engineering inefficiency and shortcomings in the proposal.

There should be no disagreement that early application of classification guidance to a conceptual technical activity is beneficial. Contractors' and candidate subcontractors' security will be more positively established and preparations for special requirements can be made in advance.

Of particular importance is establishing an approved classified relationship with subcontractors. There have been pre-RFP projects where it was necessary to operate initially on an unclassified basis and reopen the interface when a classified exchange was approved; this approach wastes manhours. Furthermore, an unclassified interface is often so sterile as to be ineffective in motivating subcontractor cooperation.

Delays in clearing subcontractor communication are not exclusively a function of the mechanics of processing requests for approvals. Instead, many delays of consequence result from the implications of classification management on procurement policy. The contracting officer of the procuring agency is reluctant to grant approval to the bidder who has identified subcontracting requirements and has the initiative to request approval for classified communication prior to the RFP. He is understandably concerned with the equities toward bidders during the pre-RFP period. If, however, the policy for making classification management guidelines available was self regulating, the contracting officer's problem would be avoided.

Contractor technical work will sometimes uncover questions of interpretation of classification. Government/industry discussion of these questions prior to the RFP can result in improvements by modification or expansion of the classification guidance released with the RFP.

Finally an outline (i.e., a table of contents) of the statement or work would greatly aid the bidders in preparation for the RFP. For example, if classified experimental work is included in the scope, long lead time is often necessary to evaluate and plan the handling of hardware and arrangements for facilities.

Understandably, the pre-RFP release of information is a burden to the procuring agency. There is the question of the schedule for completion and firmness of the information

previously described. However, it is unnecessary that all of this information be released at one time. Each increment, whenever available, would be valuable to the contractor. If the information is revised when the RFP is released, there still would be a benefit. The contractors will proceed in any event and even inexact, preliminary information would provide a better basis for work than no information. Another question for the procuring agency is how and when to apply the bidders list for early release of information. One approach could be to forward the information upon request from the contractors as a result of a CBD announcement or bidders briefing.

Summarizing this particular issue, there are significant advantages to the Government and industry by improving the effectiveness of pre-RFP contractor engineering work. This can be done by the early release to industry of the applicable classification management guidelines. Perhaps this idea could be explored further by the members of Workshop Number Two at this seminar.

In planning advanced system and technology programs, time and cost constraints necessitate use of existing equipment and facilities. Thus, existing classification management criteria brought about by previous requirements for the equipment and facilities are overlayed onto the new program. With multiple candidate equipments for each function, such as test range measurements or flight test boosters, the engineering planning requires consideration of a large set of classification management criteria. Any increase in criteria tends to add complexity to planning. However, normally these criteria are stabilized and consequently readily understood.

Contractors can avoid engineering planning bottlenecks if data regarding the equipment and facilities commonly used for advanced development purposes are made available by the government and maintained in the contractor's data bank. This would be facilitated by preparation of unclassified documentation. Often the type of data needed is classified because of the connection of the equipment or facility with its past uses.

One example of this type of data is an irregularity in the performance of a ground test facility uncovered during testing of a classified specimen. Perhaps it is an arcjet facility and an unsuspected amount or type of contamination occurred. Another example is the statistical performance of a workhorse booster wherein confidence is dependent upon integrating the performance experienced with a multitude of classified projects. These types of data are normally unavailable for advanced planning purposes because they are contained within documentation that is classified to safeguard the test results, i.e., for the arcjet, results of testing classified material or for the boosters, results of testing classified payloads. The technical effort required to decouple the usage from the definition of the test equipment or facility performance would be an added expense but prudent from the standpoint of planning future applications.

Since advanced system and tech-

nology programs are small programs, the engineering team assembled to do the job is usually at, or just above, the critical mass. A critical mass team contains representation for each of the technical disciplines required to perform the work. Figure 1 is a list of the technical disciplines of a missile and spall system engineering organization set against a group of hypothetical advanced programs. Project A is a program to develop a subsystem such as a heat shield for application to any of several future systems. Project B is a heat shield development for a particular future system. Project C is a missile preliminary design and a R&D plan for an experimental test vehicle. Project D is the same as C but expanded to include an operational missile configuration definition as a model for the experimental test vehicle. In many instances the scope of work supports only one engineer from each discipline during part of or for the full duration of the program. In these examples, the staffing at the point of peak manpower loading would vary from 6 to 8 on Project A, to 25 to 30 on Project D. Project E exemplifies a follow-on to D for the design, fabrication and flight testing of hardware requiring a staff of about 100 engineers. These advanced development program staffs compare to a staff of 300 to more than 1000 for a major weapon system or spacecraft engineering development program.

The large programs normally are managed as autonomous organizations and classification management operates through a single chain of command. If a special security clearance is necessary for the program, it is expected that every member of the organization hold the clearance. The programs base of technical resources and the programs overhead or indirect base is expected to absorb all classification management requirements.

Advanced system and technology programs benefit from a matrix type of engineering organization such as shown in Figure 2. Each technical discipline or group of disciplines reports to a Chief Engineer and each project or program manager is supported from the pool of technical skill. The major benefit from the matrix organization is that there is provision for the employment of a senior or supervisory engineer for each discipline. He is responsible for the technical integrity of the work within his discipline as well as the managerial functions of making work assignments, estimating for proposals, and the maintenance of tools such as computerized analysis methods. By judicious grouping of the small programs, the magnitude of work will effectively utilize the services of the technical supervisor at a reasonable cost shared between the programs.

In matrix engineering organizations, classification management is the program manager's responsibility. If a program requires a special security clearance, it should be expected that more personnel than just those directly assigned to the program would require the special clearance to carry out their responsibilities. Thus, a program scoped to support 8 engineers will make application for clear-

ance for 14 or 16 engineers to effectively operate a matrix organization. Of course additional support personnel would also require the special clearance.

If the security of a project is particularly sensitive, it may be necessary to abandon the matrix concept in order to isolate the staff. The sacrifices in technical efficiency are appreciable. Furthermore, unless extraordinary management attention is applied, the isolated engineer's technical growth will be impaired. He may be sidetracked to assignments that require his clearance status but do not make the best use of his technical capability. He will probably do a fine job in the subordinate assignment but it may be harmful to his standing with his peers; i.e., it may jeopardize his eligibility for career advancement. Consequently, isolation or compartmentalizing an engineer staff has a serious deteriorating effect on efficiency. It is important that government authorities recognize these effects when considering classification management requirements for limited access programs.

The final aspect of classification management to be presented in this paper is the problem of rapidly acquiring classified technical data associated with programs accomplished by procuring agencies other than the sponsoring agency. This situation occurs when the advanced work applies to the replacement (or potential replacement) of an existing system segment or subsystem which causes interface information to be a vital input. Also, it applies when technology is being advanced concurrently by different sponsors in behalf of different system applications or different objectives.

The problem is one of matching requirements to existing definitive documentation; i.e., defining what is needed rather than the processes of acquisition. Perhaps the most difficult type of data acquisition effort is the compilation of classified experimental data necessary as input to an empirical prediction method. In this case the usefulness of the test data is dependent on conditions of the experiment including an understanding of all anomalies. Consequently, the objective can only be achieved by sorting a vast amount of data which may have been obtained by a multitude of contractors and user agencies for a multitude of purposes and over an extended period of time.

It is the contractor's responsibility to identify needed documentation. The sponsoring agency is justified in demanding that the identification be specific, e.g., by report number, etc. But this is often difficult without the assistance of the government. The contractor must communicate the nature and qualities of the data requirements. Often the sponsoring agencies efforts are aborted because: a) the requirement is not sufficiently definitive, b) the data are integral with information requiring special access, or c) the data exists but are not yet documented in deliverable form.

Consequently, this problem can cause a considerable investment of administrative effort and, in addition, the delays in acquisition can jeopardize the integrity of a technical effort.

Frankly, I have no definitive recommendation other than to suggest a liberalization of policies concerning the access by contractor personnel to government documentation centers. This approach would reduce the difficulties in communicating requirements and probably eliminate some of the false starts for which contractors are presently guilty.

In summary, the classification management/engineering management interface can significantly influence the efficiency of engineering. Specifically, there are four recommendations that would improve engineering efficiency for advance system and technology programs:

1. Government release of classified guidelines in advanced of the RFP.
2. Government sponsorship of unclassified documentation of performance data for equipment and facilities commonly used for advanced programs.
3. Avoidance of special access requirements that result in isolation of engineering staffs.
4. Liberalization of access requirements by contractor personnel to government documentation centers.

QUESTIONS AND ANSWERS FOLLOWING MR. MAGILL'S PRESENTATION

George MacClain: I was interested in your comments on providing classified information and classified guidance in advance of RFP and RFQ. To whom would you have this done, inasmuch as RFP/RFQ would go to more than one contractor presumably?

Donald Magill: If the user agency has developed a bidder's list in sufficient time in advance of the RFP release, he could use it as a distribution list for dissemination of this guideline information. However, sometimes it's difficult for the user agency to develop the bidder's list until just before the release of the RFP. But since most advanced development programs are announced through CBB or a bidder's briefing, I would propose that the guideline information be provided to those contractors who would have the initiative to request it.

George Chelius: George, you did mention one thing. You said classified guidance and I think you really meant classification guidance.

G. MacClain: It may or may not be classified guidance. The fact is that I think it would not normally be.

Speaker Unidentified: We've been talking about special access for your engineers or project officers. What did you mean by special clearances?

Speaker Unidentified: If I may, I'd like to dispel this notion that CNWDI are special accesses or special clearances. They are not. CNWDI and other special accesses, or so-called clearances, are merely a practice of the need-to-know principle. The person who has the need-to-know should have access to that information. That is all it is. It may not be practiced that way, but that's what it's intended to be.

Speaker Unidentified: I don't know whether it matters whether you call it clearance or need-to-know. It amounts to about the same thing. I think I'd have to agree with that.

Bob Niles: I'd like to clear up one thing. With CNWDI you do not

TECHNICAL DISCIPLINES	PROJECTS A	B	C	D	E
AERODYNAMICS		✓	✓	✓	✓
THERMODYNAMICS	✓	✓	✓	✓	✓
TRAJECTORY ANALYSIS		✓	✓	✓	✓
GUIDANCE & CONTROL ANALYSIS			✓	✓	✓
ELECTRICAL DESIGN			✓	✓	✓
MECHANICAL DESIGN			✓	✓	✓
STRUCTURES	✓	✓	✓	✓	✓
PROPULSION			✓	✓	✓
BIOTECHNOLOGY					
MATERIALS ENGINEERING	✓	✓	✓	✓	✓
VULNERABILITY & HARDENING	✓	✓		✓	✓
MASS PROPERTIES	✓	✓	✓	✓	✓
EFFECTIVENESS ENGINEERING		✓		✓	✓
TEST PLANNING	✓	✓	✓	✓	✓

FIGURE 1

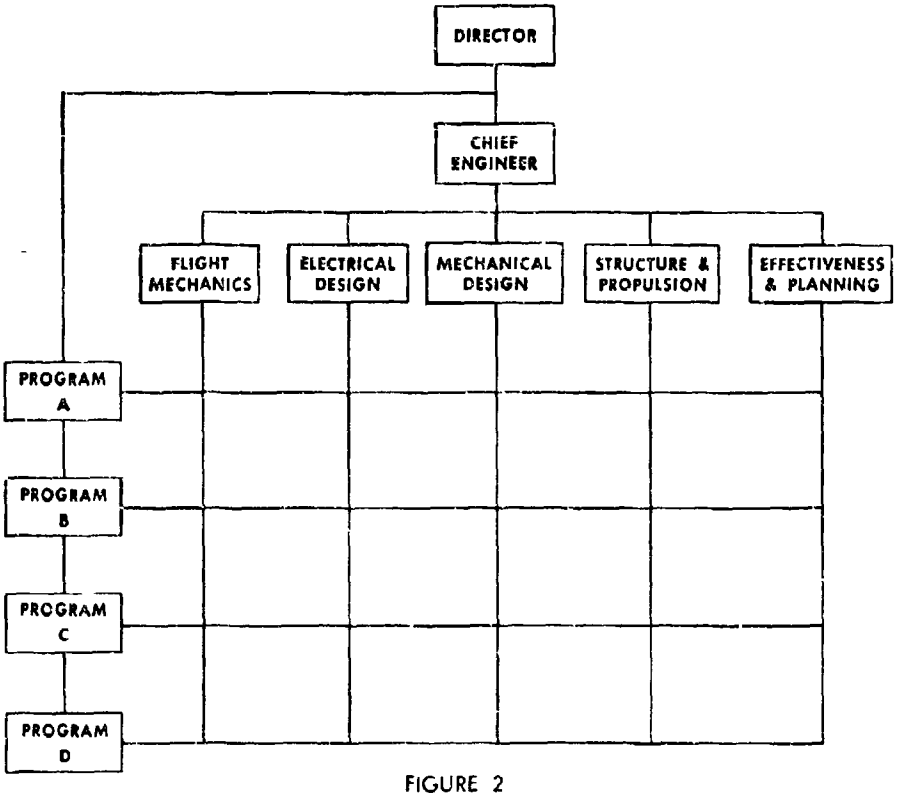

FIGURE 2

clear your entire people for CNWDI. You don't have to. You only have to clear certain people who are associated with CNWDI. We don't have to have a clearance for everyone in our organization. There are only certain ones.

D. Magill: Let's take the example of an activity (or project) involving structure design and effecting engineering. Perhaps the effectiveness engineering people would not need access but the structural designer would need access. However, the man supervising the structural designer would also need the access. That was my point. In order to perform the supervisory responsibilities, the supervisor would need the access as well as the worker doing the work with the data. I guess the real question is, "Do you want good taste or good grammar." Do you want a good technical product or do you want a mediocre one, and so that's the issue. Are we going to cut out everyone who does not physically work with the technical data and jeopardize the technical efficiency of that contract or do we take a look at it and ask, "How can we enhance the product that is finally produced under the contract?" So I think there has to be a judicious determination of whether a person is permitted access or not.

SPECIAL ACCESS POSITION PAPER

R. J. Boberg

The general subject is special access controls. That is to say controls that go somewhat beyond what we consider the classic "need to know" principle. This has been a subject of great interest and some concern to many of our members for some time. It was obvious to me in the rather brief discussion we had following Mr. Liebling's remarks this morning that there is still this concern amongst our members. At the same time I was gratified to hear Mr. Liebling reaffirm the desire of his office to be kept informed of happenings at facilities and agencies throughout the country and to entertain recommendations from industry or whoever regarding any inconsistencies or difficulties in the application or implementation of these policies.

In the latter part of 1969, the Southern California Chapter of our Society appointed a committee to initiate the formulation of a memorandum of recommendations and proposed that such a memorandum be forwarded to Mr. Liebling's office after proper coordination within the Society. It was their intention that this memorandum become a Society position, and would recommend basically that a review be made of the administration of policies regarding special access controls, including CNWDI. What the chapter committee hoped to bring out in this memorandum was a citation of some of the problems that have been created by the proliferation of new procedures that have grown out of the administration of special access controls. They have made an extensive study and, as a result, uncovered

a number of problems. Such things as inconsistencies in the requirements for access lists, including the kinds, classes, or types of persons that might be required to be on a given list. Further, they pointed out examples of programs that require briefing and/or debriefing statements while other programs that are equally identified as special access require no such statements. This is not intended to be a complete listing of the difficulties they found but is presented merely as an example. It was intended that the memorandum of recommendations of which I speak, would request an examination of the special access programs in terms of their consistency and compliance with current view and policy, and ask that a judgment be made as to whether any inconsistencies are, in fact, desirable.

Such a memorandum of recommendations has now been proposed to our board of directors by the Southern California Chapter and this will be a top priority agenda item for the new board. That new board will shortly be formalizing this paper and completing it, following which it will be forwarded to Mr. Liebling's office.

We know, as Mr. Liebling pointed out to us this morning, that the Department of Defense is not unaware of the kinds of problems that we're talking about. It is still important, however, not only to the Southern California Chapter, but to the entire Society that we do point out whatever problems we think can be solved and at least recommend a review of the programs in terms of perhaps clarifying any inconsistencies that may exist.

That concludes my remarks on this. Are there any comments that anyone wants to make at this point? This paper was forwarded to each Chapter for coordination. If you have not seen a copy of it, I would suggest you check with your Chapter chairman. If he doesn't have one just write to Mr. Thompson and he'll be glad to send you one. Thank you very much.

BRIEFING ON WORKSHOPS

Willard N. Thompson

George Chelius: For those of you who had planned to attend the annual meeting of the Sixth National Seminar for a period of one day, as a few of you have, I hope that today's discussions and questions and answers periods have encouraged you to return tomorrow and continue with this seminar. I think you can see how the free exchange of information is important to this Society. Tomorrow we will be dealing directly with policy considerations along with how user agencies and agencies of the Government can more effectively utilize these management programs. I would encourage those who had planned to be here one day, to wait around for the results of the workshops tomorrow if you have benefited from this particular meeting today. Willard Thompson, our program chairman and the Chief of Classification at SAMSO, will now give

us a briefing on the workshops.

Willard N. Thompson: I won't take very long. I think after Mr. Florence's talk and discussion that followed, we can do away with our workshop number three.

One of our main objects is to discuss the classification of independent research and development. Today we've been listening to talks on official policy, unofficial policy and so forth. I think that the reason for this seminar is to learn ways to improve classification management. All of you have your own ideas on how a security classification program should be developed and implemented. There also exists a wide difference of opinion on the retention of classified documents by the contractor at the conclusion of a contract. Some program officers and some classification management officials insist that the documents belong to the Government and that the contractors have no need for retention under any circumstances. Others don't really care what happens to the documents. In my opinion retention is very important. It is a decision which must be made in such a way that the U. S. security program will benefit the most. Probably the most controversial area to be discussed is the protection of non-government controlled technical information. In this area very strong feelings exist.

I am sure the discussions will be stimulating and beneficial during the working periods. We will have three workshops involved. Number one deals with the coordination and dissemination of classified information. This covers a great deal of territory. All of you I'm sure have ideas as to the development, coordination and dissemination of classification guidance which will provide for interesting and productive sessions. The plan is to explore the inter-relationship between Government agencies, user agencies and top classification management personnel with the contractors. The problems of consistency in classification requirements between various user agencies and the DOD will be discussed. We will also explore means whereby user agencies would automatically receive copies of the classification guidance for similar technologies. To moderate this workshop, we have Mr. James Bagley of the U. S. Naval Research Laboratory.

The second workshop concerns implementation requirements, an area of equal importance with the others but probably of more importance to the technical community than the other two. What we will do there is explore the means of implementing classification requirements that have been established by security classification guides, 254's or any other form that is published and is official. We will explore the effectiveness of using redrafts of present guidance against merely redistribution of the guides. We expect to discuss where conflicts in interpretation can best be resolved and explore how the guidance affects all concerned and how best to comply. The moderator for this workshop is Mr. John Uhland of the General Electric Company in Philadelphia.

The third workshop covers protection of documents concerned with independent research and develop-

ment as well as retention of classified material by contractors. This is an area where individuals can contribute a great deal. What we really mean is protection of information developed from independent research that probably will be used in the defense of the U. S. The plan is to discuss problems concerning the retention of classified material upon contract termination or completion and examine the desirability of a retention period of time as opposed to transfer to an active contract or related effort. We also plan to discuss the possibility of the inclusion of a retention clause in the original contract and explore the complexities of independent research that could become a part of a government project. We anticipate discussing how to protect the information where the security of the United States could be involved, whether under a contract to the government or not. Our moderator for this is Mr. Bob Donovan, United Technology Center, Sunnyvale, California.

On Thursday morning the moderators will give a report as to the points considered important and any recommendations they might have. I hope that we can come up with a position paper based on ideas originated in the workshops. I believe that this is a professional society and one of the things we should do is take positions on subjects, and in this way assist in causing necessaty changes. I am sure you will all enter into the discussions and present your ideas so that all may benefit from them.

WORKSHOP NUMBER ONE
DEVELOPMENT, COORDINATION AND DISSEMINATION OF CLASSIFICATION REQUIREMENTS

James J. Bagley, Moderator
Robert E. Green
Robert B. Ruether

James J. Bagley: This panel was given an intriguing assignment—one that bears repeating:

1. Inter-relationships and coordination of classification requirements at headquarters, user agency and contractor classification management personnel levels;

2. problems involved in maintaining consistency of security classification requirements between various user agencies and at the DOD level; and

3. explore means whereby the various user agencies would automatically receive copies of classification guides prepared by other agencies involved in the same body of technology.

When I selected the panel who would address this subject, I deliberately gave them the same assignment on the premise that each of them would approach the problem in a different way and from a different point of view based on their position in the structure. Therefore Bob Green, the first speaker, will look at

the subject from the vantage point of the Naval Material Command and will present you with a very interesting paper which, I hope will wish to discuss further in the question period. Bob Ruether will present ideas from the point of view of a large contractor and I will then be the anchor man.

Robert E. Green: This is the fourth Seminar of the NCMS that I have had the privilege of attending and I appreciate this opportunity to share again with you some thoughts concerning Classification Management. Unlike some of you here, I am not responsible for determining major DOD and Navy security classification policies. I am not responsible for development and implementation of security requirements for major weapons systems—at least not in the usual sense of a principal development and procurement activity. Perhaps my position as sort of a middleman allows a slightly more objective view. At least I hope my observations will strike some responsive and productive chord.

I was particularly intrigued when I first read the workshop statement for this Panel. The three key words, inter-relationship, coordination, and consistency, seemed almost new in context with our previous Seminar material. In fact, I found only one instance in previous Seminar Proceedings where we have seriously looked at Classification Management in these particular terms. I'll have more to say about that single instance later. We have discussed the concept of CM, how to obtain Management support and the qualifications of a Classification Manager. Like nervous honey bees we have flittered and buzzed all around the delicious ambrosia of cost reductions and cost savings, without ever taking a deep draught.

We have beat the poor old DD Form 254 nearly to death in hopes of finding a way to understand it. But happily, in this workshop statement, we come to grips with a seldom addressed but ever-present problem. It is a realization that if we are to achieve consistency in the assignment of security classification, we must first achieve a satisfactory degree of interrelationship and coordination—communication might be a simpler way of putting it—at all levels of Government and Industry concerned with the sciences and technologies which have possible military application. It is recognition also that the information with which we deal may have common interest and multiple application throughout the Government and, in many cases, an equal or greater industrial and social application. It is a tacit and belated admission, I think, that something does come before the DD Form 254 and the agency subject matter classification guide and that we must solve first problems first. Obviously, it is necessary to determine which specific areas of science and technology must be safeguarded in the interests of national security and which areas, despite their inherent military value, have an overriding social and economic impact on a National or International scale and must therefore, be free of security restraints. These determinations can only be made after extensive coordination at the Nation-

al level The definition of such areas might be an appropriate function for a select, Executive Level Panel with each Department of the Executive Branch having membership and a voice in the deliberations. This concept is not unlike the present method of establishing the lists of commodities subject to export controls in which the Departments of State and Commerce, as executive agents, coordinate the nomination and review of candidate material by all interested Government agencies. The output of such a panel might be called a "National Security Classification Index." It would provide the Department of Defense, other Executive Departments and the Industrial and Academic communities some positive guidance with which to insure consistent classification assignments wherever and however designated information is used. Categories of scientific and technical information which are not identified in the "National Index" would be unclassified —that is the information itself would be unclassified. This would not preclude the assignment of classification to sensitive DOD programs in which the information might be used. It would be effective in such instances to utilize the unclassified technology but at the same time classify the extent of DOD interest, the military application, the results achieved and the operational employment. Several areas came to mind in which this technique is being used successfully. Oceanographic research, deep submergence vehicles and basic radar technology are current examples of the use of unclassified information for the benefit of the international community and at the same time using the same basic technology to achieve a variety of highly sensitive military objectives. There is an opportunity to treat many other subject areas similarly, and, more important, to identify those areas in which world-wide technology has over-taken what was once highly classified military information. The extent to which we continue classification needlessly and without benefit needs to be examined as a National problem. In that single other instance in which we have addressed the subject of this Workshop, General Smart from NASA, cautioned the audience at the 5th Seminar last year, that it is highly important that there be interfaces between Government agencies by persons who are privy to all the work being done, to insure that progress is made toward both open and closed objectives. I believe the scope of the problem precludes effective action by individual Agencies or Departments. It is at once a military, political, scientific, economic and social problem. I believe it can only be solved by a select group capable of addressing all of these many facets. One school of thought might claim that if such an Index could be developed, it could not be widely disseminated because by identifying the areas of technology the U. S. considers to be sensitive we would target them for intelligence collection. I don't share that view. I would rather think that the potential of such an Index to correct inconsistent classification, to avoid needless classification and to prevent compromise, far outweighs

its intelligence value. Any nation in the World can identify military intelligence targets accurately from an analysis of scientific and technical literature. They do it now and they will continue to do it whether or not an Index is available. I am not suggesting that the establishment of a "National Security Classification Index" would eliminate the need for inter-relationship and coordination. Within the DOD, for example, the need would still exist for continuous dialogue between the Military Services and DOD Headquarters to insure uniform application of National policies and to insure that the utilization of unclassified technology by one Service does not compromise the interests and objectives of another Service utilizing the same basic technology in a classified project. The DOD Headquarters would also be the focal point for coordinating the nomination of candidate items for inclusion in the "National Index" which originate with DOD activities and for the review of items which non-Defense agencies propose be added to or removed from the Index.

The key words have another slightly different application at the User Agency and Contractor level. Here the problem is more one of uniform understanding of the technologies to be employed and recognition of when and to what degree the information or its application must be classified. We have frequently discussed, and are in general agreement, that a post-award security conference is a useful tool for insuring that the Contractor and the User Agency are mutually agreed on the security requirements imposed in a contract. How often do we actually use this technique? Surely the answer must be "Not often enough!" yet such a confrontation would insure not only consistency in the guidance furnished but consistency in understanding and application too.

There is one more level at which failure to heed our key words can certainly spell the difference between success or failure of a Classification Management Program. It is within the individual User Agency activity and the individual Contractor facility. It is characteristic of defense-oriented research and development that one area of science or technology may have some degree of application in many separate and sometimes quite different projects. The task may be performed by different groups working in otherwise different disciplines. Failure to recognize possible interrelationships between tasks in the same activity and delay or failure to correlate security guidance when similarities exist can lead to inconsistency in classification assignments and possible compromise of sensitive information. One of the major functions of an activity Classification Manager is to prevent this from happening by being aware of all sensitive projects undertaken by his activity, by establishing constructive dialogue with project managers and engineers and by issuing timely guidance which is consistent with the multiple use of the information. It is most probable that changes in our hypothetical "National Security Classification Index" would emanate from incon-

sistencies first noted and reported from this level.

In our pre-occupation with formal task assignments and contracts there may be a tendency to overlook security requirements for independent research. There will be no Technical Development Plan or DD Form 254 to provide classification guidance for these projects. The Classification Manager must root them out and having done so, must relate them to other applicable classification guidance. If the subject of a particular project is so unique and new that no appropriate guidance exists, it must be developed. It may warrant attention of the suggested Panel for inclusion in the National Index to insure its future protection. The importance of safeguarding at this point cannot be over-stressed. We cannot always predict where research in new fields is going to take us. The need for classification must constantly be considered to avoid losing the advantage of significant developments.

These are some of the ways our key words apply to Classification Management. We all know what the words mean and how to make them work; but it is a difficult and time-consuming task which too often is neglected in the effort to satisfy the daily workload pressures. The extent to which we coordinate guidance was indicated to some degree in the recently completed DOD review of DD 254's. One portion of that study revealed that the number of other guides reviewed for coordination was less than 5% of the total number of DD 254s reviewed. Given a proper priority it seems that this figure should and would be much higher, as would the degree of consistency in all classification guidance. It rests with all of us to see that proper emphasis is placed on interrelationships, coordination and consistency at each of the levels we have discussed here.

In my enthusiasm for the first part of the Workshop statement I have little time left to discuss the dissemination of classification guides. This doesn't mean that I place so little importance on this function of classification management. I believe that the existence of classification guidance on a given subject should be made known to all activities likely to be involved with the same subject. However, it does not seem possible for the originating activity to anticipate the needs of others and make automatic distribution. Nor does it seem reasonable for an activity desiring information to have to canvass the Government to determine where such information is available. One possible solution might be to place all security classification guides, classified or unclassified, in the Defense Documentation Center collection. The machinery already exists for Government, Industry and the Academic community to have access to DDC upon certification of need and designation of selected Fields of Interest. This system would appear to be tailor-made for secondary distribution of classification guides.

In the rare instance where even the existence of a classification guide on a particular subject must be highly classified and closely held, the originator could be authorized to exempt

that guide from DDC holdings and assume responsibility for any secondary distribution. I would hope that there would be no classification guidance that would have to be withheld from Classification Management officials at the Departmental level of Government where further distribution could be strictly controlled. I would not exclude Industry and the Academic community because of the independent research taking place there which may be similar to Government developments. Until such a system could be implemented it would be helpful if Government Departments would exchange a listing of currently available guides which they had originated. The Department of the Navy currently publishes an index of classification guides which in the last issue identified approximately 135 guides. My latest grapevine information indicates that DOD is compiling a Tri-Service index which, hopefully will be available soon.

I'll conclude my remarks by plagiarizing one of Washington's sports announcers who says, "My time is up —I thank you for yours."

Robert B. Ruether: Contractors today are beginning to include classification management as part of their security program. This is due to the effect such a program has on controlling administrative and production costs. To maximize these savings, contractor participation, in developing classification guidance on major contracts, is essential. However, some contractors need customer encouragement to enter such discussions before a contract is signed. This reluctance is caused by the contractor's concern not to ripple the water during contract negotiation.

The preparation of Classification Guidance should be governed by one ideal, "communication". This simply means identifying the security classification of information and/or hardware in clear, concise, non-technical terms. Each classification specification should stand on its own, as much as possible. Where interpretation is called for a simple example will often convey to the reader the manner in which he should interpret the information for classification purposes. Remember the readers of the classification specification run the gamut from engineers to technical writers; with one day or twenty years experience. To accomplish "communication" your classification specification must be written so it will satisfy the needs of these extremes.

In discussing the use of the DD Form 254 let's look at the definition in the contractor's security manual; the INDUSTRIAL SECURITY MANUAL FOR SAFEGUARDING CLASSIFIED INFORMATION (ISM), which states "the completed DD Form 254, attachments and/or supplements, is the basic document by which the classification, regarding and declassification specifications are documented." Too often a contractor finds the DD Form 254 is used just for that purpose. Unfortunately, this means other security instructions such as: (1) classified document retention; (2) processing of classified visit requests; (3) special document handling; (4) special access requirements, such as briefings/debriefings; and (5) special shipping instructions, are

buried somewhere else in the contract document.

Should security for that contract rest on the shoulders of a clerk in a contracts department? Which contracts, of the hundreds received by a major contractor, will include such security instructions? Contractor security officers would like the scope of the DD Form 254 enlarged requiring all security instructions not part of the ISM to be included and made a part of it.

This leads to the heart of another problem, namely locating the DD Form 254 once it is sent to the contractor. It seems ironic that the ISM requires a contractor to appoint a security officer to "supervise and direct security measures necessary for the safeguarding of classified information" and then studiously ignores him in the dissemination requirements for the DD Form 254. You cannot imagine the administrative problems associated with the location and identification of a DD Form 254 within a multiple facility. The problem is compounded by User Agencies who fail to include the DD Form 254 in the contract document; sometimes sending it by separate cover; or never sending it at all. In fact there is no clear cut way of identifying a classified contract, except by laboriously reading each and every page, looking for a security requirements clause. Once this clause is identified the contractor at least knows it is a classified contract. Then correspondence can be exchanged to obtain a copy of the DD Form 254 for that contract.

Let's take the mystery and administrative cost out of identifying classified contracts. Change the government regulations. Make it a requirement that one copy of the DD Form 254 be sent to the attention of the Contract Security Officer. This would at last recognize that each contractor has a security officer who has the responsibility to insure the implementation of security procedures necessary to protect classified information within his company's cleared facilities.

Let's be bold in our approach to security. Classification management, at its best, reviews government agency and contractor working environments and writes classification guidance to fit each environment. To effectively accomplish this, the communication gap between government agencies and contractors must be bridged. Why should security requirements be continued that add nothing to security, except cost?

An illustration of such a communication gap, and the thousands of dollars wasted without benefiting security, is exemplified by the recent DOD emphasis on the annual review of all classification guidance issued. The well-intentioned objective of this program was to insure currency of guidance so that information and hardware could be downgraded and declassified where applicable, in a timely and efficient manner. Local DCASRs were assigned the responsibility to act as monitors by checking the date of issuance of each DD Form 254 on a contractor's active contract list.

However, let's look at the adverse effect this program has had on each contractor and contracting officer. A

contracting officer conducts an annual review of the classification guidance on a contract and advises the prime contractor by letter to the effect "no change". The prime contractor annotates his records and prepares revised guidance for each sub-contractor. In this example let's say he has four subcontractors. A letter or DD Form 254 is prepared which in effect states "no change"; but it cannot be written, signed and sent by the prime contractor. Therefore, it is sent to the contracting officer for signature, and then returned to the prime contractor for subsequent dissemination. Each subcontractor annotates his records and prepares revised guidance for his subcontractors. In this example let's say each subcontractor to the prime contractor has four subcontractors. Ad infinitum! Our horrible example now has run to 21 letters that must be exchanged, each signed by the contracting officer, each stating "no change". Much ado about nothing!!

Multiply this by thousands of classified contracts and we can clearly see the tremendous expenditure of time, talent and money this well-intentioned program has caused. All of this waste could have been avoided by a simple re-wording of the requirements.

I said earlier we should be bold—now I am proposing the application of classification management principles to the security regulations themselves.

A review of security regulations governing all aspects of contract management would identify several security regulations not touched on here that need to be revised or eliminated.

One suggested way to review our security program to try and make it read like it is would be by government sponsorship of government/industry workshops to study proposed changes to government security regulations. Such a program would make all of us take the time to study, review and probe our security regulations on the value each contributes to improving security against the cost of implementing the regulation.

In summation:

(1) Write your classification guidance to fit the procurement stating what you mean in clear, concise, non-technical terms.

(2) Change government regulations requiring all security instructions to be included as part of the DD Form 254.

(3) Change government regulations requiring a copy of the DD Form 254 to be sent directly to the Contractor Security Officer.

(4) Modify government regulations eliminating requirements that add nothing to security but cost.

(5) Develop a government/industry program where the security regulations can be studied with the ultimate aim of developing consistent and meaningful security regulations directing both User Agencies and Contractors.

James J. Bagley: In today's world, all of us must ever be aware of the need to save money and to reduce overhead and operating costs. One of the ways this can be done is through communication—to make others aware of what is being done and to learn from the experience of others. While there is little definitive data on

security costs, all agree that security is expensive. And one of the ways to keep security costs under control is through good classification management programs. In this context and accuracy and completeness of security guidance and the exchange of information between user agencies and contractors, between user agencies and between contractors is a vital necessity. While it is not always realized, the transfer of information on security classification guidance is a major part of the information transfer problem. After all, information cannot be transferred if there is an impediment to transfer and removal of an impediment is a classification management function.

Not too long ago, while watching Charlton Heston playing Moses on the late, late show (after being lost on the freeway for three hours) I thought there should be a ten commandments for classification managers. Here they are, with no pride of authorship:

First. Assignment of proper security classification is a vital part of any technical project.

Second. Security is a costly overhead item regardless of how pure the motivation.

Third. Proper classification can be determined only by conscious effort by all parties concerned—never capriciously, never in isolation, never arbitrarily.

Fourth. Proper classification can be determined only by full consideration of all pertinent factors; among which are—the availability of existing information, the threat, the need, foreign capabilities, practicability of classification.

Fifth. Classify only that information which must and can be classified.

Sixth. Classify information, not things.

Seventh. Coordinate with all interested parties.

Eighth. Announce classification determinations in clear and simple terms.

Ninth. Review frequently.

Tenth. Declassify and free the information of restrictions.

It is now appropriate to look at the classification situation as I see it from my vantage point, which represents a good cross-section of government classification practices as I deal with a majority of agencies which have the authority to classify. Since we last met, I've seen a substantial improvement in the number of guides furnished on various projects—large and small. In general, the guides are excellent in clarity and completeness. Hardly a day goes by when I don't receive a guide for one project or other. This is particularly true of the military departments and it shows that finally the existance of DOD Directive 5210.47 is being known. And of greater importance, the departments are publishing the word. The best information comes from Project Managers of large projects. But there is a hidden pitfall in this that you should be aware of. A large project usually covers a wide area which comprises many subprojects and tasks. A security guide of such a project generally covers a wide swath of information and does not cover the fine structure of information. When sub-projects and tasks are parcelled out to several agencies,

there is a tendency of these managers to rely on the master guidance and not issue supplementary guidance. This should be avoided.

In an earlier paper (NCMS Vol IV, No. 2—1968, p 101), I suggested that classification is susceptible to systems analysis and that all project and programs should be broken down to the smallest piece possible for classification determinations and each determination made must relate to the project as a whole. Only then can there be real consistency.

The subject of inter-relation of classification guides leads to another subject—to explore means by which various user agencies would automatically receive copies of other agency guides prepared on the same body of technology. The main problem as I see it is the old question of need-to-know. Do all agencies have a need-to-know for information on all the projects that embody the same field of technology. It is a question that deserves considerable study. However, there are some parts of the question which have already been answered. DOD directives now require that a copy of each security guide be sent to the Office of Classification Management. Navy directives also require that Navy-originated guides be sent to ACNO (Intelligence); I'm sure that the other services have similar requirements. But another question comes to mind—is a DD 254 a guidance document and if so, do the various headquarters desire a copy of each 254 that has been issued? If so, I can see the sides of the Pentagon bulging from all the paper—originals, revisions and finals. In other words, the problem of automatic distribution requires far more definition than now exists; and it is a very complicated problem.

Finally, I will address a problem which all too often exists both in government and industry, but the most serious effect is on industry. This, of course, is the situation wherein a single contractor will have similar contracts from different user agencies and the guidance is not only different, but in conflict. This is a very real problem that happens unfortunately, all too often, although the situation is not now as bad as it was a few years ago. The solution—there are many and I personally feel that the contractor must take the initiative to get a solution. However, it also must be recognized, that many contractors don't desire "to rock the boat" and get the user agencies mad. If this is the situation, then the contractor has no one to blame but himself. On the other hand, he has several avenues of solution—pointing out the discrepancies in the periodic inspections; calling a meeting of the agencies to have the situation resolved around the table; and, as a last resort, appealing to DOD for solution. In any event, conflicting instructions from different agencies can only serve to nullify the classification management program and nullify the security system. I feel that all of us in the business must guard against generating such confusion.

SUMMARY OF WORKSHOP NUMBER ONE

James J. Bagley: Particularly after a night on the town. I will summa-

rize briefly what happened with my panel yesterday and give you no positive conclusions, or should I say no positive recommendations, but I think considerable food for thought. In his paper, Bob Green presented two very intriguing ideas which I think deserve far greater study than we can possibly do here. If implemented, his ideas might go a long way in solving some of our basic problems. What he suggested was that there be a National Security Classification Index wherein critical technical areas could be identified at the national level, and a national classification position established. There is a possibility of a mechanism for this already in existence; that is, the Interagency Committee on Classification, established a year or so ago, consisting of the AEC, NASA and the DOD. This could possibly be a vehicle for addressing such a problem. In addition, I think we have ample precedence for such an action and I would like to cite just one or two as examples of what might be done. In existence are the committees of the National Academy of Sciences and National Research Council which do address problems of this sort. In existence is the National Space Council which takes an overview of the nation's space programs. The National Oceanographic Council does the same thing with respect to oceanography. I think if such a committee was established, then you would have classification being considered simultaneously with the research itself. Another idea which he advanced which I think deserves considerable merit is the possibility of depositing classification guides in the Defense Document Center. Again, there are precedents. There is already a mechanism by which the DDC controls the secondary distribution of technical reports. They are also the repository for reports of all on-going R&D work done within the Department of Defense, the Research and Technology work unit system. There is already a mechanism by which this is exchanged throughout the government and made available in varying degrees of availability. In this manner then, the guidance for these things could also be accomplished. I think it would take merely a change of the existing DOD regulations which are now, for the umteenth time, under revision, to accomplish this fact. And it would not be inconsistent with additional responsibilities for the Defense Documentation Center which are being considered now. He discussed specific recommendations by which guidance would be furnished in clear, concise, untechnical terms that would be applicable to both technical and non-technical people. He also advanced the proposition, which I think needs greater study (and I do not know whether it's entirely practical) of requiring that all security instructions become part of the infamous DD 254, inasmuch as it is a contractual document. Modifications, implementations, actions and so forth do have an impact and therefore become a contractual problem. He also said why not send a copy, and require that a copy of DD 254 be sent to security offices. I submit from the Government's side (I'm not speaking for the Government, but being a Government type) that there is no limitation of the dis-

tribution of the DD 254. There is a mandatory distribution. The secondary could be made anyway you wish. He also said, and used as an example the no-cost review, that there should be greater emphasis placed on the probable and possible impacts of regulatory change; and I think this deserves considerable study. And he said, to develop a mechanism whereby at the working levels, not at the prestigious level, a mechanism by which meaningful dialogue can take place, such as we are doing, between industry and government people in order to resolve problems. Not in a contractor to user agency sense, but a mechanism for reform such as we have here. I think it deserves greater study. There's an anchor man in this particular group: I offered without particular pride of authorship ten commandments which I think might well be useful to somebody, providing of course that the grammer is cleaned up. And I would like to close by making one casual but pertinent comment. Would it not be nice if the industrial security regulations recognized the existence of classification management. Thank you.

SUMMARY OF WORKSHOP NUMBER 2 IMPLEMENTATION OF CLASSIFICATION REQUIREMENTS

Charles Uhland, Moderator
A. A. Correia
Frank Marlor
Herb Herron
Captain James L. Stehn

(Note: Technical problems occurred in the attempted recording of this workshop's presentations and discussions. Therefore, only Charles Uhland's summary (which is excellent) of what went on was available for these printed proceedings.—Editor.)

Charles Uhland: It was generally agreed by Workshop Number Two that the implementation of classification requirements could best be accomplished by the prime contractor at the contractor level by supplementing the DD Form 254 with classification guides and other directives and with classification presentations at various levels of effort such as: program office, engineering, manufacturing, and quality control. Coordination of classification management with program office and technical people at the outset of a program would save time and money and ensure proper classification and timely application of it. It was emphasized that prime contractors must be careful to give adequate classification guidance to their subcontractors by creating new DD Form 254's from the prime DD Form 254, restricting the guidance given the subcontractor to the area of the subcontract involved, and elaborating on the subcontractor DD Form 254 with particular written guidance when deemed necessary.

We also agreed that classification awareness be kept alive over extended periods throughout the life of the program by continuing educational effort, especially when changes in levels of classification are involved. Now THAT'S a God and Motherhood statement if I ever heard one.

The conflicts within classification guidance should be resolved at the local level whenever possible—program office, technical people, and classification management agreeing. If a conflict cannot be resolved at the local level and must go back to the customer, a coordinated effort must be made, with classification management contacting the customer's program office classification branch simultaneously with the contractor's program office communicating with their counterparts at the customer level. Keeping all persons concerned cognizant of what is going on is the best way to avoid confusion and hurt feelings. ANOTHER God and Motherhood statement. Besides, Item No. 11 of DD Form 254 says we must go to the customer classification people for additional guidance. Finally, that when discrepancies are found in guides or DD Form 254's and the prime contractor feels that the customer has improperly classified an item, the contractor should immediately bring the indicated problem to the attention of the customer. The sooner the problem is brought out in the open, the sooner it will be resolved—with less expenditure of funds. This action by the contractor was encouraged again and again by Government representatives present at the workshop. It was indicated that the thought of the contractor being reluctant to come to the customer with a legitimate problem upsets the customer a great deal more than the complaint itself.

When time is of the essence, a contractor may issue a temporary DD Form 254 to a subcontractor without an ACO signature, provided he submits simultaneously a duplicate DD Form 254 to the ACO for his signature and follows up the temporary form to the subcontractor with a legitimate one after the ACO signature has been affixed.

To summarize, Item No. 11 on the DD Form 254 indicates the person or office to be contacted to resolve all classification problems. Preliminary Form 254's may be issued to subcontractors in advance of the legitimate ACO signed DD Form 254 to prevent a time lag. Coordination between classification management and technical people at the beginning of the program saves time and money, and it gives the additional assurance that we will have a good classification program.

WORKSHOP NUMBER THREE
RETENTION OF DOCUMENTS AND CLASSIFICATION OF INDEPENDENT RESEARCH

Robert Donovan, Moderator
Joseph Brantley
O. P. Norton
Wayne Wilcox
Dean Richardson

(Note: Because of technical problems in the recording, not all portions of this workshop session could be transcribed. Though there are omissions, it was felt that much valuable information was contained in what could be transcribed and it is thus reproduced below.—Editor.)

O. P. Norton. Four things are important. First is security and safety; second, orderliness and cleanliness, third, production; fourth, quality—and in that order. Take care of the first two and the others will come right along. Now in that sense security can and must play an important and primary role in the subject and the solution and the handling of retention of classified material. But, at the same time, I insist that primarily we are talking about a matter that has to do with control of information and the proper handling of records in general. Inasmuch as there is a mutual interest and responsibility on any team for all members to do their part, I call attention of the industry members to a quotation by an individual who I believe is generally considered a foremost expert in the field of organization and management in respect to business and government, institutions, and organizations: Peter Norton. The quote is this: "Public regulation is effective only in stopping abuses. The problem is to establish the proper use." This fact will not prevent government regulation, however, if management fails to take responsibility first. It only means that regulation when it comes will be of necessity purative and restrictive. Another part of our problem here, is the fact that the decision-making process, the problem-solving process, when a government/industry problem is involved is a good deal more complex than some of the very complex problems and decision-making matters that we deal within our own organizations. To that extent it is particularly important and I believe applicable that we approach any of these problems accordingly to the formula if you will or the process that has been well established for making good decisions. There are any number of them, but there is a process involved. The questions we should ask as we proceed in examining problems and in arriving at possible alternatives, adopting a final solution should be in accordance with a regularly accepted method of arriving at good decisions.

In conclusion or summary, I am very strong in the opinion that our document retention considerations should be first of all and primarily looked at as information problems

Information is the life blood of the organization. That implies control of this essence in the same way that the psychological systems of each of us can only function best f[or] good health if there is control. Secondly, that excess paper—both that which is in motion and flowing in an organization as well as that amount which is in the files somewhat inactive or completely inactive—that in either respect, excess paper is one of the major unsolved problems of management today and the directions that we take, the solutions that we find with respect to overall excess paperwork problem is one that would be most applicable to the matter of classified document retention. And finally, that which you will hear expressed by others, I sincerely hope also, that a group of security people will take hold of this particular problem even though it has dimensions which are beyond this specific field of security and solve it for their organizations and in the interests of national defense. Thank you.

Wayne Wilcox: Let me provide a little background here. This is not a new subject—it has been with us for many years. One of the more recent attempts to solve this problem was done by NSIA which in April, 1968 prepared a report which was presented to Mr. Liebling on May 22nd. In this particular study we in NSIA concluded that if a facility has an active facility clearance, has documented its technical fields of interest capability, and is responsive to User Agency requirements, that such a facility should be allowed to retain only documents within the scope of its schedule. Such has been our discussions with Mr. Liebling who, and as far as I'm concerned, is keeping his word about relief to our problem.

I'd like to state the position that in this particular point in time industry is not entitled to retain all the classified material it wants. And this is why I feel this way. First of all, as we discussed yesterday, looking at the Executive Order 10501, classified information is the property of the United States Government or it cannot be classified. So the Government must have a proprietary interest in the information and that's what gets us into the problem of IR&D. Without IR&D I would never classify. I don't care where the reference material came from, I'd protect it. But when you spring it on the Government that way one of two things is going to happen. The Government likes it or wants it or you wind up with the User Agency a suming a classification cognizance. On the other hand, the Government's not interested and you get it back and it's not classified and you are home free.

The second reason I feel like I do relates to record management. Most cleared facilities do not have it. Our engineers and our scientists as a group are renowned pack rats—they keep everything they get their hands on—unless by some mechanism you make them go through, clean out the shelf, throw it away, so you only keep that which you really need.

The third point is that continuous unlimited retention is going to increase your costs and a slice of it is going to be passed on to the Government in the future. You will have to

buy more cabinets and that will increase your costs. You will have to have more floor space dedicated to set those cabinets on that is going to increase your rental costs, and you are going to have to hire more people to keep track of what you have got. But I submit: if you aren't going to be using it why are you keeping it?

Then, fourth, and maybe most important, is the classification management aspect. The Government must know who has what so that effective downgrading and declassification actions can be taken. I think Mr. Liebling is living up to the promice he gave us in NSIA to give us some relief. He is seeing that the contracting offices are being educated into their part in this problem so that the capricious decisions are becoming fewer and fewer. We had proposed a method to industry whereby we can appeal to the third party on the adverse decisions where we could essentially go around and over the PCO's head. But before we can go any further in granting this utopia I think industry now should demonstrate it can live up to its side of the bargain. We have to show that we can and we will screen our material and request only that which is important. To identify properly what we keep so the Government knows what we have for classification guidance. On a continuing basis we must show that we can provide effective systems for downgrading, declassification, or updating the material on hand. And, that we will ultimately destroy the information when it no longer has a real technical value. I think it is only until industry does this that we can honestly ask the Government to give us utopia.

Joseph Brantley: I would like to tell you briefly the primary mission of the classification management specialist of the DCASR office. There are eleven DCASR's and I think we agree on one thing: our primary mission is to assure that the contractor is furnished timely, adequate and current classification guidance on contracts, RFP's, IFB's. There are other things we become involved in, such as the accuracy of the 254, that it is properly filled out; and, last but not least, is retention problems. I might say this, I for one in DCASR Los Angeles, have over the years changed from where I didn't think the contractors should keep anything to where we now believe they should keep everything for which there is concern or purpose for either the Government or the contractor. So to this end we are willing to help as much as we can. I found a large contract in this area was turned down by a PCO in this area on retention of 85 Secret documents and some 65 or 70 documents upon completion of contract. The contractor came to me and he said we need these documents; we review our holdings on a 90 days, 6 months, 9 months basis; we destroy every month between two and four thousand documents, and I'm saying Secret not Confidential; we have excellent accountability, and we would like to go back to this PCO. We need your help. So I agreed that after I talked to the industrial rep in the field and he verified that, yes his contractor did everything he said he did and even more, we went to the PCO and

obtained a Government appointment with him, the manager of security, the industrial security representative that was charged with the responsibility of getting the retention authority and myself. I very briefly told the PCO that in this particular contract the contractor had destroyed 150 Secret documents which he had received and generated under this contract and he had destroyed approximately 200 Confidential documents that he had received and generated and that he was asking for three copies of approximately ten documents and one copy of all the rest of the documents and it was all a reasonable request for retention and the PCO said: "I agree with you." He said the problem was that the contractor didn't tell me these things. The contractor sent in an IBM list which currently identified the titles and the number of copies he wanted and the PCO said I felt that he wanted to keep a copy of everything he received and generated under this contract. So really what I am saying here is, it's a matter of communication between industry and the PCO. Now in other cases, and we're not miracle workers in DCASR, in other cases the contractor has argued with the PCO and he has been turned down; he's come back the first, second, third time and been turned down three times; this is like two weeks after you have been bitten by a rattlesnake—it is not very easy to help you but if you can figure out the proper time to request DCASR's assistance, I feel that every DCASR will help a contractor if help is warranted. We are not only there to see that you protect your classified material but are to help and to serve you.

Dean Richardson: I appreciate being introduced as on the immediate right. I consider what I have to say something that may make you consider me a little bit on the far left. I do not agree, and I have told this to Joe Liebling—so I'm not telling tales out of school about something they can't argue on. I do not agree that they have done everything they can to improve the situation. The System that we are living under now is bureaucratic, based on archaic concepts that industry can't afford to live by today. The whole concept that you see in the ISM section concerning retention is based on a concept that contractors can afford to warehouse documentation. The only people that can afford to do that are those kind of people who are in that business. Namely universities and libraries whose business is that. Industry—the people that create, make and market cannot afford the money it takes to handle excess non-essential documents. We have tried since 1958 approaches to AIA, DIA, ASIS, NSIA, and others. There has not since the darn thing was written been a significant change in the retention requirements in the manual. We have got to take a dramatic new approach. Industry and government itself cannot afford the handling costs. I just had to take a twenty percent cut in my budget. Fortunately I only had to lose one clerk. Next time around—it's coming and all of us know it's coming unless there is a big business turn around—if I have to cut another clerk, I'm not going to be able to

satisfy the terms of the INDUSTRIAL SECURITY MANUAL the way they are written. I'm not doing it now and not one contractor in this room is honestly following the theoretical approach that is expressed in the ISM. The dramatic new approach has got to be along these lines and this is my proposal. That the criteria be established in the ISM for retaining classified documents, it's already established in the INDUSTRIAL SECURITY REGULATIONS 7-106*

*From the April 1970 issue of the ISR (DOD 5220.22-R).—Editor.

—and let me just read it quickly. Material that will ". . . enable the contractor to develop future proposals for prime or subcontractors based upon technologies gained in the scientific and engineering fields which have been documented . . ." The other one is maintain an effective technical library which will be in consonance with the objectives set forth in DOD directive 5100.36. Eliminate the entire section in the manual and go from scratch. Set forth criteria upon which the contractor can determine what he can keep or what he can't keep or what he shouldn't keep, then require the contractor to establish an effective management program and direct DCASR to implement this program. The DCASR is the policeman; he polices every other function—he polices your closed areas; he is not an engineer but he knows what the book says about a closed area. He should be required to do the same thing on retention and get all the other people out of this program. They don't know what you need to keep. He knows because he is in your facility every two months or every four months. He knows what kind of records management system you've got. If it is a good one he'll be able to say whether or not you need to keep material or whether you don't need to keep material. But he's the guy in the field. He can do it. The man back in Washington doesn't need to know whether you need to keep this material that some people call marketing material because he's got no interest in it. Think of all the documentation that is not contract related. You can't get a contracting officer to give you retention authority on something he can't pin down to a specific contract. There is not one in the country that will do it. Think of this that we call marketing data. Now every one of your marketeers has probably one or two cabinets full of material that he has to use on constant research and he continually throws his stuff away as it becomes obsolete, and it becomes obsolete in months not years. Take research and development data that is not as independent as some of us might think it might be that does want a classification. You have to classify it—nobody assumed responsibility for it but it relates to classified programs. Think of the material that your engineers bring back from a laboratory; and don't think this doesn't happen or you've got your head in the sand. One of the technicians in the laboratory has said take this back and fly it to your program, you need it. Now where is he going to get retention on that. Don't think that guy in the laboratory is going to give it to him either. Think about the training ma-

terial, your special access program, the other special programs' classified material. No contract relationship. Now let's go back to something that is contract related—customer acceptance. Sometimes you don't get customer acceptance on your product or your report until six months after the darn material is delivered. But you are required to reconcile your classified material immediately upon final delivery of goods and services. What about the warranty of the products. Think of all the history that you have to have in order to recreate the situation and all the testing data that you have to have in order to determine why didn't this thing live up to warranty. It's just like the doctor destroying all of the patients records when the patient gets well. So you see you've got two things here that somebody on the scene has got to make a decision on. Not the contracting officer, he's got too many other things to do. We have got to look at a dramatic new approach. There's no approach that has been tried now since 1958 that has been accepted and workable. We are all kidding ourselves if we think the theoretical approach outlined in the manual today is working. It is not working. So I reiterate, we must set forth a new criteria for retention, set it forth clearly in the manual, such as it's stated in the INDUSTRIAL SECURITY REGULATION to enable the contractor to develop something on which the DCASR inspector can base his decisions. Then you require the contractor—and you require this if he is going to have classified material in his house—to have reliable records management programs. And this is going to save him dough although it may cost you a few bucks to develop it; but its got to save you money. And then the last thing and the most important thing is to require DCASR to implement and carry out this program based on the concept that was stated by Col. Cobbs many years ago—that you can't build a manual to satisfy every contractor. Every contractor has to have waivers on certain conditions. Who makes the waiver and who makes the decisions. Now who makes the decision in your plant on getting equivalent storage cabinets. Not the contracting officer, but the chief of the DCASR of your region. So give him the responsibility, make it part of the check list on the recurring inspections. He can determine what you need and what you don't need. That's my proposal, thank you.

Robert D. Donovan: Thank you very much Dean. There is an excellent little book out—been out for several years—that should almost be required reading for people who are members of the National Classification Management Society. It is called MEN AND MACHINES IN MODERN TIMES and if you haven't had the opportunity to read it, I suggest you do so. But there is one little reference they are making that I think is appropriate for the subject matter for this panel. They put out an example of during the dark days of World War II and right after the fall of France when the situation was pretty critical in Britain; they had mobilized all the weaponry they could find and some of it included our ancient artillery pieces—even going back to the

Boer War—which they mounted on trucks and moved up the coast for defense. And in an effort to improve the firing pattern for these ancient artillery pieces, they sent out an efficiency expert to review these and in particular the battery that had some of these old Boer War pieces. The efficiency expert was quite puzzled over some of the routines they were to use to the point where he even took some motion picture photography of them. And they went back and they studied it and they couldn't come up with an answer. So they finally got hold of an old retired artillery Colonel who dated from the Boer War time and asked him to review the films and they watched this interesting pattern where the gun crew went through their loading exercise and suddenly two men ran away from the battery, stood at rigid attention, the piece fired and then they ran back. They watched the sequence several times and the old Colonel looked at it again and he said rerun that section again. So they reran the section again and he looked at it again and he said, "Ah, I know, they are holding the horses." I think what this does point out is that in many ways some of the sections that you find in the INDUSTRIAL SECURITY MANUAL perhaps border on the situation where someone is still off holding the horses. Perhaps, they have not, shall we say, been brought up to modern times to deal with some of these situations that Dr. Welmers has touched upon in his talk—that certainly have been covered in this seminar and in previous seminars of the National Classification Management Society. In this sense particularly I think its true of your retention requirements where in spite of the fact that in 1966 the concept was clearly stated as changed from protecting things to protecting information. But paragraphs 5. l. and m. still are dealing with things—documents, not with information. And as we all know, information comes in many forms and not necessarily in bound or unbound documents.

SUMMARY OF WORKSHOP NUMBER THREE

Robert Donovan: After listening to the presentations of the first two workshops, I have the distinct feeling that perhaps I was in the wrong group. It certainly was not all sweetness and light in Workshop Number Three. I'm not saying that we generated much light, but we certainly did generate heat. The other day we were privileged to hear another of Don Woodbridge's amusing talks about some thoughts on classification and particularly, his descriptions of the strange tribal rites that we practice in applying security classifications. His remarks struck me as being very appropriate to the Workshop topic in a number of ways. After having moderated the three separate sessions yesterday, I think it is perhaps more apparent now how strange some of these tribal rites appear to others. In addressing myself to the first topic, which was the retention of classified material, there were four panel members and consequently, four separate and distinct opinions evolved on how the retention problem should be resolved. By exercising my prerogative as moderator, I'll try to summarize the results of the talks as well as some of the remarks that were

made from the floor. I present this consensus with the stipulation that there are probably at least three, if not perhaps four, dissenting minority opinions. Essentially, the consensus is that paragraphs 5.l. and 5.m. of the ISM, which have to do with the retention of classified material received or generated in connection with proposals and contracts, are completely inadequate, and fail to deal with the real world in which we must live and work. There is the supposition inherent in these two paragraphs that they encompass all classified material in the possession of a contractor—which is really not the case. Not only do you have the broad-base research programs of the three military services within the DOD which give contractors access to classified material, but you have a variety of other circumstances where your own people are preparing company-funded technical memoranda, technical reports, trip reports and the like involving the extracting of material from a variety of sources including some which are classified. This is derivative classification but the resulting reports are not necessarily contractually connected documents or can a specific User Agency always be identified. While I don't think it could be considered as a majority opinion, the leading minority position is that paragraphs 5.l. and 5.m. of the ISM should be re-examined with a view towards eliminating the requirement to request written retention from the using contracting agency at the close of a classified proposal or contract. At the same time classified retention criteria should be written into the ISM which would permit the DCASR Security Inspectors to make a routine evaluation of the need of the contractor to retain classified material on closed contracts beyond a specified time period during the course of their regular inspections. Some of the items that might be included in such criteria might be: (1) establish a limit in terms of the number of copies of individual documents that a contractor could retain during this period; (2) specify an automatic retention period of from three to five years after contract termination; (3) require user agencies to continue performing timely classification reviews, but only to provide retention authorization of the residual classified material in the event an additional period of retention is required after the initial three to five years has elapsed The feeling strongly expressed both on the part of several individuals who were participating on the panel and from the floor, is that what you have in existence now is a situation where you are told, "request retention authorization" and the user agency is supposed to grant retention authority if a contractor requests it. In most cases the controlling User Agency has no adequate method for determining a contractor's "need" to retain classified material and consequently, there is no uniformity in application by the different agencies. Therefore, we have created another whole cycle of unnecessary paper flow for retention requests which imposes a cost burden upon the government and industry without accomplishing anything in terms of improving the overall security of the nation. There is a need on the part of both industry and government to improve their records reten-

tion programs because none of us can afford the luxury of retaining unnecessary paper. Also, it would be of considerable help to industry if the ISM contained some specific retention criteria which the contractor security people could use as a lever with their own management in reducing classified inventories. As it is now, while the DCASR inspectors are quite helpful in this area, it continues to be a problem in industry because of the fact that the inspectors visit at four month intervals and management tends to procrastinate in taking action on such "housekeeping" matters. This is particularly true when the situation is so often based upon the types of verbal discussions that take place which may go over very well in the company president's office but are often pretty hard to implement out in the field. The panel received very little comment on the subject of classification of independent research and development. I think this lack of comment resulted from a combination of several things. Everybody got their cholesteral count so high in discussing the classified retention question that there was not really too much time left to discuss the classification of independent research and development. However, it did come through that it does not appear to be a particular problem to industry—at least based upon comments from the people who attended the workshop. I think the ground rules are fairly well established and there does not appear to be much confusion on this point. The only thing we must remember is —unlike the discussion on the first day when a presentation was given on how classification is handled in Camelot rather than in the real world—that it does not necessarily work that way. There must always be the application of judgment and good common sense in classifying the fruits of independent research. I believe this essentially summarizes the position of Workshop Number Three.

GOVERNMENT PARTNERSHIP TO HELP SOLVE URBAN PROBLEMS

Dr. Francis D. Tappaan

In these days of dissent and debate, you can never be sure what kind of a message you are going to hear from the speaker unless you pin him down pretty carefully in advance. That doesn't always work either. Even then he may glide away from the agreed-upon topic and into an enthusiastic discourse on some other project or idea. When your Program Chairman, Willard Thompson, invited me to be your luncheon speaker today, he made the mistake of leaving the door wide open. Not only that, he said in his letter that a subject of my own choosing would "be received with utmost interest and attention." I hope that proves to be true. Having this written guarantee of your interest and attention, I really can't be blamed for talking not only about classification management but also about another subject in which I've been heavily involved for the past fourteen months. My excuse for doing this is that my other subject also relates to a joint

effort by business and Government. And that's not a bad tie-in with the business of classification management, with which all of us in this room are directly concerned. In any event, I was pleased to receive the invitation to be with you today, and looking around this room and looking back in time, I can say, with a double meaning, "You have come a long way." Many of you have come a long way to this meeting. I understand there is a gentleman here from Panama. And that's certainly a long way from this place. But more important, the organization has come a long way since the decision was made to form the National Classification Management Society in November of 1963. Following Secretary of Defense McNamara's order establishing the Directorate of Classification Management, substantial progress has been made in: first, reaching a better understanding of the need for classification management from preproposal activities to contract performance and final close-out activities; and, second, effecting cost reductions and cost avoidances.

McNamara's order establishing the Directorate of Classification Management, substantial progress has been made in: first, reaching a better understanding of the need for classification management from preproposal activities to contract performance and final close-out activities; and, second, effecting cost reductions and cost avoidances.

Mr. Joe Liebling, Deputy Assistant Secretary of Defense for Security Policy, who is a friend of mine and a good friend of this society, expressed the significa ce placed on the classification management program when he described it in a recent issue of the DEFENSE INDUSTRY BULLETIN as "in the vanguard of much of the security policy and requirements that we have today." He indicated that lack of top-notch classification management at any level of government or industry has far-reaching and undesirable effects. I think we can all heartily concur with Mr. Liebling's views.

I am aware too that in the Fall of 1969, the Assistant Secretary of Defense for Administration initiated a special six-month program placing special emphasis on certain features of classification management. The program was designed in part to assure that all possible benefits were obtained from progressive down-grading and declassification actions. And we appreciate this very much. He established a requirement calling for cognizant security officers to direct, monitor and assure the currency of classification guidance as related to contracts within their respective areas. Mr. Joe Sullivan, our regional office chief, certainly has our complete support in this effort.

My company, North American Rockwell, long ago recognized the need for, and value for, proper classification guidance. We are proud to have working for us one of your society's first members of the Board of Directors, Lieutenant Colonel Tony Correia. Incidentally, he's here today and also Doctor Welmers, is that correct? My wife and I are planning a trip to Portugal and Spain, and these two gentlemen are most enthusiastic about it. I can hardly wait to get started

after having talked to them both. In addition, we have had representatives of our Industrial Security Organization on your membership rolls since the Society's inception. Needless to say, our management fully recognizes the importance of a strong, competent classification management program, and strongly endorses your efforts to maintain a highly professional approach to the job of classification management.

Although Industrial Security reports to me organizationally, I certainly do not qualify as an expert in the field of classification management. Since you are hearing from the executives and government officials who are experts, and since you are delving into many detailed aspects of classification management in your workshops (Joe's been telling me of some of the work you've been doing and I think the organization should certainly be congratulated on a well-planned program) I'm going at this time to take advantage of the opportunity given to me by Mr. Thompson, and shift gears and change the subject. My subject also involves business and government working together in an area far-removed from classification management, but no less important.

For the past fourteen months I've had the privilege of serving as Los Angeles Metropolitan Chairman for an organization that we call NAB for short. NAB stands for National Alliance of Businessmen. Some of you may have been deeply involved in its activities in your own organizations; I hope you are. Many of you may have never heard of it before today. I think this organization is of extreme importance to all of us and I want you to understand what it is and how it operates. The National Alliance of Businessmen was formed in 1968 by the President of the United States. It is a private, non-profit corporation. It represents a working partnership, and I emphasize working, between the United States businessmen's community and the United States Government. Its objectives are simple and straight-forward. They are in brief, to provide meaningful permanent jobs for the disadvantaged, unemployed adults. And to provide summer jobs for inner-city in-school young people. In other words, NAB was created to attack a serious national problem, hard-core unemployment.

Before I describe how the NAB program works and summarize its results to date, let's consider the problem we're dealing with. We live in a highly productive affluent nation. In the midst of this vigorous and affluent society, however, a substantial segment of our population is disadvantaged unemployed. Stated less delicately, they are poor people who do not have jobs. What is more, many have never had jobs, and they cannot ever hope to have jobs unless something is done to help them. The people I'm referring to live below the level of poverty, which is defined as trying to feed a family of four on less than $3300 a year. In our land of plenty, these people, both urban and rural, black and white, Mexican-American and Indian, have been left out. They do not have the skills needed for jobs. Often they do not have the elementary skills required to

even look for a job. They do not eat well; they have few possessions; and they have little or no understanding of the world beyond their own bare existence. They have no commitment to the society in which they live, and little reason or opportunity to contribute to the land we call America. Many are on welfare or relief. Many are not eligible for relief and live by odd jobs or on relatives who do have jobs or welfare checks. Many are in trouble with the law. Those who do find work find it only in menial, dead-end occupations. The most intelligent, those who should with proper training be able to contribute the most to our society, are the ones who become the most resentful, and at times most dangerous and destructive.

For the average American it is hard to understand what it is like to be poor. A description of poverty was written by John Gage of the American Public Welfare Association and I would like to quote it in part: "Poverty is never having enough. Poverty is always running out of money, of food, of clothes, of fuel, of soap, of bedding, of equipment, of furnishings, of room, of time, of any way to go any place, of anything to do anything with, of any way for the family to stay together and live. Poverty is always knowing that there is no way to get ahead, no way to save up in order to later have; always knowing that what little you have is wearing out, being used up, going down hill. Poverty is always trying to express, trying to be heard, trying to communicate, being insulted, ignored, belittled, criticized, talked down to. Poverty is never having joy or peace. Poverty is always fear, fear of the landlord, the welfare, the police, the storekeeper, the 'sometime' boss. It is always grief for the man that is gone, for the woman you can't be with, the children you can't do for, or enjoy, or be with. Poverty is never feeling that you are part of the rest of the world, never being informed, never understanding. Poverty is always being uneducated, untrained, half-equipped; always being told you're dumb, ignorant, or can't understand. Poverty is never being able to plan, never being able to see a way to do better. Poverty is never fully living, always being just half alive, without hope, without the prospect of hope."

I have quoted this not to shock or depress you, but rather to convey the spirit of utter hopelessness, of failure, of desperation that makes it so hard for anyone brought up in poverty to break out of it without a special opportunity and special help. What can we do for these people? Everyone agrees that welfare is not the answer. Welfare destroys dignity and makes it all the more likely that children brought up in these families will soon acquire the same patterns of hopelessness and defeatism as their parents, except that the young with their resentment are likely to turn to crime and to violence. And welfare as it is set up today even contributes to the problem, by driving unemployed or under-employed fathers out of the home so that the mothers and children can get welfare assistance, and by discouraging anyone in the welfare home from accepting a low-paying job, because then the family loses all its welfare payments and may have

less to live on than before, particularly if there are a lot of children to feed.

No one argues that welfare is not the answer to the problem. Everyone agrees that the answer is jobs—meaningful, permanent jobs with a chance for advancement. The Government agrees that the answer is jobs, not welfare. They have turned to us in private business for help. Six out of every seven jobs in our country are in the private sector of our economy. We businessmen are the ones who have the jobs. We also are the ones who best know what the worker needs to learn for a job. If we can place the unemployed and the underemployed in meaningful jobs and teach them how to do these jobs and keep them employed, we'll have made a major inroad on poverty in our nation.

Bringing these people into the mainstream of our economy is not just humanitarianism. It pays off for everyone—for the company which gains a worker, for the Government which saves welfare costs and gains a taxpayer, and for our country which gains a useful citizen.

So much for the nature of the problem. As I have indicated, the National Alliance of Businessmen was formed at the request of the President in 1968. Its key element is the JOBS program. The motto of the JOBS program is "Hire, Train, and Retain." Notice the sequence of the words in that motto. "Hire" comes before "train." Both business and government in the past have tended to emphasize training people to qualify for jobs. Too often the training has been unrealistic and there have been no jobs available when the training was completed. In the JOBS program, the employer and the government agree that the disadvantaged person should be hired first and then trained, with the government bearing the extra cost involved.

The National Alliance of Businessmen was organized as a corporation having as its officers and directors some of the leading business executives of the nation. The first chairman of the Board was Henry Ford. First president of NAB was Leo C. Beebe. The second president was Don Kendell, the president of the Pepsi Co. The present president is Lynn Townsend, chairman of Chrysler. On the Board is Harold Geneen, president of International Telephone and Telegraph, and John Harper, president of the Aluminum Company of America. These are the types of persons involved in the program. The structure of NAB includes so-called "metro" organizations, in approximately 130 major American cities. My term as metro chairman for Los Angeles has just been completed as of the 30th of June.

Now a few words about our method of operation. The first essential is to find employers who are willing to put aside their preconceived ideas about the hard-core unemployed, agree to take the steps necessary to fit such individuals into jobs, and then pledge a certain number of jobs within a given period of time. The pledge of jobs contributes to the success of the program. Here in the Los Angeles metropolitan area, which includes all of Los Angeles

County, except Long Beach, during the first 24 months of the NAB activity, more than 39,000 jobs were pledged by approximately 2,000 participating employers. I might say with some pride here, that in Los Angeles County we have more participating employers than in any other metro within the continental limits of the United States. Almost two to one. This extraordinary achievement indicates the acceptance of this voluntary program on the part of business leaders within our community. They obviously feel, as I do, that providing meaningful employment to those who might otherwise go jobless, is a positive way to alleviate some of our most urgent urban problems. The task of recruiting the hard-core poor to fill the jobs pledged by business is the next step in the JOBS proces Normally this is done by the Federal and State Employment agencies who must certify that the recruits meet the criteria for the JOBS program if they are to be counted against the employers pledge. In recruiting or job matching there are many factors which must be considered. You have to remember that retaining the worker on the job is the ultimate objective of NAB. This will depend in part on the degree to which his personal interest and latent capabilities are matched with the job. To date in the Los Angeles area we have accomplished about 19,000 actual hires in the JOBS program. Nationally the total is about 300,000. You might say that getting 19,000 people employed in a declining employment situation is quite remarkable. We are now approaching almost a 6% figure of unemployment in this area, and getting employers to take people on under those conditions is quite a task.

Now let's look at the training aspects. Since many of the disadvantaged have no previous work experience and no job skills, it's often necessary to provide some type of training in addition to that normally required for the task being performed. This can take the form of elementary arithmetic, remedial reading, or even driver training. In this area, for example, many of the disadvantaged can speak a foreign language. Some are illiterate, however, even in their native tongue. Providing meaningful jobs to this group means not only giving them an elementary education in the one language, but also teaching them the rudiments of the second. I'd like to deviate for a moment. Our company established a subsidiary located downtown where we employ some 200 so-called hard-core unemployed, including some 50% blacks and approximately 50% with Mexican-American or Spanish surnames. It's rather interesting to find that many of the Spanish-speaking people cannot speak English and we've had to establish reading classes and teach them the basic elements of being able to read and write in English. Also, it's rather interesting to note that some of the people, black or brown, as they may be, have high school credentials, but their level of education is sometimes below the sixth grade. We have to provide education to bring them up to standard also. Obviously, very few employers can afford to provide the training of which I am speaking. It's for this reason that the Govern-

ment offers reimbursement for extraordinary costs associated with hiring the disadvantaged. The way in which this reimbursement is accomplished is through a simple contract between the employer and the Department of Labor. The employer may be reimbursed through this type of contract for a portion of the wages paid to the employee during the training period, for any extraordinary costs associated with the orientation, for job-related education, for special counselling, for supervisory training, for minor medical or dental treatment, for child care assistance, for transportation assistance, and for other special costs.

I said the slogan of NAB is "Hire, Train and Retain." The real key to the success of the NAB JOBS program is retention. It does little good to offer an individual a job if it's only going to last a few weeks or a few months. The employer can do many things to insure retention. First he can provide the employee with a reasonable feeling of security during his initial employment period.

I'd like to deviate again and comment on that. The reason for the feeling of security is almost paramount. In our operations, as I mentioned earlier, we had some of our almost 200 people there for well over a year. We offered them better paying jobs in some of our operating divisions, but they are reluctant to go because for the first time in their lives they feel comfortable in their surroundings, and they're unwilling to take the risk of moving into new surroundings, even though the pay is better. That's a feature that seems to be terribly important. He can also assure the employee that his job is not a dead-end, and he can help prepare the employee for promotion. Here again, the Government has funds available for reimbursement for extraordinary costs for such upgrading training.

This pretty well summarizes the JOBS Program for disadvantaged adults. Now I want to talk just briefly about the program for the disadvantaged young people. As you all know, a special youth problem occurs every summer. Young people spill out of school and out on the streets. Many of them are from disadvantaged families. If these disadvantaged youngsters cannot find jobs, they face idle, restless, and frustrating summers. Some may turn to crime. All are surely vulnerable to despair, anger, and violence. They are potential drop-outs from school and from society. Certainly one of the most vital responsibilities we have is to do everything in our power to save this precious resource and get these young people on the track of winning instead of losing. Accordingly, NAB conducts a summer youth program which works very much like JOBS Program. It contacts business firms to secure pledges of summer jobs for youngsters. The major difference is that in the adult category we are most interested in the permanence of the job. In the summer part of the program we are dealing with temporary employment only. Here in Los Angeles we're doing well in the summer program, but not as well as we had hoped. Last summer we had targeted 6200 jobs and as near as we can tell we placed about 5900 in the private business sector. This year it ap-

pears that we're not going to do as well because of the employment figures which I just mentioned to you.

It has been very easy for most of us in the past to stand back and not get involved. It's been easy to deplore the evidence of crime and rebelliousness in our society, but to do nothing about it. I submit, everyone of us who holds a responsible position in government and business or in the community must step up to the problem of helping our disadvantaged people find a useful and honorable place in society.

The real payoff in this program is, of course, in developing a new source of qualified workers. It is to be found in proving that American opportunity is for everyone in the land. It is to be found in shifting a large segment of our population from discontent and destruction to peaceful progress. It is to be found in the personal satisfaction that you and I can gain in having served these people in our community.

Before I conclude, I again want to thank all of you for the opportunity to be here. I understand that Doctor Welmers gave a very interesting talk yesterday and I understand we're going to have the opportunity of hearing Doctor Teller tomorrow and I was sort of a sandwich here—middle of a sandwich as it were. But I'm very happy to be here and I thank you for listening and hope that each of you will help to increase the number of disadvantaged we can get employed.

CLASSIFICATION FUTURES

Francis W. May

Toward the end of last year's seminar in Washington, one of our guest speakers asked a very interesting question. He asked, as he looked out at the Society assembled, "Where are your YOUNG members?"

The question was interesting because it seemed to give us a glimpse of one aspect of ourselves as others see us—as a group of predominantly older people. Age, of course, is supposed to bring wisdom—which we certainly need in our line of work—but the context of the question suggested that we might tend to be set in our ways and slow to react to change. Nothing was said about old dogs and new tricks, but there was a little implication of that in the question.

Well, looking at the Society assembled this year, I am reassured. Maybe it's the effect of the famous California climate, but I do see many young looking people in this audience today. Certainly ALL the ladies present are young.

And anyway, most of the members who are, like me, not young chronologically, have a gleam in their eyes—maybe in some cases you should call it a wild light—that tells me that they are quite aware of the need to react to and anticipate new problems. We, of all people, know that the commodity called "information," which is what we work with, changes and grows constantly. And we realize that responses to new developments in this field have to be quick if we are

to avoid disaster. We have come to understand that our profession is a fluid art rather than a static science.

In other words, we are a pretty shifty bunch already, and most of us are willing to try anything.

So with this in mind, I thought it might be a welcome change of pace to forego expounding my theories of how things should be done, or instructing you in how things ARE done in the Air Force. Instead, I propose simply to discuss with you some of the ideas for change and some of the new things that could be on the horizon for Classification Management in Washington, and particularly in Air Force Headquarters, at this time.

I get one message loud and clear: There is growing impatience with overclassification. We MUST be about the business of making classification more selective.

In Air Force Headquarters we have been discussing an idea for some time. It's a radical one. It would be to require a specific, individual, written reason for every classification called for in a classification guide.

The reason would be set forth in the guide, following each topic or in a column where Remarks generally are now. The reason would be stated concisely, but would have to be clear and meaningful. It would have to be specific to the topic.

There would be problems, we know.

A principal one would be that stating the reason would often mean that the guide itself would have to be classified. We like to have unclassified guides when possible.

Another problem undoubtedly would be that in some cases reasons would be difficult to state meaningfully within practical wordage limits. Some reasons would be the same for many topics. There would thus be a tendency for reasons to be stated in generalized or stereotyped terms. This would not serve the desired purpose and would be just one more paperwork requirement to cope with.

And an overall objection would be that producing classification guidance would be a harder, longer job, and we have a problem already of getting guidance out on a timely basis.

But the potential benefits are—theoretically, at least—very impressive.

It would force application of the basic criterion, which unfortunately tends to get lost in the shuffle, that there should be a DEFINITE reason for classifying ANYTHING.

If a reason is definite, it must be expressible. If the reason cannot be expressed, or can be only in hazy terms, it's probably a good indication that the information in question should not be classified.

Presumably, then, by forcing attention to the requirement that there must be an identifiable reason for classification, we would eliminate or significantly reduce the borderline information now classified "to be on the safe side" or "on general principles."

A benefit would be that a WRONG reason for classification would be more apt to be spotted if the reason were out in the open. Guide REVIEWERS could more easily catch inconsistencies. Guide USERS in many cases are technical

people who are very knowledgeable in their fields. When the reason for classification is technical, and is identified, such users could be expected to evaluate it critically and call attention to errors. This would have as a bonus the indirect effect of making the guide writer more careful to call for classification only when there is a defensible reason.

Also, an OUTMODED reason for classification would be more easily recognized, making for earlier declassification. Let us. use an example to illustrate this point. (I assure you this is a very hypothetical example.) Say the topic goes like this:

(Quote) Thickness of
Component X
Confidential
Reason: To protect
fact of U.S. capability
of machining this material
this thin. (Unquote)

When the state of the art advances so that it is not necessary or practical to conceal this machining capability, we will get a lot faster action to declassify Component X if the people currently working with it realize why it was classified originally.

Newcomers to the field of Classification Management might think this latter point is somewhat farfetched. Many of us know—only too well, and to our sorrow—that sometimes the reason for classifying a component or item of information gets completely lost. The persons who made the judgment in the first place leave the program, and the next generation assume, individually, that there must be a reason, known to somebody else. Anyway, they are often too busy to research the matter. And so classification can go on when the need for it is passed.

Letting the guide user in on the reason for classification would result in another advantage, intangible but nonetheless important. Everyone follows rules better—more willingly and generally more effectively— when he knows the reason for them. I don't think I need to belabor the point that willing, intelligent participation is desirable in security classification matters.

A possible modification of the idea, to meet the objection of causing classification of too many guides, would be to require stated reasons in the guide only when the guide is already classifiable for other considerations. For unclassified guides, the reasons could be required to be on file in the OPR, and available as a classified supplement upon legitimate request.

Other modifications of the idea are, of course, also possible.

I won't prophesy what will become of this idea. We haven't reached any conclusion on it, actually. But we're giving it serious consideration, because it should provide more selectivity. In a way, it is a logical devolvement from the paragraph-marking requirement. Paragraph marking requires that WHAT is classified, in a body of information, be identified. This proposal would require that the WHY be identified. One principle operating in both cases is that selectivity avoids overclassification.

Another idea on the subject of classification guides that is being discussed in Air Force Headquarters is

the possibility of establishing at least two clear-cut categories of guides.

The first would be a category called POLICY guides. These would contain comprehensive policy and criteria for classification in a broad area of endeavor in which more than one Air Force activity could be expected to have an interest. Examples would be guides for nuclear weapons, missiles, C-E, and the like. Such guides would generally be produced at Air Force or major command headquarters. They would require Air Force Headquarters approval.

A second category would be PROJECT guides. They would have to be consistent with the basic requirements set forth in the pertinent policy guide, but would be produced and issued independently by the OPR. Examples would be the present guides on individual re-entry vehicles and systems, individual missiles, aircraft, electronic warfare systems, and so forth. As we are thinking about them, they could be produced and changed without PRIOR referral to Air Force Headquarters.

There could be a third category, perhaps called local guides, which could be produced by contractors or specialized Air Force activities concerned with only parts of projects. In the case of contractors, such guides would, of course, have to be in strict conformance with the 254 or other official guidance (such as the applicable project guides) furnished by the Air Force. Such publications could "tailor" guidance effectively for local use by engineers and other working level personnel within a manufacturing or research activity. These guides would have to be approved by the appropriate Air Force authority before issuance.

But the main interest at present is in the first two categories—policy and project. Our thought is that once the broad requirements are established and made available in the policy guide, project guides within that area could be produced more quickly and with more confidence. Very importantly, THEY COULD BE ISSUED MORE PROMPTLY. We see it as being most undesirable to have to delay issuance of needed guidance because of multiple reviews and approvals in higher headquarters. There would, of course, continue to be headquarters review of project guides as issued, to assure that they are meeting policy and criteria requirements.

This is another idea being discussed only theoretically and tentatively at present. I should say, to be candid, that there is some Air Staff opinion not in favor of this setup. I should also say, in candor, that the AEC has a similar concept at present from which we have borrowed ideas.

Still on the subject of classification guides, we contemplate that in the next revision of AFR 205-37, which prescribes our classification guide format, we will change the paragraph designation system to one that will be computer-compatible. This probably will involve a straight numerical system instead of the present Roman numeral and letter-based one. The purpose, of course, will be to facilitate the placing of guidance data in computers. The thought of being able, someday, to get from the computer a listing of all guidance existing on a

specific subject makes any classification person a little more cheerful. The far-out possibility of having the computer assess whether or not a thing should logically be classified is something else . . . exciting but a little disturbing. (Who's going to need US then?)

At any rate, we know we're going to have closer and closer associations with computers in the future. So we better be preparing in every way we can. Compatible paragraph numbering of guides is one of the ways we can. By the way, one of the people with whom we have consulted in this matter is an NCMS member who is an authority in the field. I refer to Cecil Carnes of the University of California's Los Alamos Scientific Laboratory. As you may know, Mr. Carnes has written a couple of articles on this general subject for our JOURNAL.

A broader subject being discussed in Washington is that of Effectiveness Measurement in Classification Management. Our ideas on this at present have to be classed as nebulous. In brief, we are searching for ways to establish a good yardstick for measuring effectiveness. We now can talk about effectiveness in very loose, general terms. For example, we can refer to improvements in policies for classification, increased volume of guidance, and the like. We can also point out accomplishments: like reduction of Top Secret documents . . . downgrading of a series of manuals . . . declassification of a specific piece of hardware. But we still have no way to make an overall measurement as to how well we are doing.

George MacClain's staff is interested in this subject and is working on it. It is a subject that all NCMS members should be concerned with. If the "management" part of our Society's name has meaning, we should be coming up with the best management tools we can to tell us how well we are getting the job done. We all work for someone, and when the "boss" asks how things are going, we need an answer. We provide a service, as opposed to putting out the main product of our firms or agencies. For this reason, there is even more need to be able to make quantitative statements concerning our activities and our value to our employers.

It may be that the biggest roadblock to developing a method to measure effectiveness of classification management is the fact that PRECISE measurement appears to be impossible. But most managers will agree that the best measurement available—even if imprecise—is better than none. We need to decide on what will be measured—costs, generation rate of classified matter, ability of employees to score well on quizzes on CM, or other items. We will have to agree on units that will be applied, even if the units and the measurement methods are such that results are only approximate. Although a formal program of measuring effectiveness may not be forthcoming in the immediate future, it is a subject now under active consideration, and it is a subject worthy of the best thinking of all NCMS members.

Let's come down from the rarified atmosphere of Effectiveness Measurement to something a little more

mundane—but also more attainable—a streamlining of document-marking requirements.

Handstamping classifications is such a slow process that it has always been incompatible with the rapid printout capability of ADP equipment. Several years ago, OSD approved use of the print wheels of the ADP equipment for marking classification on INTERIOR pages of documents. More recently, policy was relaxed further so that handstamping could be eliminated completely in the special case of MESSAGES printed by an automated system. For most documents, however, the requirement to handstamp first and last pages still applies and still slows things down. The Air Force has recommended that all handstamping requirements for ADP printouts be eliminated in favor of a simple policy that the classification marking must be "clearly distinguishable from the printed text." We hope that OSD will approve this recommendation so that the machine can do its job the way it was designed to do: that is, kick the long, folded, multi-copy documents straight into boxes without need for any manual processing. The classification markings can be made conspicuous by use of spaces and asterisks. For those of you who have been handstamping, there will be a saving in time and effort. For those of you who haven't been, it will be comforting to have your present practice made "legal."

Back on the subject of classification guides one last time, a new and different joint AEC-DOD guide on nuclear weapons is in the works. It will not, itself, contain any CNWDI, and thus can receive wider distribution in the field than the present Joint Nuclear Weapons Guide, CG-W-3. It will still be a comprehensive guide. It is to be called the Military Employment Guide, CG-ME-1. Many of you may be aware of this. Those who aren't will be interested to hear of it.

Well, this has been a report of a rather mixed lot of new ideas and proposals. Actually, business is being conducted in Washington on a more orderly basis than you might think from my talk today. But seriously, talking over new ideas and speculating on the future may seem like a luxury when it appears that the immediate present is all that we can possibly cope with. But we know that new developments of some sort are inevitable. We must take the right steps now if we are to shape those developments. Edmund Burke said it well:

> The public interest requires doing today those things that men of intelligence and good will would wish, five or ten years hence, had been done.

Before closing, I have one DEFINITE, NONspeculative, CURRENT item of information I feel I must give you. To catch your attention at the beginning, I introduced the delicate subject of ages. So as not to leave that matter hanging, I want to tell you that, based on raw data supplied by our Secretary, Jim Marsh, the average age of NCMS members figures out to be . . . 48 years, 2 months, and 3 days.

Whether that is good, bad, or indifferent, I cannot say. I simply want to drop that other shoe.

QUESTIONS AND ANSWERS FOLLOWING MR. MAY'S PRESENTATION

George Chelius: Frank, with the new 254 there was a tremendous effort by the Department of Defense and the military agencies to require detailed comment next to items of information indicated on the 254C. While this is being done in some instances, it is not being done as much as we had hoped for, and if you expect detailed information in the guidance as far as these policy guides issued by the Air Force for reasons of classification, do you think this is really practical in light of what has happened to the 254's?

Frank May: I think it would be practical in most cases. I don't think we can make an across-the-board statement that it would be practical in all cases. You must remember that I'm speaking from the Air Force point of view. We have had for some time, for our larger programs Project Guides and this is the item we desire to go to the contractor as an attachment to the 254 and whenever possible reasons should be stated. Now, when you get to smaller procurement activity, a 254 would still be required, but it might be obvious that the contractor wouldn't need a reason for the classification.

TAKING THE CLERKING OUT OF CLASSIFICATION: A DATA PROCESSING APPROACH TO CLASSIFICATION MANAGEMENT

Charles R. Prohaska

As a prime contractor to the AEC, Sandia Laboratories' main business is systems engineering. In our technical staff we have about 1500 engineers who develop our systems and components. Consequently, we are the design agency for thousands of items —major components, test equipment, handling equipment, cables, etc.— that are procured and produced elsewhere. Many things can happen to these items, aside from being produced, once they leave the drawing board; they may be modified, cancelled, used in other applications, retired or merely put on the shelf in anticipation of the requirements of future systems.

Most of this componentry is unclassified. Some of it is classified Secret Restricted Data, and in between we have the whole spectrum of classification levels and categories. Some components even have classified names; others have classified relationships or associations with other components or systems they are used on.

The classification of these components is based upon a hierarchy of classification guides, that begins with the JOINT AEC/DOD NUCLEAR WEAPONS CLASSIFICATION GUIDE, CG-W-3, and runs downward through the various system level guides and frequently even component guides which deal with the nuts and bolts level of the hardware. The basic guide used throughout Sandia Laboratories is the Sandia Classification Handbook. The handbook

covers most of the general aspects of the classification of weapons, including the general military characteristics; the arming, fuzing, and firing systems and components; as well as the various nuclear systems and components.

Appended to the Handbook is a complete listing of all active Major Components along with their nomenclature and classification assignments for hardware, nomenclature, and weapon association. Called Appendix "A", this section is intended as a readily changed part of the handbook, in anticipation of a continuously evolving component assignment list. It is basically a running summary of classification decisions made by the project engineers on the basis of existing guidance, and may include also decisions made by classification specialists, if we had been consulted at the time the nomenclature assignment was made. The maintenance of this Appendix is my principal topic this afternoon.

Up until a few years ago, keeping Appendix "A" updated was a manual operation. As we would hear of new component assignments, we would note these. After we had listed a few pages of notes, we would double check the items that seemed questionable, and then publish the list as a change to our Appendix "A".

Changes become necessary for a variety of reasons. Changes may be made in classification rules relating to either hardware or association classification levels. These occur quite frequently, even on AEC items. Other changes result from engineering changes in components—new components appear on the scene, existing hardware is modified, cancelled, put into other applications, or retired--so that change becomes the rule rather than the exception in the hardware end of the business. We in the classification business could quite easily keep up to date on the current classification rules; however, keeping current on the status of all those components was another matter, especially when those changes affected hardware already in the system.

Thus, it was a hit or miss operation that didn't satisfy any of us because our revision was generally obsolete before the new Appendix "A" had been published and distributed. Facing us also was the fact that the situation became increasingly unmanageable as the number of components increased. Looking back on the situation as it existed then, we realize now that we had no procedure that would assure the review of new components for proper classification at the time they were registered for nomenclature assignment. Nor was there in our management procedures anything that provided for an automatic review of components which might have been affected by changes in classification guidance.

Meanwhile, over in another part of Sandia Laboratories, our configuration management organization had begun to assemble a master file of design information using one of the ancient assembly languages in a 705. This we learned of incidentally, while consulting with them on some classification problems which had developed in some other aspect of their work. The nomenclature file being put together

by the configuration management people contained a great deal of information about every item which had been designed or was being designed by Sandia. Much of it was extraneous to our needs in the classification business; much of it, however, was the same information we were attempting to maintain in our Appendix "A".

At the time that a design engineer got a go-ahead for his component, he would go to the configuration management organization for a nomenclature assignment. Initially, this would amount to a basic drawing number, Major Component (MC) number, and the name of the component. From this point on, the configuration management people would coordinate all of the inputs relating to this particular item, including classification inputs, and would police the nomenclature file. The amount of nongrapic design information in the computer file would gradually grow, as the design of the component became defined and refined, to contain additional data on the design organization, the manufacturing development organization, codes indicating the supplier or integrated contractor responsible for manufacture of the item, information indicating the "used-on" information, next assembly as well as the system, and a technical and a functional description providing a considerable amount of detailed information about the component.

Of particular interest to us was the information indicating part and name classification, and we were eventually able to persuade the configuration management people that there was space available in the file for information on classified associations and that this information would be useful to maintain as part of their master file. Thus we were able to have a simple program written which would extract current classification information from the master file on Major Component numbers, part numbers, name of the component, and the system used on, and security classification information relating to part, name and used-on classifications on the item. The computer then printed this information for us in the format we had previously established for Appendix "A", and our revision was essentially ready for publication.

The "essentially ready" is a bit of weasel-wording that probably confirms your suspicions that all this sounds too easy. Once the program had been written and debugged, the biggest part of the job was the initial review of the machine output to correct all the erroneous classificarion information we found had been put into the computer to start with. It was our first confrontation with the well known concept of "garbage in, garbage out," and at times we wondered if that computer was really working for us, or we for the computer.

Happily, man prevailed over machine; after some amount of work, and a few revisions of the Appendix, we found the computer would really give us camera-ready copy which required a minimum of manual checking. We had a technically correct summary of current items from the nomenclature data bank in a ready-to-publish form that was immediately available upon our demand, that is,

whenever we decided a revision to Appendix "A" had become necessary.

In return we found that we were able to provide a useful service of updating the classification information stored in the master file. Our classification review and checking of the weekly nomenclature assignments became part of the routine assignment procedure for putting data into the file.

It was a good way of getting our machines to do much of the tedious work for us. Of perhaps even greater importance, our mechanical preparation of Appendix "A" turned out to be an extremely useful mechanism for getting the classification function into the main stream of the flow of design information, rather than off in the backwashes and peripheral eddy currents where we had been before our involvement with the computer. If a design group was making bad classification decisions, we could detect this rather quickly, and make the necessary move to straighten things out. We also learned that other users could benefit from access to current technical and correct classification data stored in the computer files. Our integrated contractors, for example, have classification handbooks, generally following the same pattern as Sandia's, and could request machine printouts of information from the master file in formats appropriate for their needs. The importance of having current, accurate classification data on the major components is considerable, and such a list is a basis for classification references throughout the weapons complex, including DOD users as well as those in the AEC family.

However, systems evolve, including computer data files. Today, the nomenclature file no longer exists as such. In its place is the ML-ADE file which came into being mainly because of the difficulty of converting the language used in the old nomenclature file into a cobol language for the newer machines which had replaced old machines. The amount of data in the old nomenclature file had grown beyond the capability of the organization to keep the file policed, especially with recent funding and manpower reductions. The ML-ADE file is much like the old nomenclature file in that it is comprised of non-graphic information—essentially the same as that which appears in the title block of a drawing—that has been put into a computer file.

In the automated drawing system, this title-block information, called the Materials List or ML, becomes the top drawing for a particular component. It is the key element in our general engineering information system. This system is integrated throughout the AEC Development/Production complex, and functions to collect, store, process, distribute, and control product related data that can be tabulated or is non-graphic by nature. Engineering data is automated at the source, using data processing systems of electronic communication links and computers. The processing of information is another story, well beyond the scope of this talk; however, the important thing is that the ML file, much like the old nomenclature file, contains a great deal of current technical information.

In the ML-ADE file we have the MC number, the part/drawing num-

ber, the title of the component, its part classification, and the next assembly or "used on" information. In addition, we have the other kinds of information you would expect to see in the title block of a drawing: the engineer's name, draftman's name, the production agency, the design agency, and the location of the master drawing. ML-ADE doesn't give us quite as much information as did the old nomenclature file, however, it is still a valuable file of information that is continuously policed and updated from the technical standpoint, and thus can provide us with a useful base or core around which to construct and maintain the classification information that is required for our Appendix "A". Thus, although the two files were designed for different purposes, we note that there are areas of overlap containing information that is useful for classification.

At the moment, we are not sure how we will interact with the ML-ADE file; the managers of the design definition function have not completely settled on what this file is to be. However, we have given them our requirements, the kinds of things we would like to see in the system as far as the classification function is concerned, and at this point it is a matter of negotiation. One of our procedural concerns, for example, relates to the kind of organization which puts the information into the file. Input to the ML-ADE is to be made by the draftsman; in the old nomenclature file the engineer made the initial decisions at the time the assignment was made. Historically, we have dealt with the engineering organizations on the classification of new components; the new system may require us to establish a closer liaison with the drafting organization.

In the interim, we have drawn a complete listing of necessary classification information on all major components, regardless of status, from the old nomenclature file before the tape went into the archives. On the basis of this information, we have constructed our own file, over in a little corner of the computer, essentially using tapes as a storage from which Appendix "A" can be printed out as required. Until the ML-ADE file and our interface with it is resolved, we will police this interim file, doing our editing by simply changing punched cards as necessary. As an interim measure, it is a cheap and easy, quasi-machine means of processing our Appendix "A" information. Perhaps at some future date we can "bump" our file against the ML-ADE file to see if this would be a suitable way of keeping our file technically updated.

Our experience with data processing to date has provided us with some interesting and valuable lessons. First, we learned that we could use the computer to generate technically current classification summaries suitable for use as an "Appendix A" in an essentially ready-to-use form. This could be reproduced directly, and distributed as a classification document. Second, we learned that in the process of interfacing with the organizations responsible for performing the configuration management and design definitions, we gain the advantage of a systematic approach for making classification inputs in the early stages of component development. Third, we learned the importance of getting

the classification activity into the main stream of the flow of design information, where quick and effective decisions could be made.

QUESTIONS AND ANSWERS FOLLOWING MR. PROHASKA'S PRESENTATION.

Don Woodbridge: Can you tell us what the ADE stands for?

Charles Prohaska: I was afraid somebody would ask that. Well, this is typical "computerese"—an acronym for "Automated Data Emitter."

Dean Richardson: I just wonder if you could give me an idea on which I can compare my costs. What did your program cost you?

C. Prohaska: I can't answer you on that. This was a simple program that was written for us on an off-schedule basis. All of the input data are drawn from another organization's file. It was really a very elementary kind of thing which searched the various fields in that file for the information that we needed and then put it in the format we wanted. So, I honestly can't tell you how much it would cost, other than it would be very inexpensive.

D. Richardson: I'm not going to pin you down, but would you say that it was around $5,000 or $6,000.

C. Prohaska: No. Much less than that.

SPECIAL REMARKS

George MacClain

I'm glad to be here. I'm certainly glad all of you are here. I wasn't a scheduled speaker and I'm sure you're aware of that, but it does appear that it might be useful to make a few remarks.

It came up in the course of one of the panels yesterday that the ISM has language in it which requires that after an annual review of classification guidance of the prime has been conducted, and there is a decision by the program office conducting that review that there is no change in the current classification guidance, that a notice to that effect will be given—a negative notice.

I took issue with the gentleman on the panel who said that the language of the ISM requires that a negative notice from a prime to his subcontractors shall be approved by the ACO of the prime before the prime notifies his subs. I couldn't even believe that that was true, and I said that I would check the ISM and ascertain whether he was right or I was right. It surprises me to find, and I don't know why it's there, that the language of the ISM does say that the ACO must approve a negative notice from a prime to a sub-contractor. I'm going to work on that when I get back. I don't see any need for it. I am not saying right now that there is no requirement for the negative notice to be sent out in writing, but it does appear to me that if the prime contractor desires to send it out over his own signature and it's backed up by what he's been told by his PCO, then I think his signature on his paper is enough. Equally, I think that any sub who has a sub of his own and is currently required to send out a negative notice should do it in the same way. The language today is to the contrary. It certainly appears that an official signature of the prime

would be enough to accompany that notice. So I acknowledge an error on my part as to what the ISM says now.

We have been considering, by the way, the elimination of the negative notice requirement in some situations. We have not yet found it possible to delete it. We have to do quite a bit of work on it, but I think it will be eliminated in some cases.

The next point that I wanted to mention was a point that came up in discussion as to what you do about classification guidance approval where you haven't got a prime contractor—you have only a prospective prime contractor who, in order to respond to an RFB or RFQ has to acquire some supporting ideas from prospective subs. Here you have a situation where you don't have a prime and you don't have a sub—they're all prospects. When I looked at the ISM I couldn't find any specific requirement which says that for a prospective prime to send out classification guidance to a prospective sub or subs, that a particular person shall sign off that guidance. Now, I think that's a hole in the reg. When you have a user agency initiating a procurement action involving classified information and, therefore, calling for guidance—I'm expressing a personal viewpoint which I shall pursue—if there is nobody in the picture yet who is an ACO—and bear in mind I'm talking about a prospective prime, not a real prime—if there is no ACO, the only person around who is a representative of the user agency, I suppose, is the PCO. And if there is in fact no ACO, you obviously can't put your finger on someone and say "you are the one." Therefore, if it is necessary for a prospective prime to give guidance to prospective subs and to have this prospective guidance for prospective subs authenticated officially, then we had better make a provision for it and eliminate the problem now confronting everybody where you can't really tie it down to any one particular individual. This is another point to be pursued, I believe.

In the course of his remarks, Bill Florence made some statements which he authenticated as his own, as his own personal opinions and points of view, and I accept them as personal opinions and points of view from Bill. But I think it's important that you know that if there is a policy which is currently in effect which is contrary to those personal points of view, that it should be stated and I will state it.

Now Bill has made a point which he sincerely believes, and he has a right to, that there is no proper requirement for classifying a compilation of information. But the policy is that there is not only the authority for it but the requirement for it. It is awfully easy to say that zero plus zero equals zero. But that isn't always true. Zero plus zero as a compilation can often give rise to one or two or three or four things that are not present in the absence of the compilation. Our articulation of the justification for classifying a compilation is that when you put these various things together they produce a brand new item of information which is perceptible only because there is a compilation. Take a part away and you no longer have this new item. What we're protecting when we have the

compilation is this new, previously non-existent, item which is present only so long as there is the compilation in that form. So classification of a compilation is provided for in DOD Instruction 5210.47 and in the ISM, and it is current policy.

It's also current policy to classify an association. We try all the time to encourage people to use it. I'm not sure there is any misunderstanding on it. All we're really saying is that if you have an existing relationship between two items, one of them being sensitive and the other not—the illustration we often use is the unclassified, commercially available vacuum tube—if that particular tube is needed in a sensitive military system which is classified in some respect, and if that particular tube has some well known characteristic which is critical to the operation of the sensitive system, it is certainly a necessary thing to classify the fact that that tube is used in that system, because as soon as it becomes known that that association exists, then there is a characteristic of that classified system that is vulnerable. So on the basis of that kind of association, we are not classifying the unclassified item—we are classifying the association and only that.

I want to mention the question of Derivitive Classification Authority. Bill doesn't like the term and he's not the only one who doesn't. You will not even find the term in the ISM or the ISR. When those publications were initially written, there were those in the Office of Industrial Security who didn't like the term. It's not something that you can make a fortune out of arguing about, but it is a fact that DOD Instruction 5210.47 specifically lays it out and calls it by the name of "derivitive classification authority." We happen to think that's a useful term. It's defined very well in 5210.47 and I invite your attention to that DOD Instruction for the definition since you will not find it in the ISM or ISR. It obviously means that a person not in the government and, therefore, not authorized to classify originally, can look at the information in his one hand and know that it's classified, and he can look at the information in his other hand and see that it's identical or very similar to it. His guidance says that if you find what's in your right hand compares closely to the guidance that's in your left hand, then by deriving the classification judgment that has been made, you classify what's in your right hand. You are deriving classification of the information that you have created or generated based upon the guidance that you have received or based upon your actual knowledge that the information is currently classified by competent authority. We call it "derivitive classification authority." You could call it, as he did, "marking it at will." Essentially we both agree, and I'm sure you do, that by whatever name you call it, in industry or in any other place, where you're dealing with classified information and you did not originate the classification, you will follow your guidance—you will observe your knowledge—and if you have only a belief or even a vague belief that it is classifiable, then you will take precautions.

Now, the question was asked from the floor this morning, and it was

asked yesterday in one of the panels, as to whether or not it has been considered that the signature authority for a 254 for a sub of the first or any other tier can be delegated to someone other than the ACO of the prime. Yes, it has been considered, not just once, but several times, including very recently. There are two or more reasons why current policy is that there is no one other than the ACO of a prime who has the authority and the responsibility for signing off on a 254 for a sub of the first, or second, or tenth tier. The question arises, "Why is it necessary for the third tier to go to the ACO of the prime in order to send guidance to the fourth tier." Without making argument, the decision is that the ACO of the prime is the only one, and the ultimate one, to authenticate a 254 for any tier of any sub-contractor. It has been considered and that's where it stands today.

The final thing I wanted to touch upon is the Independent Research and Development area. This caused all the consternation yesterday. And Mr. Liebling, of course, addressed himself to it.

I would like to say that in order to have a fairly close understanding of what the policy is for classifying in this area, you would really have to have before you, and many of you don't, not only your ISM/ISR, but also your 5210.47. Now we all accept the fact that the 5210.47, as a DOD Instruction, is not distributed to all of you people in industry. But it is not prohibited for you to have it. If you want to, write and ask for it. In fact, we would like for you to have it, because it provides the basic security classification standards and criteria governing the Department of Defense and its contractors. There are two or three provisions in the 5210.47 which tend to qualify some of the implications in the language in the ISM and ISR.

Now, we can start with the proposition that Executive Order 10501 only reaches "official information," and I think we all recognize that. But until 5210.47 was issued, there wasn't any outstanding definition of what was official information. So we decided to provide a definition. It is given in the 5210.47, and it is also given in the ISM/ISR. It means, information which is owned or controlled by the Government, in whole or in part. It doesn't say "in whole or in part," but that is what it means. Unless it is owned or controlled, and note that, I said owned OR controlled, in whole or in part by the Government, it is not within the definition. We can get into difficulties about what is meant by controlled, but I don't want to do that here. The element of ownership or control by the Government is the first essential thing before classification under 10501 is proper. And so to the extent that you find yourself in possession of information which you know absolutely, and have no doubt about, is purely, privately owned, that information is outside of the legal application of classification under Executive Order 10501—purely as a matter of legal interpretation. The real problem is that we don't always know whether the information is purely, privately owned. It is a question of fact.

People who engage in independent

research and development programs are constantly utilizing their own built-up expertise, and knowledge, and previous exposure to information, in working in this area. What they are working on may in fact have enough in it to disclose classified information. Now, when that is the case, then, whether you intended it or not, there isn't anybody who could say that that isn't a classified product at this stage of the game. It comes down to a question, then, of whether the contractor has knowledge in the matter—or has a belief—or is uncertain. You can go in different directions. If he has a belief that his IR&D product contains classified information, then he ought to be prudent. He ought to treat it in a certain way so long as he has that belief and until it's been dispelled officially. And the same is true if he's really uncertain. He thinks maybe yes and maybe no.

5210.47 contains three provisions which, if you can get your hands on it, I wish you would examine. Look at the definition of "official information," which is contained in the early portion of 5210.47 and also in the ISM/ISR. Then look at 5210.47, paragraph III.F. and paragraph V.C. Paragraph III.F. is on the subject of "safeguarding privately owned information." I want to take a moment to read it. "Privately Owned Information, in which the government has not established a proprietary interest or over which the government has not exercised control in whole or in part, is not subject to classification by the private owner under the authority of this Instruction." Now look, this is a legal document I'm reading. It says that privately owned information is not subject to classification by the private owner under the authority of this Instruction. This is a DOD Instruction. Going further, it says "However, a private owner, believing his information requires protection by security classification, is encouraged to provide protection on a personal basis and to contact the nearest office of the Army, Navy or Air Force for assistance and advice."

Going over to the next one, which is V.C., it says "A person who originates or develops information, or is in possession of information, which he believes should be classified, but who lacks classification authority, or for any other reason is not able to make a classification determination which he believes to be correct, shall safeguard the information at the level to which it is believed to belong, and refer it promptly to an official who can and will make the classification determination. In order to provide necessary protection during this interim period, a tentative classification which clearly shows that it is tentative may be used." Now, this has not been incorporated into the ISM/ISR, maybe for good reason. I don't know. But within the Department of Defense we put on the tentative classification marking—"Tentative Confidential," or whatever. That means that the question is pending and that the classification protection will be provided as long as that question is pending.

Now, Mr. Liebling yesterday emphasized the fact that in this area, if we're going to split legal hairs, we may loose some valuable information somewhere, and he appealed to you,

and so do I and others, to use your common sense, and use your sense of patriotism, and your previous exposure to classified information to know whether it probably is or isn't. Give it protection. Dean Richardson yesterday made a strong point, and he stated reasons for it—that, don't for heaven's sake put a classification marking on this information because it can produce some terrible problems for you. I'm stressing that if you're going to put a marking on it, put the word "tentative" on it. "Tentative confidential" etc. Dean and others may think that even that's going too far. All I can say is this. If it is purely privately owned information, then I honestly think you do not have a legal obligation to classify it. But you should protect it and you can protect it by using the tentative classification marking. And you should submit it to a user agency and you should get an answer promptly. This is a problem. The user agency doesn't always answer promptly.

DESTRUCTION OF CLASSIFIED EQUIPMENT

D. L. Pfister

Introduction by George Chelius: Our next speaker, Don Pfister is a 23-year Navy veteran who started as an enlisted man and was involved in Naval aviation. Since his commission in 1958 he has served aboard destroyers, amphibious and service force ships; he commanded the USS Targeteer and USS Banner. The USS Banner is a sister ship to the Pueblo. Presently he is Head of the Military Support Department at the U.S. Naval Electronics Laboratory Center in San Diego, with responsibility for all military personnel, communications and security functions. Ladies and gentlemen, I present Don Pfister.

Mr. Don Pfister: Thank you, George. George gave a little bum dope at the beginning of this session. He said I was going to discuss destruction facilities aboard Pueblo. This is quite untrue. Sorry, George. I'm not going to discuss anything about the Pueblo. I came to George last night and told him that I thought I had a very brief talk that I could give about the present state-of-the-art in destruction of classified equipment as we determined by tests about a year ago while I was in command of USS Banner. As a note of introduction, I was ordered to Banner under permanent change of station order shortly after the Pueblo was seized, and it became apparent to all of us, as it must be to you from newspaper articles, that we were pretty sadly lacking in the ability to destroy either files, equipment, magnetic tape, and the like. With the cooperation of the NAVORD System Command, Naval Weapons Center China Lake, the Naval Security Group in Washington, Navy Ordinance Lab in White Oak, and the Army Ordinance Station in Japan, also the CO of USS Palm Beach, another sister of Pueblo, and myself, CO of Banner, we decided to do what we could to test what we had available and on the shelf. We also tested and did a lot of thinking and considering about other types of destruction, but we were primarily in-

terested in what we could use that was presently on the shelf. Now, those of you who have been in security a long time realize that these destruction methods haven't been changed appreciably in 25 years. The best thing we have right now to burn a piece of paper is thermite. That's the same thing we had during World War II. But we thought that possibly the products had been improved a little bit, although it's the same basic product. And we thought that possibly the U.S. Signal Corps Manual rules on how to use it were out of date, because they were dated 1943. In deference to the Army that is here, the Colonel particularly, I would like to say that the Signal Corps Manual dated 1943 was perfectly accurate.

We first approached three different areas of destruction. One was all paper—files, hardbound publications and softbound publications. We also took a look at magnetic tape, and the equipment itself. I'd like to address each of the three of them individually.

The Signal Corps told us that the only way to destroy paper effectively inside a file cabinet without having to open the file cabinet and without having to pull everything out and light a match to it—the only way to destroy it effectively was to use a half-inch of fire baking material for every half-inch of paper. Well, all of you ladies and gentlemen in the audience are collectors of pieces of paper—collectors of files—and if you have 500 files and all of a sudden you have to increase this by two, you end up with 1,000 file safes. So we looked at this from a cost-conscious basis and an efficiency basis and said the Signal Corps is obviously wrong—that this was 27 years ago and we'd try something different. We tried four-to-one next—two inches of paper to one-half inch of destroying material. We went through safes that were practically brand new, and those of you who have to buy them know they are quite expensive. We practically blew them apart and then let them burn for 30 minutes. We opened the things up and we had less than 25% destruction of the paper. So we went down to a three-to-one mix, then to a two-to-one mix and finally ended up with exactly what the good old Signal Corps said, one-to-one. Even at one-to-one, in one of these files, locked and all draws secured, after about 30 minutes of fire, we were able to achieve 85% to 90% destruction of paper. This is like I say, one-half inch section of paper, either bound or unbound. The magic figure is the half inch, the type of paper isn't important. There is of course fire-retardent paper, but we're using paper that is burnable. A half inch of paper interspersed with a half inch of sodium nitrate, and we go through the whole file draw like this and on top we put a thermite block. Now, the sodium nitrate is a catalyst which provides oxygen in a closed space and allows the thermite to burn. Without sodium nitrate in a closed drawer the thermite would go for about 30 seconds and then extinguish itself. But the sodium nitrate allows it to burn. The entire system was made up of a small black powder mix of sawdust and paper pulp as an igniter to light the thermite and the sodium nitrate to keep the thermite burning. This would create a horrendous fire inside the file safe and we normally waited

about 30 minutes before the fire got down to a point where we figured it had done what it was going to do. Then we put it out with a fire truck and opened the drawers. You'd have to split the cabinet wide open where the fire had not split it. Believe me, steel that's bent is a lot easier to destroy than paper. We went through 13 file safes, which is a little bit of your—taxpayers—money; but this of course was something we had to find out. The file safes were completely destroyed, completely unusable and, like I say we achieved about 85 to 90% destruction of paper.

The next area we got into was the destruction of magnetic tape, both wide-band tape and narrow-band tape. Any modern-day business or enterprise uses magnetic tape and some of our tapes were classified, so of course we had to figure out how to destroy them in a hurry. We got a 55-gallon drum, put a few tapes in it, put a couple bags of sodium nitrate in it, put some thermite blocks in it, and ignited it with a thermite hand grenade. This was all out at the Army Ordinance Center in Japan. We found out that thermite does a good job of melting tape, not making it completely obliterated—making it stick together for about six minutes. And that's something that Signal Corps didn't know about—none of us knew about it. But after six minutes the aluminum tape reels and the thermite create a chemical reaction that gives you a low-order explosion. We had 55-gallon oil drums going about 120 feet in the air. We also had complete, total, and absolute destruction of those tapes at that time. If the fire had been extinguished earlier, parts of the tapes would very definitely have been useable. But when we allowed it to go six minutes we had a bomb. We discovered a little side-line event—it was an outstanding method of scuttling the ship as well as burning the tapes. This was, of course, an open container. The Ship Facility at Yokosuka built us a closed container that we were able to trigger from outside electrically. It took a little longer to go off in the closed container because we had a harder time providing the oxygen from the sodium nitrate; but when it went off it was definitely in the nature of a medium-order explosion. It was quite a blast.

The third problem, and possibly the most important problem was the destruction of equipment. You go to a group of people and say, "I'm going to experiment in the destruction of equipment." They of course give you the oldest equipment they can find. They gave us a bunch of RBA and RBK equipment and some old TD's that they had in Yokosuka, and we took all these out and stacked them full of thermite and sodium nitrate and all sorts of devices and set them off and absolutely nothing would happen. They'd warp a little bit, parts might bust, but generally our destruction was less than 5%. So the gentlemen from White Oak, very astutely observed that if we had modern-day equipment with magnesium and aluminum alloy parts and chassis that we probably could do a good job. But once again we were interested in proof of what these engineers were saying. We wanted to know that we did in fact, have a good instrument. So the Ship Repair Facility very nicely built us a piece of

equipment using the proper modern magnesium alloy chassis, using some pre-printed circuits—they just put a piece of equipment together. And that in fact did get destroyed pretty well. Probably 85% to 90%—like the paper. These tests went on for quite a while and everybody at those tests was prettty well satisfied that if the requirement ever came again and if a ship or any unit was appropriately configured with these rather old and archaic devices, that we could do a moderately efficient job. We also experimented and considered the use of shaped charges built to fit an exact piece of equipment—one that was built to do an exact job. Navy Weapons Center China Lake offered to build some; but it was decided that we would not go that far with our experimentation. We considered acid baths and all sorts of devices. All of you are in the security business to the degree we are—having to worry about what the meaning of immediate, rapid, and total destruction is. And possibly at some time in your future all of you might be in that business.

George Chelius: I wish that we could have allowed a little more time. I'm sure that he has more detailed information that he could go into. I might add that the talk was approved by the Chief of Naval Operations.

A CAS LOOK AT CLASSIFICATION MANAGEMENT

Colonel George Zacharias

This is the first opportunity I have had to address a national seminar of the NCMS, although I have been privileged to attend a local meeting in Washington. I would like to thank Mr. Thompson for inviting me to this event.

This seminar has also afforded us an opportunity to bring together for the first time the Classification Management Specialists of our DCASR Offices of Industrial Security. We are truly taking a deep look at classification management.

No one appreciates more than we in Industrial Security the impact that classification has on our program. In fact, to quote some slang from the modern generation, classification is the beginning and the end of the Defense Industrial Security Program. This is one time when you can take the quote literally. Security swings into motion when a classification determination is made. It ends when the information is declassified.

Your classification management resources are small, but so too are our resources in CAS. We both must make maximum use of what we have. Neither of us can afford faulty classification determinations. Overclassification wastes our resources, underclassification jeopardizes defense.

During this period I propose to give you a brief overview of how we operate in the administration of the Defense Industrial Security Program. Then a few illustrations to show the interface between classification management and the CAS operation in the regions. I will close with a few observations on what may be done to effect further improvements in this vital area.

The Office of Industrial Security is

responsible for administering the Defense Industrial Security Program, not establishing the policy for security. We are sort of in the middle between the Policy level which is the Office of the Assistant Secretary of Defense (Administration) and more specifically Mr. Liebling, the Deputy Assistant Secretary of Defense (Security Policy), and the rest of industry and government. We are charged with coordinating recommended changes to the Industrial Security Regulation and the Industrial Security Manual (as they may come to us from industry or our regional offices) with the User Agencies and with the Council of Defense and Space Industries Association (CODSIA). Additionally, we are required to coordinate with the Assistant Secretaries of Defense for Installation and Logistics (I&L) and Public Affairs (PA) before furnishing our input to Mr. Liebling's office for final review and approval. We then publish and distribute the approved changes to government and industry.

In my office, assigned to the Programs and Systems Division, we have Mr. James Moran, who is primarily assigned duties relating to the area of classification management. The Programs and Systems Division is charged with developing the Defense Industrial Security Program guidance media such as the Industrial Security Regulation, the Industrial Security Manual, the Industrial Security Letter, the Industrial Security Bulletin, etc., and maintains the coordination of such media with all User Agencies. The Field Management Division does just what its name implies and manages the field implementation of the program.

In each of the eleven DCASRs there is an Office of Industrial Security with two divisions. In the Facilities Division there is one specialized position known as the Classification Management Specialist.

At this time I would like to introduce these gentlemen to you:

Atlanta—Tommy Thomason
Boston—Bill Spring
Chicago—Ray Nehls
Cleveland—Bob Kuptz
Dallas—Dave Moran
Detroit—Lou Sabiga
L.A.—Joe Brantley
New York—Larry Mullins
Philadelphia—Gene Elkins
San Francisco—Bob Cunningham
St. Louis—Charlie Miceli

These gentlemen represent the cognizant security officers and play an important role affecting both industry and government.

Cognizance means more than just awareness. Webster defines cognizance as jurisdiction, the right or power of dealing with the matter judicially. There are many matters which fall under the mandate imposed by security cognizance, not the least of which is monitoring the procedures spelled out in the manual and regulation for classification guidance. While all of our Industrial Security Representatives review the DD Forms 254 at the contractor's facilities, the job of working out solutions to problems focuses in the classification management specialist.

I would like to make it clear that our charter does not authorize us to make classification decisions. We do relay decisions of the contracting activity whenever a question arises

involving an interpretation of guidance in the DD 254. Occasionally we also question interpretations by the contractor which we feel are not consistent with the intent of the DD 254.

It must be realized that the Industrial Security Representative is frequently the only government representative with whom subcontractors have direct contact. Only in specific cases does the ACO or other representatives of the government contracting activity deal directly below the prime contractor level.

Since our man is on the scene he is the one to whom these contractors turn for advice and assistance. At times, these lower tiers of contracting might otherwise get lost in their search for help. We offer our services to unsnarl the confusion, get answers for them from those who can help.

The technical expertise on getting classification determinations does not automatically show itself. It must be sought out both in industry and in government. We must all rely on the technical knowledge of project people, engineers, scientists, and others, in determining whether a specific piece of hardware, or a document, discloses that information which the classification specification lists as classified.

Our Industrial Security Representatives are faced with the question of whether something is properly classified each time they inspect a contractor. We too must seek the technical expertise from those who are in a position to judge.

The Classification Management Specialist in each of our eleven DCASRs has been developing a degree of expertise in this function. He knows where and how to go about getting the expert determination.

None of us is so naive as to assume that classification guidance, be it announced on a DD 254 or in a master guide, is equally understood by all who must work with it. We know too that the government project or program office has its problems in preparing and presenting classification specifications with sufficient detail as to satisfy all users of the guidance. The specification often presents a communications problem. It is in this area that our Classification Management Specialists can be of the most assistance to both the contractor and to the procuring activity. Permit me to brief you on a few recent examples.

A security supervisor revealed that his efforts to develop an on-going classification management action in this company was being resisted by the Head of the Engineering Department and the Contracts Department was supporting Engineering. The position was: don't rock the boat Mr. Security.

The Industrial Security Representative discussed this predicament with the Classification Management Specialist.

It was decided to look into the alleged Engineering-Contracts collaboration by placing heavy emphasis on the accomplishment of paragraph 10e of the Industrial Security Manual. This paragraph requires the contractor to establish a procedure to insure that "necessary, current and accurate classification is determined by a man-

ager or supervisor before assignment is made to a document."

Without difficulty the inspection results showed conclusively that the Engineering Department was not actively fulfilling the requirements of paragraph 10. Our representative requested a conference between the Engineering Head, the Security Supervisor, and his boss. After a thorough discussion of the matter a positive Classification Management procedure was agreed to and initiated.

The situation and solution was later summarized in the inspection briefout made to the Executive Vice President. While this case isn't of earth shaking consequence, it does demonstrate how our DCASR representation was used for a beneficial result.

Another case demonstrates how the communication gap was reduced by our involvement.

In the course of a recent inspection, the Industrial Security Representative queried a number of contractor operating personnel on the adequacy of classification guidance furnished in the DD 254.

Although 254 had been reproduced and disseminated widely throughout the facility, none of the contractor's representatives firmly endorsed its adequacy for the performing activities.

Naturally the contractor was questioned as to whether amplification of the guidance had been requested from the user agency's project office. Reluctantly it was revealed that the contractor had appealed to the government project office, orally and in writing, with negative results.

Using the specifics developed by the Industrial Security Representative the Classification Management Specialist documented the situation fully and made specific recommendations for refinement of the DD 254 in question. Full concurrence was granted by the project office. A much more detailed 254 was issued and all hands were satisfied.

Again, I don't really feel that the DCASR pulled any magic. It may simply be that our people and the user agency project office were able to communicate better and more rapidly. The important point is we were able to effect resolution of a problem between a contractor and his customer. We'll gladly engage in a little customer relations work if it will enhance security.

A third case illustrates how conflicting instructions were cleared up through our headquarters getting in the act.

A well detailed master classification guide stated that the end item, or product, was unclassified. The remark which followed this entry read "visual and physical access shall be limited to cleared personnel during the final inspection period."

Although our Classification Management Specialist should have picked this point up initially he didn't.

The classification management official of the contractor did notice and challenged the entry through the appointed ACO. He got no satisfaction.

The DCASR Classification Management Specialist appealed on behalf of the contractor with no better results.

The complete case was referred to my staff at Cameron Station. The staff specialist on Classification Management matters was given the case and quickly coordinated with the major headquarters concerned. There was immediate agreement that clarification was in order.

Here's how the remark was reissued: "During final inspection access to Confidential data, i.e. test information, final assembly specifications, procedural information, tolerances, cross section details, may be required. Only personnel holding appropriate clearances may perform final inspection processes."

In another case of coordination and teamwork between the customer and the contractor we merely acted as a catalyst to get the communications flowing.

There was a time when none of these cases would have reached the attention of our Classification Management Specialist. We have now broken through the barrier and I am confident that we can still do much more in the development of sound Classification Management objectives and results.

I mentioned at the outset that I would close with a few observations on what may be done to effect further improvements in Classification Management.

It is interesting to note the number of times that user agencies, upon being informed of security violations which result in possible compromise of their information, review the information and determine that it can be immediately declassified. This naturally generates some questions.

Have we been expending considerable effort and resources unnecessarily protecting UNCLASSIFIED information?

Why wasn't this information declassified as soon as advances in the state of the art or other factors eliminated the need for classification? Was it really reviewed previously or had someone merely gone through the motions?

The conclusion is obvious. Those who have the classification review responsibility must apply more effort to effect timely downgrading and declassification actions.

Industry too has its improvement potential. It is astonishing to see the amount of classified material a facility determines it really does not need, and can destroy, when threatened by a civil disturbance.

Why must we wait for a crisis before the excess quantities are destroyed? We have pack rat types both in government and in industry. It's time that we review periodically our classified holdings to ensure we keep only that required. Or we must be prepared to pay the costs associated with the increased storage: guards, alarms, supplemental controls, not to mention the increased chances for compromise or loss.

In Europe recently we were able to review with certain contractors their classified files. This review resulted in the destruction of nearly 90% of their classified holdings. We found, in some instances, the material had not been looked at in over a year.

Many contractors have excellent well publicized programs for continuing review and disposition of unneed-

ed classified files. Various incentives are offered.

Some offer prizes for cleaning out the deadwood.

> A reverse incentive was reported in one facility. Its management refused to permit the purchase of additional file equipment until material in existing files was reviewed. After suffering a few weeks with loose material and cardboard cartons sitting around offices the pack rats got rid of huge amounts of the old material.

Because of the volume of material in existence incentive programs appear to be the best solution for ensuring that we are keeping only that material which is currently needed.

My final suggestion for improvement lies in the area of getting top management's attention focused on the benefits of an agressive classification management program. This isn't always easy. The presence here of Mr. Liebling is evidence that the Department of Defense takes this matter seriously. Maybe we can help industry in this regard. I've already shown instances of how our DCASR representatives have helped in this matter.

One other means we are trying is the development of a movie which ties classification management into the many other resultant actions which occur when something is classified. We call it "Combination for Security."

The film has been two years in the making and we tried everything possible to get a print available for this seminar. We were not successful but I am certain that it will be available within the next sixty days.

As with any new film it will be in demand initially by more people than we can supply copies to. Each DCASR will probably get one copy on permanent loan for use in its educational efforts.

I'm sure that if you can get your management, as well as those who must make classification decisions in your companies, to view this film the role of the classification manager will be better appreciated. We have tried to make this film serve two purposes: motivation for management to recognize the need and the value in analyzing the DD Form 254, perhaps even setting this up as a distinct function within the security framework. The second objective is to give all who see it an insight into what is behind the assignment of classifications.

We think we've gotten a pretty good product on our first try. We'd like to see more developed on this subject and hope others in government and industry will try to develop something even better.

With a mixed group such as this audience it is not always easy to keep the point directed to their interest. I have found however that the common bond between us is so strong that our team spirit overrides any operational differences that might occur.

As I stated earlier, I've been impressed that we have come a long way since 1965. We are going to go even further in improvements in the next five years. My appeal to you is this:

Don't be bashful about asking for help whether you are a contractor or a customer. We are in business to be

of service and we'll be glad to help whenever we can.

Thank you!

QUESTION AND ANSWER PERIOD

(Answers by Colonel Zacharias)

Bob Nelson, North American Rockwell, Space Division: Colonel Zacharias, yesterday there were many "solutions" offered for the document retention problem that seems to exist. One of which was to place this activity in the hands of the LOCAL DCASR for monitoring. I was wondering if you would care to comment on this?

A. I hadn't really given too much thought to such a solution but there might be some resistance to this. We certainly would have an open mind on it. I think we do have the capability to perform this service, if you will, on behalf of the contracting activities. It's a good recommendation but the pros and cons require some discussion when we get back to Washington. On the face of it, it sounds very reasonable. We have Classification Management Staff Specialists and retention falls in their line of business. Let's look at the program in broad prospective. It's all one program. We're still waiting for industry's input on this retention problem and we've been waiting a long time. I'm a little disappointed because industry is usually very good about getting comments to us in a timely fashion, but this time there must be some disagreement between the members of the Council of Defense and Space Industry's Association (CODSIA). When I left Washington we still had not seen any paper on retention. I had hoped to have it so that I could discuss this a little more fully. Maybe George MacClain would like to comment on this point.

Mr. MacClain: I just heard yesterday that the response had been written from one element of DOD to another. That's progress. So, I think what I got out of yesterday's workshop was that the demand is becoming more vigorous and therefore the solution has to come a little sooner. I think it will.

A. When a recommendation of this sort is made, we need specifics. What caused the problem? And how large is it? I'm aware of a retention problem that came up and after I looked into the specifics I found that the individual who was complaining the loudest hadn't asked for retention authority until long after the original retention authority had run out. The request for further retention said nothing. So I called the party concerned and asked, "Why don't you make your justification based on some good sound logic and reasoning? If you do have a bonafide need, spell it out. I have read what was submitted and find no basis for extended retention and if I were the user agency I wouldn't give you retention authority." So he said, "Well, if that's the way you're going to be about it, I'm just going to destroy the documents. Now I submit to you that this is no way to run a program. Either you need the material or you don't. The outcome of this case indicated to me that retention of the documents wasn't really needed.

Q. Fred Daigle, Lockheed, Sunnyvale. The classification management film which you indicated is in the

process of being completed—will copies of that be available for industries if they'd like to have a copy of their own.

A. Yes. There will be 50 copies available to the DCASRs. I haven't the details about direct purchase but you can be assured that either you can get one by purchase or loan. Incidentally, we've received funds for another film which will be starting in the near future. The "Combination on Security" film is really good. I think it will have a good impact on your top management. I'd recommend that they be persuaded by one means or another to see it. We'll get a flyer out to all the people and explain all the details of the film and how you can get it.

DEMONSTRATION OF AN OPERATING CONVERSATIONAL COMPUTER INFORMATION RETRIEVAL SYSTEM

Richard A. Lickhalter

George Chelius: For our presentation this morning we are indeed fortunate. This is not the first time we have heard about computers. We've talked about computers and they frightened us. We face them with fear and trepidation only because we don't understand them. We're extremely fortunate to have with us Mr. Lickhalter, head of the Advanced Development Staff at the Systems Development Corporation, a position held for several years.

Mr. Lickhalter: Also, I want to present Betty Friedlander who has worked very hard in setting up this demonstration. She is on my staff and performs as a jack-of-all-trades—customer work, bringing new people on board, and a thousand other things. She'll assist me in the demonstration. We'll be using a phone to call up our computer in Santa Monica and she'll get that connected and we'll have the live demonstration of the DS/2 system.

I heard a comment that you're afraid of computers, or you're terrified of computers. I think we all are in the sense that an IBM pink box or blue box, depending on which model you get, has a whole set of buttons on it. But, that's for a computer operator to worry about. That's not for us to worry about. Our relationship with the computer is through a terminal. This is what we'll be using. Our interaction is with the language. How do you talk to a computer? We have developed a language which is similar to an automatic transmission in an automobile. It does the gear shifting for you. It keeps track of how many revolutions are going on and when to go into the right gear. We just tell it. If we want to go forward, we put it in drive. If we want to go in reverse, we put it in "R". The language clearly isn't that simple but it is an approach to it.

When first presented with the opportunity to speak to you, I said how can I put them off. But Lorry McConnell kept calling me. One time I think we had five calls in one day—either he wasn't in or I wasn't in and somehow we got together. Lorry understands the problem that faces

you—the management of classified information. I don't. I understand the problem of interfacing with the computer; of getting the information which the computer has stored; and trying to work with you. If you tell me your problem, I'll tell you how this system I'm working with can help you. So that's what Lorry and I started to do. We had a few chats and he was trying to describe this mass of information—and you had to make decisions—and how do you make decisions. And I said, "What's the data?" And we went back and forth and back and forth. Finally the discussion evolved to the 254 forms. So we took some 254 forms and looked at them and I said,"My God, you've got information on it."

Let's put it into our DS/2 system. And that's what makes DS/2 unique among the systems in the industry—that we could care less what your information is; whether it's medical records, employee records, scientific and missile test data, or the 254 forms—you just tell us what the information is and what information is useful to you. Looking at the 254 form we decided what information fields we wanted to have available for output and what information fields we wanted to have available to query—to search on. And then we made up some typical examples.

Let me pass out now the 254 forms and the DS/2 definition that we got from the 254 forms. There are two forms. One is the 254 form with the data base we used. The other is some sample outputs. (See illustrations following this paper.) Now, together with these we have the main terminal here and we also have a slave terminal that will be output on the TV screens; so, you'll be able to see exactly the interaction that we're going to go through to search your files. Now please keep this tremendously informal. So, if I say a word and you have no idea what it is, I want you to interrupt me immediately. Or if you want to ask, "Can the system do this," or whatever capabilities that I don't make clear for you, or that you have in the back of your mind, please feel free to ask; we will then have a much more meaningful exchange. As you can see on the TV screen now, the first message that came up informs you that the DS/2 system is on the air. Now the first thing that any of you should ask is: What is DS/2?

Q. What is DS/2?

A. Okay, DS/2 is an information system which allows you to have a terminal in your office and, using a very easily learned language, you can get information back to your desk. It's conversational in the sense that you type and the system responds to you. You act on your information and it has an easy-to-learn language. That I think is a thumbnail sketch of DS/2.

Okay, we are now connected through telephone lines. The system has said "Hello, DS/2 is on the air and waiting for you to do something." Betty is now going to identify herself to the computer operator; and the operator says I know that this is a person that is acceptable to use the DS/2 system. Okay, Betty has logged in and has identified herself as Betty giving a demonstration. Out of the system comes "I read you, Betty, what file do you want to ask ques-

tions of?" Okay, we've defined the file as the 254 form. On the back of your handout (see Illustrations No. 2 and No. 3) you see a typical 254 form; this one has circled numbers written on it. These numbers correspond to defined data fields (see Illustration No. 1). The name of the file is 254 and it now asks what is your security key? Each one of our files is ticketed, you might say, with a password. So even though you know that 254 forms are available, unless you know the password for the day, you can't interrogate the files. This is particularly good in, say, a personnel file. If you wanted the salary administrators to have the salary information available, but maybe you want to place people based on their job skills, you can have the same information on file available to both the job administrator and the salary administrator; but you can lock out some of the unnecessary or unneeded information from the ones who don't have the need to know the information. Okay, now the security key; if you don't know what it is, you can put in something like SECURE and the system better reject it or I'll have to go back to my programming research. It will then keep telling us "not a valid key." We copped out and just used the word "DEMO" as a key for this today. Now, the system will recognize this and say it's the password for today on this file. Now it will tell the operator to go and get your data. I'm sure you've all seen these little packs of information; they look like whole sets of phonograph records combined together. So the operator will put this on and we'll be ready to go.

What Betty will do next will be to tally. She'll ask how many records do we have in this particular file. The number that will come back will not be large since we had such a short period of time to prepare the data. But the most important thing is to show you how you can interrogate the file. The request was accepted and now the computer will search the file and tell you how many 254 forms there are. Here we have 15 different 254 forms in the file. This is not a limit of the system; we could handle even 100,000 if you had them. (All that's effected by the number is how quickly the results will come back.) If you want to know what is in the file, Betty could do a "describe." She could say describe, and let's limit the description to C2 through C10. (See Illustration No. 1.) These would correspond to the pages you have in front of you. For example, the first field (C2) is "CLASS". This means the classification. Then it tells you the specification for it (C3—'SPECFOR"), the prime ID (C4)—the prime contract number, the completion date of the prime contract (C5 & C6), the sub-contractor number (C7), the completion date of the sub (C8 & C9), and the identification of an RFQ, an RFP, or an IFB (C10). As you look further down the "Component" list, you can see that the items correspond exactly to the information on the 254 form. With DS/2, you're never in the dark as to what is contained in your file.

Now, what are some of the questions that you might want to ask. Let's say that I'm in Los Angeles and I have to know what prime contracts I have which deal with Top Secret information. (See Illustration

No. 4.) Okay, so Betty can now type in the simple statement that I need the PRIMEID (C4) which is the contract number, and the PRIMECON (C17) which is the prime contractor; And now I want to know "where the PRIMECOG (C18) is equal to the DCASR in LA and the classification is equal to Top Secret. (This is what I mean by an English language input.) Now a search will be made of the files and a report will come back to you on your terminal—a report which meets these qualifications. To output this report, we need 51 columns on your page. So the file will be searched and all of those 254 forms in Los Angeles that are classified Top Secret will be output. But, because Betty has set the margins for 45 and it requires 51, instead of a nice report format like you see on your sample there, you'll get what we call the unblocked format. But again, it's automatic. The user does not have to work. The system takes care of all of the decisions. The user is only concerned with, "What do I want. What is my search request." You don't have to worry if it's a number or if it's got special characters in it, or if it's too long. This is all automatically handled by the system. The user puts it in his own language. "What is it I want out of the file?" So, right away we see a listing of all of the different contracts (with the contractors names) which are Top Secret and handled in Los Angeles. (See Illustration No. 4.)

Let's take another example. Let us say that in the 254 form you notice that the component C21—PROCURID—is a description of the contract. This is a general description of the contract. Well, let's say that I'm interested in the way all of my procurement contracts dealing with software development are being classified. (See Illustrations No. 4, No. 5 and No. 6.) I can ask the system to print out PRIMEID (C4) and PRIMECON (C17) where the PROCURID (C21) contains the word "software." In this example, I don't have to give the system an exact value; I give it an idea. Somewhere in the text or description I am concerned with which contracts have to do with software. Maybe we should also worry about the term "computer program." So, let's also say where PROCURID contains "computer program." Lets put the input in and see what happens. This system responds to errors by telling you, "you made an error." So it's told us that there is an error in "PROCURID." Now what is the problem? Okay, Betty had want [illegible] it to print out the PRIMEID an [illegible]e PRIMECON. As you can [illegible], a comma was left out. Even in your own language if you leave a comma out in a paragraph it makes it very unclear. Well, the system does require a very rigid language; and if you want two fields of information you had better separate them by a comma. As you see, to go from line to line, you just input the asterisk. So you don't have to limit your input to one line. You can just keep going. We want all information dealing with software and computer programs. We don't have to know the exact description of the field checked. All we have to know is that somewhere in there, it is to be found. If you look on Illustration No. 6 you can see the output—"computer program training for

system 465L," "review and analysis for computer programs," "design and development of the DCA computer program," etc. This makes it very easy for the user. He does not have to worry about the particulars—unless of course he leaves a comma out. So, this display will go on and if we had more than 45 columns you could see it all on the TV screen.

What if you decide that the information isn't what you want. What happens? Do I just have to wait and wait? No. There is a key on the teletype which is called "break." If you hit the "break" key the query is immediately voided and you're ready to go to the next query. So you don't have to be afraid of the computer or the terminal in this case. You're always in control. The machine is never in control of you. You are guiding it. It's a tool and nothing more. Are there any questions you people want to ask?

Q. In the results on the illustration sheets, there were some codes—I believe on your first query; would you explain what those codes were?

A. Codes? Which codes? On the first query we had PRIMEID and PRIMCON. PRIMEID is the contract number which is on yout 254 form. Is that what you mean? The 13 and the N there? Okay, in the "describe" output the second field (C2) is CLASS (classification). In the file, it's 13 characters long. PRIMEID is your contract number and t's 20 characters long. The N means that any numeric character can be used. (See text at bottom of Illustration No. 4 and at top of No. 5.) Any other questions? Okay then, lets go to the third example.

In the first example, we searched the file—and this is an important point. How would you say your 254 forms are now? Are they ordered by contract number, are they ordered by contract term, are they ordered by the DCA in our area? That's where this system shines. It doesn't matter what the order is. You specify what the search conditions are and it outputs the information you request. So it's like having the files ordered on any combination and we can still search. In the first example I searched by classification and PRIMECOG. In the second, I searched by terms—the idea of computer programming and software. The third one that I'm going to input, is one where, let's say, the security officer has to make a trip to a particular company and he wants to know all of those contracts where the 254s are not current. (See Illustration No. 7.) So now I'm searching by contractor and the date of the 254. You see, you don't have to worry about how you are going to search the files in order to organize them. It just means that this information is in there in any order and we can get it out. Betty will type in that we want to print out certain information on the contracts of the company we are going to visit and where the dates of the 254s for company's contracts are more than a year old. Now here we're going to see the block format where you get headings and the information underneath it. This is the normal output. The user does not have to worry about his output format. Now when we do this we assume that a date is a 6-digit number. There are 2 each for year, month and day. (In future, the system will automatically

put a slash between every two digits of the number so that the date will be more readable in the output. In working with our different user families, this has been one of the suggestions made to us. And believe it or not we're listening.) So that's why we can say here that the date is less than 690800—that is, earlier than—August 69—and you see that all the dates here are 68 and 69. So, right away the security officer knows that these are the 254s he must talk with the people about. These are the ones he has to update. Also, we've printed out the completion date of the contract, because maybe if he sees the completion date he'll decide he doesn't want to spend the time. I don't know what the requirements are.

Now, for the fourth input let's assume that a security guidelines document is being revised. And we want to know all the 254s that are going to be affected by the revision, and we want to notify the program/project managers and we want to change the date of file. (See Illustrations No. 7 and No. 8.) So we want to do all of these things. So, we're going to require a printout of the contract name, the manager and his address, who will be affected by this revision. One thing I didn't explain is that we're talking about a 15-entry data base here; what if you've got a 20,000 entry data base; and when you get an output on this, it isn't five or six entries which will appear. Maybe you'll have two, three or five thousand entries coming out. That's what this letter "B" here means. So instead of saying, give it to me at the terminal, you can say put it on the batch tape and then have the high-speed printer in the computer room print the results and give it to me in the office when it's completed. That way you do not tie your terminal up waiting for excessive outputs. Only the outputs that you need do you tie your terminal up with. The rest you have put out on tape and printed. Here are all of the different requests. As you can see, rather different contracts are affected by the revision to the guidelines. And we're outputting the manager and the address and you can conceivably use this as a mailing list, to inform these men under these contracts that we are changing the guidelines. Now that these people have been informed, we now want to change our file directly. So we want to say now that we want to know that the contracts were changed and we want a notation of that. This automatically gives you an output saying that certain documents have been changed according to the revision. (See lower part of Illustration No. 8.) So again, you're specifying what you want the system to do. You're not worrying about programming. You're not worrying about the computer at the other end. You're just worrying about what it is that you want the system to do for you. And you automatically get a report out showing the PRIMEIDs and all documents being updated by the revision. You'll note that it's being accomplished in the system and that there is a record of it in your office.

QUESTIONS AND ANSWERS

(All answers by Mr. Lickhalter. The questioners are unidentified.)

Q. What is software?

A. Well, the machine is hardware, and anything that makes the machine run is software.

Q. How many different types of outputs can you get out of it. I'm thinking in terms of my organization getting about 100,000 pieces of Secret mail each year, one-third of which is retained. How about a query where once a month you would want to know where all the Secret documents are. Can this be tied in with financial management, for instance, on a time-sharing basis?

A. With the configuration that IBM provides--they have various operating systems. We would have to discuss individually whether it would tie into a time-sharing system. But the numbers of outputs are whatever you want it to print. You can specify the fields in any order. You can do arithmetic on the field; you can do sorts on the field; you can create sub-totals; you can get summary reports out. We showed you in this example just the flavor of the system.

Q. Can your equipment query and receive a response on any of your component numbers? For example, say, tell me all of the contracts that have restricted data?

A. Correct. Why don't we put that in. Did you want the documents out, or just the number?

Q. Just the number.

A. Tally where . . .

Q. But you could get the numbers where the documents are?

A. What do you want?

Q. Can I assume that you have a printed record back there of what we're talking?

A. A printed record? What do you mean?

Q. That emission at the back there, is that just a print out of what we've been going over.

A. That's the slave terminal. This is the actual terminal. So you just want a tally of the restricted data. This again is the beauty of an on-line system. You don't have to make a request and then an hour later wonder if it's going to be what you wanted. Okay, what we did was code it as "Y" and "N". Restricted Data "Yes" and Restricted Data "No."

Q. I'm afraid my question is unrelated to your demonstration. But I find that probably the biggest single difficulty in classification management is the accurate application of the classification guidance in the 254C. The data being developed by the hundreds or thousands of contractor employees working on a given program—do you know of any efforts being made to provide a data bank to allow the user to query the computer on the application of a given element or piece of language, or paragraph, or page—admittedly this requires a different system?

A. No. I have no knowledge of that.

Q. It would appear that the resources and capabilities of the computer might lend itself admirably to such a task.

A. Then again, you're still at the mercy of the people that have done the original coding.

Q. Right. But this would allow your experts to do it in more uniform application.

A. That's right.

Q. With this particular system

that you have here can you put out a narrative output?

A. Only if it's a field in the data base.

Q. If we wanted to describe something that was classified and why it was classified, in more detail?

A. We have one field which is called "remarks", in which we could just print the remarks.

Q. Is it limited?

A. It's 255 characters long. But you can tie several fields together if you want to.

Q. If you would want an interest profile . . .

A. I'd have to know more about what you mean by "interest."

Q. Well, if a particular contractor were involved in this area.

A. Oh, I see. Yes. I really appreciate these questions, this is great.

Q. Can you take a particular piece of hardware and crank it in so that you can get a printout as to which contracts that particular hardware is involved in?

A. If it's described in the 254 form. If it's described in item C21. That's your "PROCURID." If it's described in there we could tally where PROCURID contains a missile or 465L, or it could have the hardware described.

Q. Does the utilization of this system require the use of the telephone? What I mean is could you have your bank here on the West Coast and anyone with a telephone line that ties in, could they query the bank?

A. That's right. We have been with Chrysler and Ford and have queried the data bank in Los Angeles from Detroit.

Q. Then access is controlled only by your query key.

A. By the security key which we logged in on in the very beginning. I logged in and the identification was accepted and this allowed me to go forward.

Q. Has there been any thought or any attempt to secure beyond this key? This key would not be anywhere qualified for a secure access.

A. No, it's not secure access. There has been some further refining of the data files so that some fields will be a read only and some a write only. We haven't worried at all about terminal security or line security or anything like that.

Q. I believe you're using an audio couple, aren't you. Telephone. Is that a condition line or can you do it with just straight line or WATS.

A. You can't use a straight WATS line. The operator cannot break the connection because you'll lose your data connection. But you can run locally, you can run—actually you can run right into the computer room without any remote terminal. It can even be punched on cards. It has total flexibility.

George Chelius: Mr. Lickhalter, we would like to thank you for an excellent demonstration. I'd like to introduce Lorry McConnell.

Lorry McConnell: Dick's presentation today seemed to culminate some things that we have been leading up to in this seminar. I recall particularly Doctor Welmers' luncheon address in which he urged us to get IT —defining "IT" as the new information technology. It's a tool that we can use in classification management —as Dick Lickhalter has shown us.

It's also—whether we ignore it or not —going to be very much a part of our lives as information managers.

CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(DD Form 254) DATA BASE DESCRIPTION

COMPONENT #	COMPONENT NAME	COMPONENT DESCRIPTION
C1	SETNUMB1	System reserved number with no meaning to the user
C2	CLASS	Facility security clearance required
C3	SPECFOR	Specification for Prime, Sub, RFQ, RFP, IFB
C4	PRIMEID	Prime contract number
C5	PDATE	Date of completion for prime contract (YYMMDD)
C6	PYEAR	Year of completion for prime contract (part of C5)
C7	SUBID	First tier subcontract number
C8	SDATE	Date of completion for first tier subcontract (YYMMDD)
C9	SYEAR	Year of completion for first tier subcontract (part of C8)
C10	QPBID	Identification number for RFQ, RFP, or IFB
C11	SPECTYPE	Specification type as Original, Revised, Final
C12	SPECDATE	Date of specification type (YYMMDD)
C13	SPECYEAR	Year of specification type (part of C12)
C14	PRECONT	Preceding contract number
C15	PCDATE	Completion date of preceding contract (YYMMDD)
C16	PCYEAR	Completion year of preceding contract (part of C15)
C17	PRIMECON	Name of prime contractor
C18	PRIMECOG	Name of prime cognizant security office
C19	SUBCON	Name of first tier subcontractor
C20	SUBCOG	Name of first tier cognizant security office
C21	PROCURID	General identification of procurement
C22	ADDREQ	Additional security requirements (Y/N)
C23	GRAPHIC	Graphic arts services required (Y/N)
C24	ACCESSO	Access to controlled areas or classified info only (Y/N)
C25	HARDWARE	Manufacture of classified hardware (Y/N)
C26	MATERIAL	Generation etc. of class. documents or material (Y/N)
C27	RD	Access to restricted data (Y/N)
C28	CRYPTO	Access to cryptographic information (Y/N)
C29	COMMANAL	Access to communication analysis information (Y/N)
C30	DDC	DDC or DIAS services may be requested (Y/N)
C31	MANAGER	Name of program/project manager
C32	ADDRESS	Address of program/project manager
C33	PUBREL	Approval for public release as Direct or Thru
C34	PADDRESS	Address for public release
C35	FORM254C	DD Form 254c is attached (Y/N)
C36	DOCUMNTS	Documents listed in C33-C35 ar attached (Y/N)
C37	DOC1	Document number
C38	DOC2	Document number
C39	DOC3	Document number
C40	STATED	Specifications are stated below (Y/N)
C41	PCO	Name of Procuring Contracting Officer/Approving Official
C42	PCOADDRS	Address of Procuring Contracting Officer/Approving Offici
C43	ACO	Name of Administrative Contracting Office
C44	ACOADDRS	Address of Administrative Contracting Office
C45	REMARKS	General remarks

Lickhalter--Illustration #1

DEPARTMENT OF DEFENSE

CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(Complete classified items by separate correspondence)

1. THE REQUIREMENTS OF THE DOD INDUSTRIAL SECURITY MANUAL APPLY TO PERFORMANCE OF THIS CONTRACT
FACILITY SECURITY CLEARANCE REQUIRED FOR CONTRACT PERFORMANCE OR FOR ACCESS TO CLASSIFIED INFORMATION IS (2)

2. THIS SPECIFICATION IS FOR: (3)	3. CONTRACT NUMBER OR OTHER IDENTIFICATION NUMBER (Prime contracts must be shown for all subcontracts)	DATE TO BE COMPLETED (Estimated)	4. THIS SPECIFICATION IS: (See note below) (11)	DATED (12)/(13)
a. PRIME CONTRACT	a. PRIME (4)	(5)/(6)	a. ORIGINAL	
b. SUBCONTRACT (Use item 8 to identify further subcontracting)	b. FIRST TIER SUBCONTRACT (7)	(8)/(9)	b. REVISED (Supersedes all previous specifications)	
c. INVITATION TO BID OR REQUEST FOR PROPOSAL	c. INVITATION FOR BID, REQUEST FOR PROPOSAL, OR REQUEST FOR QUOTE (10)		c. FINAL	

5. IF THIS IS A FOLLOW-ON CONTRACT, ENTER PRECEDING CONTRACT NUMBER AND DATE COMPLETED ☐ DOES NOT APPLY

CONTRACT NUMBER (14) DATE COMPLETED (15)/(16)

6a. NAME AND ADDRESS OF PRIME CONTRACTOR (Include ZIP Code)	b. NAME AND ADDRESS OF COGNIZANT SECURITY OFFICE (Include ZIP Code)
(17)	(18)
7a. NAME AND ADDRESS OF FIRST TIER SUBCONTRACTOR (If applicable) (Include ZIP Code)	**b. NAME AND ADDRESS OF COGNIZANT SECURITY OFFICE (Include ZIP Code)**
(19)	(20)

(Use item 8 to identify further subcontracting)

8. SUBCONTRACTING BEYOND FIRST TIER (as appropriate)

9a. GENERAL IDENTIFICATION OF THE PROCUREMENT FOR WHICH THIS SPECIFICATION APPLIES (21)

b. CONTRACT PRESCRIBES SECURITY REQUIREMENTS WHICH ARE ADDITIONAL TO THOSE PRESCRIBED IN DD FORM 441 AND THE ISM (22)

10. CONTRACT PERFORMANCE WILL REQUIRE	YES	NO	REMARKS
GRAPHIC ARTS SERVICES (23)			(45)
ACCESS TO CONTROLLED AREAS OR CLASSIFIED INFORMATION ONLY (24)			
MANUFACTURE OF CLASSIFIED HARDWARE (25)			
GENERATION, RECEIPT, OR CUSTODY OF CLASSIFIED DOCUMENTS OR OTHER MATERIAL (26)			
ACCESS TO RESTRICTED DATA (27)			
ACCESS TO CRYPTOGRAPHIC INFORMATION (28)			
ACCESS TO COMMUNICATION ANALYSIS INFORMATION (29)			
DEFENSE DOCUMENTATION CENTER OR DEFENSE INFORMATION ANALYSIS CENTER SERVICES MAY BE REQUESTED (If yes, see paragraph T, app I Industrial Security Manual.) (30)			

11. REFER ALL QUESTIONS PERTAINING TO CONTRACT SECURITY CLASSIFICATION SPECIFICATION TO THE OFFICIAL NAMED BELOW (NORMALLY THE ACO (item 14b)). EMERGENCY, direct with written record of inquiry and response to ACO) (thru prime contractor for subcontracts)

a. PROGRAM/PROJECT MANAGER OR ACTIVITY (Name, Title, and Organization)	b. ADDRESS, TELEPHONE NUMBER AND OFFICE SYMBOL (Include ZIP Code)
(31)	(32)

NOTE: Original Specification (Item 4a) is authority for contractors to mark classified information. Revised and Final Specifications (Items 4b and 4c) are authority for contractors to remark the regraded classified information. Such actions by contractors shall be taken in accordance with the provisions of the Industrial Security Manual.

DD FORM 254 1 JUL 67 REPLACES EDITION OF 1 DEC 65 AND DD FORM 254-1 WHICH ARE OBSOLETE PAGE 1 OF PAGES

Lickhalter--Illustration

12. Information pertaining to classified contracts or projects, even though such information is considered unclassified, shall not be released for public dissemination except as provided by the Industrial Security Manual (paragraph 5a and Appendix IX).

PROPOSED PUBLIC RELEASES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO RELEASE ☐ DIRECT ☐ THROUGH (Specify) (33)

(34)

TO THE DIRECTORATE FOR SECURITY REVIEW, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (Public Affairs)* FOR REVIEW IN ACCORDANCE WITH PARAGRAPH 5K OF THE INDUSTRIAL SECURITY MANUAL.

*In the case of non-DoD user agencies, see footnote, paragraph 5a, Industrial Security Manual.

13. SECURITY CLASSIFICATION SPECIFICATIONS FOR THIS CONTRACT ARE SET FORTH BELOW (Check which are applicable):

(35) ☐ DD FORM 254c ATTACHED (hereby made a part of this specification).

(36) ☐ DOCUMENT(S) LISTED BELOW (hereby made part of this specification). DOCUMENTS: (37) (38) (39)

(40) ☐ AS STATED BELOW

CONTRACT SECURITY CLASSIFICATION SPECIFICATIONS FOR SUBCONTRACTS ISSUING FROM THIS CONTRACT WILL BE APPROVED BY THE OFFICIAL NAMED IN ITEM 14b BELOW

REQUIRED DISTRIBUTION:

☐ PRIME CONTRACTOR (Item 6a)
☐ COGNIZANT SECURITY OFFICE (Item 6b)
☐ ADMINISTRATIVE CONTRACTING OFFICE (Item 14b)
☐ MATERIAL INSPECTOR
☐ DIRECTOR, FEDERAL BUREAU OF INVESTIGATION WASHINGTON, D.C. (Only for Items 9a and 9b) (Attachments hereto not included.)
☐ SUBCONTRACTOR (Item 7a)
☐ COGNIZANT SECURITY OFFICE (Item 7b)

ADDITIONAL DISTRIBUTION:

☐
☐

14. THIS CONTRACT SECURITY CLASSIFICATION SPECIFICATION AND ATTACHMENTS REFERENCED HEREIN, APPROVED BY THE USER AGENCY CONTRACTING OFFICER OR HIS REPRESENTATIVE NAMED BELOW

SIGNATURE

TYPED NAME AND TITLE OF APPROVING OFFICIAL (41)

a. APPROVING OFFICIAL'S ACTIVITY AND ADDRESS (Include ZIP Code) (42)

b. NAME AND ADDRESS OF ADMINISTRATIVE CONTRACTING OFFICE (Include Zip Code) (43)/(44)

PAGE 2 OF ____ PAGES

Lickhalter--Illustration #3

SAMPLE USES OF THE
CONTRACT SECURITY CLASSIFICATION SPECIFICATION

The DCASR in Los Angeles must review all prime contracts in its jurisdiction with a Top Secret classification.

```
>PRINT PRIMEID,PRIMECON WHERE PRIMECOG EQ 'DCASR-LA'*
*AND CLASS EQ 'TOP SECRET'
  51 COLUMNS REQUIRED, CONTINUE(Y/N/F/B):
>Y

      PRIMEID                    PRIMECON

F19628-68-C-0777      SYSTEM DEVELOPMENT CORPORATION
F04701-69-C-0031      TRW SYSTEMS
F04606-71-C-1320      SYSTEM DEVELOPMENT CORPORATION
F04606-69-C-1235      SYSTEM DEVELOPMENT CORPORATION
F33615-69-C-1068      SYSTEM DEVELOPMENT CORPORATION

    5 ENTRIES QUALIFIED, REQUEST COMPLETE.
NEXT:
```

A review of classification on contracts involved with software development or computer programs is required. The output is to be presented to high level officials and must be specially formatted.

```
>PRINT PRIMEID,PRIMECON,CLASS,SPECDATE,MANAGER,PROCURID WHERE*
*PROCURID CONTAINS SOFTWARE,'COMPUTER PROGRAM'
 166 COLUMNS REQUIRED, CONTINUE(Y/N/F/B):
>N

NEXT:
```

Lickhalter--Illustration #4

```
>PROOF

        PRIMEID                      PRIMECON                CLASS
          F1                            F2                     F3
---------20---------- -------------30------------- -----13------

  SPECDATE            MANAGER
     F4                 F5
  --6---    -------------30--------------

                             PROCURID
                                F6
----------------------------60---------------------------

166 COLUMNS REQUIRED

NEXT:

>HEADING F1 'PRIME CONTRACT', F2 'NAME OF CONTRACTOR'

166 COLUMNS REQUIRED

NEXT:
>OMIT F4, F5

126 COLUMNS REQUIRED

NEXT:
>HEADING F6 'PROCUREMENT DESCRIPTION'

126 COLUMNS REQUIRED

NEXT:
>REPEAT WHERE SAME
 126 COLUMNS REQUIRED, CONTINUE(Y/N/F/B):
>B
BATCH TITLE IS:
>PROCUREMENT INVOLVING COMPUTER PROGRAMS
JOB 01 IN QUEUE POSITION 1
NEXT:
```

Lickhalter--Illustration #5

07/19/70 PROCUREMENT INVOLVING COMPUTER PROGRAMS PAGE 1

PRIME CONTRACT	NAME OF CONTRACTOR	CLASS	PROCUREMENT DESCRIPTION
F19628-68-C-0277	SDC	TOP SECRET	COMPUTER PROGRAM TRAINING FOR SYSTEM 465L
F04701-69-C-0031	TRW SYSTEMS	TOP SECRET	REVIEW AND ANALYSIS OF COMPUTER PROGRAMS
N62269-69-C-0531	SDC	SECRET	SYSTEM ANALYSIS SUPPORT FOR THE A-100 SYSTEM SOFTWARE PROD
F19628-69-C-0007	SDC	SECRET CRYPTO	DESIGN AND DEVELOPMENT OF THE 416L DCA COMPUTER PROGRAM
DA-AH01-67C1990	RAYTHEON COMPANY BEDFORD MASS	SECRET	OUTSIDE COMPUTER PROGRAMMING/ANALYTECAL PERSONNEL SUPPORT

9 ENTRIES QUALIFIED. REQUEST COMPLETE.

Lickhalter--Illustration #6

A security officer is going to a particular company and must know all contracts with non-current 254's.

```
>PRINT PRIMEID,PDATE,SPECDATE WHERE*
*PRIMECON EQ SDC AND SPECDATE LS 690800
  36 COLUMNS REQUIRED, CONTINUE(Y/N/F/B):
>F

      PRIMEID            PDATE   SPECDATE

F19628-68-C-0777         690630   690222
N62269-69-C-0531         700501   690601
F19628-69-C-0007         700630   690401
F04606-69-C-1235         700630   690616
F33615-69-C-1068         710122   680923

    5 ENTRIES QUALIFIED, REQUEST COMPLETE.
NEXT:
```

A security guidelines document is being revised and all 254's affected by this revision must be known. The managers of the contracts must be notified and the data file must be changed to reflect the new document.

```
>PRINT PRIMEID,PRIMECON,MANAGER,ADDRESS WHERE DOCT EQ 'SAMSO-6'
 113 COLUMNS REQUIRED, CONTINUE(Y/N/F/B):
>F
PRIMEID= F33657-7[illegible]-C-[illegible]658
PRIMECON= RESEARCH DEVELOPMENT CORP
MANAGER= C S MARTIN COL USAF
ADDRESS= HQ ASD(ASZB) WRIGHT-PAT AFB O

PRIMEID= F[illegible]-69-C-1183
PRIMECON= SANDERS ENGINEERING CORP
MANAGER= [illegible] J [illegible]ICKSON
ADDRESS= [illegible]
```

Lickhalter--Illustration #7

```
PRIMEID= N62269-69-C-0531
PRIMECON= SDC
MANAGER= P L STEWART
ADDRESS= NADC JOHNSVILLE WARMINSTER PA

PRIMEID= F04606-69-C-1235
PRIMECON= SDC
MANAGER= MAJ D L BUTLER 14COI-I
ADDRESS= 14 AEROSP FORCE ENT AFB CO

PRIMEID= F33615-69-C-1068
PRIMECON= SDC
MANAGER= HQ ASD (ASI)
ADDRESS= WRIGHT-PATTERSON AFB OHIO

PRIMEID= DA-AH01-67-C1098
PRIMECON= RAYTHEON COMPANY BEDFORD MASS
MANAGER= WILLIAM DEMINS
ADDRESS= RAYTHEON COMPANY BEDFORD MASS

PRIMEID= DA-AH01-67C1990
PRIMECON= RAYTHEON COMPANY BEDFORD MASS
MANAGER= E LEE JR
ADDRESS= RAYTHEON COMPANY BEDFORD MASS

PRIMEID= DAHC-60-69-C-0018
PRIMECON= GENERAL ELECTRIC COMPANY
MANAGER= M L BROOKS
ADDRESS= GE COMPANY GREENSBURG NC

PRIMEID= DAHC60-69-C-2121
PRIMECON= XYZ CORPORATION
MANAGER= J J LIND
ADDRESS= XYZ CORPORATION VENTURA CA


    9 ENTRIES QUALIFIED, REQUEST COMPLETE.
NEXT:

>PRINT PRIMEID AND CHANGE DOC1 TO 'SAMSO-7' WHERE DOC1 EQ 'SAMSO-6'
  42 COLUMNS REQUIRED, CONTINUE(Y/N/F/B):
>F

      PRIMEID          OLD DOC1    NEW DOC1

F33657-70-C-0658      SAMSO-6     SAMSO-7
F05604-69-C-1183      SAMSO-6     SAMSO-7
N62269-69-C-0531      SAMSO-6     SAMSO-7
F04606-69-C-1235      SAMSO-6     SAMSO-7
F33615-69-C-1068      SAMSO-6     SAMSO-7
DA-AH01-67-C1098      SAMSO-6     SAMSO-7
DA-AH01-67C1990       SAMSO-6     SAMSO-7
DAHC-60-69-C-0018     SAMSO-6     SAMSO-7
DAHC60-69-C-2121      SAMSO-6     SAMSO-7

    9 ENTRIES QUALIFIED, REQUEST COMPLETE.
NEXT:
```

Lickhalter--Illustration #8

PROBLEMS OF SECRECY

Dr. Edward Teller

Thank you very much. Ladies and gentlemen. It is a great pleasure to be here. Some of you may have seen statements I made, particularly quite recently, about secrecy. This is your business and it is a very serious business. I would like to repeat my concern as briefly as possible and then emphasize those points where I don't know what should be done. I hope that we can have a little discussion because I know the problem is familiar to you, and in a way I have come more to listen than to speak.

At the time last summer when Apollo 11 was fired, there was also a Russian space vehicle near the moon not very far from the spot where Apollo was to land. There were two large differences between the American Apollo 11 and the Russian Lunar 15. One difference was that everybody knew what Apollo 11 was to accomplish—there was no secret about it. But, nobody knew what Lunar 15 was supposed to do. That was one difference. The other difference was that Apollo 11 accomplished its mission, and Lunar 15, whatever its mission was, did not accomplish it. This is a remarkable symbol of the difference of an open and a secret operation.

When one talks about secrecy, the main point of course has to be and is, the race, not in arms but in technology between ourselves and the Russians. In 1945 we had a monopoly on nuclear weapons and we hoped to keep the lead by keeping these weapons secret. Today our monopoly and, in fact, our advantage is lost. Don't quote me as saying this is a fact because few will believe me. But, unfortunately, there are strong indications that the Russians are indeed ahead of us. Let me just mention one to you.

The Russians have worked for almost eight years diligently and with unknown success on missile defense. We have worked reluctantly and with known lack of success, so far. Considering the great difference in effort, it is no surprise that the Russians are ahead of us.

I think that a closed society like Russia, and an open society like the United States, cannot be easily compared. The institutions are not similarly effective in these two societies. Recently (this is a little off the subject) I read two books by a very remarkable Russian author, Alexander Solzhenitsyn, I refer to "First Circle" and "Cancer Ward." The First Circle refers to the first circle of Hell, a relatively mild concentration camp, and the title of the Cancer Ward gives away its content. The books are frightening and inspiring. They are inspiring because it is remarkable that even in Russia books of this kind can be written. But if you read them, and if you realize that the man who wrote them believes at least in the philosophy of his government, you will clearly see what the enormous distance is between a free society and a kind of society that has been built up in Russia ever since the Mongols conquered that country in the 13th Century—the present Communist government being only the last phase of that

which has established itself in that society for centuries.

The Russians know how to keep secrets. The Russian scientists do what they are told. This has disadvantages, great disadvantages even disregarding the diabolical effects this has on the human spirit. But because this is the situation in Russia, secrecy is no longer an added disadvantage for their scientific development. A Russian scientist can be told what to do and in practically every case he does what he is told to do.

In the United States scientists can work on open subjects and on secret subjects. No scientist likes secrecy. Secrecy has impeded our development and that easily explains a paradoxical fact, that in the open subject of computers we are ahead of the Russians, even though, apparently they can copy what we have done. In the secret subject of nuclear weapons, they have caught up with us and are probably ahead of us by now; because in that subject, we just don't get enough cooperation. Many of our scientists will not cooperate. Law forbids cooperation with our allies.

Secrecy has caused serious alienation between the United States and the French, and secrecy has made it possible for some not terribly conscientious politicians to lull the American public into a false sense of security. Secretary Laird has taken the initiative to try to tell our people that we are in trouble; but bad news is not easily believed unless the proof for the bad news can be produced and demonstrated. Secrecy impedes us in doing that. What I am trying to tell you is that an open society does not work as efficiently if there is secrecy. A closed society is almost by definition a secret society, and if we could only break down secrecy in Russia, a real possibility for mutual understanding would then begin to develop.

I do not want to belabor this point any longer. I am convinced that for the sake of national security, our survival, and informing our people about our danger, we must make changes in our policy which is a policy of secrecy and which is only called, and wishfully called, a policy of security.

I really want to come to the main point: what to do about it. And on that point I have no proposals that I can put before you with the conviction that I know I am proposing the right system, the right procedures. Perhaps it might be best if I could outline to you two ways in which we could act. Both of these are aimed at reducing secrecy; none of them are aimed at abolishing secrecy—because I believe that as long as world tensions continue we cannot publish all our decisions, deliberations and plans. Actually, I heard that the North Vietnamese knew two days ahead of time that we were going into Cambodia. Except for well considered secrecy, they would have known two weeks ahead of time and our move would have been completely ineffective. As it happened, the secret was pretty well kept up to the point when troops started to move and it became practically impossible to hide the fact that something was going to happen. So I accept the need for secrecy in some respects. The question is how to limit secrecy, how to open up as much as is reasonable and compatible with immediate necessities.

I want to put before you a relatively conservative proposal and then a rather radical one. As I already told you, I am not convinced that one or the other is right. The correct decision may be in the middle between the two or beyond these limits or in an entirely different direction. I hope that you might want to address some questions to this general area.

The conservative proposal is this: Let us retain our general structure of secrecy, but make at least one switch that is almost a change in the principles of classification. I believe that today the unwritten law is: if in doubt, classify; be sure that we don't give away anything. I would first of all like to recommend that nothing should be classified without a carefully written statement why disclosure would be obviously harmful to the United States, and furthermore, nothing should be classified without considering the disadvantages that will follow from the classification and without comparing these disadvantages with the advantages. Finally, nothing should be classified without recommending a definite time of declassification, the duration which should be from case to case adjusted and adjusted to a relatively short period of time.

Secondly, this proposal means that we would in general leave open scientific work. To classify scientific research can have remarkable consequences. For example, as soon as we got a smell of a possibility that lasers of high intensity could be useful, everything on this subject became "Secret-Special Access." The result was that no information leaked for the very good reason that no information was produced. Classification managed to furnish an airtight enclosure for a vacuum. In the meantime, our past but no longer present ally, the French, made big progress which they demonstrated but which they did not communicate to us so that we cannot reproduce what they are doing. What the Russians have been doing we have no idea. Now, fortunately, the topic is declassified to merely "SECRET." Whether this is enough, I do not know. I think that in the research phase we should have essentially no classification. In the special case of lasers this could make a great contribution by the Edisonian method of trying many small things. Classification tends to interfere with the process that could go on in our research institutions and even our universities all over the country.

Next, this conservative procedure says: When something has been developed to the stage where we want to make a system that is to be deployed—then at that stage lets classify it; and by not disclosing how we place our bets we can hope to get an advantage in the technological race. We can get an advantage of two or three or four years. Let us essentially leave research open, but classify development. Then, when the development is complete at the peak of deployment, pay serious attention to a rapid declassification. Because, by the time we have deployed something in a wide manner, the Russians will find out about it no matter what we do. And therefore if we kept it secret we only fool ourselves into the belief that the Russians don't know anything about it. This, in crude outline,

would be the conservative procedure.

The radical procedure, which I must admit I prefer, has the advantage of simplicity. And it is this essential simplicity which I like. Not that I claim that this is the best procedure, but it is clearly defined and therefore easier to operate and will lead to less confusion. Let us pass a law that whatever we classify shall be published in one year from the date of the classification. The purpose is obviously to protect this information for the kind of period for which we can hope to keep things secret.

We can protect information such as where a submarine has gone, and that information we should protect. We can protect the information as to what codes we are using or what wave lengths we are using. We can protect and should protect the plans in a war like the war in Vietnam. But in a year these operational facts should be disclosed.

Now you may say that codes, wave lengths, and other things might be kept for a longer time. Remember, we cracked the Japanese code at the beginning of the Second World War, and all through that war we could hear the Japanese talking to each other. Had they changed their code after a year they would have been better off. A procedure which makes it clear that we cannot count on secrecy for more than one year may in fact result in much more security than we have at the present time. Furthermore, in science and in research if necessary one can wait for a year for publication. This is not a serious sacrifice, and if secrecy lasts for only one year in very many cases it will become evident that it is not worthwhile to classify in the first place.

This procedure would be automatic. It would essentially open up research and keep those secrets that that are most essential to keep and which can be kept for the proposed length of time.

There are certain confidential personal reports which I am sure we would not like to disclose for many years. The need for confidential handling of the material may remain essential for a long time. My advice would be, don't classify them—just don't talk about them. I can write a letter and put on it "CONFIDENTIAL"—please don't tell anybody. If I write that letter to a person in high office in whom I have confidence, he will keep it confidential, and if he doesn't I will next time not write him such a letter.

For intelligence operations, which are of necessity of a clandestine nature, use the "SECRET" stamp only in those cases where the operation demands that a great number of people should be informed. But in those cases it is extremely hard to keep secrets for a long period. There are many instances where the secret police of Russia, numbering two million, highly placed, highly paid people, will crack our secrecy. What we have to keep secret over a long period, we must handle in small circles confidentially and without the protection of a specific law.

It is in this sense that I am proposing that the main part of our research and development in military matters should be essentially open and that secrecy should be practiced only on a strictly temporary basis.

One last point: I have the highest respect for the great majority of our government officials who have handled secrecy in a conscientious manner, for the clear and exclusive purpose to protect the interest of the United States. However, there are some cases where I know that secrecy has been used to cover up mistakes. The fact that the Russians are forging ahead of us at a rapid rate in the land-based nuclear tipped missiles has been kept from the American people very much to our disadvantage for years. The Russians know it. Why keep it a secret? If we had a law which says that whatever is classified will be automatically opened up within a year—the temptation to those who might want to misuse secrecy for the wrong purpose—this temptation will practically disappear.

I made two suggestions. I really don't believe that I can defend either of them. Both of them have weaknesses. I was a little carried away in arguing for the second for which I apologize. My main purpose is to hear your questions, to listen to your comments, and to try to understand what we really should be doing about secrecy. Thank you very much.

QUESTIONS AND ANSWERS

(Answers by Dr. Teller)

Q. (Questioner not identified) The "A" and "H" bombs took about the same time to develop as the Apollo program—about 10 years. One was a secret program, the other was an open program. Do you feel that the development of the "H" bomb and the "A" bomb could have been developed faster in an open society? What kind of a society do you envision us being in twenty-five years from today?

A. You don't make it easy for me. First of all, you remind me of something that I should have told you. Just about this time of the day twenty-five years ago a group of us (about 100 or 150 people from Los Alamos) arrived back in big buses from an excursion for the night about which our wives knew. They did not know where we went but they knew we went somewhere. When I came home my wife received me with this news. "I read that a big ammunition dump has been exploded and nobody was hurt. How very interesting."

Let me tell you however, that in spite of this the secret was kept, not from the Russians—they knew, but from the rest of the United States and from our allies. We only believed the Russians did not know and therefore foolishly put forward the Baruch Plan assuming our secrets, which we no longer had, would buy us something.

The "A" bomb was developed in approximately four years. Starting from where we did start, it hardly could have been developed more rapidly. But our open society at that time was not completely open. We were at war. Our scientists knew that the war had to be won—a situation that is almost unimaginable today. And so we really worked hard and I think the development went fast. From 1945 to 1949, nothing happened. The "H" bomb was developed in two years from 1949 to 1951.

What I told you is not quite correct. It is only 99.44 percent correct. The Apollo program is a little hard to compare with the "A" bomb and the "H" bomb. It was a very different program. Because it was open it

could be developed fast. The difficulty in the "A" and the "H" bomb was to imagine things—to believe in them. In the Apollo program there were not many new ideas. What needed to be done was to get a simple piece of apparatus put together consisting of more than 100,000 pieces of parts and to make it function reliably. How to do that secretly, I don't know. I don't even think that we could have accomplished it by telling the people who work on it that they had better succeed if they don't want to be sent to Siberia.

Now, as to your last question, "In what kind of society are we going to live in twenty-five years?" I already answered it. Read the First Circle and the Cancer Ward. Russia will take over unless a miracle saves us. That is why we have to consider all of our problems; the problem in Southeast Asia, the problem in our universities, the problem of secrecy—very seriously indeed. We made too many mistakes. We cannot afford many more.

Bob Ruether, Texas Instruments: Dr. Teller, one of the main topics of discussion that went on yesterday and the day before was in the area of advanced technology and technological areas and how the U.S. government and industry could, on the one hand, permit technology and advances in the state of the art to occur, and at the same time to protect the interest of the United States in these areas of technology. One of the suggestions this group has discussed was that the Classification Management people within government get together and review technology and where necessary develop guidance. Do you feel that in such a format, industry or those outside of the government should actively participate to give a full picture?

A. I know that in very many cases the classification officers have kept up with technology and were extremely careful in making reasonable suggestions how to handle our present tools in an optimum manner. I can say that in the Livermore Laboratory this has been the case in a uniform manner.

At the same time, I also must say that such better understanding on the part of the people who are responsible for classification, for distinguishing between what is secret and what is open is a superhuman task, and indeed cannot be performed. The essence of science and the essence of technical progress is surprise. Nobody can plan it. Nobody can foresee what will become very important, what will not be important and what can in fact be kept secret, for a little longer or a little less long time. Such understanding will be necessary but I think in itself will not solve the problem unless there are simpler guidelines and unless we establish the right new procedures.

Howard Maines, National Aeronautics and Space Administration: Dr. Teller, I think you should be a part of NASA top management because you seem to be talking exactly like I hear them speak frequently. I had a small part in the classification in NASA in Apollo—quite an open program. I would like to assure you that if our management had its way, and it usually does, the space shuttle program would probably be even more open. I bring this point out at this point because I have had a num-

ber of questions. When are we going to get a classification guide out on space shuttle? I don't know that we will ever get one out. If we do, I think everything in it will say it is unclassified. Fred Daigle started prodding me about three months ago, "Where's the guide?" If we were smart enough to write a guide then, we wouldn't need his 110 million dollars worth of study we have going now. So we are negotiating and talking with the Air Force. The straw men are falling. The policy that has been signed is an open agreement with the Air Force. They are actively supporting us. It says that the program will be generally unclassified. We don't say that you can't classify something. But you had better have it well articulated or you will be up there explaining it. Thank you, sir.

A. Thank you. I certainly could not improve on what YOU said.

(Questioner not identified) Dr. Teller, there is a school of thought which suggests that the free and closed societies to which we refer are in fact on a convergent course in which each society will take on some of the characteristics of the other and that in those 25 years we were talking about there will be a great deal of similarity between the two. Will you react to that school of thought?

A. You call it a school of thought? I would call it a school of dreams. Perhaps there is some truth in it. When I look at some of our students who are bent to be heard but not to listen to anybody; when I see some of the totaliarian methods that the New Left is adopting, I fear that indeed we might be on a convergent course.

As far as Russia is concerned, I don't say that there has been no change—Russia has on the whole changed little in the last several hundred years. It was a closed society then and it remains so. In this period there have been a few particularly horrible periods like those under Ivan the Terrible and under Stalin. I don't see a long term trend. I don't see it in the work of the best Russian authors. And I don't see it in the Russian actions, in connection with suppressing a germination of free speech in Czechoslovakia or in their support of a 12th Century society in Egypt.

I believe that there is no such convergence, and I think the convergence in a favorable direction can come about only if the Free World unites and if we demonstrate that an open society can work in an effective manner. In this respect we have not done very well. And this is the reason why I feel that we are not winning the Cold War.

(Questioner not identified). Dr. Teller, I have been wondering if you could tell us anything about the collaboration or cooperation between the Red Chinese, the Soviets, the French and Eastern European scientists.

A. I cannot tell you anything. As far as I know there is no collaboration. Secrecy has divided the world into many compartments.

There was some collaboration between the Soviet Union and China in the first eight years of the Communist Chinese regime. From what I hear this collaboration was rather limited. The collaboration in Eastern Europe is very restricted. Even to

travel from one Iron Curtain country to another seems to be exceedingly difficult. The French followed our example and have closed themselves off in several respects.

The freedom to communicate ideas, the opportunity to work together is a great unifying principle. I can tell you a little story. A few years ago, I was asked by the International House, (the place where in Berkeley the foreign students live) to give them a talk. I argued for a federation of the Free World, a loose federation whereby each member retains his independence of action for its interior well being, but where the problem of defense is common. I proposed that we share our nuclear explosives with NATO. After the speech, a Russian exchange student came up to me and said, "Dr. Teller, you cannot mean what you said. How would you feel if we Russians would give the atomic bomb to our East European allies?" All this occurred in 1957 so you will understand my reply. I said I would be delighted if they would give the atomic bomb to the Hungarians. The Russian changed the subject at once.

I believe that what we do in this country can be terribly important, partly because of our great strength and partly because of our long tradition in such important matters as freedom of speech. We happen to find ourselves in a position where we have a *great* influence on the rest of the Free World. If we can reduce secrecy, if we can open up, if we take steps designed to recognize the common interests of the Free World; of all the free and advanced countries, I think we would have made a very long step towards stability and freedom and we would give a fixed point towards which the Russians then may have to converge.

BIOGRAPHICAL DATA

James J. Bagley

Mr. Bagley is the Classified Material Control Officer for the NRL. He has held various positions in the Naval Research Laboratory in Washington, D. C., for the past sixteen years.

Mr. Bagley's voluntary efforts on behalf of NCMS have been extensive. In 1969 he served as Seminar Chairman for the Fifth Annual NCMS Seminar, and in 1968 as Chairman of the Washington Chapter of NCMS. Currently he is serving as Chairman of a Washington Chapter committee designed and organized to develop a Classification Management "Training Package." In addition to these activities, Mr. Bagley also serves on various national DOD and Naval boards concerned with the policies for the dissemination of information.

Mr. Bagley's educational background includes law, liberal arts and philosophy.

Joseph F. Brantley

Mr. Brantley is employed by DCASR in Los Angeles. He first was associated with the Industrial Security Program from 1947 to 1952, with the AEC in Los Alamos, New Mexico.

From 1952 to 1953, Mr. Brantley was with the U. S. Army Corps of Engineers, Keflavik, Iceland. The next 18 months he spent with Holmes and Narver, AEC Proving Grounds, Marshall Islands. He served six years with the Air Force in Plant Representative Office. From 1960 to

1966, when he began his present job, Mr. Brantley was with Western Contract Management Region, Utah and Pasadena Field Offices, and Lockheed Aircraft Corporation, Burbank, California.

A. A. Correia

Mr. Correia is Security Representative with North American Rockwell, Autonetics Division.

Mr. Correia retired as a Lt. Colonel from the U.S. Air Force after 24 years of service. Of these years, 13 years were in Security as Commander of Air Police and Division Provost Marshall at Strategic Air Command bases. Three years he spent with Strategic Air Command, as Inspector General, Inspection Team, Headquarters, 16th Air Force, Spain. Six years were spent with Ballistic Systems Division as Chief of Security, responsible for Security guidance to contractors on the THOR, ATLAS, TITAN and MINUTEMAN Weapons Systems Programs.

Since retirement in 1966, Mr. Correia, as Security Representative, is working with the Minuteman Program under contract to SAMSO.

Mr. Correia was a charter member of NCMS in 1964.

Robert D. Donovan

Mr. Donovan is Chief, Security/Plant Protection with R&E Center, United Technology Center, a Division of United Aircraft Corporation, in Sunnyvale, California. He has over 16 years experience in security and classification management. In his current position he is responsible for the classification management operation of a major R&D aerospace company and is author of a number of articles on security and classification management which have appeared in professional trade publications. For a number of years he was a Contributing Editor to SECURITY WORLD magazine. Mr. Donovan has served as Editor of the NCMS monthly newsletter since November, 1967, and previously was Northern California Chapter Chairman. He is currently a National Director of NCMS, completing his first of a three year term of office. Prior to entering industrial security, he worked as a professional newspaper reporter for a number of years.

Mr. Donovan graduated from San Francisco State College, with a BA in English and Journalism. He holds a Vocational Teaching Credential and has taught Introductory Industrial security courses at the Junior College level.

William G. Florence

Mr. Florence is Deputy Assistant for Security and Trade Affairs in the Offices of DCS/Research and Development and DCS/Systems and Logistics, Headquarters U.S. Air Force.

In 1928, Mr. Florence joined the Army and served in various locations. From 1942 until 1945, he served in positions as an Army Air Force Administrative Officer and Intelligence Officer. In 1945 he was assigned to security policy duties in Headquarters, Army Air Forces, at the Pentagon. There he remained for the next 15 years. In this period, he retired in 1950 from status of Air Force Major, and was employed in civilian status on the same job. As Assistant Chief, and later as Chief, Mr. Florence was concerned with policy for safeguarding classified information.

In 1960, Mr. Florence transferred from the Pentagon to the Air Force Eastern Test Range, Patrick Air Force Base, Florida, for Industrial Security duty. Late in 1962, he transferred to the Industrial Security Branch, Headquarters Air Force Systems Command, Andrews Air Force Base, Maryland. In 1964, he became Chief of the Branch and served in that position until August, 1967.

In 1967, Mr. Florence returned to the Pentagon. He became Deputy Assistant for Security and Trade Affairs, Headquarters U.S. Air Force, his present position.

Robert E. Green

Mr. Green has had a varied career in the Navy Security program. From 1950 to 1958 he was associated with the security division of the U.S. Navy Hydrographic office at Suitland, Maryland and became its Director in 1956. Subsequently, he was employed by the Naval Ship Systems Command in the capacity of Physical Security Officer, Special Assistant to the Director, and finally Head Classification Management Branch.

In 1967 he transferred to the Headquarters Naval Material Command where he was Head, Classification Management Section. He is presently Director of Security Programs for this command.

Mr. Green has been an active member of NCMS since 196- and is currently the Vice Chairman of the Washington Chapter.

Herb Herron

Mr. Herron is a Systems Engineer in Plant Facilities, working in this field for 18 years. He is employed by AVCO Corporation in Wilmington, Massachusetts. Mr. Herron graduated from the University of Hartford, in Connecticut. This is his ninth year in Classification Management.

Fred A. Koether

Mr. Koether is Director, Technical Information, Advanced Research Projects Agency, Washington, D.C., and has been in the DOD Technical Information Program since 1946 when the Naval Air Missile Test Center was established at Point Mugu, California.

During the period 1951-1955 he established and operated the Technical Information Program at the White Sands Missile Range, New Mexico. From 1955-1958 he operated the Technical Information Program at the Ramo-Wooldridge Corporation in conjunction with the Air Force Ballistic Missile in Los Angeles during the development of the ATLAS, TITAN, THOR and MINUTEMAN Missiles Development Program.

Richard A. Lickhalter

Mr. Lickhalter is Head of the Advanced Development Staff in the Technology Directorate at the System Development Corporation. He has been with SDC for over eleven years.

His early work was in Intercept Direction for Air Defense, and in Satellite Systems. His current work areas are Data Management Systems, and Man-Machine Interface using graphical display devices.

Mr. Lickhalter graduated from USC with and AB in Math, and graduated with an MBA in Operations Research from UCLA. He co-authored a paper on a display system which was pre-

sented at the Spring Joint Computer Conference in 1968.

Joseph J. Liebling

Mr. Liebling is the Deputy Assistant Secretary of Defense (Security Policy) in the Office of the Assistant Secretary (Administration), Department of Defense. He began his career in Government in 1941 and since that time has worked in the fields of administration, public relations, intelligence, security review of information intended for public release, industrial security, international export and trade controls, and security policy pertaining to research and development and production of military equipments on a domestic and international basis.

Prior to accepting the position of Director for Security Policy, OSD, in 1967, Mr. Liebling was Director of Air Force technical programs security policy matters, and related intelligence. Previously, Mr. Liebling was a special staff advisor to the Commanding General, Army Air Forces, and later, technical advisor to the Director of Intelligence, USAF.

Mr. Liebling assumed the position of Deputy Assistant Secretary of Defense (Security Policy), in the Office of the Assistant Secretary of Defense (Administration) on March 5, 1970. He is the senior DOD official in the security policy field and principal advisor to the Secretary of Defense and the Assistant Secretary of Defense (Administration).

In addition to numerous other awards, Mr. Liebling received the Exceptional Civilian Service Award, 1956, and the Air Force Association Citation of Honor Award in 1966. In 1957, he was the recipient of the Junior Chamber of Commerce "Arthur S. Flemming Award", and in 1969, Mr. Liebling was the recipient of the National Civil Service League Awards as "One of the Ten Outstanding Career Men in the U.S. Government." He is a member of the American Society of International Law, the American Academy of Political and Social Science, American Society for Industrial Security, and the Air Force Association.

Donald V. Magill

Mr. Magill is employed by the McDonnell Douglas Astronautics Company at Huntington Beach, California. The past 12 of his 19 years with the Company have been in an engineering management capacity. Initially he was responsible for the missile structures organization, and for the past 8 years he has been a manager of various advanced missile systems and technology activities. These assignments have included both government (including foreign government) and company sponsored programs, primarily advanced weapon systems programs.

Mr. Magill is a graduate of Oregon State University with a BS in Mechanical Engineering.

E. Frank Marlor, Jr.

Mr. Marlor is the Manager of Configuration Identification and Accounting with Research and Engineering Department of Research Environmental Systems Division.

Mr. Marlor worked for 2 years as Inspector of Engineering and Materials with INM, Midvale Company, Philadelphia. He served 3 years in the Navy during WW II, as a Project

Officer and Anti-Submarine Warfare Research. He was in the Reserve Program after the war and is now a Captain USN Reserves, Retired. He spent 10 years at Naval Air Development Center, Johnsville, Pennsylvania, where he was a lead engineer on special R&D Projects. Mr. Marlor worked 14 years with General Electric as an R&D Project Engineer. He was Manager of Engineering Support on the Mark XII.

Mr. Marlor holds a degree of Bachelor of Mechanical Engineering from Drexel University, in Philadelphia.

Francis W. May

Mr. May is from Air Force Headquarters in Washington, D.C. He is Chief of the Classification and Information Security Branch, Directorate of Security Police, The Inspector General. This Branch has responsibility for classification policy and criteria for the Air Force.

Mr. May is a lawyer by profession. He was graduated from the Columbus School of Law, Catholic University, in Washington, and has served in various legal positions with the government. He is a member of the Federal Bar Association.

Mr. May served in the Army Air Force in WW II and was recalled to active duty with the OSI in 1951 to 1953. He is a Colonel in the Reserve. He has been in Air Force Headquarters, in various positions, since 1953. His assignments have included responsibility for the establishment of the Air Force Classification Management Program in 1963, and for its continued development.

O. P. Norton

Mr. Norton received his AB degree from the University of Michigan.

From 1946-1953 he was associated with the U.S. Department of State, Foreign services Division. The next ten years of his career was at Johns Hopkins University, Applied Physics Laboratory, as an Assistant Security Officer. Since 1963 Mr. Norton has been Manager, Industrial Security, Communications Services of LTV Aerospace.

Charles R. Prohaska

Mr. Prohaska, as a staff member at Sandia Laboratories for the past 7 years, has been working to put classification decisions and procedures in a framework that will encourage the active participation and acceptance of the "rules of the game" by Laboratory line personnel, who must ultimately use classification guidance on a day to day basis. Mr. Prohaska draws upon his background in electrical engineering (MSEE), AFIT, 1958 and business administration, as well as his previous system program office experience while with the Air Force Systems Command at WPAFB.

Robert B. Ruether

Mr. Ruether is Senior Security Administrator of Texas Instruments, Inc., having joined the firm in August, 1969. He is primarily responsible for the development, implementation and operation of the contract security program for the multi-facility organization of Texas Instruments, Inc.

Mr. Ruether served 2 years in the Army as a supervisor of the trainee section, Headquarters Company, Medical Corps. He accepted an appointment as a special agent of the Federal Bureau of Investigation in

1954, and served in the Los Angeles and Washington, D. C. offices. In 1958, he accepted a position as Administrative Special Agent with the American Insurance Association. In 1966, Mr. Ruether began employment with Autonetics, Division of North American Rockwell, as a Security Administrator.

Mr. Ruether is a graduate of Xavier University with BS-BA degrees in economics, history and philosophy, and has completed one year of graduate school in economics at USC. He is an active member of the American Society for Industrial Security, and the Society of Former Special Agents of the FBI, and a member of the National Classification Management Society.

Dean C. Richardson

Mr. Richardson received his BA in Political Science from the University of Maryland and has attended the U.S. Navy Post-graduate School in Monterey, California.

He was a Commander in the U.S. Navy during which time he was Director of Classification Management for the Bureau of Naval Weapons and served in the Office of Industrial Security, Headquarters, DSA. He retired in October, 1967.

Mr. Richardson is currently Manager of Corporate Military Security, Texas Instruments, Inc.

Captain James L. Stehn

Captain Stehn is the System Program Staff Officer (Under Deputy for Space Communications System) at Headquarters, SAMSO. From 1963 to 1967 he was with the Air Force Armament Lab, at Elgin AFB, Florida. From 1967 to 1968, he was with the Air Force Institute of Technology. Captain Stehn is presently involved with Application and Interpretation of Classification Management, Military Space Communication Systems.

Captain Stehn received his BS in Chemical Engineering, in 1963, from Iowa State University. In 1968 he received his MS in Engineering Management from Renssalaer Polytechnic Institute, Troy, New York.

Francis D. Tappaan

Mr. Tappaan is Vice President for Urban Affairs at the Aerospace and Systems Office, North American Rockwell Corporation (NR) and directs the Equal Opportunity Program, Industrial Security and the Executive Staff Office. Mr. Tappaan joined the Company in 1960, serving first as Assistant to the Vice President, and later as Vice President of Public Relations.

Mr. Tappaan practiced law from 1932 to 1940 and served with the Navy in both WW II and Korea, reaching the rank of commander. During WW II he received the Purple Heart, Legion of Merit and Silver star. He served as legal counsel to the Assistant Chief of Bureau of Naval Personnel during the Korean conflict.

In 1952, Mr. Tappaan was appointed a Commissioner of the U.S. Court of Military Appeals, a post he held until 1954, when he was named to the Department of Justice and became Chief of Organized Crime and Racketeering Section.

From 1956 until 1959, Mr. Tappaan was Legislative Counsel to Sen. Thomas Kuchel, and then became

Vice President in charge of Student and Alumni Affairs at USC.

A Southern Californian, Mr. Tappaan was educated in Los Angeles and graduated from US with his BA and JD degrees. He is a member of the State Bar of California and the Los Angeles County Bar Association.

Dr. Edward Teller

Dr. Teller, Nuclear Physicist, is a native of Hungary, and in 1941 became a citizen of the U.S.

Until 1939, he was absorbed by pursuits of the theoretical physicist, attempting to understand the behavior of molecules, atoms and nuclei. But the discovery of the fission process and the menace of Nazi Germany drew him to work on atomic explosives.

Unlike many nuclear physicists who helped develop the world's first atomic bomb, Dr. Teller continued to work on nuclear weapons after Hiroshima and the end of WW II, in the firm belief that there were many unexplored applications of nuclear energy. He felt that the U.S. would need advanced nuclear weapons to successfully oppose future dangers.

After WW II, Dr. Teller made significant contributions to developments of atomic weapons and to the design of the world's first hydrogen bomb. He was a member of a General Advisory Committee of the U.S. Atomic Energy Commission from 1956 to 1958, helped establish the Nation's second weapons laboratory at Livermore, California, and served as Director of the Livermore Laboratory from 1958 to 1960.

Dr. Teller has returned to academic life as Professor of Physics-at-Large at the University of California, and continues to serve as Associate Director of the University's Lawrence Radiation Laboratory. He is also a member of the Scientific Advisory Board of the U.S. Air Force.

Dr. Teller received his university education in Germany, received his Ph.D. from the University of Leipzig in 1930. After the early 1930s he came to this country and was Professor of Physics at the George Washington University, Washington, D. C., from 1935 to 1941. His wartime assignments took him from Columbus University, to the University of Chicago until 1952, and since then at the University of California.

Charles Uhland

Mr. Uhland has just completed five years in Security Operations as a Security Classification Analyst. He is with General Electric, RESD. He moved into engineering design seven years ago. Mr. Uhland was a member of Wayne Wilcox' Panel on Cost Savings during last year's seminar in Washington, D. C.

Dr. Everett T. Welmers

Dr. Welmers is the Assistant to the President, at the Aerospace Corporation.

From 1944 to 1959, Dr. Welmers was associated with the Bell Aircraft Corporation as Flight Test Engineer, Chief of Dynamics, Director of the proposed Lawrence D. Bell Research Center, and finally as Assistant to the President. In 1959-1960 he was on leave to the Institute for Defense Analyses and the Advanced Research Projects Agency. Since late 1960 Dr. Welmers has been at the Aerospace Corporation, initially as a Group Di-

rector in Systems Research and Planning Division, as Assistant for Technical Operations to the General Manager of the Manned Systems Division, then as Assistant to the General Manager of the El Segundo Technical Operations. In May, 1968, he was appointed Assistant to the President.

Dr. Welmers holds an AB degree from Hope College in mathematics and the classics, AM and Ph.D. degrees in mathematics and astronomy from the University of Michigan, and an honorary Doctor of Science degree from Hope College. He has been an instructor and assistant professor of Mathematics at Michigan State College and a professional lecturer at the University of Buffalo.

Wayne T. Wilcox

Mr. Wilcox is Director Administrative and Personnel Services on the Corporation Staff of ARINC Research Corporation.

Mr. Wilcox attended the University of California and then spent twenty-one years in the U.S. Navy as a Naval Aviator. He retired in 1961 with the rank of Commander. While in the Navy he held various Command and Staff billets including technical development of test flying with the Armed Forces Special Weapons Project, Albuquerque, New Mexico, and International Staff experience with NATO.

Mr. Wilcox joined ARINC Research Corporation in 1961 as Contract Administrator. He moved into general business administration in 1963, when he was appointed Assistant to the Vice President. His present position carries with it the duties of Corporate Security Officer and Classification Management.

Mr. Wilcox is currently Chapter Chairman, Washington Chapter, National Classification Management Society, member of the American Society for Industrial Security, and the American Management Association.

Donald B. Woodbridge

Mr. Woodbridge is a development engineer at Y-12 Plant, Oak Ridge.

From 1935 to 1938, Mr. Woodbridge taught physics and mathematics at the College of Charleston (S.C.). At Brooklyn College, Brooklyn, N. Y., he taught physics until 1943, when he joined S.A.M. Labs, New York, as a research physicist. Mr. Woodbridge worked for the Oak Ridge Gaseous Diffusion Plant from 1946 to 1965, as a research and development engineer and as head of mechanical development department. From 1956 to date, he has been with Y-12 Plant as Development Engineer, Assistant Superintendent Special Projects Department, plant classification officer and AEC responsible reviewer.

Mr. Woodbridge has served on the NCMS Board of Directors from 1964 to 1969, during which time he was Chairman of the Board in 1964-1965, 1966-1967. He served as President of NCMS in 1965-1966, and Counsel to the Society in 1969-1970. He is a member of the American Physical Society, American Association of Physics Teachers, Phi Beta Kappa, Sigma Xi.

Colonel George A. Zacharias, USA

Colonel Zacharias has served as Chief, Office of Industrial Security,