Defense Logistics Agency

Defense Technical Information Center

Proceedings of the Annual DTIC Users Conference

24–26 October 1984

Ramada Hotel *Old Town*

Alexandria, Virginia

DEFENSE LOGISTICS AGENCY
DEFENSE TECHNICAL INFORMATION CENTER
CAMERON STATION
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IN REPLY REFER TO DTIC-V

12 Apr 85

SUBJECT: Proceedings from the 1984 Annual DTIC Users Conference

TO: All DTIC Users

The Annual DTIC Users Conference was held on 24-26 October 1984 at the Ramada Hotel, 901 N. Fairfax Street, Alexandria, VA, and was well attended. It has been a lengthy process assembling coverage of the respective presentations from transcriptions taken at the conference. The next annual conference is planned for 23-25 October 1985. Information and plans presented last October should prove good reference material in preparing for this year's conference.

FOR THE ADMINISTRATOR:

Paul Klinefelter

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PAUL KLINEFELTER
Director
User Services

DTIC ANNUAL USERS CONFERENCE
Ramada Hotel, Old Town, Alexandria, Virginia
24-26 October 1984

Page		Thursday, 25 October 1984 (Continued)	
57	1030-1145	**DROLS Workshop - Dial-Up Terminals.** Sessions for Dial-Up On-Line Users Providing Discussions on New System Features, Training Tips, and User Search Problems and Questions. James DePersis/Laurie Lubsen - DTIC (Repeat at 1445)	Washington Ballroom
88		**Cataloging Panel.** Gretchen Schlag/ Loretta Brown/Gail Martens/Claudine Long/Jim Burrell/Joanne Beitzell, DTIC/ Asta Kane, NTIS	United Way
77		**Government Information Resources** (See Thursday, 0900)	Ramsay
103		**Management Data Bases.** Changes to the Work Unit Information System and RD-5 Data Bases. William Thompson/Carlynn Thompson - DTIC	Cameron
	1145-1315	**LUNCH**	
57	1315-1430	**DROLS Workshop - Dedicated Terminals** (See Thursday, 0900)	Washington Ballroom
118		**Indexing Panel.** Gretchen Schlag/ Charles Davis/John Dickert/Eleanor deChadenedes/Barbara Lesser/Gordon Willey - DTIC	United Way
103		**Management Data Bases** (See Thursday, 1030-1145)	Ramsay
130		**Shared Bibliographic Input Network/ Local Automation Model for an Integrated Cataloging/Retrieval System.** Richard Hartt, Logistics Management Institute/Bobbi Everidge, TRADOC/Susan Ewing, Wright-Patterson AFB/Gladys Cotter/ Marjorie Powell/Jim Erwin, DTIC	Cameron
	1430-1445	**COFFEE BREAK**	

OPENING OF THE CONFERENCE - Mr. Hubert Sauter, Administrator, DTIC

For those of you who don't know me, my name is Sauter, and I am the Administrator of the Defense Technical Information Center. It is my pleasure to welcome you and to open the 1984 DTIC Annual Users Conference.

It certainly does not seem like a year since we had our last conference. I think that this illustrates how fast time does go on. Before we actually start the formal session here, I have some announcements. We are going to be recording the sessions, to assist us in preparing the proceedings of the conference. As soon as that is done the tapes are erased.

The next thing that I want to mention is that one of our staunch supporters of the Users Conference is not with us today. Paul Klinefelter had major surgery, but I am pleased to report that the surgery appears to have been very successful and he is home recuperating. Taking his place, someone who is not a newcomer to this Users Conference, is Jerry Milstead. So if you have any questions about the conference, please see Jerry. Captain Jackson from the American Defense Preparedness Association will also be available and you can talk to him also if you have any particular problems.

We have assembled a number of presentations which offer something for all of the people here today--both the new users and the long established users. A significant part of the program is devoted to the online users, both the dial-up and the dedicated users. I think all of you know that our goal is to provide for the information needs of the Defense RDT&E community. We will respond to the individual needs of the scientists, the engineers, the systems managers, the planners, and others within that community. We are working, of course, towards reaching the end users by continuing our very profitable relationship with the library and information community.

Another thing I want to mention is that about the middle of this year we completed a study we call DTIC 2000. This study presents our corporate thinking about the future of DTIC. We took a look at the environment in which we think we will be working at that time, what some of our products and services might be like, people that we would require to work in that environment, and we gave some thought to the finances, budgets and so on. I think this plan gives you, the community we need to work with, the opportunity to interact with us. It is in your conference packet and I would urge all of you to take a hard look at it and give us your ideas about the future in which we will be working.

One of our speakers this morning, Mr. Richard Bruner, is the Executive Director of Technical and Logistics Services, Defense Logistics Agency. He is going to start us off this morning. We try to get him on the program every year because he is very knowledgeable about information needs. Not only that, he is also very much involved in the DTIC program. He is the one who helps us to support the budget through the Defense Logistics Agency, up to the Pentagon, and on to Congress. He also has oversight responsibility for DTIC. He is a tough man to get a hold of; he is on the road most of the time. So I think it is important for us to take advantage of the fact that he is here with us this morning. Let's start by asking him to say a few words. Richard.

WELCOME - Mr. Richard Bruner, Executive Director, Technical and Logistics Services, DLA

Thank you, Hu. I too would like to welcome you all to the Annual DTIC Users Conference. It is a rare opportunity that I have. I did not make it last year, I am sure most of you recognized that, and I do apologize. We had a significant scheduling problem, and unfortunately I was out of town. Now I am not traveling as much as Hu thinks that I am. I do spend a fair amount of time on the road, however, because I do have multiple functions within the agency, one of which happens to be near and dear to my heart, and that being DTIC.

Some of you may remember, a few years ago I was the Acting Administrator of the Defense Technical Information Center when it was called DDC. That was a very enjoyable period for me. I was kind of wearing three hats at that time. We had a void in my own office, my own boss was in the process of rotation, I was Acting Director of the Technical and Logistics Services Directorate at headquarters at the same time I was the Acting Administrator of DDC. Also at the same time I was a quasi-acting director/commander for the DLSC, because we had a void in the DLSC organization. So I was really kind of harried. I found myself writing letters to myself and having to answer them. Kind of an interesting proposition for those of you who have never had that experience. From the headquarters, you write some very ugly letters to the field command, and sitting there in the field command in the afternoon, as you read that letter again, you say to yourself, "why in the world did I ask that question, because I don't have the foggiest idea how to answer that."

But I do have a very warm spot in my heart for all of you users, and particularly the librarian folks. They play a very vital role in our dissemination of technical information. One of the thrusts that we have continuously made over the years is not to disestablish the libraries, but to make the libraries more viable with the users, and to find ways to get to the users of that technical information so that we can find ways to enhance the DTIC operations.

Hu mentioned briefly the project 2000, or the year 2000 plan. I felt so strongly about that plan that I have caused it to be read by several other organizations within the Defense Logistics Agency, and caused other people to begin to plan further out in the future than what we have been doing. It is a little spooky. I am not so sure that I agree that we are ever going to get to some of the things that are in the plan, but it does set a course of direction. It is available through the DTIC document collection system, and those of you who have not read it, I would highly commend it to you, because it does kind of portend some things in the future for us.

I am very happy to be here today and take this opportunity to speak to you for a few moments, and try not to take up too much of your valuable time because the agenda is very full. But there are a couple things that I would like to try to leave with you this morning. I had the opportunity to also address the IAC conference here a few weeks ago and the theme is about the same. I am going to talk a little about ammunition. That may sound strange to you. We need that ammunition to take the hill.

Let me just kind of paraphrase to you what I am really talking about. The hill being obviously the Congress. And obviously the ammunition that I need is from you the users. The Congress does not necessarily view the enhancements of the 6.5 program as that or those things that are enhancing research and development in a 6.1, 6.2, 6.3, or 6.4 area. We are a drop in the bucket. We are one-tenth of one percent of the Department of Defense R&D effort. But it is a terribly important effort. Without us I think that all of the users would find themselves in some considerable amount of difficulty.

So what I am here to try to impart to you this morning is that I do need information. I need feedback from you people about the good things that happen as a result of DTIC. The things that cause you to be able to save money in your own reserch efforts. The things that cause your scientists and engineers to use that information. Not only that which has already been completed in the technical report area, but also that which is portending planning efforts for your independent research. Because the Department of Defense has a very important role of understanding that which is going on at the corporate level of IR&D so that we know where--so the research managers know where--to place that additional R&D dollar, and to capitalize on that independent research and development. So it is terribly important that we hear back from you, because without that feedback I will just tell you that I take an awful beating at Congressional hearings. But it is an extremely important part of our program.

In terms of feedback, DLA is currently in the process of reviewing with the Office of the Secretary our FY 86 budget submission and our FY 85 execution programs. We have asked for some significant increases. The last time we asked for significant increases, we ended up taking a reduction because the Congress, the congressional subcommittees, just could not believe that we needed that kind of money in 6.5 to help you all. We were a little bit naked in terms of being able to defend that budget to the Congress and this year we are asking for a 34 percent increase for DTIC, including the IACs.

DLA is currently placing heavy emphasis on productivity and meeting its goals. Unfortunately, we have had some problems over the last 12 months in the DTIC turnaround time. Much of it can be attributed to the antiquated equipment that we do have, and because we did not have sufficient air conditioning equipment, we got caught with a significant amount of down time which caused the response times to go to hell in a hand basket. As I stood before the Director trying to explain those things every month, I was trying to understand why we're having those kinds of problems in our turnaround time. The DTIC products and services involve information and ideas. Clearly those of you who are users understand that, particularly the scientists. I feel very comfortable in my own heart that the scientists and engineers would be in trouble without DTIC. I do not have substantial proof to say that, but I feel very comfortable that that is so. However, when we go to the Hill, we do need clear and compelling evidence that DTIC provides a service to you people out there, and that you use DTIC products to your benefit and to the cost benefit of the Department of Defense and the total research and development program.

Statistics show that the services provided to DTIC users are on the increase. Now that should tell us something. Either we have given you new toys that you like to play with, and things are occurring as a result of those new online products, or that you are actually using the information to your own

benefit. I am sure that you can help us in this regard, and we do need some help. Cost savings and cost avoidance data can be of great service if some of you can document those success stories. Not just the "thank you very much; it was a good product." What I need is some information that says to us, "as a result of what the product showed us in our engineering and research and scientific endeavors, we were able to reduce our R&D programs by X amount of dollars," or "we were able to reduce our planning efforts for further research and development by X amount of time." The DTIC Office of User Services would be delighted to hear from you because that is the organization that I look to to find out what kind of responses we are getting back from you people in the user community. However, we can go a long way as far as I am concerned toward convincing the Congress if I just hear from you users, because if I call in an independent consultant, which has been done on several occasions, Congress and the subcommittee and the staffers on the subcommittee view independent consultant studies as self-serving. They say "Thank you very much. That is a nice study, but what you have done just causes those consultants to write what you wanted them to write." What I need is factual information from you people, the users. I would just like to leave that thought with you throughout this conference. There will be a lot of opportunities for you to talk about it. Hopefully the DTIC people that are monitoring all the various sessions are going to be recording your thoughts and your ideas about how better to build that ammuniton base for us to use in defending DTIC on the Hill. I might say that those hearings are coming upon us very quickly. I seems like February and March roll around very quickly every year. As I start prepping for the hearings, I spend about a week in my office with Mr. Sauter and members of his staff and members of my staff, and believe me it is not an easy chore. By the time I have finished preparing for the Congress, I feel like I know more about the RDT&E community than I ever wanted to know--but that is not so because I can never know enough.

In return for some of your efforts, I would like to say that we are making serious attempts to make better DTIC products and services for you. We have recently established two new IACs, and we have been directed to establish another new one in chemical warfare and chemical biological defense during this fiscal year. I am unsure how we are going to finance that one. I will probably be meeting with Leo Young and some of his people as we move forward with the establishment of this IAC.

We are well along the way for the replacement of the 1634. I know a lot of people have been a bit disappointed about the lack of the 1634, the program planning data base, but the 1634 is being replaced. Carlynn Thompson is here and she is going to have a very interesting discussion with you about the RD-5 and the possibility about where we are going with some of the PEDS, the Program Element Descriptive Summaries. The PEDS program I think right now is vacillating a little--maybe Leo can shed some light on that as he is speaking next--but I wish we could get that one settled because it is quite troublesome to us in terms of trying to provide guidance to Mr. Sauter and his organization.

In fiscal years 85 and 86 we have planned a rather ambitious equipment replacement program for DTIC. That is what has led to this 34 percent increase in the budget request. There are a number of things that we are also working on in the new project area, such as the DoD Gateway, which will provide a large menu of services which many of you will be able to use. You will hear more

about those kinds of improvements in the next several days, I am sure. We do see a bright future for DTIC and the user community in spite of some of the gloom that I talked about in terms of the Congress and its view with regard to 6.5.

We continually make efforts to get staffers from the Congress and subcommittees down to see what it is that DTIC actually does, and for a while we really enjoyed a grace period as a result of some of those efforts. A couple of years back our hearings were very perfunctory. When the budget request came up, they said "we understand everything we need to know about DTIC," and that was the end of the hearing. But there have been periods--and this may be another one this year because I do expect a number of changes in the Congressional staff and a number of changes in the Congress itself--where they ask a lot of questions.

I wish to thank you all for participating and wish you well in these next few days. I will be here this morning and hopefully participating with you. If there is anything that you want to pound on me about, I will be glad to try to answer. Thank you very much.

SAUTER: Thank you, Richard. I think we do have a couple of minutes, if you want to try to take any questions right now.

QUESTION: Is there any value in knowing who is on the Congressional committees you mentioned so that we can contact the people back home?

ANSWER: The question was, is there any value to you people, the users, knowing who is on various subcommittees that we appear before. The answer is absolutely. Your Congressmen are the people who vote the appropriations. The Defense RDT&E subcommittee is chaired by Representative Price. The appropriations committee is chaired by Congressman Joe Addabbo. Those are the people we have to wrestle with. If you would like, we certainly would be glad to forward to you, as soon as possible after the election, the new committee alignments. If it would be helpful to you, just let us know.

QUESTION: You were talking about feedback, and user feedback. It would be helpful to us to know the types and nature of feedback you want to have, those things that are being approached in terms of productivity. How do you want to see that in terms of the data from us so we can help support this?

ANSWER: The question was, it would be helpful if we knew the types of data that you wanted in terms of productivity and cost enhancements. We have tried several techniques in the past. At one time, you might recall, we were putting out little cards and asking how you felt about the product or the service. But the most beneficial thing that you can do for us is provide us information on a major project where your company or your individual user has been able to identify to you the time savings or the cost savings as a result of having adequate data and appropriate data in a timely manner that caused him not to have to duplicate something or have a number of false starts. That can be in letter format. You can just write a very informal letter and tell us that thank you very much, let me tell you how good this product was, it saved us 3 1/2 months of research time, and $22,000 of scientific time.

QUESTION: I think for us dealing with the users, having a structured form of some kind that we send along to them would get you more results than our asking people if they would write a letter.

ANSWER: The question was, or the statement was, if we had a structured form that we from the library community as the principal user in the DROLS system could send our users, it would be helpful in collecting that information. That is a very good suggestion. We will take it under advisement. Possibly we can develop such a form that we can get out to the users, and particularly in the library community, that says "when you are using these products and services, even those that we have in our library, please fill out the following." I think, matter of fact, that such a form would also be very helpful to you people, in terms of your own budget justification within the corporate structure. I am sure that the corporate guys are like most, and really do not have an appreciation for the management of technical data. I will just tell you very candidly that the Congress is going to beat us to death over the next few years. If those of you in the spare parts world have been following the appropriations and authorizations bills in the Department of Defense, I think that you recognize that title 12 of the Defense Appropriations Act, under the continuing resolution, is very, very heavy in the aspect of technical data. Last year there were some provisions in the authorization act which provided for the Department of Defense to write implementing instructions in terms of what data is releasable and what data is not releasable. The one thing that we have got to be very careful of in the DoD is walking that very fine line of not shutting ourselves off from the user community, but at the same time being able to protect space and military applications data to prevent its release to unfriendly foreign governments.

QUESTION: Just one comment on searching through DROLS versus actually going yourself and searching the TABs. The engineer or scientist type will go to the shelf, go through the TABs, spend about 1 1/2 hours, and settle for about three or four main reports that will fill his need. If he goes to DROLS, he may find 50 or 60. Maybe 40 of them are right on his subject, and then there is a serendipity factor of another 20 that will start him thinking into another field. There is no way that you can put a dollar amount on what he is getting versus what he will settle for with hard copy. Is there a scientific dollar value that you can put on the difference?

ANSWER: That is a difficult question for me to even repeat but I will try. The comment really was that the scientist or engineer goes to the fiche and or the hard copy, spends a considerable amount of time researching--up to 3 or 4 hours--those hard copy documents, the TABs and the index and the documents themselves, and he may find four or five citations and applications that he may find useful. However, if he uses DROLS, he may find not three or four but he may find 20 or 30, plus the serendipitous effect of finding a lot of spin-off things that are helpful to him. I would agree with you. The follow-on to that was how do you put a price tag on that kind of an improvement in service. If I knew the answer I would tell you unequivocally how to do that. I think that you are going to have to rely an awful lot on the integrity of the individual scientist and engineer to tell you how beneficial that was and how much it really helped him. Much of that is going to be estimate. I don't know that you will find anybody that is going to say categorically that they are going to be able to reduce the project costs as a direct result of the information

assistance provided, but the important part is that there be an estimate of the dollars. Very frankly, when King Associates did the study for DTIC on the value of technical data, I could hardly believe it. I do not know whether any of you have read the King study. You can probably address it in a lot more detail that I can, but I will tell you very unequivocally that I was scared to death when they talked to me in terms of 50 billion dollars worth of savings as a result of DTIC. I cannot prove that figure, but it is possible.

QUESTION: I think that a person today working with DROLS and working very closely with a scientist who knows his subject and works back and forth, the report bibliographies and summaries that we do are the equivalent to what some people were getting their doctorates for 20 years ago--literature searching and review. The times have changed so much that in comparing costs, a person who is not using DROLS is wasting tons of money, rather than just saying we are saving money. The amount of money that is saved does mount up very, very quickly. Our lab would be spending a great deal more money on its research if it weren't for DROLS.

ANSWER: The statement went along the lines that as a result of the DROLS searching capability, what many people were getting their doctorate degrees for 20 years ago is being provided by DTIC today and that the scientists and engineers find it very useful today, not in terms of the cost savings, but the amount of time that is not wasted. Well that is the type of information that we need to try to quantify and hear from you about. Because cost avoidance is also a very valuable tool, and we can explain cost avoidance to the Congress almost as well as we can explain savings. As a matter of fact, I think I can honestly say that most of the Congressional staffers that we deal with do not differentiate between cost avoidance and cost savings, except as it would relate to a budget reduction. And we are not out to reduce anybody's budget. We want to hear from you the value of DTIC so that we can continue to perform those services you need and enhance the products DTIC provides.

SAUTER: You did so well that I think we will ask you back next year. One thought that came to my mind as I was listening to you is that we are kind of preaching to the choir here. I think that everybody in the room has a firm grasp on and belief in the value of the services that are provided, not only by DTIC, but by the services they represent, so perhaps at one of our future conferences we need to invite the Congressmen and some of their staffers to listen to this group.

KEYNOTE SPEAKER - Dr. Leo Young, Director, Research and Laboratory Management, OUSDRE(R&AT)

SAUTER: Thank you, Richard. Our keynote speaker today is Dr. Leo Young, who is the Director of Research and Laboratory Management of DoD. He is also responsible for the DoD Scientific and Technical Information Program. Those of you who have been with us for several years will recall that in 1982 Dr. Young addressed this conference. We are pleased that he is able to come back again to talk to us today in terms of how he sees the Scientific and Technical Information Program in the Department of Defense. Dr. Young.

DR. YOUNG: Thank you Hu. I appreciate the opportunity to be here and to address you. I seem to be invited to the conference every other year. It seems always to be an election year. I want to make a denial. I am not running for office.

Since the 2 years that I spoke here last time and in the 3 years that I have held my present office, a lot has happened. I would like to give you a status report on some of the things that have been going on.

The office that I run, Research and Laboratory Management, has numerous responsibilities. Basically they are of two kinds. One is the generation of research information and the other is the control of that kind of information. That is putting it very simply, of course. Breaking it down into more detail, I get very much involved with the universities as a result of what we call the basic research program, the budget category 6.1, as well as science and engineering education. In addition to the universities, I also interact with industry quite a bit, mainly through the IR&D program and the Small Business Innovation Research program. In both of those programs, IR&D and SBIR, DTIC has been a great help to us. The small business program, which was new and had to be set up, required a lot of initiative and foresight. DTIC has been extremely helpful to me. In addition to universities, we have the in-house laboratories, the DoD laboratories. There again, my responsibility is to coordinate those programs.

Now running through all of this is the STIP, Scientific and Technical Information Program, which binds them all together. This is the cement that holds the house together. Briefly let me tell you what the STIP is. A couple of years ago we got it organized more formally so we could see what was going on. We have a steering committee, which I chair. Under that there are three separate committees dealing with three different aspects of the program. One is what we call the STIP Operations Committee. One of the recent outputs of that committee was the DTIC 2000 plan which is in your folder. It is an excellent report and I recommend that you all read it. One thing that came out in the discussions of the committee is that one of the biggest problems we have is the input problem. Most of you people tend to deal mostly with the consumer. People come to you and say, "give me some reports." But you have got to think of information as being like a business, and when you run a business, you are dealing with the consumers on the one hand and the suppliers on the other. We tend to think much more of the consumers but I would like to recommend to you

that you also begin to think about the suppliers, meaning that you ought to get the word out as much as you can to the people that you talk with. Tell them that when they generate information to be sure to feed it into DTIC. Unless we have a complete data base, the data base is not as useful as it could be.

Among the new initiatives that were discussed by the STIP Operations Committee were support for the Small Business Innovation Research Program and the new Defense Gateway System that we are building at DTIC, which will connect the Department of Energy, NASA, NTIS, and DoD. By having a focal point at DTIC, we will have access to other agencies and they will have access to our data base.

We are talking about setting up new data bases, and most importantly we are talking about making existing ones more readily accessible. I am especially talking about the PEDS, the Program Element Descriptive Summaries which go to Congress, and which, for some reason that I don't understand, take an awful long time to get to industry. We would like to get them to you, maybe 6 months earlier than you get them now.

Another committee, the Domestic Technology Transfer Committee, takes care of many DoD directives and other housekeeping chores. There is a new directive, 3200.12-R-4, which summarizes what was known before and updates it. That directive should be out very shortly. According to the Stevenson/Wydler Act, we have the ORTAs, Offices for Research and Technology Assessment, which make sure that the research results generated in-house in DoD get transferred out into industry. We also work through CUFT, the Center for Utilization of Federal Technology, in the Department of Commerce.

The third committee is a very important one, that is the Information for Industry Committee. There we are concerned with how we can get information out to industry as quickly as possible. One example is the PEDS, the Program Element Descriptive Summaries. We are beginning an experiment with the Navy to put them online. The Navy has promised us to put them online and give that information to DTIC. Hopefully, we will extend this to the Army and Air Force later. So, not only will you get them sooner, but, hopefully, you will get them online as well.

We have been having much better exchanges with industry. There is a small group of industry people, which you could call "the industry advisory group," which has met with us periodically. We have had extremely useful interaction with them. They have been very helpful to me. I hope we have done for them some of the things that they have asked for. Another thing that we have discussed with that industry advisory group is laboratory site visits, where DoD labs hold open-house and invite industry people to come in and show them around for a day or two so that they get a good information exchange right on the spot.

Let me turn now to another subject, and that is the converse of the generation and dissemination of information. That is the control of information, control in the sense of export control. It has become a serious problem. I think we are working toward a solution now. One of the milestones on that one was a DoD directive which was signed by the Secretary of Defense in January of this year. It is DoD Directive 2040.2. It sets up a formal

mechanism for dealing with this. It sets up a main panel and two subpanels. Overall it deals with international technology transfer. One of the subpanels, Subpanel B, is research and development. The other subpanel, Subpanel A, deals more with goods, services and hardware. Subpanel B also deals with information generation. It is chaired by my boss, the Deputy Under Secretary of Defense for Research and Advanced Technology. I run it for her with the help of Frank Sobieszczyk, who works for DLA and who is also in my office.

We have come up with several changes which I hope will streamline the control of information. One of them is DoD Directive 5230.24. It deals with the markings on documents. When DTIC gets a document, it will be clearly marked. There will be seven markings all together so that when somebody asks for a report, DTIC won't have to go back to the originating organization and say, "may we send it to this person?" Instead it will be clearly marked, DTIC will know exactly what to do, and it will save a lot of time, I hope.

Congress has been very conscious of technology export controls. It has devoted a lot of attention to this. Last year they provided another exemption under FOIA, the Freedom of Information Act. We all know what the Freedom of Information Act is, but there are certain categories of things that you do not have to release, even under the Freedom of Information Act, matters, for example, which are private to the individual. They added one more category which has to do with critical technical data. As a result of this we spent a great deal of time writing up a new DoD Directive which implements what Congress asked us to do. That directive will probably be out in the next few weeks and will be known as 5230.25.

In addition to establishing all of these internal controls, we have been talking to the outside world as well. In my case, we have been talking largely with the university people because they generate much of this information. We have a DoD university forum, under which there are several working groups dealing with different topics, such as science and engineering education. One topic which has occupied the forum a great deal is the question of how technology export controls affect the release of technical information. As a result of this interaction and of talking with people in the White House and the Office for Science and Technology Policy, there is a draft national policy on how to deal with technical information. It was released when Dr. Edith Martin, my boss at the time, testified in Congress last June. That draft policy states that all fundamental research can be handled without any controls unless it happens to be classified. As long as it is unclassified fundamental research it can be published freely. The question is what constitutes "fundamental research." Since that was left undefined, it fell on my office to define what "fundamental research" meant. Our definition was embodied in a memorandum to the Services which I recommend that you all read. It was signed by Dr. DeLauer, the Under Secretary of Defense for Research and Engineering, on the first of October of this year. Essentially it defines "fundamental research" as being that information which can be released quite freely without any controls.

I might point out that Dr. DeLauer wrote an editorial in Science magazine dealing with the same subject. It came out in Science dated 6 October 1984.

From all of this, you can recognize that information is becoming more and more important and people are beginning to recognize that. You can see this in the popular press. John Naisbitt in his Megatrends refers to the "information float." Alvin Toffler in his book The Third Wave refers to "telecommuting," meaning people do not necessarily have to go from one place to another but all we need is for the information to flow from one place to another. The Grace Commission came out with many, many recommendations, some of which made sense, some of which did not make sense. But in one that did make sense, they talked about technical information. What they suggested was that there should be a central data base for the whole Federal Government (meaning NTIS) and that it should be mandatory for all contractors to input into that data base. Furthermore, they suggested that it be mandatory for Government people to search for information in that data base before spending any money on a new R&D project. NTIS is much too central for the whole Government, and in DoD we have a lot of classified information, limited distribution information and so on. However, if you read DTIC in place of NTIS, the suggestion does make a lot of sense for DoD. We want to be sure that information is fed into the data base. That is crucial, I think. In addition we want to be sure that people who start new work perform searches before they get too deeply involved in something that might have been done before.

I would like to leave you with two principal thoughts. Please think about information going into the data base as well as the information that you take out of it. Do whatever you can to help to make sure that the new information that is generated gets fed into DTIC. So again, think of it as a business, there are suppliers and consumers. We tend to think of the consumers first, but you have also got to think about the suppliers if you want to satisfy the consumers.

The second point that I want to leave you with is the one that Dick Bruner brought up. And that is the fact that we need your support in the whole budget process, in particular in Congress. The difficulty is not so much persuading people that information is important. I think that they recognize that. The difficulty is getting their attention. And the reason that it is so difficult to get their attention is that the DTIC budget, the budget for information, is relatively small. What you read about in the newspapers, what the legislators pay attention to, are the big ticket items. Those are the ones that are visible. We need to get good examples from you (which you need to give to me or to Dick) that we can take to Congress. We need examples that are eye-catching and tell them that this really has saved a lot of money. Perhaps even more important is credibility. When Dick goes to testify, he lacks credibility. When I go to testify, I lack even more credibility. Because they ask themselves why should we speak against something that we have responsibility for? But when you go to your local Congressman, he listens. If you are a constituent of somebody, in his district, or in his state, he will listen to you when he probably would not listen to Dick or to me. It is very important that you use this. Believe me other people use this. You are in the business of information transfer, why can't you transfer information to your Congressman? It is very elementary. Dick and I are not supposed to lobby and we are not lobbying, let me make that clear. We are just asking you to transfer information to your Congressman or Senator. Make sure that they are informed.

One thing that is important is who you talk to and when you talk to them. You need to know who is on what committee, and who deals with us. Now you also need to talk to your local Congressman, even if he is on no committee, because as a member of Congress, he can be very helpful. But there are certain people who are more important, those are people who are on certain committees or who are chairmen of certain committees. Timing is very critical: things happen extremely fast. If I happen to be on a trip one day, and something comes up and I am out, I can lose a million dollars quite easily. I can hear about something in the morning and rush to issue a reclama in the afternoon, but if I do not get it in on time I can still lose a lot of money. When it comes to Congress, things happen almost as fast as that. We can be helpful to you people in industry, but believe me you can be very helpful to us as well. You can contact people yourselves or if you can persuade the chairman of your board, or the president of your company, to do it for you, you can multiply your effectiveness quite a bit. Hu suggested that we bring a Congressman to this meeting next time. That is one way to get his views and to learn to understand what his problems are, because they have problems too. And it would give us a chance to let him know what we think, what our problems are, and what we would like him to do for us. I think I better finish here, I am running late. I enjoyed talking with you. And I will be glad to answer any question, if you want. Yes, sir.

QUESTION: I have a suggestion as far as making sure that DTIC is used. It is very easy, the mechanism is already in place, just have a requirement that the financial office certify that a DTIC data base search has been made before funds are released for a project.

ANSWER: The idea is the same idea that the Grace Commission came out with, and I think it is fundamentally sound. However, there are always difficulties implementing these ideas. Let me give you an example. About 10 years ago, somebody in the Office of the Secretary of Defense said we have got to get those reports, and if we don't get them, we are going to defer all our money. In fact that did happen with one of the Services. The trouble was that a lot of innocent people got hurt. Since all the money was deferred, whether you did or did not supply your 1498, your money was cut off. If one is not careful, one can overdo it. I think one should insist that some kind of a search is made, but it should not depend upon some bureaucrat doing his job. So one has to handle it very carefully. The concept is fine but the question is how to implement it in a meaningful way.

Thank you.

SAUTER: Thank you, Leo, we will invite you back too. We appreciate your taking the time from a very busy schedule to be with us this morning. And certainly the people who want to get in touch with you can drop a note. If you do not know his address, DTIC can certainly supply it for you.

Next on our program, we had General Miley listed. He is unable to be with us this morning. I think that most of you know that this year we turned to the American Defense Preparedness Association to assist us with our conference. In place of General Miley, Captain Nelson Jackson, U.S. Navy retired, the Assistant Director for Advisory Service, is going to say a few words to us. Captain Jackson.

JACKSON: Thank you very much. On behalf of General Miley let me say that we are privileged to be a part of this particular conference. This is what our mission is all about. Getting people together and getting information exchanged so we can do our jobs better in the interest of national defense and industrial preparedness is what ADPA has been about since its inception in 1919. ADPA started at Aberdeen Proving Ground with a group of Army ordnance officers and industrialists saying, "let us not get in a situation again where we are not prepared for conflict." You may or may not know that historically our nation has not gone into any conflict in this century really prepared. In World War I we used French airplanes and French cannon. It was a long time before I knew that a French 75 was not just a drink, and was really the French cannon. In World War II, had it not been for the Lend-Lease program, we would have had a more difficult time gearing up. So ADPA's mission is to see that this nation is prepared from an industrial base point-of-view. We do that in many forms, one of which is just like this conference. The Association sponsors or assists in 70 to 90 technical meetings a year. This week alone, we have a meeting going on in Los Angeles, one in Williamsburg, one in Orlando, and three here in Washington. We act as an extraordinary staff for the Secretary of Defense. We have had a lot of interface with Dr. Young and Dr. Martin. This is all at no expense to the Government. We are a private, nonprofit, nonlobbying association. Our mission is just to get the Government and industry together so that we are better prepared. We are happy to be involved here and if I can be of any assistance to you in any way, please let me know. I have been involved in two meetings with DTIC this month. It has been a very interesting and rewarding experience for me. We thank you for letting us be involved with you now.

SAUTER: Thank you, Nelson. Before we have our coffee break, Jerry, do you have any announcements that you want to make?

ANNOUNCEMENTS - Mr. Jerry Milstead, DTIC-S

A few brief announcements. Please review the contents of your packet. There is a questionnaire and suggestion form. Please try to have these in the box outside by 1030 tomorrow morning. We will collect them and they will be addressed Friday morning. Include any comments you want to make about DTIC, any questions you have, etc. There is a copy of the new listing of prices for hard copy documents in the packet. Mr. Robey is going to discuss the new pricing policy after the break.

User Services has a draft of a new users guide available. If you are interested in reviewing this draft or making any comments or suggestions, leave your name with Judy Pickeral at the table outside. Also available are site listings for all the online users. If you would like a copy of that you can pick that up outside too. Please look at your entry to see that the information is correct. We find quite often that people neglect to tell us that some of the operators have left, the telephone numbers have changed, and that sort of thing.

Margaret O'Drobinak from the Naval Weapons Center in China Lake asked me to announce that they had a severe flood and it damaged a lot of their documents and other things. They may be calling on other people or organizations to assist them in replacing some of the damaged material. So if you can assist, please contact Margaret.

STATUS REPORTS FROM DTIC DIRECTORS - Paul Robey, DTIC-AD/William Thompson, DTIC-T/Charles Gould, DTIC-D/Jerry Milstead, DTIC-S/Richard Douglas, DTIC-J/ James Pendergast, DTIC-AI

SAUTER: We are going to hear reports from each of the Directors at DTIC. We are going to hear from them in terms of what they have been working on, probably hear from them in terms of what they should have been working on, but were not working on. I am going to turn this over to Mr. Paul Robey who is the Deputy Administrator of DTIC.

PAUL ROBEY
DTIC-AD

Good morning. During Mr. Bruner's talk this morning I was reminded that the last opportunity that I had to talk to many of you was at our local regional users meeting at DLA Headquarters last March. I know Mr. Sauter and Mr. Bruner remember that day well because that was the day that they took their ammo to the Hill. I wish that they had a little bit more ammo, and I also wish that they had a larger caliber ammo. But I would like to reemphasize and to encourage each and every one of you, please do as Dick Bruner says and send us your ammo, and also do as Dr. Young said and transfer a little of that technical information to your Congressman.

In the 1982 Users Conference, John Glynn, the Director of the Office of Planning and Management, talked to you about a proposed revised pricing schedule for hard copies of technical reports. Then last year, right here on the same stage, John gave you an update of the revised price schedule, so this morning substituting for John, I am going to also give you an update status. Only the difference this time is that this is an approved pricing schedule. So you really can't say that you have not been warned, because you have been warned at the last two conferences.

I am going to try to give it to you in bullet form since most of you are aware of it already. The variable pricing for hard copies of technical reports will be effective on 1 January 1985. This is for the DoD, the DoD contractors, the other Government agencies, and the other Government agency contractors. In other words, the variable pricing will go into effect for all users on 1 January 1985. Now, I want to set aside microfiche, because there will be no changes to the pricing on microfiche. The microfiche copies for demand documents will still stay at $.95 and a document supplied under the ADD--the Automatic Document Distribution program--will stay at $.35. Guidelines that we received from the DLA Headquarters folks, and from the Office of the Under Secretary of Defense, resulted in the following formula for the pricing of hard copies. It will be $5.00 for a document from 1-100 pages, and then $.07 for each additional page after 100. There will be no upper limit on the charges. Now, fortunately, there are only a few documents in the system that go beyond the thousand pages, and there will also be no exception for the smaller documents, the minimum will be the $5.00 up to the 100 pages. Now for you math whizzes here, an alternative way you can remember it is, it is $5.00 plus $.07, times the number of pages,

minus a hundred. Now for those of you out there that are not such math whizzes but are pretty good chart readers, we are distributing a pricing schedule which goes up through a thousands pages.

The only other point that I would like to cover, and there may be a little misunderstanding, is the free users. If you are a free user today, on 1 January is you will continue as a free user as far as microfiche is concerned. Hard copy--if you order one copy it will be free. If you order multiple copies of the same AD number, the first one will be free, and the rest of them you will be charged at the new normal price, if you have a deposit account with NTIS. If you do not have a deposit account with NTIS, we will ship you the first, and the rest will be rejected. That is the only change for the free users. So now what I would like to do is to introduce Bill Thompson, the Director of Data Base Services, and I would like to ask each of the group that is up here when they get finished to please introduce the next speaker. If one of you forgets, look at your badge and introduce yourself.

QUESTION: I don't know if you have time for this one, but I would like to ask it now. I have seen the proceedings of a conference, and there were in round numbers a thousand pages. If we were interested in only three papers do we have to order the whole thing? Do we have to order $68.00 worth when we only want two or three papers?

ANSWER: If the proceedings were announced as one whole volume, we have no way of dividing it up.

QUESTION: They were announced separately, each paper was a piece.

ANSWER: Oh, all right, a document with an AD-P accession number is treated as a single document. When you order an AD-P, if it is 100 pages, it would be $5.00. You can order a component part, as long as it is announced with a separate AD number. The price applies to the AD number. I suggest that for everybody who has a question, if you can hold them, and write them out on the sheets and drop them in the box, we would be glad to address them on the wrap-up Friday. If you feel that they are important to bring to everybody's attention immediately, would you please move to the middle aisle and use the microphones for the benefit of the people in the back. I was sitting in the back and they could not hear any of the questions that Dick Bruner was being asked. We could hear his answers, but not the questions.

QUESTION: I have one question on the free user multiple copies. I asked this informally of DTIC a couple weeks ago, and got a tentative answer, and I was just wondering if there was anything firm. Is there going to be a time limit between pricing of multiple hard copies. Another way of phrasing that, if I were to order as a free user a hard copy in one month, and were to turn around in another month and order the same AD number again, would that be considered a multiple copy or would that be considered a separate order. Is there going to be a period of time?

ANSWER: I can give you the real world situation. The free users are going to be put on the honor system, because basically it takes too much computer time to run all of this down. From a practical standpoint, if you order the same AD twice within the same month, you are going to get caught. If you order it

beyond a 1-month span, there is a possibility that you will not get caught. So we are asking the free users to please bear with us. Let your conscience be your guide. But you are right, if you order one today, and you wait 3 months and order the same thing you will probably get it free. It just takes too much computer time to do all of this checking. It is not worth it, so you are on your honor.

WILLIAM THOMPSON
DTIC-T

Good morning. As Mr. Robey said, I am the Director of Data Base Services. The directorate that I head is responsible for monitoring and controlling both the input to and output from the major STI data bases, of which there are three, plus a fourth that is under revision. My directorate is divided logically into an Input Division and an Output Division. In terms of what you have heard already this morning, whether you write your Congressman or not, send us your data. As Dr. Young implied that is the key to a lot of things; it certainly is the essential element of data base service. If we do not get the data--if we do not get the input to the work unit system, if we do not get input to the technical reports or the bibliographic data bases--we cannot provide it.

The Input Division is broken into four separate branches: (1) Descriptive Cataloging, where we perform the basic cataloging operation and also provide a focus for cataloging rules and standards, development of authority files, and related activities; (2) an Information Analysis Branch where we perform the function of reviewing text, writing abstracts where necessary, and subject analysis; (3) a Technical Reports Branch that monitors the release of data from the input process to various other functional aspects, like release of the data for production of TAB, to NTIS, to the preparation of microfiche headers, and so forth; and (4) the Management Information Branch that is involved with management and control of input to the management data bases, primarily the work unit and the IR&D data bases at this moment.

The other half of the directorate is involved with output--a Demand Products Branch--a group of subject analysts who respond to demand or ad hoc inquiries--and a Special Products and Terminology Branch that is involved primarily with the subscription or profile-driven products, the maintenance of the lexical dictionary, vocabulary control, and special projects.

In terms of some of the things that have been going on since last year, one major activity is an effort to revise and replace the old COSATI subject categories. DTIC was tasked some time ago to look at the possibility and ramifications of revising the COSATI field and group structure, that is the mechanism we use to categorize accessions as well as to control need-to-know. That project, as subsequently approved, is essentially to concentrate on those technical areas that essentially needed fixing. As opposed to stepping back and redesigning a whole scheme, we are simply concentrating on what was wrong with the existing scheme. The initial phase of that project, essentially the intellectual effort, is complete. We have identified and corrected the problems that we found from talking to indexers and retrievers about technical areas in

which they are having difficulty categorizing documents or retrieving technical concepts. In particular, we were concerned over those areas that were sensitive in terms of controlling need-to-know access, because, as I say, the fields and groups are the basis for all need-to-know validation. As a result of this, we proposed to expand the original 22 subject fields and 188 groups that made up the old COSATI scheme to 25 subject fields and 251 groups. In all, three fields and 66 groups were either added or substantially changed to provide more specific categorization. Considerable effort has been spent in expanding and making more specific the scope notes and the cross references between the various fields and groups. An extensive subject index and a field/group index have been developed for the document.

We have received essential coordination of the results of this intellectual activity. We are in the process now of preparing a "working draft" of the new categorization scheme, under the new title "Subject Categorization Guide for Defense Science and Technology." The working guide will now be input into the implementation phase, which will be quite lengthy, because now we are into the complexity of developing new registration forms, new registration procedures, and figuring out how we are going to reregister everyone. There are a large number of programs that need to be written to convert the old field/group assignments to the new ones. That is going to take a while. It will take at least a year and a half before it is fully implemented.

Another major project has to do with a review of DTIC's announcement services. This is commonly known as the TAB alternatives project. As you are aware, since TAB was classified over a year ago, there has been some concern about the utility and effectiveness of TAB in its current classified format. There have been a few surveys done. DTIC did one about the time TAB was classified for which we sent out some questionnaires. Dr. Young's STIP operations group did a more elaborate survey of the need for awareness-type documents and, particularly, the effectiveness of TAB. Our current objective is to try to develop a family or package of products that taken together will be more satisfying than TAB, and will avoid some of the current liabilities of TAB--that is its classification, its dwindling cost effectiveness, and so forth. I will not now speculate about what will come of this study. The project team is presently developing some recommendations which will be presented to Mr. Sauter. Then, we will probably have some more iterations of those until we come up with a final set of objectives.

In terms of DRIT, which is the published vocabulary, efforts are underway to automate DRIT using a commercially-available UNIVAC software package called UNIDAS. This is a UNIVAC document retrieval system which has the characteristics for handling a structured vocabulary. We are planning to use this ability of UNIDAS to manipulate a thesaurus to take the lexical information and put it in a form so that it can be published in a hard-copy thesaurus. We are probably talking mid-next year before that will be available. We are also planning to use UNIDAS for some other things. Tomorrow, when Carlynn Thompson talks about some of our plans for the RD-5 data base she will describe the role UNIDAS plays in that effort. Experimenting with the DRIT is one way of gaining familiarity with this application software package.

In the work unit area, the Work Unit Information System Working Group has been meeting fairly regularly through the year to look at the problems in the work unit system and to recommend changes. We have recommended a number of changes, both in our processing and some longer range changes to improve the effectiveness of input. About 3 weeks ago, we met with Dr. Young and presented some of our concerns about the system as it is currently operating. We asked his support for some specific actions that will help improve it. We got that support. I will not go into details now, but there are two panels tomorrow where we will discuss those issues.

In the bibliographic area, in response to numerous complaints about the way the DD 1473 that was included in the MIL-STD-847B was formatted, we have modified the DD 1473. There is a new issue of the form dated March 1984. We acceded to as many of the complaints and recommendations as we could, so I think you will find it better.

The Cataloging Branch has also put out a number of publications during the year including a new source hierarchy, a supplement to the source header book, a new version of the government acroynms book, and updated cataloging guidelines.

I mentioned some of the panels to follow on tomorrow's program. There will be two cataloging panels and one indexing panel. These are essentially workshops. The cataloging workshop is scheduled at 10:30 and 2:45 and the indexing workshop is at 1:15 for those of you who are interested in these areas. I think they are oriented primarily to the SBIN people, but anyone who is concerned about how we index and catalog is welcome.

I mentioned that Carlynn Thompson and I will be conducting a panel at 10:30 and 1:15 to talk about the RD-5 data base and the work unit system. We go into a little more detail about what we see in those areas.

That is all I have, unless there are any burning questions. I would like, now, to introduce Chuck Gould, the Director of Document Services.

CHARLES GOULD
DTIC-D

Good morning. I am Chuck Gould, Director of Document Services, with the primary responsibility for the acquisition, selection, microphotography, storage, retrieval, reproduction and shipping of technical reports, in both paper copy and microfiche. As a parallel function, we also provide reference services--if we have it we'll reproduce it for you; if we don't have it we'll tell you where to go--in a nice way of course. Going hand-in-hand with the reference service is the registration service where we make sure that users are eligible to receive what they ask for while ensuring that nothing goes to users who are not entitled to get it. This function is extremely important and can not be overemphasized. In July 1983 a report was submitted to the OUSDRE STIP Operations Committee indicating that many technical reports were not being forwarded to DTIC. I can imagine that some of you who double as contributors of reports are sometimes reluctant to send them to us because you feel we can't and don't exercise proper safeguards in secondary distribution. I can assure you

that we take every precaution, both automatically and manually, to prevent this from happening. In line with the checks and balances we employ through registration and validation, you as contributors now have added controls over who can receive your reports by use of the expanded distribution statements issued last October. So when my acquisition people get in touch with you for one document or an entire collection, rest assured that we will protect them from unauthorized disclosure just as if they were our very own. Lest you think this is the extent of our operation, we also provide printing, duplication, and shipping services, not only for DTIC but for other DLA activities housed at Cameron Station. Maybe some of you will surmise from this brief overview of this Directorate's operations that I have one heck of a job--well, you're right. I always say this when the boss is present--hoping for a little sympathy and a much-deserved vacation--temporary of course.

Before I sit down, there are a few specific concerns I'd like to address. First, if you wish to replace a large paper copy collection with microfiche, please allow us to stage the replacement in a timely manner rather than flooding us with the entire order at once. The same is true when replacing old microfilm collections.

Another item is for those of you who also serve in the capacity of releasing authorities for limited technical reports. We ask that your response to our inquiries be a little more timely. Recently we hosted a meeting at DTIC and invited several people who have release authority responsibility to come and discuss mutual problems. Unfortunately, those who attended were the very people with whom we have experienced the most success in Form 55 processing. Needless to say, some problems are yet to be resolved but we will continue working on them.

Another item of concern I wish to address is the marking of declassified documents. Some of you have suggested that we mark every page of a declassified report before we send it to you. Please, we don't have the resources either. When we send you a declassified document today that is properly marked according to security regulations, your document probably represents only one of maybe hundreds shipped that same day. No way we can mark each page. However, if any of you have a solution to this problem, I'll be glad to listen. Might not be able to do anything about it, but I promise I'll listen.

Finally, I must mention a touchy subject since my people are directly involved--turnaround time for our products and services. I see heads nodding, eyes flashing, teeth gnashing and fists clenching. Please, no violence now. I am fully aware that this has been a sensitive area for quite some time now. Believe it or not, we are showing improvement. You ask how much? Well, our average turnaround time has dropped from a high of around 12 days to a current 6.4 days, with aspirations to reach 5 days during this quarter. And stay there. I hope you will bear with us a little longer.

Meanwhile, if you have specific questions or concerns about any document service, I urge you to attend the New User Orientation Workshop in the United Way Room. Don't let the term "new user" deter you. We will have experts available in the various areas of document processing and they will be able to clarify anything that I have confused you about.

If you wish to pursue a subject one step further, you will find a suggestion box near the registration table. Just write down your concerns and I will try to address them during our wrap-up session on Friday. I only ask that you go easy on me since I'm the new kid on the block.

Thank you.

JERRY MILSTEAD
DTIC-S

I just have a few very brief comments to make. Some software enhancements that were made to the system over the past year are:

- o The ordering of limited documents online was modified at the users' request.
- o You can now order both hard copy and microfiche on the same Form 55.
- o You can also recall the previously-typed data used for justification.
- o The other major thing that was accomplished this year was the display of the inverted file terms online.

We have made some other minor-type modifications or enhancements. Jim DePersis and Laurie Lubsen will cover all of these things in their session, so I do not see any point in going into detail now.

The DROLS system now has 734 users and is growing at the same high rate that it has been for some time. The best thing that we can say about response time is that we think we have held our own.

We no longer run batch work during the day. We dedicate the computer to the online system from 1000 in the morning to 1500 in the afternoon. This did help response time quite a bit. Also in order to try to help the overall situation, we have acquired and are in the process of acquiring additional equipment for the computer. The week of 15 Oct 84 we installed additional memory on the 1100/82. This doubles the capacity of the memory and it looks like that in itself has improved response time quite a bit. The week of 12 Nov 84 we plan to install another input-output unit to the system. This will provide another path to the computer, and we think that installation of that, in conjunction with the additional memory, should make a dramatic improvement in response time.

We are in the process of expanding the front-end processor to add more ports. We have received permission to replace some of our old outdated peripherals on the 1100/82. We are still running tape drives on our system that are 16 years old. We are still using mechanical drums on the system and I think we are probably one of the few computer installations in the country that still use these drums. We hope to replace this equipment sometime in the latter part of FY 85. This should also enhance the response time of the system.

Several people have asked us about using other than UNIVAC terminals in the dedicated mode. At this point in time, we still cannot accommodate anything but UNIVAC-compatible terminals. However, we are experimenting with a 3270 protocol which, when implemented, will allow you to use IBM-compatible terminals on this system in a dedicated mode. If you have any questions about this you can ask Mr. Gary Claypoole in the session on communications this afternoon. One of our big problems in communications is a lack of personnel. We currently have only one person working in technical control. So unfortunately, you can expect a deterioration in your service when you call technical control for a while. We are in the process of trying to solve the personnel problems but I am not sure exactly what we are going to be able to do.

The availability of 1200 baud dial-up ports has become a problem. When we first implemented dial-up most of the terminals were using 300 baud terminals. Now with the advent of so many personal computers, most of the people now are utilizing 1200 baud. We are experimenting with an auto-baud system which Mr. Zinna will cover in detail this afternoon. Basically, what it does is allow you to use any port with any speed when you dial in. That should alleviate the backups that we are now experiencing with the 1200 baud ports.

One other thing that I might mention is about ordering documents and the time delay involved in filling these orders. We did a study and there are still a lot of online users that order documents via the Form 1 in lieu of ordering online. If you order online, you will save part of the mail time. Depending on where you are located, this could be up to a week's time.

RICHARD DOUGLAS
DTIC-J

Good morning. I'm Dick Douglas and I have responsibility for the research and development function within DTIC. The primary responsibility of the Office of Information Systems and Technology is to determine the needs of our customers and to apply emerging technologies to meet those needs. At last year's conference my office conducted a series of workshops that we feel were well received by the attendees. This year we have scheduled a series of development project workshops that I believe you will find to be equally informative.

Thursday morning, Carlynn Thompson along with Bill Thompson, the Director of Data Base Services, will present a session that will cover changes and proposed changes in our management data bases. Carlynn will talk about her plans, successes, and hurdles to make a new program summary type data base operational within DTIC.

Thursday afternoon, Gladys Cotter will join personnel from the Logistics Management Institute, Bobbie Everidge, and Susan Ewing to enlighten you on our Shared Bibliographic Input Network and Local Automation Model projects. Both the LAM and the SBIN projects are moving forward in an orderly manner. Assuming we can maintain adequate funding, the LAM should be operational at the test site, the Defense Nuclear Agency (DNA), by 3rd quarter FY 85. Later that

same day, Gladys Cotter will lead panel presentations to bring you up to date on the progress being made on the DoD Gateway project. For those of you who may not be familiar with this effort--when completed, it will be a computer network that will allow access by diverse terminals to a multiplicity of data bases within DoD as well as within DOE, NASA, and other cooperating activities. You will be able to use a single access language no matter what access language is native to the data base being used.

Friday morning, Lois Richards will provide you with information on one of our newest and best received new services, the Manpower and Training Research Information System or MATRIS. Any of you that serve researchers who deal with personnel research, training devices, artificial intelligence, and related social sciences research should not miss this session. Ms. Richards will describe a research information tool to you that is unique to DTIC and perhaps even unique to the Department of Defense.

Last but hopefully not least, on Thursday morning the DTIC Long-Range Planning Committee, which I chaired, has put together a presentation for you that will describe how we prepared the current DTIC long-range plan entitled DTIC 2000 - A Corporate Plan for the Future. We will then highlight for you the goals and objectives that are listed in the plan. These goals are broad in nature and indicate what we hope to accomplish in the future but do not address the how and when of goal accomplishment. Finally, we will provide you an opportunity to react to our corporate goals. Free copies of the plan are available at the front desk.

At the front desk you will also find sample copies of the DoD Data Base of Data Bases Directory prepared by Carol Jacobson. Publication of this document was the culmination of several years of difficult efforts, both technical and political. While the document is by no means a complete compendium of DoD data bases, it does provide the foundation for a more complete listing in the future. These are not free but Carol has mail-back cards at the desk should you wish to order a copy.

Additionally, there is a handout containing a complete listing of our active development projects and the current status of each in the packet provided to you.

Having painted a fairly upbeat picture of our development efforts during this talk I think it only fair to balance that with some of the unpleasant realities as well. Most of what is unpleasant concerns money. FY 85 funding is extremely tight and FY 86 may not be much better. When funding is cut or tight, it is areas like development which contain discretionary money that are squeezed the most. Unless some budgetary relief is found, many of our high priority development efforts will have to be stretched out in time and some of our lower priority efforts will be terminated or put on "hold." It is not a crisis situation but is does mean that you may not see the progress in FYs 85 and 86 that we had planned and hoped for.

The Computer-Assisted Instruction project is one example of a high-priority effort that has been adversely impacted by our resource limitations. The project's objective is to provide a capability for developing and delivering computer-assisted instruction in DROLS retrieval. At the last users conference we demonstrated the results of our early developmental work. I think the demonstration was very well received. By now we had hoped to be in a position to have two completed modules available for demonstration at this conference. Unfortunately we have not been able to devote the level of resourcing needed to fully support the course development for the first two planned training modules. The introductory course, "Introduction to DROLS Retrieval," is only about 75 percent complete, however, a number of users have taken a draft version of it for test purposes. We hope that this CAI version of the course can be operational during FY 85. A contractor, Global Technology Corporation, is working with us on the module. There will be both a dial-up terminal and a stand-alone personal computer version of the training course. The second course is entitled "Retrieval from the DROLS Technical Report Data Base." Some progress is being made here--but slowly. With contractual support it may be tested by spring, but at this point it is not at all certain that we can fund the level of contractor support we will need to meet a spring date.

Thanks for your attention, I think you will enjoy the workshops and presentations we have planned for you.

Jim Pendergast, IAC Manager, follows.

JAMES PENDERGAST
DTIC-AI

Currently there are 20 DoD Information Analysis Centers (IACs), 10 of which are administered and funded by DLA/DTIC. The ones that we are responsible for are all contractor operated. The titles of the existing centers are: Chemical Propulsion Information Agency, Infrared Information Analysis Center, Metals and Ceramics Information Center, Metal Matrix Composites Information Analysis Center, Nondestructive Testing Information Analysis Center, Thermophysical and Electronic Properties Information Analysis Center, Reliability Analysis Center, Data and Analysis Center for Software, and the Tactical Weapons Guidance and Control Information Analysis Center. All of these have been in existence for quite some time.

The newest of the centers is the Manufacturing Technology Information Analysis Center (MTIAC). The contract was awarded on 4 June 1984 as a small business set-aside to Case and Company, Chicago, Illinois. The Illinois Institute of Technology Research Institute is a major subcontractor for this center. We will soon be awarding a contract for an Aircraft Systems Survivability/Vulnerability Information Analysis Center, which will be known as SURVIAC. The center will be located at Wright-Patterson Air Force Base. It will be contractor operated, and should happen sometime in late December at the latest. It takes some time to get these centers on contract. In due course the citation records of Manufacturing Technology and SURVIAC will be available in

the DTIC technical report data base, just like some of the other IACs are now. Obviously it is going to take them a while to get going, a while before they will really have anything much that you can look at.

We plan to update the brochure on Information Analysis Centers because it is out of date. We are waiting for the contract for SURVIAC to be awarded and when that happens, our plan is to come up with a new brochure and send it to all DTIC users.

As Mr. Bruner said, we very recently were tasked to establish a Chemical Warfare/Chemical Biological Defense Information Analysis Center. That will happen sometime in 1985. We just got the tasking letter in October. The center will be located at the Chemical Research and Development Center at Aberdeen Proving Ground, and it will be contractor operated, just like all of the other centers under DTIC administrative management.

At the request of the Joint Logistics Commanders' Panel on Corrosion Prevention and Control, we will soon be expanding the coverage of corrosion by the Metals and Ceramics Information Center, which is at Battelle-Columbus Laboratories. We have for some time now been trying to get the Chemical Propulsion Information Agency to put their citation records in DTIC. It has taken an eternity for the telephone company to do their thing, but we are now at the point where we think that DTIC will soon have these records. Last week we trained some of their personnel in input. The conversion programs are in the final stages of completion. We will let you know when there are a significant number of CPIA records in the technical report file.

Lastly we have been trying to revise the regulation on Information Analysis Centers, DoDI 5100.45, for 2 years. It is now in the final stages of editing, and we are hopeful that very soon it will be published and issued as 3200.12-R-2.

In conclusion the Information Analysis Centers have been getting very wide support from the DoD of late. If any of you need information from any one of the IACs it certainly would be worth your while to go to them, because they have a lot of information that you won't find in DTIC's files. That is all that I have got to say. At this point I will turn it over to Paul Robey.

ROBEY: I think the Directors did a good job, each one of them remembered to introduce the next man, and that is sometimes a big accomplishment in itself. We will reconvene here at 1:00. I am glad to hear that Paul Ryan and the User Council invited the DTIC people to participate in the afternoon session. But I'd like to wrap it up real quick, and then we will have a little longer lunch hour.

I think one main theme has really come through here this morning. I think that Dick Bruner standing all the way in the back, really wants to march on Capitol Hill, because from Bruner's talk and from Dr. Young's talk this morning and then even Mr. Douglas and Jim Pendergast, the theme has basically been we need more money, and the only way that we are going to get it is to have some ammo for Bruner to take to the Hill and hopefully we can send an advanced party to the Hill to talk to some of the Congressmen before Bruner and company get there. So thank you and see you all at 1:00 promptly, so we can get started on time. Thank you.

DROLS USER COUNCIL REPORT - R. Paul Ryan, President

I would like to welcome you all back from lunch. Usually, prior to the annual conference, DTIC asks the User Council if we have any suggestions for the agenda or when we want to hold our session. I always say we don't want to be on right after lunch because everybody comes back late and lethargic. But we always end up being the first session right after lunch. I keep asking why. I said "everybody seems to be falling asleep." Paul Klinefelter once said to me that "you have got to look at it from our point of view, if anybody is going to keep them awake you are." So I do not know whether to take that as a compliment or what, but apparently I am here to keep you awake.

One thing that I would like to say, I was very glad to hear Hu Sauter mention the first thing this morning that the sessions are being taped as an aid to prepare the minutes, or the proceedings, for this conference. I strikes me that we heard the same thing last year. I just wanted to mention to Hu that my packet seems to be missing last year's minutes, so if he had an extra copy he could save for me, I would appreciate it.

The first thing that I would like to do is to introduce to you the current Council who are up here with me this afternoon: Sandra Young, Defense Nuclear Agency; Patt Pulliam, Naval Surface Weapons Center, Dahlgren; Marilynn Johnson, Air Force Tactical Interoperability Group, Langley AFB; Bill Hansen, Army Armor School, Fort Knox; Rosalind Cheslock, Martin Marietta, Baltimore; Harold Smith, Grumman Aerospace Corporation, Bethpage, NY; Fred Lewis, Hughes Aircraft Company, Los Angeles; and Kathy Wright, Naval Ocean Systems Center, San Diego, CA.

The purpose of the User Council, which has been in existence for 4 years now, is to represent the users in relation to the DROLS system. To that end, the members of the users group, which are all DROLS terminal sites, elect the User Council of 11 representatives who serve 2-year terms. They represent the Army, Navy, Air Force, DoD agencies, and contractors. The Council's primary function is essentially to listen to the comments, suggestions, complaints, and ideas for improvements from you, the users. From time to time, we get asked by DTIC to provide feedback on current problems, upcoming issues, and things of that type. We have done a fair amount of that over the past several years. That is, we have provided input to DTIC, prior to some decisions having been made. In an effort to hear from the users regarding how they view the current problems, we attend the annual meeting and hold a User Council meeting, of which this is one. We also try to attend as many of the DTIC regional meetings as we can, or at least have a Council member represented at every regional. All of us are up here doing this on a voluntary basis and our own organizations are supporting the travel costs that we incur because we do not get money from DTIC or from any other source. Sometimes this is not always easy to accomplish. This year we were able to attend every one of the regional meetings, except the one in Chicago (the mideast regional). I think that is a good record in trying to go out and meet you, the users, and listen to your problems, your concerns, and your current interests.

There are several things that we need to accomplish this afternoon. Several of them are matters of business such as: the election process for new Council members; matters that have to deal with current problems of the online system; some of the things that have cropped up in the past year, to bring you up to date as to what the User Council has been doing, what we have been asking DTIC to do, and what the responses have been from DTIC.

I would like to get the business part out of the way first. The first thing I would like to do is tackle the election process. In accordance with the by-laws, in even years six members of the User Council are elected. You all should have received in your packet a ballot with a list of nominees printed on it. The ballot should be deposited in a box that will be out on the registration table until tomorrow's morning break. I caution you not to fill out the ballots yet because we are going to go through the nomination process to see whether there will be any write-in candidates. So I ask you to just hold off in filling out your ballots until we have completed this meeting.

In accordance with the by-laws, one of the six Council members that is going to be elected this year must represent the Army. That is to ensure that, again according to the by-laws, we have representatives from all three Services, DoD agencies, and contractors. This year there are two members on the Council from the Army, both of whose terms are expiring. They are myself and Bill Hansen.

One other point that I would like to make about the election process is that those organizations that have multiple terminals and multiple site IDs should only vote one time. We ask that you vote one vote per site, so if you happen to have two, three, or four terminals, you should only vote once with a single site ID. This is to try to keep the election as uniform and as fair as possible.

A second point I would like to emphasize is that this year the Council, in response to users, has instituted an absentee ballot system. There are many users who for one reason or another cannot attend the annual meeting. These sites were essentially disenfranchised by not being here because ballots were only handed out in the packet at the annual meeting. This year, as you are aware if you have gotten the newsletter and read it, the User Council established an absentee ballot system. We did receive a number of ballots that way. As best we could, we have tried to make it possible for everybody who is a user in one way or another to vote.

The next thing I should tell you about is the election committee. We have an election committee that will validate and count the ballots on Thursday morning. I would like to introduce the election committee now so you know who they are: the Chairman of the committee is Sandy Rose, Naval Surface Weapons Center. Other members are Joyce Watlington, Army Human Engineering Laboratory; and Barbara Newton, Air Force Weapons Laboratory. They are the three users who will be validating the ballots and counting them.

The next thing I would like to proceed with is nominations from the floor. This year, as you can see by the ballot that was in your pack, we have a large group of nominees. I think a lot of the credit for that goes to Marilynn Johnson who chaired the nominations committee. I would like to read those names off to you so you know who was on the nominations committee: Mary Nell Durant, Army Aviation Training Library; Brian Thompson, Naval Postgraduate School;

Michael Ifler, Air Force Electronics Warfare Center; Blanch Shiflett, Defense Systems Management College; and Richard Mellon, Martin Marietta in Orlando. I would like to thank all of them for the job they did on the committee.

At this point I would like to ask if there are any nominations from the floor for election to User Council?

LEON BURG, ARMY TANK-AUTOMOTIVE COMMAND: I nominate R. Paul Ryan.

RYAN: I respectfully decline the nomination. I appreciate the consideration, but I have been on the Council for 4 years and I think it is time to have some new blood and let some new people come in. I have enjoyed my time on the Council and working with everybody.

Any other nominations that we might consider? Nominations are closed.

Now you can vote. There will obviously be no write-in candidates. I just will remind you that when you vote, make sure that somewhere on the form you do put your site ID. That is part of the validation process that we go through and those ballots that we receive without a site ID will not be counted. So please, somewhere on the ballot--in fact if you have them now why don't you take them out and put your site ID on it. If there is more than one individual from the same site, I urge you to get together and put together a common ballot. Remember, without the site ID, ballots will not be counted.

At this point, since we have a full slate of nominees, I would like to introduce the nominees and have them come up front so that you can see them. We have buttons for each nominee to wear in order that they will be easily identifiable. I urge you to talk with any of the candidates between now and tomorrow morning's break. I am just going to call the nominees in the order that they are on the ballot. From the Army we have Delfina Galloway, Air Defense Artillery School Library; Linda Lee Gaunt, TRADOC Combat Development Experimentation Center; Beverly Hall, Aviation Technical Library, Ft. Rucker; William Hansen, Armor School Library. From the Navy we have Patt Pulliam, Naval Surface Weapons Center; Laura Thompson, Naval Coastal Systems Center; Josephine Walsh, Naval Weapons Station Weapons Quality Engineering Center. From the Air Force we have Annie Davis, Air Weather Service Technical Library; Rachael Marin, Air Force Electronic Warfare Center; Andrew Poulis, Air Force Engineering and Service Center. From the DoD agencies we have Barbara Federline, Defense Logistics Agency Library; Don Guerriero, Defense Communications Agency; Blanche Shiflett, Defense Systems Management College; Alma Spring, Defense Advanced Research Projects Agency. From the contractors we have Judy Henson, AFSC Eastern Space and Missile Center; Harold Smith, Grumman Aerospace Corporation; Sallye Smith, University of Denver; Susan Weiss, E-Systems; and Joyce Shields, Technical Information Center, Lockheed. I urge you to talk to any of the nominees that are here. If you have any special interest and you want to see if there have similar interests, they are here to ask. I urge all of the nominees to wear their buttons until tomorrow at 1000.

UPDATED USER/OPERATOR MANUALS

I guess what I would like to go into now are some of the major concerns and efforts of the users group and the User Council over the past year. One of the things that we have been very interested in are the manuals, particularly improved manuals/updated manuals. There has been a good effort by DTIC in notifying users of systems changes and updates. These items are always critical, because when system changes occur, many prompted by the users, it is obviously important to know how they fit into the scheme of things and then to disseminate that information to everybody. DTIC has done a good job in the past year in getting those updates out to us. However, what we are really interested in is a revised users/operators manual. As far as the User Council is concerned, it is still a top priority. After the last User Council meeting, the regional meeting in Florida this spring, we drafted a letter to DTIC asking that the updating of manuals be done and given a high priority. I got a response from DTIC regarding manuals on 29 June 1984 that stated "The revision and keyboarding is well under way." All I can say is that I am sure that the users that are present at this meeting are anxious to see and hear what the progress on the new users manual is. It has been a long time since June, and if things were well under way then, I would hope that there would be some definitive report of the progress on that at this meeting.

The User Council after talking to many users feels that a lot of problems, a lot of misconceptions, a lot of redundancy, and a lot of wasted time can be directly traced to the fact that there is no comprehensive current users/operators manual. Once you are away from the training and you are looking for something to fall back on, it is not there. A new users manual will go a long way on improving that situation.

MANAGEMENT DATA BASES

Management data bases are another major concern. Obviously the biggest concern there is the fact that the data bases are incomplete and slow to be updated. Many of you may be aware that Edith Martin wrote a letter to each of the Assistant Secretaries of the Services mentioning several studies and IG reports that have been completed which document the lack of data that is being sent to DTIC. I think something like only 60 percent of the reports and 55 percent of the 1498s that should be in the system are there. So that is the number one concern. But beyond that there are several specific concerns in relation to the 1498 and 1634 data bases. Specifically, in the 1498 data base the User Council requested DTIC to make a change. We are anxious to hear what the status is. Presently only new 1498s are indexed. Those 1498s which are either changes, terminations, or completions are not indexed. Frequently these are the 1498s that contain the most expansive and comprehensive narrative, particularly in the progress field, and without indexing you are really not searching against any decent set of information. As far as the User Council is concerned this is an item that DTIC needs to get underway immediately. The letter that DTIC sent back to me in June also indicated that a subgroup had been formed to look into the problem and that there was a report expected from that subgroup in July 1984.

SHARED BIBLIOGRAPHIC INPUT NETWORK (SBIN)

As a result of a lot of requests from users, the User Council at the spring meeting asked DTIC for a listing of the SBIN sites and their corresponding AD-E and AD-F ranges. So far this request has been denied. DTIC's response is difficult to understand from the user's point of view, because it indicated that SBIN members really do not have resources to support interlibrary loans and are not anxious to field additional reference questions that would result from having their identity known. I find that somewhat hard to believe. All the SBIN sites as far as I know are in the information business and providing information is what they're out there to do. My site is a SBIN site and I certainly don't recall anybody asking me if I would object to our AD range being given to the rest of the users. I still implore DTIC to reconsider that position. I cannot for the life of me see what the problem is.

VALIDATION REJECTS

Not a lot of happy things to say about that. For years the only thing displayed on the screen when you could not see an accession was "Accession not available for display." Then we graduated to a second statement which was "Validation reject." Well, that was very helpful, but I think we would like a couple more statements and would like some specific reasons. It turns out that when we investigate what are some "validation rejects," it is not what you think a validation reject would be. Sometimes AD numbers are parts of conferences and when you call the reference section at DTIC you get more precise information. I think that DTIC should look into the possibility of providing more than just a catch-all phrase of "validation reject" or "accession not available for display."

FORM 55

You may recall Chuck Gould mentioned that there was a meeting about 55s in late September at DTIC. I was invited to attend. The purpose of the meeting was to look into some of the problems of why the 55 forms are not returning to DTIC in a timely fashion. Chuck alluded that the individuals who attended were not really from organizations that were delinquent in sending Form 55s back to DTIC. I just wanted to tell Chuck that that is one of the reasons I came. Organizations which are a problem would not think of attending such a meeting. The Form 55 is a difficult problem as I think all of you are aware. Contractors are sitting on one side of the fence, DoD organizations are sitting on the other, and there is no satisfactory explanation or solution to the problem. As all of you are aware, and as all of you have heard a number of times before, Forms 55 coming to releasing organizations do not always follow similar routes in different agencies. Sometimes they end up in security offices, sometimes they end up in libraries, sometimes when commands have been abolished they go to headquarters. Then the headquarters must decide what to do with them. There is no real handle on having 55s go to one single source. Another problem with 55s is the validation by the contract monitor. There are a lot of DoD organizations that are unwilling to accept a blanket validation of a particular contractor's project as being acceptable need-to-know simply because they are so broad. The registration form and determination of need-to-know by COSATI field is such a generalized process. The other problem that ties into the 55 issue is when a document comes into DTIC, DTIC sets the fields and groups not the originating

organization. There are often times when the originating organization may have wanted the primary COSATI field to be something different from what DTIC has set. This leads to a case where somebody can request and receive a document having a need-to-know in the DTIC assigned COSATI field, yet the originating agency may have preferred that the requester not receive the document. So there are a tremendous amount of problems and I guess I personally believe that many of the problems cannot really be laid at DTIC's feet. Many things as far as the releasability of 55s are just out of DTIC's control. DTIC is at the mercy of the requesting organizations returning the Forms 55 in time. DTIC goes through a lot of time and trouble to complete 55s which they receive that do not contain all the data they should. I think they would be well within their rights to return many of them which are incomplete. So I think DTIC has tried to do what they can with the 55. All of which does not help the contractors who are trying to get a hold of the documents. It is a sticky problem. I do not know if there is any quick, uniform solution.

The other issue concerning 55s is the "55 online." Jerry Milstead mentioned that a couple of changes had been made at the request of users. Since those changes were made, I think we asked if there were any more comments in one of our latest newsletters. Harold Smith, who had that project for the User Council, indicated he did not receive very much response so we assume the "55 online" is operating satisfactorily, maybe not 100 percent but, as it is, we are in better shape than we were several years ago.

DTIC 2000

One of the last things I have on my list of items to talk about is the report that is in your folder, DTIC 2000. The User Council would be very interested in any comments, recommendations, and/or suggestions that users have about that report. There may be avenues and points of view that we can tackle based on the users interpretation of that document.

That concludes what I have on my agenda today. Does any other User Council member have anything they want to remind me that I forgot to mention or that I misstated? At this point I would like to open the session to the users to hear any comments that you might have. Any new problems you would like us to dwell on? Any praise that you would like us to pass on to DTIC? Anything that you would like us to tackle, anything you think we are overlooking, any new burning issues? Now is your opportunity.

JIM JOHNSON, FLIGHT DYNAMICS LAB, AFSC: I believe my comment today is to the audience and the User Council, but certainly for the incumbents on that Council, to give Paul a resolution for his contribution to that Council, and if necessary, maybe we can draft him for another term. But he has indicated that he is not up for reelection, he has served continuously for 4 years and he was actively involved in the formation of the Council as well. I think that we owe him a round of applause and gratitude. Sorry to see him step down.

RYAN: Thank you. I appreciate that.

JOHNSON: You deserve it, Paul. I would like to address a second comment to the industrial users of the system. Sometimes they don't fully understand the system and sometimes they attempt to abuse the system. I personally have experienced the Form 55 problem in my laboratory on four different occasions in this calendar year. For some reason they believe that they can use anyone's contract and registration to obtain a document that is completely irrelevant to anything that they are contracted to work on. They just desired the information for other business areas pertaining to them. Sometimes your project monitor, your technical program manager, is contacted about the 55 and he says "no." You are not even aware of that, and we send it back to DTIC "no." We have never delayed a Form 55 more than 2 weeks.

LEON BURG, U.S. ARMY TANK-AUTOMOTIVE COMMAND: I am on the same subject. I find that probably what should have come up at your Form 55 meeting is what I would call "criminal laziness." A contractor to my organization, who shall remain unnamed, has several important contracts. One they always put on the Form 55 is a QDA/QRI. The Air Force has a similar one, which is sort of like "technical awareness." Now, when somebody asks me to release a classified report on the future combat vehicle development, simply because it may be useful in discovering materials of value, they are not going to get it. So I would say first of all, let those who compose Form 55's realize that somewhere somebody is going to read it. Secondly, it would be well to understand that you have to give the authorizing agency a reason to approve it. If you are going to get the benefit of 100,000 dollars or more of somebody else's research, you ought to be able to take 5 more minutes to explain why you should get it for five dollars, or for three dollars, or for whatever term. We are also a victim of fishing expeditions. There was one particularly flagrant case, similar to what the council mentioned. A subcontractor evidently must have discovered that this was the key to the world. And so I received arms full of requests for release for material that had no relevance, not even for the prime contractor, and they wrer subcontractors. So I say there are people who say "we have got this license to steal." So, we try to be conscientious about approving 55 requests. And the laziness point (as I say one of them is), if your material that you are asking for is pertinent to your contract, or is pertinent to a contract, come right out and admit which one it is pertinent to. And secondly, when I see the online form it has naturally been printed out, and it says "such and such" is pertinent to contract number "dum te dum." I don't know what contract number "so and so" is all about. If you are going to ask for something pertinent to a contract at least give an extract that says either the title of what you are working on or take a sentence out of the scope that has some relevance to the subject of your request. Thank you.

ANNA DUMAS, BALLISTIC MISSILE DEFENSE AGENCY, HUNTSVILLE: I think you already know, Paul, exactly what I am going to say because I have already discussed this with you. I think that one of the best things that we could do here with the Council would be to find out how many releasing officers we have within this group. Perhaps the 55 form is not a problem for everyone in here but it is a problem for those of us who are releasing officers. When we receive word that the military sponsor does not necessarily have to sign the 55 form indicating that the requester has a need-to-know for that particular document, it is, I

think, our responsibility to disapprove that request. This is based on the fact that often we ourselves cannot get in contact with the military sponsor because he is out of his office, he has retired, or he has changed offices. I cannot afford to spend 2 to 3 months trying to find someone who knows something about that contract. Therefore, I think that it is within my purview and it is only right for me to disapprove it. This causes problems for the person who is requesting the document. It causes problems for DTIC in that they suddenly have this backlog of 55 forms that they have not received release for. This is a problem that was at one time resolved by DTIC having a form letter going out with the 55 form indicating that the requester's Government sponsor would have to sign. Up until about 3 weeks ago, they decided that they can no longer do this. I am not saying that it is DTIC's responsibility, but I do feel that some change in directives or instructions should be made whereby the requesters themselves must send the 55 form through the military sponsor, before sending it to DTIC.

SHERRIL HISAW, HUGHES AIRCRAFT: I have got a twofold thing that I want to talk about. First of all, on my military sponsor, everytime I start requesting materials for a particular contract, I send him a brief about that contract. As I send him my request on the terminal, I also send him a printout of the reports that I have requested and he has a complete file on everything that I have ever asked for versus which contract. One thing I would like to see the User Council do is somehow arrange it so that on these denials there be a telephone number of the person that says "no." We are stuck between the rock and a hard place, this guy wants this and this guy says "no." If I can get the two guys to talk together, a lot of times it can be worked out so that we actually do get the report because the man who writes the request does not actually say what he really wants to say because he cannot put it into words. The releasing agent who actually talks to him can come up with a wiser final decision.

RYAN: OK, thanks Sherril.

ED SHAW, NAVAL UNDERWATER SYSTEMS: I think that some of this could be addressed for future work if the releasing agency contact on the Form 55 was a project office rather than a single individual's name or organizational code. Organizational codes change and project officers change. A good many of these individuals left long ago, as long as 20 years ago. There is often no single individual left that knows anything about it. If the releasing agency contact were put on some kind of project basis (this is for future work) these agency contacts will have some life of their own. The individuals responsible for releasing the document should have some way of moving the process along too.

BILL HAMON, CENTER FOR NAVAL ANALYSES: I wanted to make one comment on 55's and specifically address the justification statements. In my company, we do use a standard justification line. One of the reasons that I do that is that sitting next to me on my desk is a monthly in-house report on every study that we have going out. Many of those studies are classified, even by title. I would like to get specific sometimes but to do so, I would have to classify the 55. For me to unnecessarily classify a Form 55, and--understand me--this could be done, it could not be done on my terminal. I do not think that something should be classified for the sake of classifying it, if it can possibly be avoided. I

only make these comments because some of the studies that we are involved in are just not for general release. These contracts are assigned at a very high level, and I think the people that use these studies do it in a very safe way. I just say this for the sake of those who disseminate the information, and I empathize with those people who in their position have to give out the information. It is hard to do. I have worked on the other side of the fence. When I was in the Service nothing drove me up the wall more than giving classified information to contractors. I did not like it; I never felt comfortable about it. Nevertheless, there is a reason sometimes. The side of the fence that I am on now, we cannot freely give out that information you would like to know.

RYAN: Does anyone else have anything they would like to say?

COMMENT: This is not on the Form 55. My name is Ellen Huddleston. I am with IIT Research in Annapolis, Maryland. Referring to this morning's comments about providing ammunition for the Hill, I was slightly disturbed by one of the comments. I almost felt as though they were defending DTIC's problems by saying "we have not received the support that we need from the DTIC community to get the money that we need to provide the services that you need." I hope that they do not fall back on that too much. I do not know if it is feasible but perhaps the User Council could send the new president or another member to the appropriation hearings as a representative for the user community. Perhaps someone there in person would have a little more impact than some figures that may or may not come through about costs out in the DoD community.

RYAN: Very interesting concept there.

SHAW BUCKINGHAM: I wonder if there is any interest or project to put technical manuals under DTIC. Nobody else seems to be able to handle technical manuals in anything like an efficient manner, where if you need one you can get it. It seems like that by year 2000, if the User Council got behind them, DTIC could handle technical manuals, changes and all the rest.

RYAN: Pub stuff too, right.

BUCKINGHAM: All that sort of thing. You would have a one-stop shopping center, without having to go through a whole book of How To Get It.

RYAN: I see Hu Sauter cringing in the back. There is a study underway. I do not know what the status is on that. I do not know if you want to talk to this now or if you want to save that.

SAUTER: I think the only thing in the wind is that things like technical manuals, technical publications, and standard specifications will all carry the seven distribution limitation statements that were referred to this morning. At least as I understand it, that is what is going to be happening in the future. There has been no discussion on that at all in terms of centralizing distribution. You know that is the responsibility of the Navy Publications and Forms Center at the moment.

RYAN: Fred would like to say a few words.

FRED LEWIS, HUGHES AIRCRAFT COMPANY: This is in regard to talking to the Congressional staffers. I am a member of Leo Young's Advisory Group. Our last meeting was in September. During that meeting, Leo mentioned that the next morning DTIC was going in for an additional two million dollars in reprograming funds and said they would not mind if we put in a good word with the Congressional staffer. They gave us his name, Al Chase of the House Armed Services Committee. So, we got in touch with him that afternoon and asked if there would be any problem getting the funds. He said, "no, it was pretty much under control." He thought it would go right through and it did. Next year is going to be a different story. I think a 34 percent increase is a hell of a lot different from a two million dollar reprograming action which the Senate and the House Committees don't pay a lot of attention to. So we hope that we can do more. I think that, rather than come from DTIC management, the Congress might listen a little more to a user who is probably a little more unbiased. So we plan to try to work out an approach and see if we can't get some information to whoever is going to be approving the funds. We will try to do it ahead of time. They are not really too much concerned about such a small thing as the DTIC budget; they are more likely to be interested in the big ticket items or the MX problem or something like that.

RYAN: Anybody else have any comments or anything they would like to make sure the User Council tackles in the coming year?

JOYCE VAN BERKEL, SANDIA LABORATORIES: There are a couple things on my mind. In regard to the Form 55 online, just typing it online has turned into a very big problem for us on the dedicated system. I am not the one who does it, so this is second hand. But the people who do type it claim that they type everything in perfectly, it is all there and the system never hears it. They end up retyping, and retyping, and retyping. I wonder if that is an experience of other people or if we just have a problem at our end?

RYAN: Anybody else experience that? Two over here. Anybody else experience the system not understanding what they type in? A couple in the back.

UNIDENTIFIED: We had a problem online wrapping it around and so when the Form 55 came back, it only typed in 32 lines. I do not know exactly what your problem is, but it might be like that. If you don't "carriage return" before you get to the end of the line and it starts wrapping around, the machine will void it.

VAN BERKEL: I also wondered if anyone else is having the problem with seeing more and more validation rejects over the last year. Is it the result of policy changes at DTIC that we are not aware of?

RYAN: The User Council has not heard that there was a great influx of validation rejects, but we could ask. Has anybody significantly noticed that? (Many "yes" answers.) OK, then we could ask DTIC has there been a policy change that has caused a lot more validation rejects?

VAN BERKEL: In fact, we got a display of a report that said "validation reject." We traced this one back and called information services to find out

why. The problem was the intelligence information, WNINTEL. At one time they said that we could see it because our registration form said we could and the next week there was a decision that, because we were contractors, we could not see it. If there are any of these decisions that have been made, we would like to know what they are and what the reason is that we cannot see these documents.

And I am also curious about the status of unclassified access to classified files. It seems that last year we were told that this is an exception to standard policy that we were allowed unclassified access, and I wondered if there was any status on that? Are we in danger of being dropped this year from unclassified access to classified?

RYAN: Well, DTIC has not mentioned anything along those lines that accounts for it. I assume that there is no problem, but I guess we ought to ask DTIC to respond to that directly sometime this week.

UNIDENTIFIED: I am from Johns Hopkins. I would like to make a comment on the earlier comment about some effort being made to centralize access to online technical manuals. There has been formed in the Washington area something called a users council for military publications retrieval. This was started by Catherine Lyon who is a librarian at the Institute for Defense Analyses. This group is very much interested in getting input from those who have something to contribute to defining the problems and suggestions to do something about it.

RYAN: Hu.

SAUTER: In respose to the previous question about changes in policy on access, the answer is that we do not have any specific information at this time. Going back to what Leo Young said this morning, there is a lot of activity at the Department of Defense level as a direct result of Congress's telling the Department of Defense, "you have got to do something to slow down the flow of technology overseas." So, I think that the answer to that question is that there are a lot of things going on, a lot of people are stirring around in the general area of control of sensitive information. The best that we can do at this time is to tell you that there may be changes. When these changes will come and what kind of changes will be required are beyond our ability to predict at this moment. So we are going to continue as we have in the past until we get absolute and specific guidance and direction that tells us what we have to do. There is concern, for example, about online systems. There are specific notes floating around that tell us that the systems are loose and there is concern about access to the online systems, the telecommunications and so on. Now what all of this will bring I do not know at this time. I can only repeat that we may be getting some direction to tighten up in the future.

One other thing that I wanted to mention, you talked about the handbooks and manuals. I got a call from Patricia Means . I believe that she is taking a look to see whether the National Technical Information Service might play a role in making available those handbooks and manuals that are unclassified and unlimited. A primary focus there would be to have some source of continued

availability because at the Navy Publications and Forms Center they quite often go out of print. That has been a real problem for Ms. Means. So, I expect you will be hearing more about that.

MARGARET O'DROBINAK, NAVAL WEAPONS CENTER, CHINA LAKE, CA: I perceive the Form 55 situation to be completely out of control. There is no consistency on how the programs are operated at the sites. Some places have very rigid controls on how they release, others are very sloppy. There might be more cooperation on resolving this if it could be handled somewhat like the way we regrade and reclassify documents and if DTIC took a more active part. Also, if anything that has been submitted to DTIC were exempted from the Freedom of Information Act, our people who make submissions would not have to over-control documents to avoid giving them to the wrong hands. We have a lot of difficulty with that. Next, are you all aware of the NASA 2002 which lists all of the Navy manuals and publications? Are you aware of how much intelligence information is in there? DIA has dumped all of their publications into the NASA 2002. This has caused some concern because those documents are not subject to the same kind of controls and reviews that DTIC uses to handle its documents. So, it seems that there are some inconsistencies in handling out there in the information world.

FRED LEWIS, HUGHES AIRCRAFT CO.: I have one other subject. It concerns the new problem on the PEDS. As I understand it, they will be available with a "mother number" where you can get the whole thing like in the past. That is supposed to be implemented, I am not sure if it is actually out yet, but we would like to ask DTIC management where that stands. We recognize the problem, and I think we have a solution, and in the future you will be able to order either by an individual PE, or you can get one with the mother number and get the whole thing like you used to in prior years.

RYAN: Any other comments or questions? Anybody else on the User Council have anything to say? I would like to remind you nominees for the User Council who will be elected, we ask you that you keep a lunch date open for tomorrow. We would like to get the new User Council together along with the old User Council for lunch tomorrow. The ballots will be counted tomorrow after the 10:30 break, we will get a hold of those six candidates who were elected and we ask that you be prepared to go to lunch. If nobody else has any other questions, we are about a half hour ahead of time, I do not know what DTIC wants to do at this time.

DTIC: Since you are so far ahead of time, we will have a break at 2:15, and we will start the afternoon sessions at 2:45, instead of 3:00.

DUMAS: Does DTIC have any answer for us on the 55 form, or is that just going to lay on the table?

RYAN: I think we will give them until Friday, and then we will ask them. Many of the questions we have asked and have not gotten answers to here, we expect to get them from them on Friday. Is that correct Hu?

SAUTER: Yes.

DROLS COMMUNICATIONS - Session on Various Communications Aspects of the On-Line System. Jerry Milstead (Moderator)/Theodore Zinna/Gary Claypoole/Sue Ruddle - DTIC

NOTE: Owing to the highly technical content of this session, the panel members felt that the material would be most useful to readers if it were provided in summary form.

Gary Claypoole opened the session by introducing Sue Ruddle and himself as the Communications Software Team. He noted that he and Ms. Ruddle had talked to many users throughout the year and that they hoped that they had been helpful. Mr. Claypoole reviewed the purposes of the software portion of the presentations, which were to:

- o Define Goals
- o Recap Accomplishments
- o Review Data Message Flow
- o Review Terminal Messages
- o Answer Questions

The session continued according the following outline.

Goals:

- o Correct Dial Line Hangup Problem
- o Install 3270 Protocol Handler
- o Install Automatic Data Rate Detection
- o Additional TYMNET Lines
- o Additional 128K (byte) Memory for DCP
- o Backup Disk Unit for DCP System
- o Additional IOU for Host System

Message Flow: Users were "walked" through the various communications configurations with a discussion of user interaction required in each phase.

Accomplishments:

- o TELCON LEVEL 4 FEATURES
  - o BROADCAST
  - o Line Disconnect from $$SOFF
  - o Line Delete
  - o Character Delete
  - o Abort Command (Break Key)

1100/82 HOST SYSTEM

- o Additional 1 Million Words of Memory

Terminal Messages: Various messages were reviewed and procedures to be followed when error conditions occur.

Closing: The session was concluded with a review of parameters necessary to connect a PC to DROLS.

Theodore Zinna, Chief of the Telecommunications Support Office, informed the attendees of recent DLA personnel actions which resulted in a loss of qualified technical control personnel. Users were forewarned that this personnel reduction could impact the ability of the Technical Control Team to provide service at the level to which the user community had become accustomed. He further noted that these personnel losses could also result in an increased number of telephone calls at the users' expense.

Mr. Zinna advised the dial access users of TYMNET of an enhanced service with a speed of 2400 BPS. He urged them to visit an exhibit set up in the second floor lobby of the hotel which not only presented the advantages of TYMNET but also demonstrated the new speed capability. The unclassified, dedicated users were advised to investigate the new offering as a more cost effective means of accessing the DTIC data bases. Mr. Zinna advised TYMNET users that DTIC would be testing, and if successful, would be implementing an AUTOBAUD capability which would serve to greatly expand the number of TYMNET ports available for use.

NEW USER ORIENTATION - Sessions Introducing New Users to the Various Products and Services Offered by DTIC. Elaine Burress/ John Crossin/Annabel Kramer/Nelson Montague/Harry Schrecengost - DTIC

INTRODUCTION
Elaine Burress
DTIC-D

BURRESS: Good afternoon. My name is Elaine Burress and I am Chief of the Document Processing Division at DTIC. I'd like to welcome you to the conference session for new users. The purpose of this session is to provide to you an overview of DTIC services. In addition, it is an opportunity for you to meet the individuals with whom you will be working in order to get the products and services that you need. We hope to cover several topics this morning. Mr. Crossin, who is Chief of the Reference Services Section, will discuss how to order and pay for documents. Ms. Kramer will explain how to order limited documents (the Form 55 process that you heard so much about earlier), and answer your questions about registration. Mr. Montague will talk about the bibliographic services that we offer. And finally, Mr. Schrecengost will present a briefing on documents acquisition. We believe that as new users to DTIC, you may become new sources of documents for entry into the DTIC collection. What we will show you is a briefing designed for the authors of R&D reports, encouraging them to contribute reports to DTIC. We believe that you will find the briefing informative, and may in fact want to give it at your site or have us give it at your site to people in your organization who have control over documents and who are reluctant to send them to DTIC, and need to be told the value of sending reports to DTIC. Now we will begin with Mr. Crossin. I would appreciate it if you would hold your questions until the end of each individual's presentation, and that way we can keep things moving smoothly. What has happened in the past is we get bogged down with questions, and we don't want to run into the cocktail hour.

REFERENCE SERVICES
John Crossin
DTIC-D

CROSSIN: Hello, I'm John Crossin, Chief of the Reference Services Section at DTIC. I am going to be talking on several services today that my section provides and what I would like you to do is to write down the telephone number of the Reference Section. It is Area Code 202-274-7633; if you are military, it is Autovon 284-7633. I will be referring to those numbers throughout the presentation.

The first service--I would like to start off with identification. If you are in need of a technical report and don't know the accession number for it, my section can provide assistance to you. There are a number of ways that you can request the technical report. One is using the DTIC Form 1. If you are not familiar with that form, there is a sample on the table. You fill out the back part of the form with all the identifying information you have on the report

and send it to DTIC. We will try to identify the report using our automated system and also our catalog card files if need be. When using the Form 1, if we are able to identify the report we will not return the form to you. We ask that you keep records, so that when you see the report you will recognize it. It sounds silly, but it has happened. If we are unable to identify the report, we will return the Form 1, and we will either ask you for additional identifying information or give you a source where you can obtain the report, or information about the report. A second way is to call the telephone number I referenced earlier. I have four reference specialists assigned to the phone who can take up to six items per day per user. Please don't ask for more than six. If you are working on a project and require identification for a lot of items, please send us a written request and include your user code and NTIS deposit account. Send it to the attention of DTIC-DDRA. The third way is to call us on our 24-hour recorder. Another number for you to write down! If you need service and the DTIC-DDRA personnel have gone for the day, you can call us on Area Code 202-274-6811, or Autovon 284-6811. If we do not have the requested report, we will do everything that we can to get it for you. It must be DoD sponsored and we must have enough information about the report to acquisition. If we are unable to acquire the report, we will try to provide you with an alternate source to obtain the report.

I have five or six things to touch on today. So I would like to ask that you hold any questions on the identification process until later.

As the next topic, I am going to tie together the NTIS Deposit Account statement and the DTIC Document Shipping Statement. The National Technical Information Service is our billing agent. You will need a deposit account to order documents from DTIC. If you do not have a deposit account, I ask that you take one of the brown and white forms from the table at the back of the room. NTIS will open a deposit account for you for as little as $25.00. If for some reason you are unable to open an NTIS deposit account, we will not be able to accept your orders for documents. The reason for this is that we are paying NTIS to be our billing agent, and we expect them to do the collection. There are two exceptions--if you are categorized as a free user, and you will be informed at registration time if you are a free user, then you would not have to have a deposit account at this time. However, come January 1985, paper copy prices are changing and even some categories of free users will be paying for multiple copies of a document. The other exception is, when you order a limited document using the DTIC Form 55, there is a ship and bill option that Annabel Kramer will be covering a little bit later. Now again, if you are unable to get that NTIS deposit account, you will have to place your orders with NTIS. NTIS will charge you their prices for documents that they can supply. They supply unclassified unlimited documents. For documents they can't supply, they will put the order on mag-tape, send it to DTIC and we will fill the order. However, they have precollected from you. If you go this route, you'll find that it is going to cost you more, and it is going to take more time for you to get your reports. So I recommend very highly that you take this NTIS deposit account brochure and establish an account. If you have established the deposit account, you will get a monthly bill from NTIS. It is on an NTIS Form 117, which is their formal billing statement. It will include the prices that they have charged you. In other words, if you order PB documents or N number documents, documents that only NTIS has, you will see their charge for that

particular report or reports. You will have a lump sum figure for the documents that you ordered from DTIC. If you are a member of the DTIC Automatic Document Distribution program, ADD, there will be another lump sum on your bill. Probably two ADD cycles in a monthly billing period. DTIC, on the contrary, will provide a document shipping statement, a computer listing that will itemize all the documents that you ordered for that particular billing period. You will have the AD number and the charge for each report--$3.00 for hard copy documents at this point, and $.95 for a microfiche copy. It will all be itemized, and there will be a total at the bottom of this listing. You can compare that against your formal NTIS statement, and they should be in agreement. There is another listing that comes out of the Automatic Document Distribution program; it is also an accountability listing and it will give you totals on the various categories of reports. Unclassified-unlimited documents will have a total. You will also have totals for limited and classified documents. I think that there may even be some further breakdowns. But the idea is to tell you how many reports you have received. You can multiply that by $.35 and that figure should be the same as on the monthly NTIS statement. If you do not receive your document shipping statement listing from DTIC, you can call my office and we can provide you with an additional copy. We are only able to keep these for about 3 months as they are big printouts and take up a lot of room. So, please give us a call promptly and we will provide a copy for you. The same can be true of the ADD accountability listing. We can provide that to you for the current 3 months only.

Again the price is $3.00 for hard copy documents, $.95 for microfiche, and $.35 for ADD. I was asked to remove the new pricing category from my presentation because it was mentioned at the Directors' briefing this morning. I believe by Mr. Paul Robey.

Another service that we provide is reject notice explanations and mailing. The reject notice is part of the Automatic Document Ordering system at DTIC. If for some reason you are ineligible to receive a report that you ordered through this system, you will receive a reject notice. Some of the examples are--the system checks your user type (whether or not you are a contractor or a government organization), the distribution limitation on the report, the facility clearance that you have established, the document classification against the facility and contract clearance, and method of payment. In other words, if you have not established a method of payment you will get a reject notice automatically and know that you have to order from NTIS or get a deposit account established. There are some other statements that will come out of the reject repertoire: one is if the AD number is not on file--this could be a number of things, it could be a nonexistent AD number or it could be one that is not far enough along into the DTIC system to order. My complaints and inquiries processor will put some notes on top of the rejects and try to help you understand the reject. If the document is available from another source, that will generate a reject notice also, and we will attach the availability information on the reject statement for you. Getting back to the limitation, if you are a U.S. Government contractor, and the limitation is U.S. Government only, of course you'll get a reject and have to submit your request on a DTIC Form 55. Again use the earlier reference telephone number if you have problems in understanding the reject statement.

The next area I would like to cover is complaints. Of course, that is never going to happen, but I am talking about complaints on document services. Should you have a complaint on the documents you receive from DTIC, or a microfiche as part of the ADD program, you can call the reference number that I gave you. I have a complaints and inquiries processor whose name is Mr. Donald Addison, and he can be of great assistance to you (telephone: 274-7633). The important thing to remember is to notify us as soon as you have the problem. Please don't wait--it is hard to research after too much time passes. We process 1,200 or 1,300 documents a day through the system. So we ask that you call as soon as possible. Some of the things you may run into are poor quality of the document, wrong document, and perhaps a misshipped document. It is important when you call that you have the information at hand. This complaints and inquiries processor is extremely busy as he has to handle all the rejects from the system and get them out to the users very quickly, and also process the complaints that we receive. When you call, we ask that you have the shipping card, know your user code and deposit account, and have a brief explanation of the problem. If it happens to be part of the ADD process, it helps us to know the ADD cycle, because we process two each month. We will process the complaint promptly, and we will adjust your NTIS deposit account when that is necessary. We will get the document out to you as soon as possible.

The last two topics that I am going to cover are publications that are generated, or will be generated by the Reference Services Section. The "How To Get It - A Guide To Defense-Related Information Resources" is an unclassified, unlimited publication that contains how-to-get-it information for government-sponsored reports, maps, patents, specifications or standards, and other materials of interest to the defense community. I personally consider it one of the best reference tools available. It is easy to use, and I find it extremely accurate. It is available from DTIC as AD-A110 000. It is dated 1982, so it is a little bit old, but it is still a very useful publication. The good news--we have a project to update it. I can't give you a date, but the update is being considered. A copy of the "How To Get It" is available at the table outside of the main conference room. There will be an intern there to show it to you and go through it. Have any of you got a copy from DTIC? You find it useful? Good.

I am going to leave any further questions to the interns at the table.

The last topic on my agenda is the "Referral Data Bank Directory." DTIC maintains and publishes this directory to assist the defense research and development community in identifying useful sources of specialized scientific and technical information. Some of the citations in the publication are for the DoD Informtion Analysis Centers, specialized libraries, depositories, laboratories, testing facilities, and other research centers. This directory has been recently updated and is available as AD-A138 400. It contains a lot of references as to where you can get certain types of materials in specialized areas. It should also be noted that the referral data bank citations are part of the technical report data base and are available through the bib system. You will have to ask the bib section (DTIC-TOD) to include them in your searches. It is not automatic. So again, if you are making a subject search and you are interested in areas other than DTIC, these specialized centers are also available. Unfortunately, these citations are not displayable via DROLS

terminals. There is no document for individual citations, so they are not available through the request processing system, or the document ordering system. In other words, don't order any AD990--- number, because there is nothing at DTIC except a citation. The author of this publication is in the room, Ms. Margaret Mullen, would you stand. It is a very good publication.

Of course, Margaret is here for your comments and suggestions on the referral data bank directory. Are there any questions on the overall presentation?

At this time I would like to introduce Annabel Kramer. She is going to be talking about DTIC Forms 55. Thank you very much.

REGISTRATION
Annabel Kramer
DTIC-D

KRAMER: In order to receive most of the services and products provided by DTIC, one must be registered. Any government organization or any educational or commercial activity working on a government contract can register. Also, registration must be certified by a higher approving official in a government organization or by a contracting officer/monitor of the particular contract.

As most of you probably realize, you must fill in a DD Form 1540, "Registration for Scientific and Technical Information Services." This form is very important, and is the record from which we at DTIC obtain all the information about you. It is imperative to keep it accurate and updated. Contractors who have a need for classified information or documents must file a DD Form 1541, "Facility Clearance Register," with your regional Defense Investigative Service Office. (DoD 5220.22M, Industrial Security Manual for Safeguarding Classified Information)

If you are not in the library or the office that is registered, I urge you to familiarize yourself with that office and, particularly, with the DD Form 1540. Make sure when you order products, that the correct information is provided--if you need classified material, you must cite the correct contract number (this only applies to contractors). You must have a need-to-know for the particular subject fields of interest (also called fields and groups) that are indicated on the form. The fields and groups of the document you order must match your registration (this is only for classified information). The same holds true for Restricted Data, CNWDI, and NATO.

CONTRACT EXPIRATION

Sixty (60) days prior to a contract's expiration, DTIC forwards a notice--DTIC Form 15--to the contractor notifying them to that effect. Ten (10) days prior to a contract's expiration, no classified material can be ordered.

To extend your contract, you need to have your contracting officer/monitor send us a letter giving the new expiration date. For government, DoD, and military the only thing required for extension of services is a signature on the DTIC Form 15. This will extend access to DTIC services for 1 year.

DTIC FORM 55

What is a DTIC Form 55, "Request for Limited Document," form?

This is the form used by all our registered users when they wish to request limited reports from our technical collection. What is a limited report? That is one which carries a limitation--"L"--and must first be approved for release by the responsible releasing authority of the requested report before the user can obtain the information. If you have an online terminal, the limitation citation will be displayed in field 22. You will also know an "L" (limited) document because an "L" will follow the AD--Accession Number. An accession number is cited as AD then an alpha may follow: generally B or C are the areas where limitations are most often found, plus six numbers (e.g., AD-B025 000L). Sometimes you will only see AD plus six numbers--no alpha (e.g., AD937 241L). Where does one get the bibliographic information to fill out the DTIC Form 55? If you receive TAB, that would be the first place to look for the information needed. TAB comes out every 2 weeks. It does not contain bibliographic information from previous TABs (i.e., it only contains the latest AD numbers with corresponding bibliographic information recently put in our system). The cover of TAB will give you the AD number range. If you do not have past TABs, or the Annual, or cannot locate the information you are seeking, or if you just have the AD numbers, or the titles of the reports, you can get the information by calling our Reference Services Section (202-274-7633 or AV 284-7633). If you have just a list of AD numbers, you can also call our Demand Products Branch (202-274-6867 or AV 284-6867)--also known as our bibliographic section--and they will run a bib which will contain all the information you need. The bibliographic information is a major part of the Form 55. The releasing agency cannot identify a request by AD number alone. I would like to emphasize that <u>all</u> informtion must be provided on the form before forwarding to DTIC. We receive many requests for technical information every day. To expedite your requests, the form must be complete.

What information is needed on DTIC Form 55?

In SECTION I, you need to fill in:

1) AD# - Remember an "L" will follow the number.

2) Classification(s) - U, C, S, R/D...

3) Distribution Statement - If any of these three apply, all contractors must forward a DTIC Form 55:

   a) USGO - If this applies, <u>all</u> government agencies requesting limited reports need not fill in this form;

   b) DoD - If this applies, DoD agencies need not fill in this form;

   c) All Release Controlled or Further Dissemination (the same) - This applies to <u>all</u> users.

   d) Two other statements may also be cited:

1. U.S. Government Agencies and Their Contractors - no form needed. No "L" will follow the AD number. If requesting classified, fields and groups must match contract.

2. DoD and DoD Contractors - If you have a DoD contract, and it satisfies the fields and groups, no form is necessary. An "L" will follow the AD number.

4) DTIC Control Number - DTIC use only.

5) User Control Number - For your internal routing (this is optional).

6) Date Requested.

7) Sponsor Mil Activity Series Number, if applicable.

8) Originating Series Number - Also called Report Number. If applicable.

9) Date Published.

10) Contract or Grant Number of Report - If applicable.

11) Report Title and Author(s).

12) Originating Activity - Hint: if the originating activity is nongovernment/DoD, there should be a contract or grant number to correspond.

13) Required For - This is your explanation, in detail, to the releasing agency on why you are requesting the report. You need to put down a good, solid justification. There have often been requests returned disapproved because of a weak justification. Explain what you are doing so the releasing agency can decide if the information in the document is pertinent.

SECTION II:

1) Your Organizational Name and Address.

2) Your Name and Title.

3) Your User Code.

4) Your Registered Contract Number - Check your DD Form 1540.

a) Your contract must be actively registered with DTIC.

b) It must be the contract you are working under to receive the requested information (i.e., do not put in an Army contract if the information you need is for a Navy contract you are doing work for the Navy). The releasing agency does have the right to call your contract monitor and inquire if you have the

need-to-know. We have seen DTIC Forms 55 returned disapproved because the releasing agency called the monitor who, in turn, said the contractor did not have the need-to-know.

5) Facility Clearance and the Contract Clearance.

6) Government Sponsor and Address that corresponds with the contract number you cited.

7) The Contract Monitor's Name and Phone Number. This is a part that DTIC users occasionally omit. If the releasing agency wishes to call your monitor for need-to-know and there is no name or phone number, the request may be returned disapproved.

8) Type Copy and Quantity - If left blank, DTIC will order it as one hard copy.

9) Method of Payment - You have two choices:

   a) If you have a deposit account, place in that number.

   b) If you do not have a deposit account, check the box "BILL MY ORGANIZATION TO THE ATTENTION OF" and put in your name. This area is also called "Ship and Bill." DTIC can only "Ship and Bill" limited requests. NTIS (National Technical Information Service) does our billing and has a $.50 service charge per document to the user for each ship and bill request.

SECTION III:

Releasing Agency - These are the organizations responsible for the release of technical reports found in DTIC's collection. When looking the bibliographic information, this is where you will find our citation for the distribution statement. The name of the releasing agency will follow the statement.

So what you need to put down here is the releasing agency's name and address only. The releasing agency will complete the rest.

This is the form all our users complete before forwarding requests for limited-distribution reports to DTIC.

ADP

Some of our users have the capability to order limited requests online. This is called our "ADP" version. All of our online users should have received a copy of instructions for ordering this way. If not, call Ed Thorpe, Management Support Office (202-274-7082 or AV 284-7082).

When ordering, please fill in all that is required according to instructions.

Reminder: Please type your government sponsor name and address and the releasing agency name and address in post office mailing address format.

When all information is completed, you will know if your order took when you transmit and you get a response saying "DTIC Form 55 Completed."

If you are ordering more than one document or are using the same contract and justification, you can use the new @ADD55@ process. This complements the Form 55 processing by using the information from the previous Form 55 processed. The only fields that must be entered when executing the ADD55 are AD number and releasing agency. You may enter any other normal 55 data desired. All remaining data will be the same as that which was entered for the previous request. This saves time from having to type in the same information over and over. When executed successfully, the system will respond with "Additional Form 55 Completed."

BIBLIOGRAPHIC SERVICES
Nelson Montague
DTIC-T

MONTAGUE: I am Nelson Montague from the Demand Products Branch, and Ms. Kramer gave you the phone number earlier, but I will give it to you again, Area Code 202-274-6867. The user community that we serve consists of DoD and DoD contractors, government agencies and government contractors.

The requests that we get may be by the phone or mailed in. If you are in the local area, or are passing through, you can prearrange to come in and we can go one-on-one with searches for you. You should be specific, try to spell out exactly what you want. If you want a general search, let us know. If you desire something very specific, please provide more detail. You can designate the timeframe, i.e., 1, 2, 5, or 10 years. We can search any term that you desire. We may or may not have the term in our data base, but we can search any term that you desire. There are various ways of finding information. Sometimes it may be in our files or we may do a general search and qualify on the titles and abstracts. You cannot give us too much detail when you are asking us to try to retrieve something for you. We are not permitted to give out user codes, so if you send in something over the phone, or even if it's mailed in, your user code should be on it. If there is any doubt, you call the registration group, and they can tell you if the contract and the user code are up-to-date. Also, you should let us know which security classifications that you want. According to the DD 1540 and DD 1541 that you have filled out, if you want Secret information and your field and group approved need-to-know is too narrow, your output from the respective data bases may be limited. When you fill out the DD 1540 and DD 1541, you should be careful that the fields/groups that you circle are actually the ones that you need. It can determine how useful your searches will be. If you get require classified information, or if you try to order a classified product, your request may not pass validation, although the information is available at DTIC.

If you mail your request to DTIC, please use DTIC Form 4 or 64. In the management data bases, you can check whether you want work unit or the program planning, or the IR&D if you are DoD.

The technical report represents completed research and there are over 1,500,000 citations in the technical report data base. From those you may order a bibliography and/or the various indexes. If we have a large search, the index makes it easier for you to review. If you tell us you want it, you can get referral information with the bibliography.

The work unit summaries, the ongoing or current research, has 175,000 records in the data base. The contractors used to just get one format, but they may now get any of a number of formats. Over 200 formats are available from the work unit data base. Sometimes you may want a summary or listing instead of the whole 1498, or may want the 1498 and various summaries, listings, or tables of contents. If you are not familiar with the formats, please note what fields you desire. Always include a phone number so we can reach you in case there are problems or we have questions.

The Independent R&D data base has 66,000 records. The information is considered proprietary and not available to contractors. DoD and selected government agencies have access to the IR&D data base.

The prime assistance for helping with search strategy is the DROLS training staff, Mr. DePersis and Ms. Lubsen (telephone: 274-7206 or Autovon 284-7206). If you can't get in touch with them, you can call us in our group, and sometimes we can lead you through a search or we can help you in filling out your DTIC Forms 4 or DTIC Forms 64. If in a reasonable time you have not received a requested product, do not wait too long before calling. We will try to run it down. If it is classified we can sometimes go through the registered number to check it out. If it is unclassified, and we cannot track it down, we can rerun from our copy. If you have a terminal, always print out your search strategy and the order tab so if we are trying to run it down we can ensure that you did not overlook anything, or we will have enough clues to find the problem. You may confuse "0" with "zero" or "Ls" and "ones," or you may try a format that is not one of our formats. The computer may pass you through, but we may check and see it is an illegal format or even a format that no longer exists. So, when you get with us, we try to run it down to find out why you did not get your product.

The ADD program is one in which you make up a profile or a search strategy tailored to your specifications and you automatically get microfiche copies of documents approximately every 2 weeks. The charge is $.35 for each document.

The CAB (Current Awareness Bibliography) program is one in which you make up a profile or a search strategy tailored to your specifications and you automatically get bibliographies approximately every 2 weeks.

Recurring Reports from the respective management information data bases enable you to get reports every quarter, every half year, every year from the work unit, program planning, or IR&D data bases.

If you are in the local area, we can go one-on-one and do searches for you. This is when the person comes in and sits down and develops search strategies with the analysts. Please schedule your visit ahead of time to ensure that an analyst is available.

Any questions on any of the various services that we have, or on anything that I have said earlier? OK. Thank you for your time.

ACQUISITIONS BRIEFING
Harry Schrecengost
DTIC-D

SCHRECENGOST: We would like to convince you to ensure that the technical reports or technical documentation that your organization prepares are sent to DTIC and entered into the technical report data base.

Dr. Edith Martin, Deputy Under Secretary of Defense Research and Engineering (R&AT) has rather succinctly explained why this is important. In a letter to the Services and DoD components dated 23 Feb 84 she stated:

> "Without a complete data base, no planner or funder of work can be sure that he or she is not proposing or funding work that is already underway elsewhere. The potential for wasted time and lost dollars in vital defense projects is obvious."

You need answers from a complete technical report data base. You can help to ensure that the data base is complete.

What is DTIC? For those of you unfamiliar with DTIC, the Defense Technical Information Center is a component of the DoD Scientific and Technical Information Program. DTIC supports the management and conduct of Defense research and development efforts. This is done by providing access and transfer of scientific and technical information to DoD personnel, DoD contractors and potential contractors, and other U.S. Government agency personnel and their contractors. We at DTIC look to the Director, Research and Laboratory Management, OUSDRE (R&AT), for policy guidance and to Headquarters, Defense Logistics Agency for operational support.

Today we will limit our remarks to DTIC's role in distributing technical documents in support of the defense effort. DTIC has a collection of 1.5 million documents dating back to the late 1940's. About 30,000 new reports are added to the collection each year. DTIC's collection is specialized and includes areas normally associated with defense such as aeronautics, missile technology, space technology, navigation, and nuclear science. However, DoD's interests are widespread, and include such sectors as biology, chemistry, energy, environmental sciences, oceanography, computer sciences, sociology, and human factors engineering.

Up to the present time, DTIC has concentrated on input of records related to DoD-sponsored or co-sponsored research activities. Exceptions are the records received from other U.S. Government organizations by special agreements, and voluntary contributions. Such contributing government organizations include: the Department of Energy, NASA, and the Department of Transportation (FAA reports). In addition, records are received from friendly foreign governments, such as: Belgium, Australia, Canada, Denmark, Great Britain, France, Italy, Spain, Sweden, The Netherlands, and West Germany.

Citations for technical documents are stored in a data base. The data base is available to the defense community for online searching. In addition, DTIC will provide bibliogaphies about specific subjects from the data base upon request. Citations to all new reports are printed biweekly in the Technical Abstract Bulletin (Confidential) and biweekly bibliographies based on user subject interests can be subscribed to. For the most part, the documents themselves are available from DTIC. Those available solely from the originating agencies are marked.

Documents sent to DTIC must have a distribution statement. In accordance with the statement, put on the document by the responsible DoD agency, DTIC makes the documents available only to U.S. Government agencies and their contractors. In order to receive a document from us, users must meet strict security and need-to-know requirements. Documents are available in paper copy and microform. Documents marked unclassified and unlimited are sent to the National Technical Information Service for sale to the general public and foreign countries.

We have come to you today to encourage you to contribute the results of your research to us. We want to explain the benefits to you of contributing to DTIC, detail the strict security procedures that DTIC follows to assure proper information transfer and tell you what types of documents you should be sending to us.

I would like to give a quick example of the value of the technical reports data base to organizations like yours. The Naval Surface Weapons Center is one of hundreds of Department of Defense facilities where research, development, test and evaluation projects are performed. One specific project called for firing a three-inch gun--to test conditions relating to barrel vibrations thought to affect accuracy. Before undertaking the expensive test program, the project manager ordered a data base search for previous test data on the specific weapon. The search revealed that an earlier test had been performed on the same weapon. The information already obtained from the earlier test subsequently reduced the amount of additional testing required. The original test cost 7.5 million dollars. The new tests required to update the information in the technical report were conducted at the cost of less than $20,000. Thus, the information available from DTIC resulted in a substantial cost avoidance. This example demonstrates the importance of your sending the results of your research to DTIC. Look what would have happened if the authors of the original tests had neglected, for whatever reason, to submit their reports to DTIC. Obviously, it is in your interest that all appropriate organizations submit the results of their research to DTIC.

Submission of technical reports to DTIC is required by regulation, DoD Directive 3200.12, DoD Scientific and Technical Information Program, which applies to the Office of the Secretary of Defense, the organization of the Joint Chiefs of Staff, the military departments, and the defense agencies. The directive states that these organizations shall ensure that all significant scientific or technological observations, findings, recommendations, and results derived from DoD endeavors, including those generated under contracts or grants that are pertinent to the DoD mission, contribute to the DoD or national scientific or technical base, are recorded as technical documents. Copies of

these documents are to be made available to DTIC within established security and other limitations controls. The implementing regulations are: DoDD 5200.20, Distribution Statements on Technical Documents; Secretary of Defense Memorandum, 18 Oct 83, Control of Unclassified Technology with Military Application; AR 70-11; SECNAVINST 3900.24A; and AFR 80-44.

An advantage to you of sending reports to DTIC is that you are relieved of the necessity of storing, reproducing, and distributing copies of reports after initial distribution. Our facility serves as an archive for your reports and they can be reproduced at any future time in the event that your copies are lost or destroyed.

What type of material is DTIC looking for? Among the types we are looking for are:

(1) Technical Reports (interim, annual, and final)

(2) Technical Notes

(3) Technical Memoranda

(4) Bibliographies

(5) Theses/Dissertations

(6) Journal Reprints for DoD-Funded RDT&E

(7) Cost Analyses

(8) Handbooks

(9) Specifications

(10) Conference Proceedings

(11) Test Reports

(12) DoD Patent Applications

(13) Research in the Social Sciences

We can accept reports in:

(1) Paper copies, 8 1/2 inch by 11 inch, bound or unbound.

(2) Microfiche copies, 4 inch by 6 inch, 24:1 reduction ratio. (ANSI Standard PH5.9-1975)

(3) Camera-ready copy.

The general subject content of the document should be scientific and/or technical. However, research in the so-called "soft sciences" and planning information is also vital.

The way to enter documents into the DTIC collection is to mail legible copies (two if possible) suitable for photoduplication to:

Defense Technical Information Center
ATTN: DTIC-DDAC
Cameron Station
Alexandria, VA 22304-6145

If you have a collection of older reports that you would like to submit to us we will be glad to work with you to do this. We ask that older reports be of current interest to the research community and be marked with classification and distribution limitations. If the collection is large, it may take some time to process it. Contact us to make specific arrangements.

DoD-sponsored reports are required to conform to requirements outlined in DoD 5200.1-R, Information Security Program Regulation. The categories of classifications within this regulation range from unclassified through Secret. All reports forwarded to DTIC must be marked with appropriate classification. A DTIC user must have the appropriate clearance and need-to-know to receive classified material.

DTIC can accept material with additional restrictions and will distribute the documents only to those organizations authorized to obtain these materials. These restrictions include: Restricted Data, Formerly Restricted Data, Critical Nuclear Weapons Design Information, and WNINTEL material.

There are six distribution limitation statements, one of which must be placed on unclassified reports and may be placed on classified ones. These six additional statements are:

(1) DISTRIBUTION STATEMENT A - Approved for Public Release; Distribution is Unlimited

(2) DISTRIBUTION STATEMENT B - Distribution Limited to U.S. Government Agencies Only

(3) DISTRIBUTION STATEMENT C - Distribution Limited to U.S. Government Agencies and Their Contractors

(4) DISTRIBUTION STATEMENT D - Distribution Limited to DoD and DoD Contractors Only

(5) DISTRIBUTION STATEMENT E - Distribution Limited to DoD Components Only

(6) DISTRIBUTION STATEMENT F - Further Distribution Only as Directed by Controlling DoD Office or Higher DoD Authority

Placing limitations on your documents gives you enormous flexibility. Unclassified, unlimited reports (Distribution Statement A) go to NTIS and are available to the public. Documents given a limitation F are not forwarded to

anyone until the controlling office is notified of the request and approves release of the material. Therefore, no research report classified through Secret should be so "sensitive" that it cannot be sent to DTIC.

In closing, we would like to thank you for taking time to consider the advantages of contributing to the DoD Scientific and Technical Information Program and to thank you for your help and support.

QUESTION: You said that U.S. Government and DoD organizations do not need to fill out a DTIC Form 55. Is this correct?

ANSWER: It depends. If you are a government organization registered with DTIC and the limitation citation reads "Distribution Limited to U.S. Government Agencies Only," you do not need to fill out a DTIC Form 55: you can call in your order or order on a DTIC Form 1. If the limitation citation reads "Distribution Limited to DoD Only," then only DoD organizations registered with DTIC do not need to fill out a DTIC Form 55; again, all that is needed is to call in the order or order on DTIC Form 1. The only time a DTIC Form 55 is required by all government registered users is if the limitation citation reads "All Release Controlled" or "Further Dissemination."

QUESTION: I was wondering about which contract to put on the DTIC Form 55. Normally what we have done, as a contractor, is to put down our longest term contract. That way, we do not have to worry about reregistering our contract if it should expire before we receive an approval on a limited report. It seemed from the discussion yesterday that we should not do that. We should put down the contract we are working under, and, if it is not registered with DTIC, we should do so. Also, the contract should deal with the subject content we are asking for. It may make a difference if we get the limited document. Is that so?

ANSWER: If you are working under several contracts, it is necessary to register them with DTIC. There have been times where users have put down on the DTIC Form 55 contracts they were working under but had not registered with DTIC. We have had to return these requests. So, it would be to your advantage to register any contracts that you have. Also, it is important that the registered contract you list is the same you are currently doing work under. Just because you have several registered contracts does not mean you can list whichever you choose. The contract must satisfy the fields of interest and relate to the report you are asking for. The releasing agency may want to call your contract monitor which you have listed for that contract and your contract monitor may tell the releasing agency that you are not currently requesting a report for work under them. Your request will, therefore, be denied by the releasing agency.

QUESTION: After submitting a DTIC Form 55 request for a limited report, do you have any idea on what the average turnaround time for response from the releasing agency is?

ANSWER: It depends on the releasing agency. Some releasing agencies give us a very good turnaround; we receive the request back within a month. Some releasing agencies do not return requests to us for 3 months or longer. (We

request a reply within 15 days.) To help the user, we do a follow-up procedure on requests that are 45 days old. We contact the releasing agency and let them know we have outstanding requests that we are still waiting on an answer. After 90 days, if we do not receive a response, we cancel the request and return a copy of the request to the user. We also send a letter informing the user we have not heard a respose from the releasing agency after 90 days and, therefore, the request has been cancelled.

QUESTION: NASA RECON no longer displays citations to limited documents. Can you explain why?

ANSWER: Yes. Citations to limited reports can be accessed via DROLS, both dial-up and classified versions. Both of these systems require that the operator have certain security clearances. Because the RECON system is publicly available the decision was made to remove citations to limited documents from the data base. People needing this information can access it via DROLS.

QUESTION: Will the personnel in the Demand Products Branch assist users in interpreting thesaurus terms?

ANSWER: Yes. In addition, we will help you devise searches using other than thesaurus terms.

QUESTION: Who can provide an explanation of what a thesaurus term means?

ANSWER: The terminology group can do that for you. They can be reached at 274-7206.

QUESTION: With other online systems, we can store a search strategy and run it periodically in order to keep aware of new literature in an area of interest. Do you allow anything like this?

ANSWER: In order to receive a periodic bibliography similar to the one you describe, you can join the Current Awareness Bibliography program.

DROLS WORKSHOPS - Sessions for Online Users Providing Discussions on New System Features, Training Tips, and User Search Problems and Questions. James DePersis/Laurie Lubsen - DTIC

The major points covered at the training sessions for both dedicated and dial-up terminals are outlined below. Both instructors believe that this outline captures the essence of the training sessions more clearly and succinctly than the transcript.

The major points covered at the training sessions--both for dedicated and dial-up terminals--at the users conference.

1. Command - COMMNT - Comments/Questions

   a. Used as communicator to DTIC personnel only.

   b. Comments or questions are transmitted with the command

   c. Please include your name and telephone number.

   d. Comments are printed at 1930 and delivered the next morning to DTIC-V. Response will be made by phone within the next 24 hours.

2. Command - DIF - Display Inverted File

   a. Only indexed terms are displayed, 21 terms per screen.

   b. Single word or phrase can be entered.

   c. Users can browse backword using the B subcommand or forward using the P subcommand.

3. Search Commands

   a. Technical Reports - STR

      (1) To limit your search to the last 5 or 10 years, enter (5) or (10) in the search strategy. Remember these represent processing date and are updated quarterly. The ranges of AD numbers representing these limits can be displayed by entering RSQ, Recall Search Question.

      (2) Unclassified unlimited (UZ) documents (NTIS) cannot be eliminated from a search.

   b. Work Units - SWU

      (1) Canadian work units eliminated.

(2) Two new digraphs -

DW-USUHS (Uniformed Services University of Health Sciences)
WC-FEMA (Federal Emergency Management Agency)

(3) Contractor Access field (8B) eliminated.

(4) Distribution limitation changes:

B - Government only
CX - Government and their contractors
DX - DoD and their contractors
E - DoD only

(5) Scientific and Technical Areas changes to Scientific Fields and Groups.

(6) Military/Civilian Application expanded:

H - High potential for civilian application
L - Limited potential for civilian application
M - Military application only

(7) Copies of the regulation (DoD 3200.12-R-1) and the manual (DoD 3200.12-M-1) are available from Director, U.S. Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

4. Display Command - DSR, DQR, DUF

a. Formats must be one of the standard formats (1F-7F) or a user designed format (specified fields). Specified fields cannot be added to a standard format.

b. MODES - system enhancement in continuous mode (C or W).

(1) Request of three specific items, e.g., items 5, 14, 109 - 5,14,109C or 5,14,109W
Must be specified in ascending order.

(2) Request for range of items, e.g., items 3 through 5 - 3-5C or 3-5W
This will display items 3, 4 and 5.

(3) Scanning using the skip and limiting feature, e.g., every third items until five items have been displayed:
3/5C or 3/5W
This will display items 3, 6, 9, 12 and 15.

5. Recall Commands - RQQ, RQS

These commands have been expanded to apply to the free-text capability.

6. Ordering Command - OSR, OQR, OUF

a. Technical Report bibliography - TR6000

(1) Report (bibliography) classification Stub-RCL- ordering of the highest classification of the bibliography:

1 - Unclassified (all classified fields suppressed)
2 - Up to and including Restricted (British)
3 - Up to and including Confidential
4 - (or blank) - Up to and including Secret

(2) If RCL is 2, 3, 4 or blank, the contract number, CNO, must be included; the last 6 characters

(3) Limitation Stub - LMT - Limiting the order to the highest classification of the documents (reports):

1 - Classified reports only
2 - Unclassified Unlimited reports only
3 - Unclassified Limited reports only

(4) Unclassified bibliography - Minimum Stubs

Contractor - RCL:1 Government - END
END

(5) Classified bibliography - Minimum Stubs

Contractor - CNO: XXXXXX Government - END
END

b. Technical Reports - unlimited documents

(1) Hard Copy - TR 3061 - Minimum Stubs

Unclassified -
Contractor and Government - END

Classified -
Contractor - CNO: XXXXXX Government - END
END

(2) Microfiche - TR 3062 - Minimum Stubs

(Same as Hard Copy)

c. Work Unit bibliography - Format 850

(1) Dial-up and Unclassified Dedicated - Order will consist of unclassified results only, except of OUF.

(2) Minimum Stubs - END

d. Program Planning bibliography - Format 272

Minimum Stubs:

(1) Contractors - CNO: XXXXXX Government - END
END

7. Ordering Command - OOS -

Used on unclassified terminals to include classified citations in their bibliographies.

a. Technical Report bibliographies - not needed

b. Work Unit and Program Planning bibliographies:

Minimum Stubs:

Contractors - CNO: XXXXXX Government - END
END

8. Ordering Command - FORM55 - ordering of limited documents.

a. Stubs always displayed when command is entered.

b. Mandatory Stubs for all sites -

ADN: ; UCS: ; CPY: ; QTY: ;
RQF: ; REQ: ; REL: ; DAN: or SBA:

c. Additional mandatory Stubs - Contractors -

GOV: ; CMO: ; FCL: ; CCL: ;
CNO: (complete registered number)

d. Terminate with END

e. Changes

(1) Both hard copy and microfiche can be ordered at the same time.

(2) If both are indicated, the quantity stub must reflect how many of each.

f. Corrections can be made if the terminator, END, has not been transmitted, or if the system responds with an error message. Remember, replaced entry overrides previous entered data.

g. Cancellation - FORM55 cannot be cancelled online. To cancel, call Reference Branch, 274-7633.

9. Ordering command - ADD55 - Ordering of additional limited documents using previous entered FORM55.

   a. Stubs always displayed when command is entered.

   b. Mandatory Stubs - ADN: and REL:

   c. Optional Stubs - Any stubs that the user wants to change on a previous entered limited document. The newly entered data will override any previous entered information.

   d. Ordering through ADD55 can be used on any previous entered FORM55 or ADD55, even if a search or display was entered in between. NOTE: As long as you remain active online.

   e. Cancellation - to cancel, call Reference Branch, 274-7633.

10. Command - DOL - Display Order Log

   a. Reflects bibliographies and unlimited document orders placed online for the previous 2 days.

   b. Does not reflect FORM55 or ADD55 orders.

   c. Changes - (between SITE ID and USER CODE Headings)

      * - denotes one processing date from the others.

         C - Contract number error
         D - User code error

   d. Orders designated with a C or U must be reentered by the user.

LONG-RANGE PLANNING AT DTIC - Richard Douglas/Jeanne Bell/Allan Kuhn/Barbara Lesser/Karen Woolridge - DTIC

Richard Douglas
DTIC-J

DOUGLAS: If you talk to the military services and others you will find that there is more and more emphasis on long-range planning. Some of your own organizations may be looking at long-range planning as well.

Many of the past planning efforts within DTIC have been to collect various ideas from a variety of sources and then to aggregate the ideas into a single plan. We did not think that "bottom-up" planning worked very well so we tried the top-down approach. The first thing we wanted to do was to get a general idea of the total global environment in which we were working. To do that, we did literature searches. In particular we looked at the work being done by futurists such a Alvin Tofler and John Naisbitt, as well as by others who have written about the future. Almost all of them talk about the coming information age and have some very interesting thoughts about the future information revolution.

The next area we tried to pin down was DoD itself. Where is DoD now and where is DoD going with its information systems in the future. We went to military planners in the Army, the Navy, and the Air Force. We got into the very highest levels of military long-range planning. All of the three military services have long-range planning shops. Each has organized planning a little differently. In my opinion, the Air Force had probably done the best job. But the Navy is doing a good job, and so is the Army. The Navy looked at planning in terms of short papers they are writing about the future. The Air Force has put together a more comprehensive long-range planning book. After talking to about 12 to 15 different organizations that are involved in long-range planning, we had a pretty good perspective of what DoD and the military services are doing.

The next thing that we looked at was, "what are other people doing who are in the same kind of information business that we are." We interviewed people from the National Technical Information Service, from the Library of Medicine, and others who had information services, not unlike our own. We found a lot of similarities, and we found a lot of differences. We were able to perform a little comparison shopping to see how we (DTIC) compared with our competition.

The next and most difficult task was "how do you translate all of this data into something that is relevant to the Defense Technical Information Center." To do that we had to internalize. So we conducted a series of interviews of our top staff, and random interviews of people throughout the organization to get ideas on what direction they thought DTIC was moving, and in what direction we should be moving. What I am describing to you is a top-down system of planning where we first try to get the big picture, and then try to get the next broader picture, and on down until we localize it to our own organization. As I said we did the interviews, and then we had a seminar in Pennsylvania where we spent 3

days going over the draft plan that the planning committee had put together. We tried to keep our staff perpetually involved in what the planning committee was doing. One of the failures of our previous planning efforts had been that "the plan" was sometimes written by an isolated group and then presented to the organization without adequate involvement by the total organization. This time we had involvement every step of the way to the point where I think everyone feels that they are the father of the plan or had some part in the plan. Therefore, they support it. Right now we would like to see what kind of reaction we get from you.

We started out with a concept that mid-range planning was 5 years. And we say 5 years for a very simple reason, DoD has a 5-year defense plan. That's very easy to define and it is pretty much uniform throughout the military services. Anything that goes beyond the 5 years, we defined as long range. Short range we would define as a 2- to 3-year period tied to the budget cycle. And we did not try to get to the detail of how we were going to accomplish what we came up with, but rather what we were going to try to accomplish.

The future operating section environment plan that you will get a chance to look at was put together by Ellen McCauley, who did an awful lot of work on the plan. She is not here today. So very quickly I would just comment that what she would probably tell you is that there is a lot of uniform thinking in terms of the future. All the writers are talking about an information age. Information is going to be the key from here out to the year 2000. Futurists described it in different ways but there is no question that information is going to be of primary importance. The military planners within DoD also have a fairly common view of information. One of the common threads that runs through many of the discussions that we had with them was that they see an information future where they expect the operators of some of the military equipment to have information services at their fingertips. They see a lot of real innovation ahead that will bring information directly to the people who are using the equipment without intermediaries. The Air Force 2000 is an excellent long-range planning document if you ever get a chance to look at it.

With that background I would like now to turn it over to all the committee members who did the hard work on the plan. Allan Kuhn will talk about products and services and then Karen Woolridge will talk about personnel. We felt that any plan that ignored the need to think about people would not be a complete plan. And last, but certainly not least, Jeanne Bell will talk about the money. Barbara Lesser who has just joined our long-range planning group will be with you later. She will go over some of the questions that we would like to pass out to you for your response.

DTIC PRODUCTS AND SERVICES

Allan Kuhn
DTIC-M

My task was basically to do an analysis of our products and services as they currently stand and come up with recommendations concerning DTIC 2000. To begin the task, we had to find out where we stand and what we have today. What we have basically is three items which give us distinct products and they come from two sources. One source is our online system (DROLS), and the other is our technical reports collection. Out of our online system comes a TR data base

record, and a management data base record. You could distill it even further by saying that we have simply a data base record and a technical report. However, because DROLS gives distinct products, that is how we can come up with the three basic building blocks for DTIC products.

(Figure: DTIC Products and Services)

Further analysis of products and services involved finding the trends of our products and then making projections; this chart is in DTIC 2000. What we came up with basically were two things: one is that our demand products have a downward trend and projection, and the other is that our subscription products have an upward trend and projection.

The anomalies, however, are that our technical report demand has a projection to go up, and our TAB subscription has a projection to go down.

(Figure: Trends and Projections)

You will also notice here that the IR&D demand shows as going up. IR&D demand, as shown by the chart, does have its annual ups and downs. When we first did this analysis with 1982 information, we did show a downward trend. For 1983 we showed an upward trend. Maybe for 1984 we could establish a consistency again to show that downward trend in this demand product. What this analysis resulted in, however, was telling us where we currently stand.

We, therefore, realized that there was a further question. That question was, are we talking about products or are we really talking about information? So in looking to DTIC in 2000, what we wanted to know was what would we have to do to make sure that we will be a part of the expansive developments coming up in the information world. For example, we are dealing with questions like the information explosion itself; people are piling in tremendous amounts of information and they are pulling it out. We have to deal with the microcomputer explosion which, along with the expansion of telecommunication access that the technology interfaces are rapidly developing, give people personal access to data bases. So again the question is, is DTIC to change, that is, to adapt?

What could change in order to have DTIC adapt to the technologies that are developing? One conclusion is to develop full-text electronic storage of information. The reason for this kind of change is that if DTIC remains a technical report bibliographical data base, we continue providing only bibliographic citations. Our products and services would basically remain the same, all our products and services would be DTIC generated, DTIC would continue to remain product-dependent; the user remains DTIC-dependent. However, with the possibilities of developing a full-text storage system, there would be fantastic changes in the products and services that could take place. Users would be working online with the actual information. DTIC would no longer have to be the only source of a product. With a product producing interface at a remote site, people could pull down a text, or part of a text, and create any product that they have an interface capability with. If they wanted a paper product, they could print it there. If they had COM capability, they could produce it at the site; if they wanted to do something like put it on videodisc, they could do it at the site. Product generation could be generated by the searcher at his

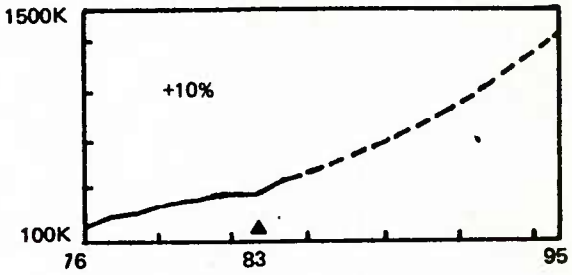
DTIC PRODUCTS & SERVICES

SOURCE	ITEM	PRODUCT	
DROLS	TR DB record	TAB	(subscription)
		TR bibs	(demand)
		CAB	(subscription)
	Mgt db record	Summaries	(demand)
		Recurring	(subscription)
	(both)	AMTD	(subscription tape)
		RBMT	(demand tape)
TECHNICAL REPORTS		Demand TRs	
		ADD	(subscription)

DTIC PRODUCTION TRENDS & PROJECTIONS
with growth rate

DEMAND

TECHNICAL REPORT DEMAND (TOTAL)



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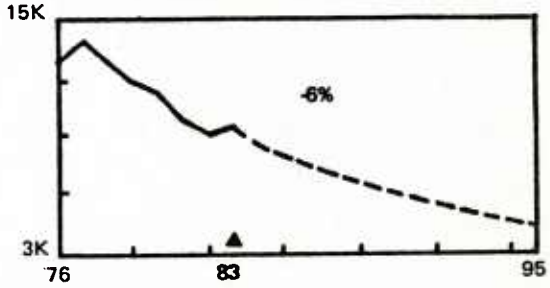
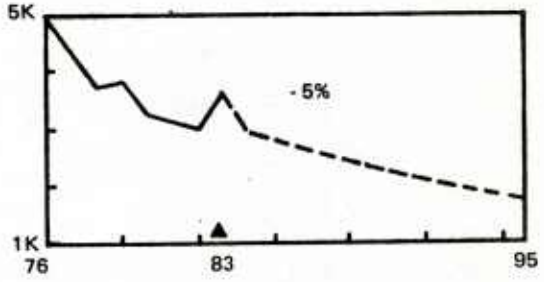
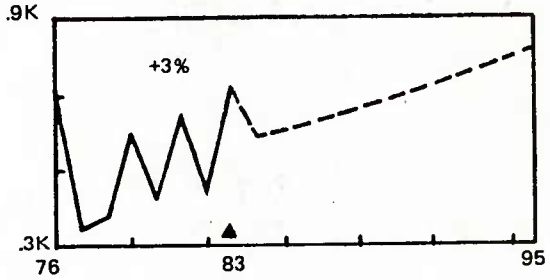


WORK UNIT SUMMARY REPORTS

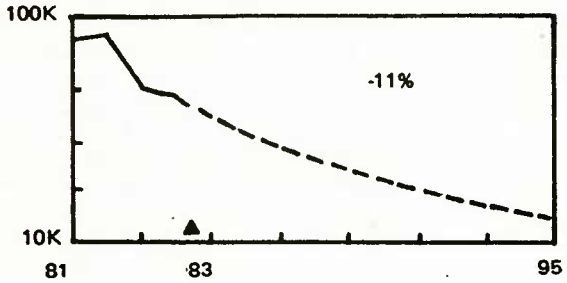


IR&D SUMMARY REPORTS

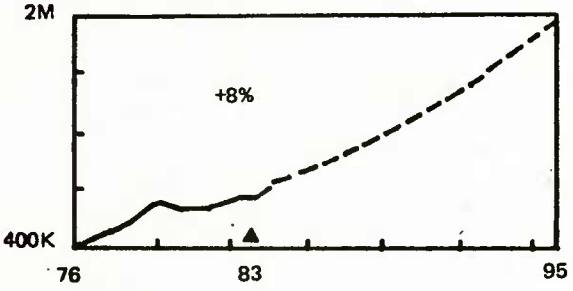


SUBSCRIPTION

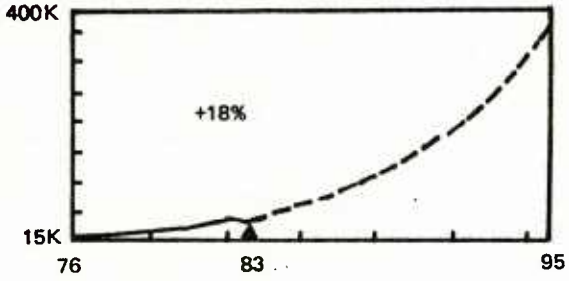
TAB SUBSCRIPTION (FY COUNT)



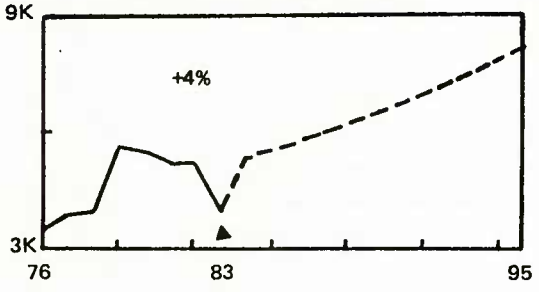
AUTOMATIC DOCUMENT DISTRIBUTION (ADD)



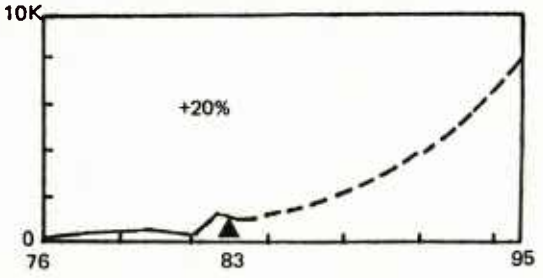
CURRENT AWARENESS BIBLIOGRAPHIES (CAB)



WORK UNIT RECURRING REPORTS



IR&D RECURRING REPORTS



Source: Defense Technical Information Center. DTIC-2000: A Corporate Plan for the Future, July 1984, AD-A143 900, p. 7-3.

site (with DTIC being an alternative product producer). In this case, DTIC becomes a resource, and in doing so, makes the user resourceful rather than having to rely on DTIC.

Changes taking place at DTIC now show what we have in development. We are developing a multiple source access and retrieval capability (which people know otherwise as the gateway system). The capabilities that come along with that development, and currently possible, are aggregating information, downloading it, and storing it for follow-on processing.

In summary, DTIC can change from being a bibliographic resource to a true information resource. Whereas we now provide reference to other things like technical reports, DTIC could provide and give the user access to the actual information itself. In the case of providing bibliographic reference only, the user has to wait for the technical report to arrive and look at it before knowing if he really wants it. Additionally, under the current situation DTIC would be peripheral to the information transfer process, whereas if we did become information-oriented, providing the actual information online, DTIC would become central to information transfer. Currently, you get a product in terms of days. You cannot manipulate the information except with scissors and paste. You get a preformatted product with a limited selection of formats. By becoming information-oriented we feel that the user at his terminal could get the product today, manipulate the information directly online, and end up with a desired, customized product, arranged by the user in an order useful to him.

I am sure you are all familiar with the user-DTIC query flow paths operative today, 1984. There is a time lag between the end user asking for something and when he gets it. He probably has to go through a library intermediary, who in turn goes to DTIC, to get the product. The effects of this current flow path are that when DTIC talks in terms of getting out the product, of course we talk only in terms of the product turnaround time from the time the request comes into DTIC to the time the response goes out of DTIC. The library intermediary, I presume, when he or she talks about getting the information response talks in terms of the time it is sent to DTIC and is then received by the library intermediary. However, the real question is, shouldn't we really be talking about the time the end user requests the information and when he gets it?

Looking at year 2000, with the developing technology allowing personal access, the query flow path has been simplified. The information is available to the end user online, it's available now, and the product medium is user-generated.

This study made us more fully aware of a number of issues that we have to work with. One issue is the kinds of information DTIC is to provide. This runs across a whole range and scope of possibilities. We can expand the information we currently have; we can get into new areas of information, such as internationally-originated information, management and planning information, and expansion in scientific and technical information. A corollary issue is should DTIC collect only DoD-generated scientific and technical information, or collect all STI of interest to DoD? I think a consensus could be quickly established on what should be done there. Another issue is discerning and being aware of the technology trends. And a major issue is, who is DTIC's real user?

When we had our first DTIC long-range planning seminar with our top level management, we had what we thought was a rather clear idea of what our product and service goals should be. Some of them are already in development: (1) establish DTIC as a point of entry to multiple data bases; (2) establish full-text storage; (3) include as much digitization of document content as possible; (4) explore applications of the various storage and product technologies (an example being videodiscs, which can serve as both a storage medium and a retrieval medium); and (5) establish capability for DTIC to be actively and aggressively aware of emerging user information needs and information transfer technologies (and that gets into both marketing and R&D).

We came out of our Lancaster management seminar with these goals redefined to two basic long-range goals. The first goal: DTIC will be an information-oriented organization providing a wider range of information for DoD. The second goal: DTIC will be a user-oriented organization.

Now, since a goal is not a tangible thing, something you can get your hands on, we also came up with a list of subgoals which should provide direction on how to get to the DTIC 2000 goals. These subgoals will be used to generate the mid-range planning developments. Because of time I am not going to run through them, but I think the first and the last ones are critical. The first one is to define how DTIC's audience uses information; how can we provide information if we don't know what they want. And the last one is to formalize DTIC's transition from a product orientation to an information orientation.

(Figure: Products and Services Goals)

The second long-range goal: DTIC will be a user-oriented organization. Concerning its subgoals: (1) define DTIC's actual end users--we are talking about the scientists and the researchers; (2) enhance end user access, this involves, as one example, the microcomputer explosion, allowing personal access; (3) expand the process of user involvement in DTIC's product and service changes--of course that means you.

These goals and subgoals overall indicate that the DTIC information community should have a say in the products and services needed. The goals are a mechanism for your participation.

DOUGLAS: I just might comment on one of the comments today about the end users, yes, the scientists and engineers. But we are also finding more interest on the part of our DoD managers and even our financial people, and a wide range of people that you don't normally think of, so I think our perspective goes beyond the scientists and engineers.

We felt very strongly when we did this plan. Looking at things was not enough. We also had to look at the kinds of people that we had.

One of the areas that is going to have to be addressed in our mid-range plan is security. If we had it to do all over again, I think we would have had a section on security. It is a big issue that we did not address, and it needs to be addressed.

PRODUCTS AND SERVICES GOALS

DTIC will be an information-oriented organization providing a wider range of information for DoD.

1 Define how DTIC's audience uses information.

2 Establish the kinds of information storage needed.

3 Meet the responsibilities inherent in the dissemination of classified and/or sensitive DoD information.

4 Develop an electronic document storage and retrieval system.

5 Investigate the application of new technologies for the complete digitization of documents.

6 Develop interorganizational data base links.

7 Use new technologies to expand the media in which DTIC products are provided.

8 Formalize DTIC's transition from product orientation to information orientation.

DTIC will be a user-oriented organization.

1 Define DTIC's actual end-users.

2 Enhance end-user access.

3 Expand the process of user involvement in DTIC's product/service changes.

Source: Defense Technical Information Center. DTIC 2000: A Corporate Plan for the Future, July 1984, AD-A143 900, p. 7-10.

PERSONNEL
Karen Woolridge
DTIC-M

DTIC's current personnel skills will become outmoded if we effect the product and service goals that are in our plan. Planning for our future staffing needs is an important part of our ability to effect new technology and thereby give you better services. So our first goal is to identify the types and number of skills we think we will need in the future. In the seminar that our top management staff attended, we talked about what kind of changes might occur in the future in our personnel area, and they basically felt that DTIC would increase the number of scientists and engineers and contractor support. We would also need to redefine and increase our information type specialists in order to give you more individualized services. We also felt that we would need to redefine and reduce our clerical and administrative support. The secretary of the future will really be an office manager of electronic systems. So we see a significant change in this area. And finally, we felt a need to redefine and determine the amount of computer type people that we would have in DTIC. This goal is further broken down in the plan on pages 8-10 and 8-11, in fact all of the personnel goals that you see are broken down into subgoals. We are aware that some of our jobs and the people in them may not be needed in the future or some of our jobs may be restructured. Electronic document storage and retrieval will probably eliminate most of our microform positions and some of our printing jobs. Information and computer positions will be restructured because of the changes in our orientation from a product-oriented organization to an individualized information system. Our second goal is to identify the positions that may be restructured, reduced or eliminated because we want to develop retraining programs for these people, so that we will reduce the impact on them. Of course, if we are going to retrain them, we need better training classes and programs. Therefore, we set a goal to identify what kind of training needs we would have in the future. Basically we want to start now planning for future personnel changes, so we can reduce the impact of change on our employees. But training won't be just for those employees who are directly impacted by personnel changes. We see it also for the people whose jobs will remain basically the same. If DTIC is to effectively change from a product-oriented organization to an information-oriented organization, then our employees' attitudes have to change too. And this is where training is very important. For example, managers need to become more knowledgeable of how the changes in technology and focus will affect our organization. Our managers will also be managing different kinds of people in the future who will have different attitudes and expectations about their work.

And finally, we set a goal to improve our civilian personnel services. DTIC's success in effecting our personnel goals hinges on this last goal, because if we can't get better qualified people in a faster manner, and higher grades in some areas, we are not going to be very effective in doing our product and service goals. We feel it is very important for us to do something now so that we can meet the challenges of the future.

Last, but not least, we will talk about the financial area.

FINANCIAL
Jeanne Bell
DTIC-M

The financial section of the plan describes DTIC's funding trend and projects future DTIC funding requirements to support development of new systems and technologies. A comparison of the growth rate of DTIC funding with the growth rate of DoD, DoD RDT&E and DLA operations and maintenance funding was made. The results of the comparison were: the average growth rate for the period of FY 75 to FY 84 for DLA O&M was 6.2 percent, for DTIC 7.4 percent, for DoD 13.4 percent, and DoD RDT&E 15 percent. This comparison shows that the growth rate for DoD RDT&E funds parallels DoD, while the growth rate for DTIC parallels that of DLA. Since DTIC is DoD RDT&E funded, we believe that the growth rate for DTIC should be similar to that of DoD RDT&E and not DLA. If DTIC is to provide the support requested by the Office of the Under Secretary of Defense for the Scientific and Technical Information Program in meeting needs of the DoD and contractor R&D community, we must receive the required resources to meet recurring workload requirements and replace obsolete systems and facilities with systems capable of coping with increased demand for products and services.

We also looked at how DTIC is currently spending its money. Roughly 70 percent of our funds are expended for personnel-related cost. As we have seen in the previous sections, the DTIC of tomorrow will be a highly automated, information service organization. Our personnel needs and skills will be different in the future to accommodate the changes which will take place. Contract assistance may increase. Only with careful use of our resource allocations can DTIC be effective and support future requirements.

The issues most needing resolution in the financial area concern the rate of growth of DTIC's budget and how DTIC should spend the funds that are available. The DTIC budget is growing at only half the rate of the DoD RDT&E budget. These are the two financial goals that we have developed in our plan. DTIC will strive to have the rate of increase in DTIC funding parallel the rate of increase in DoD RDT&E funding. The ways we are going to attempt to do this are (1) make our usefulness to DoD more visible in order to get more support for DTIC funding needs and (2) better justify our funding needs.

Our second financial goal is to determine how we can do better with the funding that we do have. Ways we will do this are to determine where high-technology systems are be utilized and where contractor services can be used to provide a more effective and efficient operation at lower operating costs.

DOUGLAS: We want to open this up in a few minutes and get your response. This has been just a quick overview, there is a lot more in the plan than we have been able to talk about here. The plan contains a lot of basic information. We give you personnel profiles and financial profiles and all that kind of trend charts. If nothing else comes out of this planning effort, we were able to compile a lot of information on DTIC that has proven to be extremely useful.

Let me make a couple of wrap-up comments before I open it up to questions. When we did our interviews we were talking to people who supposedly were the managers of weapons systems that depend upon our information services. There

was one universal response that we received at almost every place that we went. That universal comment was "who are you." Almost no one within DoD had the foggiest idea who DTIC was. We invited an Army Colonel to DTIC to address the whole staff. He said that before he put his talk together, he walked around DoD and talked to the various people through the Army command in which he worked, and this is the research and development command of the United States Army, and he said "I have to tell you (DTIC) the first question they (the Army personnel) asked me is 'who are these people? What are you talking about? We have never heard of them.'" So one of the fundamental goals that came out of this study was to develop a meaningful marketing plan. Because no matter how good the services are, or how good the products are, if no one out there knows that we exist, it has been for naught. I would say that, maybe it is not a terribly profound thing to have learned, but I think it did shake up many of us. If we don't solve that problem the rest of our efforts can be a waste. People out there in DoD don't know who we are.

Another fairly universal comment was that "it is nice that you have the kind of information that you have made available to us; however, what do you have that will help me plan and manage my R&D activity better than I am currently doing." We saw a tremendous desire and need for planning type information. How much is being spent in certain planning areas, how will what I am doing relate to what somebody else is doing were typical inquiries. I think we need to convince everyone that we need to extend our definition of STI to include financial and planning information. Planning information is as important to these people as are the hard cold numbers, statistics and equations. The traditional definition of STI is no longer valid. People within DoD need a wide variety of information which is not necessarily always hard core and scientific and technical to do their job. They want planning information, they want statistical information, they want logistic information, they want military standards, specifications and drawings, they want intelligence information on technology, they want foreign information. They want access to an awful lot more information than is commonly included in our data base. Hence, one of the reasons that you have been hearing so much about Gateway reflects the need for us to provide access to things that go beyond what is in our data base currently.

One of our more successful programs has been MATRIS. You will hear about that Friday. One of the reasons for the success of that program is that the program manager for MPT defends a $300,000,000 program with MATRIS data. DTIC has dedicated a significant number of people to run a very small data base that is concerned with these social scientist types of projects that have to do with training and artificial intelligence, simulators and things of this nature. MATRIS is a very small and very expensive program. But because of MATRIS the program manager has data at his fingertips that has been custom developed for him. Therefore, he is able to successfully defend his program and not lose $20,000,000 or $30,000,000 or $40,000,000 when he goes up in front of Congress. He has all the answers right at his fingertips. So he is thrilled to see $500,000 or $1,000,000 devoted to this very small project area because it saves him the loss of millions of dollars in terms of budget authority.

That leads to another basic thrust that we have seen coming out of our work, and that has to do with customized data bases. You know when DTIC started business many, many years ago, we were one of very few information sources that were well organized and immediately accessible. More and more, because of microcomputers, everybody is putting up their own small data base. Each of these little data bases has been custom designed for an exact specific purpose. A lot of the people at DTIC are very upset by this trend. The typical comment by some DTIC personnel is that you have nothing more in your little customized data base than we have in our work unit system. Why isn't our work unit system good enough for you. You are doing the same thing we are with little embellishments. It turns out that program managers want the little embellishments that present information exactly the way they want. So we have got two ways to go in this area. One direction is to put out a regulation which prohibits others from using these customized data bases and force them to use the DTIC system, because it is all duplication of effort. The other direction is to face the problem of how do we as an organization provide access to multiple data bases many of which look a lot alike, that are spread all over the place. Again, the Gateway concept is helping us in this area.

Another trend is that in the past technical information was relegated to the hard sciences. Now there is more and more research being done, and more money being spent on what I would call the soft sciences. A lot of money is being spent on researching how one has a good EEO program, or researching how to manage an all volunteer Army; researching how something should be packaged in order to make it get into the mind during a training mission, better than just standing up and talking over a microphone like I am doing, and so on. There is an awful lot of research going on that has to do with people's heads and how people's heads react to thinking. We have not been well structured to accept this material, or at least we have not had a lot of that information coming to us in the past, and we have to recognize changes of that nature. So, as you read through the plan, I think you will find that there is something of interest for almost all of you. With those comments, I would like now to elicit your comments and they can be favorable or critical, whatever you want. We recognize that this is just our first attempt. If you think we are on track, or off track, say so.

QUESTION: Doesn't full text search capability really mean key word in free-text search, and not be very useful in a full-text environment. Indexing and cataloging are really important to get at limited documents. Have you all talked to or addressed this with the cataloging and indexing type people?

ANSWER: No; we are only at the initial stages of changes required for DTIC. We at DTIC are basically standing at threshhold in exploring full text. We are aware that full text already has been developed. This is a direction, this is a goal that has been stated for us to aim at and start developing; basically we have not done any in-depth research into it.

DOUGLAS: Let me just comment. When we went to DARPA and asked, "what do you think of DTIC services?" The answer was "it is useless to me. I get a stack of printouts <u>that</u> high. I dump it in the trash." I think you will find the DARPA response not an uncommon thought. What all our users are saying is "give me the paragraph that I want, give the number that I want, give the selective little

piece I want, let me look at a page of a report on a scope so that I can pick out that one page and reproduce it." We have not worked out all the details, but it is clear that at some point in the future we are going to have to be able to pull a page out of a report and display it on a scope so that the customer can pick out the paragraph he wants, reproduce it on his own machine, and walk away without that big stack of garbage that they could care less about.

COMMENT FROM THE FLOOR: You know one of the things that I feel that is lacking in your plan is an understanding that what you do is all based on telecommunications, and there has been no provision in your plan for the telecommunications environment to change in the year 2000. If you are so busy on your personnel plan that you're going to be reorganizing so that you have more GS-15 managers and no more GS-9's or 11's to make the computer room and the control room work I'll tell you this. We were down for 2 months. We had a storm and we were down for 2 months this summer. The Naval Weapons Center did not cease. During that 2 months time a few people didn't have their searches right on time and they managed to survive. OK. We had a hard time getting the help that we needed because of the phone situation. Now what are you going to do in this sort of environment if you are not going to be able to give reliable data on time.

DOUGLAS: One of the universal criticisms of some of what we have done has been that here we are talking about the future, making a better future, when in fact the present is not what people would like. All I can do is bow my head on that one. There are a lot of things that we did not recognize in the plan to be very frank with you. Let me talk about that a little bit. We were fairly proud of what we did . We put together a plan that we think makes fairly good sense. But I do not think that the document itself is the most important thing that is going on here. The real issue is to get a dialogue going. Quite frankly we welcome the spirited comments about our problems because you are not alone in being concerned about that. We recognize the need to correct our current problems. We also recognize the need to concurrently look ahead.

Our intention in the personnel section of the plan was not to have a lot of high GS-15's. One problem exists for instance in our computer area. We cannot compete with other computer organizations in the DC area. We do not have the grades. And I was talking about higher grades in particular in that area.

COMMENT FROM THE FLOOR: You downgraded in your technical group. These people are highly sought after today, and you are not even meeting the market.

DOUGLAS: Yes. We don't always have a lot of control over what happens when the personnel department comes in. And anyone who has a civilian personnel office to deal with can relate to that. One thing we realize, however, is that we are part of the problem when it comes to better personnel services. We need to go out and lobby for our interests and gain higher grades. And this is just one of many things that we need. The plan recognizes that we need to do something about it. We know the problem exists. It is not to get just 15's.

Let me get back to your comment about the technical control center. Yes, Ted had his place downgraded along with other parts of our computer shop. We do not downgrade our people, when you say we, we DTIC. Our civilian personnel

office is a centralized office of DLA, and they service all of Cameron Station. We have been very concerned, upset, annoyed, ticked off, etc., about what is happening to several of our areas. Karen mentioned that none of the personnel planning is going to mean anything if we cannot turn our own servicing personnel office around. We have not had much success in doing it to date. It takes us sometimes 100 to 140 days to bring anybody on board. They are constantly sniping at our grades. We have to, in some way, either convince them or convince the Director of DLA that he has got to convince them that we cannot operate this way. If the trend in grades and attitude about spaces, grades, and people in the ADP area is not turned around, we will face mission failure one of these days. It is, as I see it, a real near-term problem.

COMMENT FROM THE FLOOR: Maybe we don't need expansion. Maybe you (DTIC) should do better what you are supposed to do.

DOUGLAS: I think that is a message that I have heard about three times, that I need to pass along to Mr. Sauter and company. Before we wrap this up I would like to get all your comments no matter how pointed or adverse, or whatever you feel, because it is easy to stand here and lose sight of what the real issues are. Over and over again, I must admit the same comment has been made, you (DTIC) are talking about the future, and you are not handling the present very well.

COMMENT FROM THE FLOOR: You surveyed the future and surveyed the ultimate end user of the data or information that you supply. They have indicated that they need expanded sources of information whether it be specifications, or standards, or manuals, or whatever type of publication the initial document be, but you did not consider anywhere in the long-range plan that improvement of gathering of information to make it more comprehensive, even the collection that you have today, such as the technical reports, the work units, and everything else. I see nothing or hear nothing regarding the more comprehensive collection or building of what you have in addition to looking for other sources.

DOUGLAS: Let me respond to that. This was a long-range plan, and I think the kind of thing that you are talking about will be included in our mid-range type of activity. There is an awful lot of concern at the DoD level about that very thing. Dr. Young has put out some letters about improving input to our data base. There have been other ideas about how to legally force people to make sure that all the informtion comes into DTIC.

We do want things that we can hold in our hands and say look, this is what the people are saying. If you will respond in simple direct English sentences as to what you think is wrong, and what should be done, we would greatly appreciate it. Please fill out this questionnaire. You can give to us here, or you can mail it in. The address is on the back.

There is also a box on the desk for them. We, our little group here, are pretty sincere in telling you that we would like to get any comments, adverse or otherwise. Whatever we have written in this year's plan, if you convince us that it is on the wrong track, then the next one will look a lot different.

GOVERNMENT INFORMATION RESOURCES. Presentations by Representatives from Other Information Sources.
Carolyn Tilley, National Library of Medicine
Mark Scully, Government Printing Office
Dora Moneyhun, Department of Energy
Marcia Hanna, DTIC

MARCIA HANNA
DTIC-V

I am Marcia Hanna from the DTIC Office of User Services. We have speakers this morning from three leading Government information resources: the National Library of Medicine, the Government Printing Office, and the Department of Energy. Dora Moneyhun will speak for the Department of Energy, Mark Scully for the Government Printing Office, and Carolyn Tilley for NLM. We think it would be best if you held your questions until all three presenters have finished speaking.

Carolyn has agreed to start us off this morning. She has been at NLM since 1965. She has worked at the MEDLARS Management Division since 1972 and been head of that section since 1982. Carolyn's office provides a variety of user services including telephone hotline service, data base testing, and user training. Carolyn's section is also the one that handles NLM publications including Index Medicus. Carolyn.

CAROLYN TILLEY
National Library of Medicine

I would like to familiarize you a little with the National Library of Medicine, who we are, and where we come from. Then I want to talk to you about some of our data bases, our new user friendly interface to some of our data bases, and our new user-friendly system.

There are few institutions as old in Government service as the National Library of Medicine. It was established in 1836, some 60 years after the birth of our nation. The library is located in Bethesda, Maryland, right here in the Washington metropolitan area. It serves many, many thousands of health professionals, with access to its literature through the Index Medicus, which is our monthly bibliography to the medical journal literature. Another means of access is our Current Catalog of Books, which is issued quarterly and cumulated every 5 years. Index Medicus is very old; it was established over 100 years ago and remains the world's foremost index to the medical journal literature. Index Medicus provides a subject approach using a controlled medical subject heading vocabulary that we call MESH. MESH has about 14,000 subject terms and an additional several thousand chemical entries. We also arrange the citations to the literature under the authors' names. We take up to 10 authors for a given paper and display the citations under those authors' names. More than 10 authors are dropped. Index Medicus is also issued in a subset version called the Abridged Index Medicus, which includes only about 100 core medical titles, like Lancet and the New England Journal of Medicine.

Dr. John Shaw Billings, who was an Assistant Surgeon General, began the Index Medicus. Dr. Billings was a physician at the battle of Gettysburg and at Petersburg where he became tired and needed rest. He was sent to the Assistant Surgeon General's office where he did not rest long before he created the Index Medicus.

NLM has had four homes in its past. In 1862 we were located in what is now the old Riggs National Bank Building. In 1866, the year after President Lincoln was assassinated, Ford's Theater became vacant and the Library moved into Ford's Theater where we stayed for about 10 years. Then we moved to the Army Medical Museum, at 7th and Independence Avenues, the present site of Hirshhorn Museum. In 1962 we moved to our present building which is part of the National Institute of Health Campus on Rockville Pike. The building was constructed in the 1960's with three levels underground, where we keep our books and journals. The building is designed to collapse inward in the event of nuclear attack and create a vault underground, thus saving the world's medical literature. I am not sure for whom. We have another building which was opened about 3 years ago and named after Senator Lister Hill, who was a friend of the Library in Congress. He, along with John F. Kennedy, set up the original legislation that created the National Library of Medicine as part of the Public Health Service. Within the Public Health Service there are five different agencies. One of those agencies is the National Institutes of Health. The National Library of Medicine is now one of the institutes of the National Institutes of Health.

In order to promote the flow of information throughout the country, the Library created 11 regions and set up a regional medical library, through contract, in each one of those regions. The purpose was to create a network where people could get document delivery service, either xerox copies of the journal articles or books lent in their original form. Last year there were over 2,000,000 library loans through this network. There are designated levels of libraries. Basic libraries attempt to borrow materials from their resource libraries. If the item cannot be located there, the request goes to the regional medical library. If the regional medical libraries don't have it, the request comes to the National Library of Medicine to attempt to fill the request.

We offer online access to over 20 different data bases. These data bases are accessed primarily by medical, scientific, and hospital libraries, including VA and military hospital libraries. We are now offering service to about 25,000 libraries in the United States. We are also available in 14 different countries.

Our present computer system is an IBM 3033. We have two central processors hooked together; it is a fairly elaborate system. We are going out soon on another contract to get an even bigger system as our needs are growing.

MEDLARS is one of our most important products. The name is an acronym for the Medical Literature Analysis and Retrieval System. MEDLARS is the system that supports the online data bases as well as the publications. Over 20 medically related data bases are made available, plus it produces our hard copy Index Medicus and Current Catalog as well as many other publications.

We at the National Library of Medicine index and catalog our material ourselves or have it done by contract. In addition, a few foreign centers participate. The journals are bought by the library and then an indexer scans them at the rate of about eight an hour, and gets them into the system. We used to have the articles keyboarded on contract. Now we have an online system where we input the authors, the title of the article, the subject headings, the control keywords that we assign to the articles, as well as an author abstract, if the journal publishes an author abstract. We started adding abstracts in 1975, and we have abstracts available for these journal articles for about half of the citations now. In some cases, the publishers did not allow us at first to put in abstracts from the journal articles, and in other cases there are still medical journals that don't require that authors submit abstracts of their papers when they publish them.

We just started a new online indexing system. Our indexers actually online input the citations that will be added to MEDLINE. We add about 20,000 citations a month to MEDLINE. The entire MEDLINE file, along with its back-files going back to 1966, includes about 5,000,000 references to the journal literature. MEDLINE is the most widely used and largest data base on our system. As I mentioned, MEDLINE goes back to 1966. If you want citations to the literature prior to 1966 you can use the hard copy Index Medicus.

We do not think that our system is particularly difficult, but there are some things that you have to remember when you do a search. You have to sit down and talk with a patron. Primarily our patrons are health professionals, mostly physicians, but they are also nurses and hospital administration people and others including the general public. Searchers must interpret the request from the patron into our controlled vocabulary. They check our vocabulary and then create a search strategy. After they have mapped out where they want to go they get on to our computer system and search it.

For example, if I wanted articles on skin grafts in monkeys, I would attach a subheading "transplantation" to the "skin" term, and then input "monkeys" and then combine the two with a Boolean operator. Normally, with our system the more precise, the more narrow you are with your request, the more limited your retrieval will be. The more general you are, the more recall you will have. Suppose the health professional wants to know the relationship between blood and cerebrospinal fluid oxygen concentrations. This would translate into our system as gathering all the different oxygen terms, and then "anding" that with all the different blood terms, and then "anding" that with all the cerebrospinal fluid terms.

Most of our health professionals go to their hospital libraries where the search is conducted for them. With the rise of microcomputers, we have seen more and more health professionals who are interested in accessing the literature themselves. To get an access code to our system, we require a 3-day training course here at the Library, at the University of Nebraska in Omaha, or at the University of California at Los Angeles. We have an optional fourth day on the toxicology and chemistry files and an optional fifth day on our cancer data bases. However, most health professionals cannot spend our required 3 days so we designed a 1-day course for them. We brought 140 librarians from all over the country to NLM and taught them how to teach our 1-day course to health professionals. We also developed a stand-alone workbook, a guide to teach

health professionals the basics of our command language. Except for experimental purposes in the library, we don't have a user friendly interface to our data bases. So what we are doing is teaching health professionals--by using all the librarians out there--how to input the basics to get a MEDLINE search done. We don't necessarily think that most health professionals will want to do all their own searching, but many of them with their microcomputers do want to get a few good citations from the literature. We found that this training program actually increases communication between the health professionals and the searchers. So it has that utility even if it is not training every health professional in the country how to use our MEDLINE system.

CITE, standing for Current Information Transfer in English, is one of the experimental interfaces that we have in the library. We closed our card catalog back in the 1980's and we now have a bank of terminals in our reading room. When you want to get access to books, either by author or by subject, you sit down at a computer terminal and just type your request in plain English. Then the English terms are parsed; they do a mapping to our controlled vocabulary and choose the best match. We return the citations to the requester at the terminal. We have a printer hooked up with this thing. It is extremely popular and it seems to work pretty well. Most of the terminals are connected to our CATLINE file which contains information on books available in the library. There is one experimental terminal in the library hooked to our MEDLINE file.

I want to tell you a little bit about PDQ, which stands for Protocol Data Query. It is a new data base developed by the National Cancer Institute and put up on our system. This is a menu-driven data base. It requires no training, and the National Cancer Institute is encouraging health professionals to get their own codes to search this data base. It contains three files. The most important thing about it is that you can go to three different files. One file contains information about protocols, that is, the treatment regimens being supported by the National Cancer Institute. There is a cancer information file where you can get information on prognoses for different types of cancers. There is a physician and organization file, where you can locate researchers who have open protocols and are admitting patients with certain types of cancer. There is a third file which has information on the protocols themselves.

Thank you very much. If you have any questions, I will be glad to take them at the end.

HANNA: Mark Scully will be talking to us next. He is Chief of the Library Division under the Superintendent of Documents. Mark has had a varied career. He has been a reference librarian, edited a union list of serials, been a technical services chief, a library director, and an ADP administrator. He has been in his present position as Chief of the Library Division since 1982. Not only has he had some interesting jobs, he has worked in some interesting places, including the Library of Medicine, the General Accounting Office, and the Consumer Products Safety Commission.

MARK SCULLY
Government Printing Office

Thank you for inviting me to discuss some GPO activities and services that might be of interest to DTIC users. In preparing for today, I made the assumption that most members of this audience have backgrounds and interests similar to my own. That is, I assumed that you have a library and information services perspective as opposed to a printing technology orientation. Consequently, I will be telling you less about the actual production of Government publications and more about the distribution of those documents through the sales and depository libraries programs.

The Government Printing Office is basically the printer to the U.S. Government. The chief executive of the agency is the Public Printer. One of his Assistant Public Printers, the Superintendent of Documents, distributes the Government publications printed by or through the Government Printing Office. The Superintendent of Documents distributes and disseminates federal publications under two programs. The first is the sales program and the second is the depository library program. I will have something to say about both of these programs.

Now, I know that many of you have occasion to purchase Government documents, either for your personal use or for developing library collections. For you actual or prospective document customers, I bring these five messages from the GPO. First, GPO wants to make it easy for you to select documents. Second, GPO wants to make it easy for you to order those documents. Third, GPO wants to charge fair and reasonable prices for documents, consistent with it's statutory responsibility to operate on a self-sustaining basis. Fourth, GPO wants to fulfill the orders promptly and accurately, and finally GPO wants to encourage the public use of those documents.

Now, I will say something about these five messages in terms of the documents sales operations and its programs. GPO offers certain selection tools to announce and identify publications made available to the general public and to the library community. The most comprehensive tool of the sales program is a microfiche catalog of all sales publications entitled the Publications Reference File and commonly called the PRF. Now the PRF is continuously updated and includes forthcoming and in-stock titles, as well as titles recently declared out-of-stock. The PRF is available as a bimonthly subscription or online through the Lockheed DIALOG Information Service. All other sales catalogs are available without cost. The quarterly Government Periodicals and Subscription Services catalog, also known as Price List 36 lists the 500 plus subscription titles sold by GPO. These, by the way, are also included in the Publications Reference File. The Government Periodicals and Subscription Services catalog is exclusively subscriptions. Also available without cost, are 250 subject bibliographies; these are selected publications listed by topic free on request. An index that lists these subject bibliographies under a classified arrangement is available. Perhaps our most attractive and popular sales catalog is U.S. Government Books, which is compiled by the GPO marketing staff, and contains descriptions of almost 1,000 best selling books, posters, and periodicals. The other marketing product, entitled New Books, is issued bimonthly and lists all new titles placed on sale during that period. In summary, the Publications Reference File covers the 16,000-title universe of sales publications. The other publication tools focus on various subsets of that universe.

At GPO we believe that it should be easy for librarians and the general public to order a document that has been selected for acquisition. I think the easiest way to enter a complete order is to use the printed form available from GPO. That form prompts you to provide complete ordering information including the GPO stock number and subscription list ID, both very important for establishing an order. If you choose to telephone your orders to GPO, please limit your document orders to six orders. Subscription orders should be limited to two items per phone call. We suggest entering lengthy orders on a written form, making sure not to mix document and subscription orders on the same form, because, as you can imagine, they are directed to different fulfillment centers. For customers who order frequently or in volume, we encourage estabishing a prepaid GPO deposit account as a convenient way to do business. Deposit accounts are especially good for libraries cursed with a slow and cumbersome procurement system, a situation many of us who are in the public sector understand. Deposit accounts also facilitate the use of phone orders, standing orders, and an online dial service for ordering. DIALORDER, by the way, is an online ordering system accessible through Lockheed DIALOG. Subscriptions may be entered in the same way as book orders. However, subscriptions should always be renewed by using the GPO renewal card. This card is machine scanned to expedite your renewal and avoid any break in subscription service. For subscriptions entered through a subscription agency, GPO will issue the renewal notice to the subscription agent rather than to the library. Claims for missing serial issues should also be directed to the subscription agency rather than to GPO. For certain irregular and series publications, customers may ask to be included on a notification list to alert them when another issue is actually produced and released. The customer may place a standing order against a GPO deposit account, or VISA or Mastercard account and have the new releases mailed automatically. If all these details and procedures are beginning to confuse you, I suggest that you obtain a copy of U.S. Government Books, where you will find all these guidelines laid out in plain and simple terms.

So much for selection and ordering, now how about document delivery from GPO? What can you expect? As a former acquisitions librarian, I can remember the old days in the early- to mid-1970's before the GPO order fulfillment operation was automated. At that time, my library had a simple solution. One of the library employees who enjoyed driving his pick-up truck would shuttle to the GPO bookstore twice a week to load up with new acquisitions. It was an ideal approach at a time when GPO was receiving more mail orders than it could process within a reasonable time. To give you some idea of the magnitude of those backlogs, in 1976 there were 500,000 publication back orders and the order fulfillment period was 30 to 90 days. If the manual record of your order happened to be lost in the process, your order would be recycled and an additional 90 days added to the process. By 1978 automation of the ordering process had reduced the turnaround time to 5 to 10 days. In addition to increasing the speed of processing orders, automation provided other benefits including audit trail control, a deposit account file, a dishonored check file and a refund file, all of which served to streamline the whole process. In the serials area of 10 years ago, there were subscription orders backlogged at any given time. By the end of 1973, the year of subscription automation, the backlog had been reduced to 20,000 orders. Today we strive for a 10-day turnaround on subscription entries. However, in many cases, we still depend upon the issuing agencies and the distribution contractors to react to a GPO

subscription order for a customer. This often means a 4- to 6-week delay before the actual subscription start-up. GPO does, however, issue an acknowledgement card to the customer in order to confirm that the subscription has been entered. The point that I am trying to make is, I hope, obvious--GPO has advanced over the past decade in terms of its ability to process and control orders, to answer inquiries, to resolve problems and to deliver documents in a timely way. Current efforts to develop a consolidated order processing system to further automate and expedite order handling and to develop an automated call directory system to manage incoming calls will further improve the level of service in the order processing area.

Now that I have told you something about the document sales program, let me move to the other channel used by the Superintendent of Documents for distributing Government publications. That channel is the depository library program with which I serve presently. There are now 1,391 academic, public, research, law, and other types of libraries receiving an annual total of 30,000,000 copies of some 60,000 document titles. During calendar year 1984, the depository library program has expanded its scope to provide important new coverage. This past March, the Department of Energy commenced distributon of its technical reports in microfiche format to depository libraries under interagency agreement with GPO. During the first 7 months of this new program, about 8,000,000 microfiche were distributed. That is a sizable program within itself and it is only one component of what we do.

Another interagency agreement between GPO and the U.S. Geological Survey provides for the distribution of some 5,500 cartographic publications to selecting libraries and regional libraries. This program began just this month. Similarly NASA technical publications are now being distributed on a broader scale than before. We are being much more comprehensive in our distribution of NASA materials. In fact even as I speak, some of our folks are up at the Baltimore Washington Airport at the NASA facility ironing out the details of that in terms of bibliographic control and other things so as to really set that NASA program out at a smooth pace.

Needless to say, it would be virtually impossible to operate and control a document processing and distribution program of such enormous scale without certain automated support. The Depository Distribution Information System was developed to keep track of the depository libraries, their document category selections, acquisition activities, as well as the frequent changes in these areas. DDIS generates library shipping labels, library lists, a union list of library selections, and a variety of on-demand reports. While the distribution function is controlled using DDIS, an in-house system, the documents cataloging, bibliographic control function, is supported by OCLC. Catalog records are entered online by GPO or its cataloging contractor and thereby become accessible immediately to OCLC participants nationwide. OCLC in turn provides GPO with monthly transaction tapes which are used to generate the actual printed Monthly Catalog. If I might interject a brief commercial message, every issue of the Monthly Catalog since 1983 has been printed and distributed on time. We have exploited technology and improved internal procedures to deliver the Catalog in a timely way so that those publications will be searchable, that is, identifiable in the library community. Also during March of last year, we distributed a prototype microfiche version of the Catalog to all the depository libraries. By comparison, the hard copy weighed 2.6 pounds, while the

microfiche version was only 1.6 ounces. As a result of the overwhelmingly favorable reception that it received in the library community it became a permanent product as of January of this year. Speaking of microfiche, GPO has been distributing a greater proportion of microfiche to depository libraries since the inception of the program in 1977. When Congressional bills were first offered in microfiche fully half of the selecting libraries opted for fiche immediately so there was no reluctance on the part of the libraries to accept microfiche for that particular category of publications. An additional 400 libraries which had not selected Congressional bills previously began asking for the microfiche bills. By 1981, the demand for microfiche bills was so overwhelming that hard copy was discontinued. Currently, approximately two-thirds of all depository copies distributed to libraries are in microfiche format. We realize, of course, that not all titles lend themselves to microfiche for reasons of their physical form, or their intended use. Consider such examples as ready reference titles, oversized documents, or publications in Braille. It was with this awareness that we recently revised and updated our guidelines for deciding on documents to be microfiched. All this was done in conjunction with the close support and guidance of our Depository Library Council, which represents the library community to the Public Printer. Except for the Publications Reference File, the microfiche documents distributed to depository libraries are of the source document type filmed from the paper original. Looking to the future, however, we are investigating the feasibility of preparing COM fiche for the machine readable Congressional bills, for hearings and the Code of Federal Regulations.

Perhaps I have gone on long enough in this prepared statement. You may have some specific questions that I will be happy to entertain at the conclusion of the session.

HANNA: Dora Moneyhun from the Department of Energy is our next speaker. She is Director of the Technical Information Division, Office of Scientific and Technical Information, Oak Ridge, TN. Dora has had extensive experience in the information industry and she has been in information management for the past 18 years. Her special areas of expertise are abstracting and indexing, thesaurus building, data base design, and most recently designing and developing information products and services.

DORA MONEYHUN
Department of Energy

I am pleased to be here this morning to tell you about the information activities of the Department of Energy. I am with the Office of Scientific and Technical Information which is the program office within the department responsible for technical information. We happen to be located in Oak Ridge, TN, and have our field office in Washington, a little different from the rest of the Department of Energy. I would like to tell you a bit about what we are doing and then tell you about some of the products and services that would be of interest to you. We have four major objectives, the first one being to develop technical information policy for the department and to see that it is implemented. The second one is to ensure that the results of DOE-funded research are made available within the department and to the public. We receive at the Technical Information Center at Oak Ridge between 100 and 150 reports

every day from the department. These range from highly classified and sensitive documents to just normal, unclassified reports. As soon as they come into the building, we put them under bibliographic control so that we know what we can do with the documents and what limitations are on them. We use things like bar codes, like what you see on a can of pork and beans, to maintain control of them until they are back in the vault at the end of the processing cycle. We have scientists and engineers who analyze the documents, abstract and index them and get them ready for input.

We have several data bases. One, DOE ENERGY, has the unlimited documents. We also have limited documents that are available only within the department. We also have a classified data base on a totally different system. We announce the reports in Energy Research Abstracts which comes out twice a month. Energy Research Abstracts is primarily an announcement medium for reports of research sponsored by the Department of Energy. However, it also includes report literature from other agencies and foreign sources. We also put out an abstract of weapons data support for the use of persons in the classified community.

Of the reports that come into the center, between 15 percent and 20 percent are disseminated in printed copy. The program managers within the Department of Energy help us to keep current our lists of people who should be getting reports in specific subject areas. Many Department of Defense people are on our special subject interests lists along with our own Department of Energy people. All unlimited reports are sent to the National Technical Information Service for sale and are sent through the Depository Library system.

We have a printing system at the center and we also procure printing services through GPO. Many documents are sent through the print cycle at the center. We offer special distribution within the department of special reports that need to go to more people than just the core list. All of our unlimited documents are microfiched and made available through NTIS. We have a microfiche contractor on site who provides fiche on a regular basis, either on-demand, or automatically. To be sure that we get all the reports that are issued within the Department of Energy, we have a tracking system that we call the Technical Information Monitoring System. This system allows us to know when a report is due at the center, and if the report does not come in provides us with a mechanism to go and obtain it. About 5 years ago, we found out that tremendous numbers of reports were not getting to the center. Especially in the days when we had ERDA and FEA, many times the report would be delivered to the program manager who put it in his or her desk drawer and it never would be seen again. When the program manager left, the report disappeared off the face of the earth. That system was changed so that now we know what the deliverable is and the contractor does not receive final payment until the Technical Information Center itself has a copy. That works very well for the contracts that we have with individual organizations. It does not work so well with the National Laboratory, since on our listing we have only one contract listed and, of course, they do thousands of reports. We have a monitoring system under which we make an evaluation to determine whether or not they are in fact sending the reports they have generated. One of the first things required when a contract is let with the Department of Energy is completion of a research in progress form; this form prompts a description of what research is planned under the contract. We have built a data base at the center called the RESEARCH IN

PROGRESS Database, RPD for short, which is accessible on the online systems. RPD is a dynamic menu-driven system suitable for end users. We have just recently produced our first publication from this new data base and expect to derive more and more publications from it.

The National Energy Software Center, located at Argonne National Laboratory, is operated for the Office of Scientific and Technical Information. The purpose of the center is to make more available software generated within the department which might be useful outside the originating site. The software packages are available from NESC as well as from NTIS.

The third major objective of the center is to collect worldwide energy information and make it available to the program managers and researchers within the department. The Technical Information Center was created in the 1940's as a part of the Atomic Energy Commission. We generated Nuclear Science Abstracts which was worldwide nuclear information and made it available through printed copy. In 1975 we became ERDA and then later the Department of Energy, and we expanded our scope to include all energy, not just nuclear, and we created the data base known as DOE ENERGY which has information on reports, publications, literature, patents, conferences, any scientific or technical form of energy information. We get our information by scanning the reports and material that come into the center. We have private contractors who provide us magnetic tape energy references indexed to our specifications. We also have international agreements under which we are a part of the International Nuclear Information System. We provide the U.S. input and we receive magnetic tapes of foreign information. We also have BIOMASS and COAL from the International Energy Agency. In addition the department has bilateral agreements with specific countries, for example we provide U.S. information to Germany and they give us German information. Our data base now contains more than 50 percent foreign information on energy.

We operate an online retrieval system known as DOE RECON. It is operated for OSTI at the Oak Ridge Laboratory. There are about 700 sites that have access to the system. It is available to DOE, to other Government agencies, and to state energy offices. We have about 40 data bases that are related to energy. They range from the ones that we have produced at the center (such as DOE ENERGY and RESEARCH IN PROGRESS) to the files of Nuclear Science Abstracts. We have just recently input the titles for reports produced in the 1940's and are now using an OCR device to put in the abstracts. So we have almost 1,000,000 references on nuclear science prior to 1976. We have other data bases that are created within the Department of Energy such as the Nuclear Safety Information Center at the Oak Ridge National Laboratory. We have WATER RESOURCES ABSTRACTS from the Department of the Interior. We also have private data bases that are just intended for the Department of Energy.

In addition to online access, we also have publications. I mentioned Energy Research Abstracts. We also have one called Energy Abstracts for Policy Analysis. This is a monthly publication, available through GPO, that is intended for overviews of what is going on in energy. You would not find a publication on how to design a solar collector, but you would find something on the impact of solar energy on the nation's economy. We put out a series of updates that has everything we put into the data bases during the previous month on specific subjects. These are rather large publications even though they come out monthly. Then we have a series of bulletins for the end user on more

specific subject areas. We also have personal energy profiles which you can create on the RECON system to be even more specific in a given area. One other thing, we have just recently devised a video tape program for the online system. A workbook comes with the tape program. We send them out to users. We expect a user to review a tape, and then go and do an exercise, and then come back to the tape. We hope that in this way, we can provide basic training in more timely manner.

If you have questions about the services that we provide, I will be most happy to talk to you about them.

HANNA: It looks like we have time for questions.

QUESTION: Are DOE reports put into the DTIC system?

MONEYHUN: Only when DoD funding is involved. We put DTIC's into our system. We get that off of the NTIS tape and put it into our system.

QUESTION: Do you have people outside DOE on your distribution lists?

MONEYHUN: We have automatic dissemination by category that people may get on if they are concerned with a particular area but that has to be approved at the highest level with a need-to-know. For individual reports the request has to come from agency to agency. Eventually such a request will come to us, but it goes first into the program office that is responsible for that area. If you have a question you can call my office and the people there will help you.

QUESTION: A couple years ago you put out a little handbook to DOE information resources, is that still being published?

MONEYHUN: Yes, it is. In fact, a new publication is due out within a couple of months, it is being updated right now, and it will be available from GPO as well as NTIS.

QUESTION: Have you done any research on computer assisted training for online systems?

MONEYHUN: The only thing that we have done is this series of video tapes. That took us about a year. We learned a lot of things, and I think that that is a first step to where we may go later. Right now we have such a diversity of users within the department that having the type of equipment that could be used for an interactive system was more of a problem for us than producing it. I think that after we have had some experience with the video tapes, that may be our next effort. In fact we have an R&D grant that just went out to do that.

HANNA: Our time has run out for this session. I would like to thank our three speakers. Your presentations have been interesting and highly informative.

CATALOGING PANEL - Gretchen Schlag/Brenda Scruggs/Gail Martens/ Claudine Long/Jim Burrell/Joanne Beitzell, DTIC; Asta Kane, NTIS

INTRODUCTION
Gretchen Schlag
DTIC-T

Good morning, I'd like to welcome you to the Cataloging Panel. I'm Gretchen Schlag, the Shared Bibliographic Input Network Focal Point for both the Descriptive Cataloging and Indexing Branches at DTIC. Today we're going to discuss some of the procedures, methods, and problem areas in cataloging. Hopefully this review will make your cataloging input easier and make your information retrieval that much more effective and accurate.

First, I would like to introduce Mr. Victor Furtado, Division Chief of the Data Input Division, which includes the Descriptive Cataloging Branch, Indexing Branch, Technical Reports Branch, and Management Information Systems Branch. I'd also like to introduce Mr. Allan Kuhn, the Branch Chief of Descriptive Cataloging.

The panel members include Brenda Scruggs who will discuss Cataloging of Security Fields, Gail Martens on Distribution/Availability Statements, Claudine Long on Standard Technical Report Numbers (STRN), Jim Burrell on the Corporate Author Source Codes, and Joanne Beitzell on the DTIC Cataloging Publications. As a special guest, we have Asta Kane from the National Technical Information Service (NTIS) who will review some of the cooperative cataloging efforts among the CENDI group.

At the end of the session we'll have a question and answer period. We invite questions on any aspect of DTIC cataloging, not only those discussed today.

DISTRIBUTION/AVAILABILITY STATEMENTS
Gail Martens
DTIC-T

Good morning. My name is Gail Martens. I am going to be talking about the distribution statements used in Field 22.

The statement, entered in Field 22, defines the conditions of availability for distribution, release or disclosure and limitations on availability. It includes the name and address to contact for distribution authorization. The distribution statement details specific reasons that must exist to support each case in which the availability of a document is restricted.

All unclassified DoD documents must be assigned distribution statement A, B, C, D, E, or F. Classified DoD documents must be assigned distribution statement B, C, D, E, or F. A complete list of the statements and reasons is provided in the handouts for this meeting. These statements are applied in accordance with DoD Directive 5200.20. The distribution statements will remain in effect until changed or removed by the controlling DoD office.

The distribution statements are required markings for documents provided to DTIC. The controlling DoD office is responsible for determining the distribution of each report. The statements that are entered in Field 22 must correspond to numeric codes entered in Field 33. Reasons have been established for document limitation. The appropriate one must be used along with the distribution statement in Field 22.

DISTRIBUTION STATEMENT A - This statement is applied to an unclassified document that has been approved for public release. Its distribution is unlimited and the corresponding entry in Field 33 is distribution code 1. No availability statement is needed in Field 22. These documents may be made available or sold to the general public or to foreign nationals.

DISTRIBUTION STATEMENT B - This statment may be used on either classified or unclassified documents. The corresponding entry in Field 33 is distribution code 3. The statement reads:

> Distribution limited to U.S. Government agencies only; (reason and date). Other requests must be referred to (controlling DoD office).

A reason and date are required along with a complete address, including the zip code. Currently used reasons for imposing this statement are as follows:

(1) Foreign Information - Protection of foreign information.

(2) Proprietary Information - Protection of proprietary information not owned by the U.S. Government.

(3) Test and Evaluation - Protection of the results of test and evaluation of commercial production or military hardware.

(4) Contractor Performance Evaluation - Protection of information involving contractor performance evaluation.

(5) Export Limitations - Contains information that is subject to export limitations.

(6) Administrative/Operational Use - Protection of information restricted to official use or for administrative or operational purposes.

(7) Software Documentation - Protection of software documentation - release only in accordance with the provisions of DoD Instruction 7930.2.

(8) Specific Authority - Protection of information required by a specific authority.

These definitions are all taken from the current cataloging guidelines.

DISTRIBUTION STATEMENT C - This statement may be used on either classified or unclassified documents. The corresponding entry used in Field 33 is distribution code 2. The statement reads:

> Distribution limited to U.S. Government agencies and their contractors; (reason and date). Other requests must be referred to (controlling DoD office).

The reasons for imposing this statement are as follows:

(1) Critical Technology - Protection and control of critical technology, including technical data with potential military application.

(2) Administrative/Operational Use

(3) Specific Authority

DISTRIBUTION STATEMENT D - This statement may be used on either classified or unclassified documents. The corresponding entry used in Field 33 is distribution code 16. The statement reads:

> Distribution limited to DoD and DoD contractors only; (reason and date). Other requests must be referred to (controlling DoD office).

The reasons for imposing this statement are as follows:

(1) Premature Dissemination - Protection of information involving systems or hardware for premature dissemination.

(2) Software Documentation

(3) Critical Technology

(4) Specific Authority

I might add one or more of these reasons may be used.

DISTRIBUTION STATEMENT E - This statement may be used on classified and unclassified documents. The corresponding entry used in Field 33 is distribution code 4. This statement reads:

> Distribution limited to DoD only; (reason and date). Other requests must be referred to (controlling DoD office).

The reasons for imposing this statement are as follows:

(1) Foreign Information

(2) Premature Dissemination

(3) Software Documentation

(4) Critical Technology

(5) Specific Authority

DISTRIBUTION STATEMENT F - This statement is used primarily on classified documents, but can be used on unclassified reports when specific authority exists. The corresponding entry used in Field 33 is distribution code 5. The statement reads:

> Distribution: Further dissemination only as directed by (controlling DoD office and date) or higher DoD authority.
>
> No reasons are imposed on the use of this statement.

Additional availability statements listed on the handouts are self-explanatory.

The availability statement is included in Field 22, following the distribution statement. Further information concerning the use of distribution/availability statements is provided in the latest copy of the cataloging guidelines.

STANDARD TECHNICAL REPORT NUMBERS

Claudine Long
DTIC-T

Good morning. My name is Claudine Long, and I will be speaking to you this morning about the Standard Technical Report Numbers.

To improve access to technical reports and to provide uniformity, the American National Standards Institute developed a specific format for a Standard Technical Report Number (STRN). The objective of the standard is to enable issuing organizations to assign report numbers that will be compatible in format with those assigned by other organizations.

A standard technical report number is the complete formatted, alphanumeric designation by which we can identify a technical report. The STRN and the corporate source in most instances are directly related. As you can see by the slide, Case Western Reserve University, Department of Chemistry, Cleveland, OH, was following an established standard. It consists of two distinct parts: the report code and the sequential group.

The report code is the first part of the STRN designating the issuing organization and may also indicate a subdivision of that organization. The report code must be cleared through the maintenance agency (NTIS) to avoid duplication. The sequential group is the second part which consists of Arabic numerals. The complete information on the STRN can be found in the American National Standard or ANSI Standards (Z39.23-1983).

The Defense Technical Information Center works in cooperation with NTIS to monitor and coordinate the assignment of unique report codes. Although it is

the responsibility of each issuing agency to ensure unique report codes, these agencies should present their proposed codes to the National Technical Information Service in Springfield, VA, for approval and registration. A very good example of report codes is the DTIC publication of Government Acronyms, AD-A142 700.

By standardizing report numbers, DTIC's online users are provided with another access point into the data files, making information retrieval that much more effective and accurate.

CORPORATE AUTHOR SOURCE CODES

Jim Burrell
DTIC-T

I am Jim Burrell, the person you will contact if you cannot find the corporate author of your document in DTIC's Source Header List. First, make sure you are using the latest edition. These are the April 1982 two-volume edition, AD-A115 000 and AD-A115 001, and Supplement 2 dated July 1984, AD-A143 800. A new supplement is issued each year. If you cannot identify an appropriate source for your document, call and I will identify a code or assign a new one. I can be reached at (202) 274-6806 or Autovon 284-6806. Also, if your organization reorganizes, please call and inform me. We can chat about it and then I can update our header list. I will highly appreciate this.

Since we follow COSATI rules for establishing sources, you must be familiar with the rules in order to identify them. The following are a few of the basic rules.

We select the largest element, the place name of the smallest element, and the name of the smallest element. An example is General Electric Company, Huntsville, AL, Computer Department.

An exception to this basic rule is the use of a proper name as the smaller element. Proper names are selected as the secondary subelement, ignoring all other smaller elements. For example, Johns Hopkins University, Baltimore, MD, Carlyle Barton Laboratory.

One rule is that we do not use U.S. before the names of government or military agencies. For example, instead of using U.S. Army Engineer District, Huntington, WV, we would use Army Engineer District, Huntington, WV. So when you are looking up a source which is military, like U.S. Navy or U.S. Army, delete the word U.S. and look up Navy or Army. You will be able to locate the source in our header list. If you do not delete U.S. you will not find it because we do not have a cross reference to our header list. So you definitely have to drop the word U.S. from military sources.

Another exception to the basic rule concerns report numbers. We choose a smaller element which is represented by a report number series. For example, if the report number series SID-65-933 were given on a report from North American Aviation, Inc., Downey, CA, Space and Information Systems Division, we would use that as the source, even though a smaller element might be shown on the report.

When you call for a new source code, there is certain information which I need from you. First I will ask if you are SBI on the SBIN program, or if you are on the work unit program. Now all SBIN sources will be assigned a 400-digit number. All of the work unit program will be assigned a 300-digit number. The items of information that I will need from you are:

a. Corporate author, full name (including Inc., Co., Corp., etc.)

b. Town or city - no county

c. State

d. Subelement (Department, Division, etc., if any)

e. Street address (if available)

f. Zip code (9-digit if possible)

g. Date of document

h. Your AD number

Especially if you are in the SBIN program, I like to know the AD number that you are going to assign to your document.

If your request only requires an immediate check, I can assign a new source code at once, but if it requires more research, I will call you within 24 hours. Also I would like to request that you not hold back your sources or wait until you get a long list and call them in. I can answer one or two such requests over the telephone. But if you have over five items on your list, I will have to ask you to mail the list into me at DTIC. We have to ask you to do this so as not to inconvenience other people who want to contact us on the telephone.

If a corporate author you wish to use has an asterisk after it in the Source Header List, it means that we have never received a document from that source. The asterisk should be removed if you are going to use the code. Plese call so that I can remove the asterisk before you use the code. Most of the time it is in the 300 series. The 400 series will not have an asterisk behind it.

Finally, you (especially the SBIN people) should allow a day before inputting the new or changed code that I give you over the telephone. We update the file with new and changed sources every other day. If you use that code the same day that I give it to you, you might have a problem with the computer rejecting it because the code will not be in the computer at that moment. Therefore, unless I inform you that I am going to input this morning, you should wait a couple of days and give me a chance to enter it into the system. That ends the information.

The following are samples used in the foregoing discussion of Corporate Author Source identification:

LARGEST ELEMENT----------General Electric Co.

PLACE NAME----------Huntsville, AL

SMALLEST ELEMENT----------Computer Dept.

INCLUDES PROPER NAME----------Johns Hopkins Univ., Baltimore, MD. Carlyle Barton Lab.

INDEPENDENT CO. OR GOVERNMENT BUREAU----------Bureau of Mines, Morgantown, WV. Appalachian Experiment Station.

REPORT NUMBER SERIES----------SID-65-983 North American Aviation, Inc., Downey, CA. Space and Information Systems Div.

DESCRIPTIVE CATALOGING PUBLICATIONS

Joanne Beitzell
DTIC-T

I am Joanne Beitzell. I am going to discuss some of the publications used in descriptive cataloging. First is the guidelines:

Cataloging Guidelines (AD-A138 500). This is a procedures manual that outlines the cataloging information to be included in the data fields for computer input of technical documents. The text is arranged numerically by field number, with appendices. The rules and procedures in these guidelines are an adaptation of Guidelines for Descriptive Cataloging of Government Scientific and Technical Reports originated by the Committee on Scientific and Technical Information (COSATI), last issued March 1978 by the Committee on Information Hang-ups.

Next is Government Acronyms and Alphabetic Organizational Designations Used in DTIC (AD-A142 700). This compilation is a guide to acronyms containing entries from Department of Defense, federal government, and foreign military organizations. The publication is a listing of acronyms used on reports processed into the DTIC collection only. It is arranged in three parts, as follows:

Part I	(White)	-	alphabetically by acronym
Part II	(Yellow)	-	alphabetically by full name of organization
Part III	(Blue)	-	numerically by Corporate Author (Source Header) code as used in DTIC

The next one is the Source Header List that Jim Burrell was talking about.

Source Header List (AD-A115 000-VOL-1, AD-A115 500-VOL-2 and Supplement 2, AD-A143 000). This publication is an alphabetically arranged compilation of source names used by DTIC. Source names displayed are included as data elements in the Technical Report, Work Unit Information System, and Independent Research and Development data bases maintained by DTIC. The Source Header is in two volumes with supplements published annually, the current supplement (number 2) superseding the previous one.

The last publication is the source hierarchy list, which I am responsible for.

Source Hierarchy List (AD-A143 500-VOL-1, AD-A143 500-VOL-2). This listing is a computer file of source codes lined together in an organizational structure used in conjunction with the Source Header List. Only those codes in the system which are linked to another organization will be entered into the Source Hierarchy List. The publication is printed annually and the master file is updated periodically to reflect mergers, reorganizations and additional sources. The purpose of the hierarchy is to allow retrieval of all reports from an organization under one source code. At the bottom of the slide, you see an example of a single search strategy:

(SLIDE)

DEPARTMENT OF THE NAVY, WASHINGTON, DC.

. OFFICE OF NAVAL RESEARCH, ARLINGTON, VA.

.. NAVAL MATERIAL COMMAND, WASHINGTON, DC.

... NAVAL AIR SYSTEMS COMMAND, WASHINGTON, DC.

.... NAVAL AIR ENGINEERING CENTER, LAKEHURST, NJ.

..... NAVAL AIR ENGINEERING CENTER, LAKEHURST, NJ. SHIP AND SHORE INSTALLATIONS ENGINEERING DEPT.

..... NAVAL AIR ENGINEERING CENTER, LAKEHURST, NJ. TEST DEPT.

..... NAVAL AIR ENGINEERING LAB. (SHIP INSTALLATIONS), PHILADELPHIA, PA. ENGINEERING DEPT.

RETRIEVAL OF SOURCE HIERARCHY

SINGLE SEARCH

```
@STR@
?02(SOURCE CODE)
END
```

If you wanted to receive reports only from the Headquarters, Department of the Navy, you would use this, the single search.

Next you have the search with the hierarchy option (i.e., the dollar sign).

(SLIDE)

SEARCH WITH HIERARCHY OPTION

@STR@
?02$(SOURCE CODE)
END

Using the hierarchy option and the source code you would get all of the reports, including all of the subdivisions, from the Department of the Navy. If you only wanted the Naval Air Engineering Center you would use its source code with hierarchy and get all the ones under the Naval Air Engineering and all of the subdivisions. That includes the former names. The hierarchy option can also be entered in combination with other search terms, such as title, contact, report number, etc.

Please call me if you are in doubt about any sources listed in the hierarchy, or if you can tell me about any recent organizational changes. My phone number is (202) 274-6806, or Autovon 284-6806.

All of the above publications may be obtained from DTIC by calling Ed Thorpe, (202) 274-7709, or Autovon 284-7709. Please note that when DTIC users first activate into the DROLS (online) network, one complete set of the standard reference publications (including those mentioned above) is given to the organization by DTIC-SM. Additional copies and annual updates must be ordered (by AD number if applicable) in the usual manner from the Reference Services Branch, DTIC-DDRA. Fees may be charged. Orders may be placed to DTIC-DDRA in writing, over your terminal (for AD-numbered items), or by phone to (202) 274-7633, or Autovon 284-7633.

QUESTION: Is the hierarchy online?

BEITZELL: The hierarchy is not available to the user on the terminal, however, the AD number of the publication is online.

QUESTION: Would it be a good idea to have it online?

BEITZELL: Presently, we are doing a study of the input system in-house and I think it would be a possible recommendation.

COMMENT: I would prefer to have it in hard copy. It is very easy to do a search if you keep the publication with you beside your terminal. It saves a step, as far as I am concerned, to read it from the publication rather than to have to locate it online.

QUESTION: Is it relevantly current? Whether or not the files would be kept up that well or not is another question.

BEITZELL: We are trying to update it monthly.

QUESTION: The supplement is quarterly, isn't it?

BEITZELL: You are talking about Jim's Header List. We try to update the hierarchy at least once a month.

CATALOGING OF SECURITY FIELDS

Brenda Scruggs
DTIC-T

(Ms. Scruggs presented this material which was prepared by Ms. Loretta Brown, also of DTIC-TID, who could not be present.) I will be talking about the cataloging of security fields. The cataloging fields dealing with classified documents were greatly simplified when Executive Order 12356 went into effect on 1 August 1982.

There are a few special limitations and instructions which you must be aware of. It is very important that you enter the correct codes in Field 33, because the computer validates the request for documents by checking against the code that was entered in Field 33. Unless we enter special code 51 for restricted documents, users could receive a document without having proper authorization for its release.

There are some special restrictions that we should watch for. For example, "Further dissemination only as directed by controlling DoD office or higher DoD authority" carries a code 5 in Field 33; code 21 in Field 33 is only for SBIN sites; code 9 means that you will not have a distribution statement in Field 33. For CNWDI (Critical Nuclear Weapons Design Information) and restricted data, Field 21 will have a statement saying "requesters must be authorized to receive CNWDI material as specified by DoD Directive 5210.2 dated 12 Jan 78," Field 31 will be coded Y, and Field 33 will be coded 3 and 51. For WNINTEL (Warning Notice-Intelligence sources and methods involved or sensitive intelligence), Field 22 will be DoD only, others to the controlling DoD office, plus the warning notice appearing after the distribution statement, Field 25 will have the acronym WNINTEL entered; Field 31 will be a V or a W (W only if it is WNINTEL). If the document is WNINTEL and CNWDI, Field 31 will be coded V; Field 33 would be a 4. ITAR (International Traffic in Arms Regulation) is a citation that appears online when your terminal is activated. As of now, there is no special action. For restricted data, Field 33 will be coded 51; formerly restricted data will be code 52; and NATO-furnished will be code 53.

Classification of titles is another field where we must have an entry or the record will be rejected by the computer. When it is not given on the document, we try to determine the classification. If the classification cannot be determined, the title must be given the classification of the document. The title will be entered in Field 7. Field 8 will carry the same classification as the document or the title. Another special requirement for classified documents is a necessity to enter a regrade code in Field 32.

The vugraph shows a DTIC downgrading and declassification code conversion table showing how the document should be coded. Documents with a declassification code will be coded A; documents with a declassification event will be coded C; documents with a review date will be coded C; formerly

restricted data will be coded E; foreign documents will be coded F. D and G on the conversion chart are not used. D may be used later for NATO classified. The chart also shows the additional fields that are required in addition to Field 32.

All documents, except foreign, require an entry in Field 37, the "classified by" authority, and an entry in Field 38: either a declassification date, or an event or OADR (unless it is RD, FRD). Field 39 is used only when a Secret document is regraded to Confidential.

If you are an SBIN site, you have a chart included in your SBIN Notice, Number 22, which shows all your requirements for special statements. If you use the chart as a checklist when inputting, there will be no questions about your required entry.

CENDI COOPERATIVE CATALOGING EFFORTS

Asta Kane
National Technical Information Service

Good morning. I am Asta Kane, and I am with NTIS. I am going to tell you a little bit about what the CENDI Cataloging Group has been doing for about 2 years now. There are four members of the group: Michael Streeks, NASA; Mary Hall, DOE; Elaine Burress, DoD; and myself, representing the Department of Commerce. When we first started, we also had with us Madeline Henderson, a consultant working under contract to put together the Data Element Dictionary. When we first started off we concentrated on the Data Element Dictionary. That took a lot of time.

One of our first policy decisions was to enter last names and initials only for personal authors. We implemented this decision approximately 1 year ago. While this decision did not please all members of the information community, we have continued this practice.

QUESTION: Are you going to take out "Jr." and those kinds of things?

KANE: Yes. We did not think of that at first, but that is certainly in line with the whole thing. We did think about and talk about the advantages and disadvantages. These are things for you to consider, too. I don't think that we at NTIS will ever change; it makes everything so neat and tidy. You don't have to worry about having the entire personal name and you don't have to worry about variations of a name.

This is a point that we argue. In the information community, some of us strongly prefer the use of initials only. Others of us feel strongly that first names, Jr.'s, etc., should be used. However, I really have not heard any user complain about it. In this whole year not one person has written to me and said that this is a terrible thing.

QUESTION: As a member of the User Council, I would really like to know who came up the with answer that there would be very little, if any, impact on searching when you made this change?

KANE: The decision was implemented a year ago and, as I said, I have not had anyone write to me and say it is a terrible thing and should not go on. I am on the committee with your group, I have heard your concerns, and I respect them. However, I think that there are some luxuries that we cannot afford. The present policy is a time saving measure. I know it does not sound like much, but I think we have worked it out that the present policy saves about 3 minutes per report. That does add up.

COMMENT: Standardizing to using just names and initials is a great time saver over something like the work unit area, where you can have anything from name comma space first initial period second initial period. That can cause you more trouble than not having the first name itself to go by. Having a standardized format is such a big advantage over all the variations.

QUESTION: British people often have three initials, is there anything on that?

KANE: Yes. This was really what our group started out doing. We started looking at the common data elements that came to us from Madeline Henderson. She said that this is where we were alike, and that is when we stared. We took the COSATI book, the one done in 1978, and we went through it. We spent days talking, arguing, and discussing. We had very strong feelings when we started. Really the only thing that I think we ever broke on was the personal author. We, and I, became more liberal about titles. I always used to think that the title was the title, and the final report always went in your Field nine, the kind of report it was, the dates always went in Field nine, and that you couldn't tinker with that. But after we talked for awhile, we realized that we were having a hard time making identification of some reports. You could put something in there, but if you did not put down that it was a final report, or a quarterly report, and though you gave the dates that it covered, when users tried to make identification, they couldn't. They had to actually go many times and get the report out of the file. They could not identify it by using a data base. They had to go and look at the report. I thought: Why make them go through this much more trouble when I can give them the dates up front? Even when using a very large data base such as DIALOG, many people will search on the title. They come up with the same title over and over again. They want to choose one, but they have to go to another field to get out the data that they want. So we have made the title more meaningful. We no longer put in precedence notes for the title. We will put down precedence notes in brackets for the American Medical Association. We have taken that kind of liberty to make the title more meaningful.

Have you all seen or heard of Madeline Henderson's report? Are you familiar with what she came out with, at all? You're not? Well, I have three samples up here of her report in which she describes the way that we all look and what we put in certain tags. All of this is described in there. I have three copies here, but if anyone wants more, if they give me a call, I will xerox one.

Right now NTIS does have its corporate authors online. Almost 2 years ago we produced an update of Jaffray Aronson's corporate author book. At the same time we put all our corporate authors online. We have cross references. We have the DTIC number, we have the DOE number, and we have the NASA number for the corporate source, if we had occasion to have to enter that corporate source ourselves. The book was a spin off from this. We are online right now. We

take tapes from DTIC, NASA and DOE, and we run the numbers against a look-up file. It finds your six-digit number, it finds my nine-digit number, and it overlays Jim Burrell's words with my words. That is when there is an intellectual difference. Now that probably happens 91, 92, 93 percent of the time. We do not have very many intellectual differences, but when we do, it will take my words over his words. It makes it possible for us, NTIS, to put out a very neat, tidy, corporate author index. We do not have variations. The same thing won't be in there twice. We won't have something there in German, and something there in English. It will have one version. This file also gives you historic data. It traces it back for you. It tells you when you have reached your latest name.

One more thing that I am going to do is that I am going to put my cities file on there. My cities file is a little horrible paper file, but its contents are very useful. I can tell you everything in Bonn, Germany, and everything that I have used in Bonn, Germany. So if I get something in German, and I wonder if I have it in English, I can go to Bonn, pull out all my things that I know in Bonn, and look through it. I make an identification so I won't enter it twice using a variation on language. I cover every country in the world. When I built the file, I thought making these little cards wouldn't be a bother. Now I have decided that they are a big bother. So I am going to try to put this into my data base.

This brings me to the point that, right now, we have this available to the other CENDI agencies: DOE, NASA, and DoD. Jim Burrell has access to this file. Mike Streeks, who is here with us today, has access to it, and DOE also has access. We are trying to see if we could use a common data base. No one could afford to build this data base today. It cost us $250,000 5 years ago, so what it would cost today is just unbelievable. I am not saying that we do not have intellectual differences because we do. For instance DOE always uses "USA" in their headings. We are very parochial in this country. We just assume that everything is from the United States, unless we tell you otherwise. So that would be a difference we would have to do something about in this file.

After we went through the data and made our data element dictionary, we talked about all of the things that we were really interested in. We could see that we were far apart in what we thought. Where we thought we were together, we were far apart. We must have discussed this for about 6 months. We have been going over it one more time. Right now, Mike Streeks has it in his hands, and has got it in typing. We think this time it will be specific. We have got examples of everything: what it looks like and what you would change it to be.

For our next CENDI joint venture, we are building a report number authority file. We, at NTIS, have the programing in place now to do this kind of thing. What we are waiting for is the funding from the other agencies. We are going to hire a knowledgeable contractor who will have the expertise to understand the variations in the ways people construct their report numbers and to establish standardized ways to put those numbers into our data base.

We are going to decide what is right for them. We are not going to let them vary their practice. We hope that when we get finished with this, we will be able to give all of you a printed copy of this report number authority list.

So, not only will you have your acronym book, which just takes care of Fields 18 and 19, you will also have one for all of the contractors in the United States not only for DTIC, but for NASA, DOE, and us. By the way, we are hoping that the Special Libraries Association will endorse these publications. It will be the update of their report number format.

One other thing that I will speak to is the concern about how difficult it is to read the corporate author, to read the cataloging book. It is hard to set up corporate authors sometimes. We thought that after our new book comes out, we would have a CENDI cataloging seminar where we would all get together for 2 days, and catalog our hearts out. We plan to use the four agencies and their personnel in their area of expertise to do this kind of thing. We can discuss report numbers and corporate authors, and everything in the book with samples. If you have any questions I will be glad to try to answer them.

QUESTION: I have a question on use of authors' first names. It is possible that you have not heard anything from anybody because it is only been going on for a short period? The majority of the information in there still has authors' first names. If you go 10 years, using initials, then it is really going to show up as a problem. But right now it is not, because the majority of information in there still has authors' first names.

KANE: Well, you may have a point. It has been a year. You know these things are not in concrete. If we see we have done something wrong, we can change.

QUESTION: There has been a lot of strong feeling about using authors' names. If you get a list of Smith's, you need to be able to identify which ones are Harold Smith's and which ones are Howard Smith's. That is really the only way that you can do it.

KANE: I cannot speak for your community. I can only speak for myself. I have not heard any response--no one has complained. The National Library of Medicine does this and has done this for years. You would think that if there was ever a conflict, it would be with doctors and scientists always writing on the same subject--there would be trouble. There has not been trouble. So we did not really go into it so callously. DOE does it right now. They were never going to put the first names in. Remember this was a cooperative measure where we were supposed to try to get together.

SCHLAG: If there are any questions on any type of cataloging--not just those procedures discussed today--we would like to open the floor.

QUESTION: I am at an SBI site. I input a record, an SBI record for a report. Someone found it in the data base and wanted it, and finally tracked me down. Now a lot of what I am putting in is older reports. On some of them, I am not familiar with the agency that produced them, so what I put on there is what is on the report, as to the availability. This lady came back to me and said: I wrote to this place, it does not exist, nobody knows anything about it any more. Why didn't you just put your own address in Field 22?

DTIC RESPONSE: You will have to bring up that problem at the next SBI meeting in house. Because, as you mentioned, your site might want to make a report available for interlibrary loan, but other sites might not want to do that. It is something that we will have to take up.

QUESTION: You mentioned earlier that DTIC is taking a look at the inputting system that is currently used. I guess some changes are being anticipated for a new one, and that SBIN use of the new system is being considered. Is IAC use of that also being considered? I am from an inputting IAC, and I know that some of our considerations are unique to the IAC, and the inputting IACs are growing in number as well. I never hear anybody mention anything about considering the IAC catalog.

DTIC RESPONSE: I am sure that would be considered. This is still in the discussion stages, but there is a project going on now where they are studying an input system in all these--I mean the SBIN sites and IACs. Some of the unique things that are available to the IACs are not available to the SBIN sites, for example, you can have your own field for the terms that you want to put in. I think that would be a really good thing to have for the SBIN sites too, because there are problems with meshing terms. I am sure all those things will be considered. Also, not too long ago, there was an IAC conference. There was a presentation made about the things that are being developed in DTIC. The presentation was aimed at IACs so it was about things that are being developed for use also for the IACs. So I am trying to answer your question, although I realize it is a round about way to do it. Can IACs get involved with this? Based on that presentation, I would say yes.

If there is a cataloging session next year, would you like to see something similar to this where we discuss different topics that are related to cataloging? Or would you rather have some more hands-on type of practice with the cataloging--where, if you were an SBIN site, you would actually send the person that does the input? We have restructured the training class to include 2 days of hands-on cataloging and indexing. It seems to have helped. I don't know what you would like to see in such a session on cataloging. Any feedback on that?

COMMENT: A little of both, so that you get to hear what the problems are that other sites are having.

COMMENT: I would like to see this become part of the regional meeting.

MANAGEMENT DATA BASES - Changes to the RD-5 and Work Unit Information System Data Bases. Carlynn Thompson/William Thompson - DTIC

CHANGES TO THE RD-5 DATA BASE

Carlynn Thompson
DTIC-J

The following will be a refresher course on the Program Summary data base and a report on current actions to replace the Program Planning data base. In the next few minutes, I would like to go over the background of why we are replacing the Program Planning data base because some of you may be new to us and may not be familiar with the background of the Program Summary data base project. I'll also discuss user needs that we uncovered in our study; what our recommendations to OSD were concerning replacement of the Program Planning data base; and the progress we have made to date on the Program Summary data base.

"Due to lack of interest the Program Planning data base (1634) was cancelled"--that was the perception, or at least some people's perception, and the 1634 data base was cancelled. That decision hit DTIC's user community as a great big surprise, and they asked "why are you cancelling the Program Planning data base." Astonished users forwarded complaints concerning the cancellation to OSD. Based on DTIC's user community's expressions of concern to OSD, DTIC was directed to investigate the Program Planning problem. We were to: evaluate the need for Program Planning information, explore the availability of planning information in DoD, identify and justify user needs, and recommend a course of action.

WHO NEEDS PLANNING INFORMATION

The first question we had to answer was who are these people who are expressing concerns, and what justification do they have for planning information. We discovered that there are a multiplicity of people which break down into two types (in-house vs out-of-house) and within these types two additional groups (planners vs researchers). Each of these groups have different types of questions, in general: the planners want to know what is going on and what are other people planning, and scientists/engineers want to know what other people are doing in research areas similar to theirs and what kind of useful contacts can be made.

WHAT JUSTIFICATION IS THERE FOR PLANNING INFORMATION

The next area we examined was the justification for access to planning information. Just because we want it does not mean we necessarily need it. So there were four general areas that we reviewed: national security implications, Independent Reserach and Development Program, breakdown of research participants (i.e., who is doing the research), and productivity issues. I would like to go over those in a little more detail.

NATIONAL PERSPECTIVE ON PLANNING

In our review we saw a lot of people who were looking at their own small organization and saying, "I don't want those guys out there to know what I am doing because they might steal my great ideas" or "we are trying to defend the nation, and we are going to do it by ourselves." This is a rather narrow view of our "National Defense," and I personally feel if we pull together as a team that synergism will allow us to do a better job together. To correct the problem of working against one another instead of together we need to make certain attitudinal changes. We are all in this together, working towards the common goal of better national defense. Sometimes we might have to make decisions that might not be beneficial for an individual organization, but is good for the overall national defense.

NATIONAL SECURITY IMPLICATIONS

Some of the national security implications which must be considered are specifically what the USSR is doing with their scientists and engineers as compared with the U.S.. Here are some facts that we uncovered: the USSR has approximately 900,000 full-time scientists and engineers working on defense-related projects--the comparable number in the U.S. is 150,000; the USSR is graduating more scientists and engineers than the U.S., and the figures are 300,000 for the USSR and about 60,000 for the U.S.; the U.S. has made a decision that we can't match the Russians on a person-for-person, tank for tank basis, instead we are depending on superior technology to give us a needed military advantage; Soviet expenditures for military RDT&E have exceeded the annual U.S. expenditures during each of the past 10 years and are now about twice as large as ours. The bottom line is that we have to do more with our resources to maintain some type of equality with the Russians. One way to do this is to be aware, to exchange information on a need-to-know basis within DoD so that we can all do the best job possible.

INDEPENDENT RESEARCH AND DEVELOPMENT PROGRAM

The Independent Research and Development (IR&D) program is a three billion dollar effort each year, with DoD funding about one-third of the effort. OSD has indicated that in the future, more and more research funds will be funneled increasingly to industry. If we do not provide sufficient planning information to industry, how can DoD expect industry to effectively spend their IR&D funds? On the other hand, how can DoD provide oversight without knowing comprehensively what is going on? If we do not exchange information, we cannot expect to effectively manage the IR&D program.

BREAKDOWN OF RESEARCH PARTICIPANTS

The next issue that had to be examined was who is doing DoD's research anyway? We found that 60 to 75 percent of all research and development is being done on contract. The 75 DoD laboratories have approximately 26,000 professionals, while the 20,000 defense contractors employ 100,000 professionals. The breakdown is 54 percent of the research is being done in industry, 14 percent in universities, and 32 percent by in-house laboratories. There are a lot of people out there working on defense research and development that are not working directly for DoD.

For us to have an efficient research program, we need to provide the people doing research and planning complete, timely, and accurate information concerning future plans, ongoing research, as well as completed research. If not, we will not have control over our research programs.

PRODUCTIVITY

Productivity improvement is a very high-level issue within DoD that we must be concerned about. If DoD can provide information that allows managers to make critical decisions, this will help improve DoD's productivity. First, we need to transfer information to people doing planning, and second we need to transfer critical information to scientists and engineers. If we don't, organizations will be forced to gain "off-the-record" or unofficial information from questionable sources who cannot supply a straightforward picture of DoD research and development. In our study, it became very clear that industry feels that their productivity has been hampered by making it more difficult, costly, and time consuming to obtain planning information with the cancellation of the 1634 data base. I believe that it is essential to provide information to planners so they can evaluate requirements, resources, and other realities. If we do not provide a mechanism for transferring this information efficiently to those who need it, organizations will have to make direct inquiries of DoD managers--"Can you give me an hour or two of your time?" If two thousand organizations ask the same questions to determine relevance of the research that DoD has available, it wastes a lot of time, both in industry and DoD. If industry goes down the wrong path, because we did not pass on appropriate information, both industry and DoD become the losers. We need to exchange information and ideas, and we need to work on the adversarial relationship (the contractor being the enemy) that I sometimes detect when talking to DoD officials.

Another issue concerning productivity is the value of information. A survey of scientists and engineers indicates that they seek information at least 2 hours a week. After obtaining the rate at which researchers seek information, we estimated the number of scientists and engineers working on research and development (230,000 people). With this base, you then multiply the 230,000 people x the 2 hours/week, x $40/hour, x 50 weeks in a year, and you come out with $920,000,000/year spent on searching for information. This money could be saved if we provide information in an efficient manner to the user, and of course "opportunity costs" doubles the savings because if scientists or engineers are wasting their time looking for information, they also lose productive research time. If the opportunity costs are added, over a billion dollars in savings can be expected if DoD can efficiently provide information to scientists, engineers, and planners. With cost savings of this magnitude, DoD would be well served by providing automated access to planning information as well as technical information.

We have concluded that there is justification for providing more consistent planning information to DoD.

USER REQUIREMENTS

The following is a summary of user requirements: information that is complete and up to date on the program elements and projects that were being planned, program element as well as project level information for all RDT&E

projects, responsible organization names and phone numbers, narrative information on the project including a current status as well as information out 5 years, ballpark dollar figures that are updated after Congress takes action on the budget, and for contractors, they would be interested in the portion of research that would be done on contract. Other comments that were received concerning requirements were: real-time insight, real information, online access, uncomplicated access, and access to classified information.

ALTERNATIVES

The project looked at a lot of alternatives, but for discussion I have narrowed it to three alternatives that meet the needs of our users. The viable alternatives were: the Congressional Descriptive Summaries (some people call them the Program Element Descriptive Summaries) , the project summaries (we call them the RD-5s because of the exhibit number in the budget manual), and the possibility of merging the Program Planning and Work Unit reporting requirement into a single requirement that would require planning information to be submitted along with Work Unit information. Each of these alternatives has advantages and disadvantages.

For instance, the Congressional Descriptive Summaries do not contain names and telephone numbers of responsible individuals. The requested funding levels are just that, they are requested and they are not changed after the budget has been approved. They tend to be on a fairly superficial level also. There is not a lot of detail. They are very thick, but written on a very general level. The release of the information is definitely not timely. We get it anywhere from February to June, depending on when the Services get around to sanitizing the data. Finally, the information is not automated. It is a very large document, about 9,000 pages, and it takes considerable time for the Services to go through and sanitize it.

The Project Summaries are required by the OSD Comptroller to support budget requests. They are not generally available to the R&D community, may be classified, and are not generally automated in the Services. Finally, the budget figures are not updated after the budget submission and Congress takes action on it.

The third approach that we examined was the merger of the 1634 and 1498 data bases. This new or additional reporting requirement would be imposed on the same unwilling people who were inputting the old 1634s. Even if you required it through another system, they would still be unwilling (or at least we assume that they would be). We would also have difficulty in targeting the appropriate management level--who is going to fill out these new planning documents. The same problems that we had for the old Program Planning data base would still be there for a merged requirement.

Based on our review, we made a recommendation to create a data base using the Program Summaries that was specifically designed to meet the needs of in-house planners.

It is recognized that the Services and laboratories need to maintain some privacy for their information when they are first beginning to work with it. The data base should be tailored, as far as possible, to the individual needs of the planners. There must be some kind of incentives to get them to use the system.

This is where we went astray on the 1634 data base. The creators of the data thought that it was not worth anything to them, so there was no reason for them to create it. Therefore, they did not comply with the input requirements. The data base became incomplete so people did not use it, and so on--it was a self-defeating circle.

COST ESTIMATES

We examined the cost estimates for creating this type of data base. We feel that it would cost roughly $350,000, and 10 to 12 manyears of effort per year. The cost benefit savings ratio for establishing a data base is approximately 5000:1. So, I feel we went to OSD with a fairly strong case saying if you tell us to build an information system, this will be of benefit to DoD. In May 1983 we took our recommendations to OSD, and then based on our report Dr. Edith Martin, who is in OUSDRE, directed DTIC to establish a Program Summary data base using the program summaries.

WHERE DO WE GO FROM HERE?

We are taking a two-tiered approach because end user requirements are very different. The DTIC user community has one set of requirements. And the OSD and Service users (the people who are creating the information) have a very different set of requirements.

For the DTIC user community, we eventually want to make this available via the online system. We are using a software package called UNIDAS. It is a commercially available bibliographic retrieval system that runs on DTIC's UNIVAC equipment. This system is going to be implemented in two phases. During the first phase, we will put up the data base with in-house access only. In the second phase online users will be able to come directly into it.

The schematic in your handout shows you what we plan to do. In the initial implementation we are going to load UNIDAS on the UNIVAC 1100/82. There will be no direct connection with DROLS. Users will be confined within DTIC initially. Outside user requests will be placed through DTIC. After we get all of our kinks ironed out in the initial implementation, we plan to interface UNIDAS with DROLS. We want the user to be able to come into the online system through the front-end processor and go to either the RD-5 data base or the other three data bases.

The other half of the Program Summary data base project must meet the needs of the OSD community. It must be an input mechanism that encourages the Services to generate the RD-5s and transmit them to OSD in an automated form. To facilitate this effort we are using Micro Data Base System's KMAN software. KnowledgeManager (KMAN) is a microcomputer-based data base management system that is an integrated software package that allows for: graphics, statistics, spreadsheets, text editing, special formats, etc. On a small scale, it is a very powerful search and retrieval system. We are building on a microcomputer, an input system as well as a retrieval system that will allow managers to create data, to manipulate their data, and to use data extracts for graphic and statistical presentation.

I would like to say at this point that if a DTIC user has need for access to the micro system, I do not see any reason that they could not get a copy of it. At this time I do not know exactly how the release mechanism is going to be worked out, but if you use planning data a lot and need to do specialized data manipulation, I think that it could be worked out to release the micro version directly to the user community.

WHERE IS THIS TWO-TIERED APPROACH TAKING US?

As we view it now, the KnowledgeManager will be used for input, retrieval, graphics, and manipulation. Normally, it would be used by the Services, and once the data is created and reviewed it can be passed on to OSD where they will review and annotate it. After it goes into the official plan, or budget submission, it would be released to DTIC and added to the UNIDAS data base.

This is where we are trying to go with this project. It is not an easy project and there are a lot of people who have very differing ideas about the approach that we should take and we are always willing to listen. We have constraints of personnel and resources that are being applied to the project, but I think that we have made good progress over the last year.

QUESTION: Is it true the Navy does not want to release the RD-5s?

ANSWER: It is a potential problem. We have had meetings with the Navy and they are trying to get us to use the Congressional Descriptive Summaries instead of the RD-5s. I am hoping that they will change their minds.

QUESTION: When will the data base be available?

ANSWER: We have the basic data base up and running. Now, we plan to take it to OSD for their final approval some time this winter. I cannot tell you when it will be available to the user community because OSD will be the ones to release it to you.

QUESTION: Wouldn't it be better to make the CDSs online instead of the RD-5?

ANSWER: No. It is just that the CDSs did not meet the stated user requirements for our project. I do not disagree that the CDSs should be put online. We could put them online.

QUESTION: Are you familiar with the Technical Objective Documents?

ANSWER: I am aware of them; however, what we were looking for was a group of information that would cover Army, Navy, Air Force, that would be similar enough that we could build a data base. One of the things that came out of our user requirement study is that they wanted something that they could access online. So, that was one of the things that we were looking at. Yes I do know about the Technical Objectives Documents and there are similar things in the other Services, but none of it is consistent enough that we could easily build a data base with it.

QUESTION: On your breakdown of research participants you have your pie chart, where did you get your statistics for that?

ANSWER: From Congressional testimony. I'll have to give you the reference later. It was out of some of DeLauer's Congressional testimony last year.

QUESTION: I do have a comment here. Under national security you say you have 150,000 scientists and engineers working, but when we get on the cost thing, we end up with 230,000. We picked up 80,000 somewhere.

ANSWER: That's the combination of people in-house working on research and development and contractors. I picked that information up from a few different sources--one came from DeLauer and one came from Fred Lewis.

QUESTION: This $40 an hour--is that the average salary that's paid to engineers?

ANSWER: That's just an arbitrary figure. That's low. It depends on whether it's a senior member on the technical staff. The average cost is more than that. It's not just the salary that you are counting. You're counting salary and overhead.

COMMENT: In industry we count everything. It's a low figure though. I gave a briefing today and two vice presidents and a former general in the Air Force thought it was low. So, it's a reasonable figure to use.

CHANGES TO THE WORK UNIT INFORMATION SYSTEM DATA BASE

William Thompson
DTIC-T

My speech is not quite as structured as Carlynn's. I have a number of viewgraphs here. What I will try to do is quickly describe the Work Unit Information System in terms of what it is, what requires it, what is required of the Services in terms of input, some of the problems with the system, and some of the things that we think that we will be doing to correct some of those problems. Time permitting, I will also quickly cover the IR&D data base that Carlynn alluded to. Both of these data bases have somewhat the same thing in common--in that I think that they are terribly underutilized. There is a lot of valuable information in both of those data bases. From what we see, adequate use is not being made of them to capitalize on what is in these data bases.

The Work Unit Information System is defined, described, and required by DoD regulation--DoD 3200.12-R-1. This is fairly new. For some of you, this may be a repeat of the session I gave last year. Essentially, the regulation describes the work unit system as a system established by USDRE to provide for the rapid exchange of information about ongoing DoD technical efforts. It goes on to say that the operation of and support for this system is an integral part of the management of R&D. That has not been widely recognized, even though the regulation has been in print for a year now.

The responsibilities of the various DoD components, in terms of the work unit system, are to establish both input to and use of the system as a fundamental requirement of their RDT&E function; to identify a single focal

point within each component that we can work with directly; to come up with the necessary internal procedures to make sure that the input is timely, accurate, and of necessary quality; and to ensure that program managers and project officers search the data base during the planning phase of any project.

What is a work unit? This is the classic definition--a work unit is the smallest segment into which R&D efforts are divided for local administrative purposes. It has the characteristics of having a specific objective and finite duration. It is technologically distinct from other efforts with which it might be combined for programmatic or other administrative purposes. Generally, what we are saying is that each uniquely-numbered contract or grant is a work unit, and it should be reported as a separate work unit record. Each technologically distinct in-house effort, that is RDT&E effort--that is performed by, or within an in-house laboratory--is a work unit effort and should be reported as a separate work unit.

What is the basic input requirement? As I mentioned, each work unit performed by or in an in-house lab should be reported as a separate work unit. Each contractual action--that is a grant, a contract, or an interagency fund transfer outside of DoD, such as to the National Bureau of Standards, or FAA, or the like--which is funded wholly and in part from the Technology Base (programs 6.1, 6.2, and 6.3A) has to be reported. Then we get down to other things, such as other work efforts (over and above Technology Base) that come under the program control of the Deputy Under Secretary for Research and Advanced Technology, all contracts and grants with U.S. academic institutions, and all other work efforts whose objectives meet the definition of research or technology as defined in the regulation. I won't go into that definition. In addition, contracted studies and analyses are included in the WUIS data base. These are described in DoD Directive 5010.22. The reporting requirement and content of studies and analyses work units differ somewhat from research in technology work units.

This viewgraph (DD Form 1498) shows the famous DD Form 1498. This list depicts what constitutes a work unit summary--a distinct record in the file. Generally it is a description of a work effort--who is doing it, the level of effort in terms of dollars and manyears, if it is in-house or contractual, the responsible DoD activity, the performing activity, title, subject categories, and so forth. It is a citation to the work and a narrative description of the work--at least that which can be described in a few hundred words.

This viewgraph (Schematic Input Process) portrays a terribly simplistic schematic of the input process. The work unit regulation requires that input to the data base be in machine-readable form. That generally means magnetic tape, but there are a number of sites that input directly online using the remote terminal input system of DROLS. The Management Information Branch at DTIC essentially performs the functions of monitoring and controlling the input, and setting up the update process. After the update process, that group takes all of the feedback from the update program, in terms of the updated records, and the error listings, and feeds them back to the contributor so they are aware of what the updated version of the record looks like. After the update of course, the inverted file is updated, and both are loaded to DROLS for online searching.

RESEARCH AND TECHNOLOGY WORK UNIT SUMMARY				1. AGENCY ACCESSION	2. DATE OF SUMMARY	*REPORT CONTROL SYMBOL*
3. DATE PREV SUM'RY	4. KIND OF SUMMARY	5. SUMMARY SCTY	6. WORK SECURITY	7. REGRADING	8. DISB'N INSTR'N	9. LEVEL OF SUM A. WORK UNIT

10. NO./CODES:	PROGRAM ELEMENT	PROJECT NUMBER	TASK AREA NUMBER	WORK UNIT NUMBER
a. PRIMARY				
b. CONTRIBUTING				
c. CONTRIBUTING				

11. TITLE *(Precede with Security Classification Code)*

12. SUBJECT AREAS

13. START DATE	14. ESTIMATED COMPLETION DATE	15. FUNDING ORGANIZATION	16. PERFORMANCE METHOD

17. CONTRACT/GRANT		18. RESOURCES ESTIMATE		
a. DATE EFFECTIVE	EXPIRATION	FISCAL YEARS	a. PROFESSIONAL WORKYEARS	b. FUNDS *(In thousands)*
b. CONTRACT/GRANT NUMBER				
c. TYPE	d. AMOUNT			
e. KIND OF AWARD	f. CUM/TOTAL			

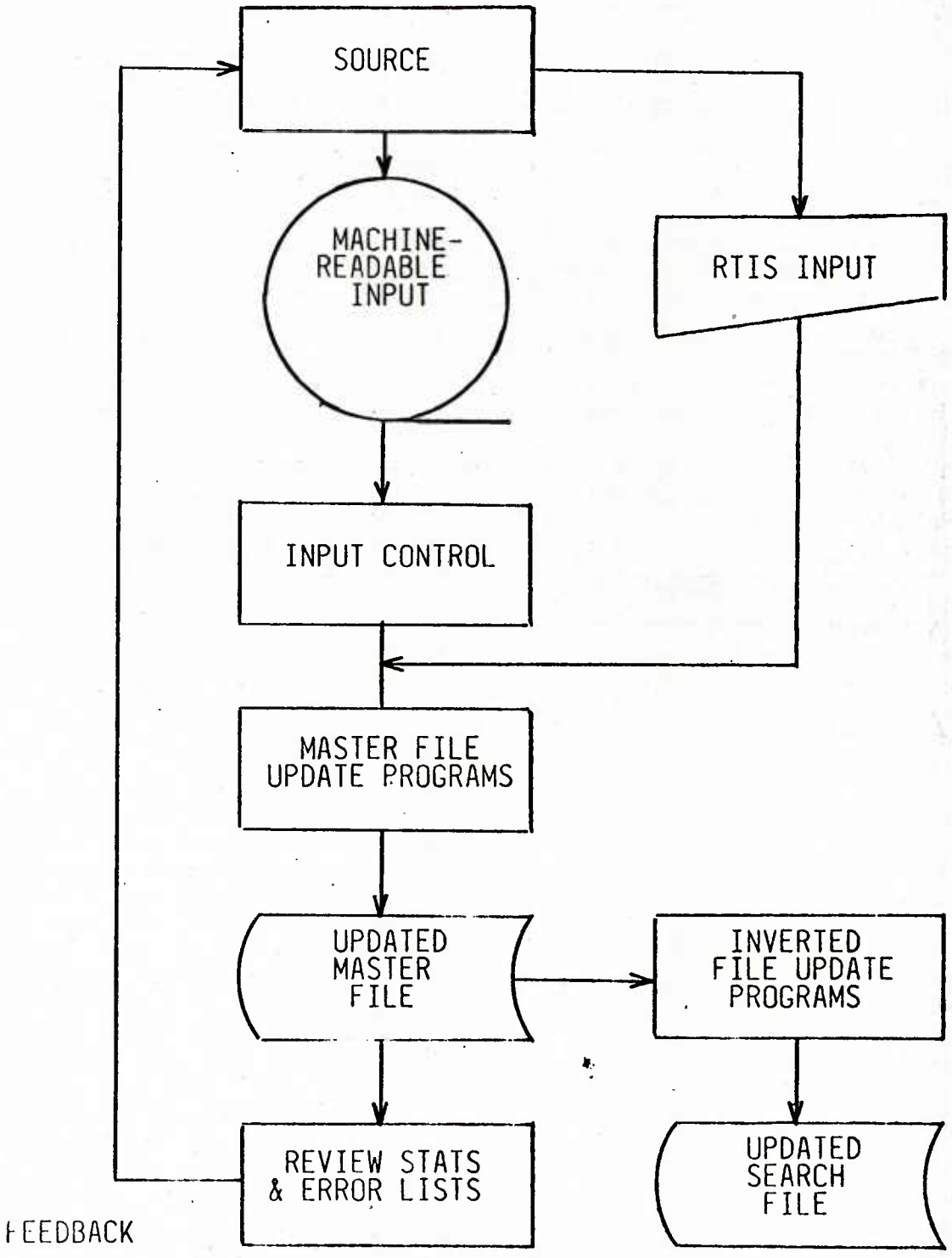
19. RESPONSIBLE DOD ORGANIZATION			20. PERFORMING ORGANIZATION		
a. NAME			a. NAME		
b. ADDRESS *(include zip code)*			b. ADDRESS		
c. NAME OF RESPONSIBLE INDIVIDUAL			c. NAME OF PRINCIPAL INVESTIGATOR		
d. TELEPHONE NUMBER *(include area code)*			d. TELEPHONE NUMBER *(include area code)*		
21. GENERAL USE MILITARY/CIVILIAN APPLICATION:			f. NAME OF ASSOCIATE INVESTIGATOR *(if available)* g. NAME OF ASSOCIATE INVESTIGATOR *(if available)*		

22. KEYWORDS *(Precede EACH with Security Classification Code)*

23. TECHNICAL OBJECTIVE 24. APPROACH 25. PROGRESS *(Precede text of each with Security Classification Code)*

DD FORM 83 MAR 1498 EDITION OF MAR 68 IS OBSOLETE.

GENERALIZED WUIS INPUT



MANAGEMENT INFORMATION BRANCH DTIC-TIM
MEL GARRETT 274-6875/284-6875

Some of the history of the data base: it was started back in the mid-sixties. One of the problems that we are having now with the data base is that it has not been substantially changed since the mid-sixties. It was designed strictly as a technical information or reference system--a pointer to who, where, and what work was ongoing. The data elements in the data base simply give a qualitative description of the work effort. Part of the problem is that the dollars and programmatic information in the record are not definitive. Again, they are part of the qualitative description in terms of level of effort. They were not meant to add up well. That is a problem. Over the years, people have tried to use it as a management information tool, even though it was designed only as a technical information tool. They are not the same, and that has been a problem with the system. In February 1981 the Under Secretary of Defense sent a letter to Dr. Young's predecessor in the Office of Research and Laboratory Management asking him to set up a study team to look at the work unit system with a view toward revising and improving it. A study team was set up. A rather extensive survey was done, about 2 years ago, of opinions and concerns about the work unit system--what are its benefits, what are its shortcomings, and what are the recommendations for fixing it. I will get into that in a little bit. As I mentioned, the regulation was reissued. The old DoD instruction that was dated 1968 was finally replaced last August with a new work unit regulation. There is a new input manual that is currently in printing. A draft version was circulated last November, and that is what is being used for temporary input guidance now. Late last month, representatives of the Work Unit Working Group, that is a group that I chair that meets every 2 months to discuss problems with the system and recommendations for change, met with Dr. Young to discuss with him what we saw as problems in the system and some actions that need to be taken.

I mentioned a WUIS survey, the results were interesting. The most common comment about the work unit system is that it is incomplete, untimely and inaccurate, and that is true. That does not mean that it is not valuable. It means that not everyone is reporting. I think we will find that in terms of the 6.1 program, that is well covered. The 6.2 program is fairly well covered, but not quite as well as the 6.1 program. As you get down into 6.3 and into these other things that ought to be reported because they are good research or technology, we are not getting much. We are not getting much preplanned product improvement effort, for instance out of the 6.6 area.

Essentially the input that we got from this rather extensive survey was general agreement with and support for the system. Everything we had heard previously was that people hated reporting to the WUIS, and, therefore, they did not want to use it. But, what we got on the survey was a general agreement that that kind of a data base was needed. The basic requirement was fairly well substantiated. With regard, even to the 1968 DoD Instruction, as old as it was, there was a feeling that the basic requirement and the basic concept embodied in it was still valid. The problem was in the implementation of that concept--the real problem was compliance. I think that pervades most of DTIC's data base mission right now, there is inadequate compliance with the STI requirements and enforcement of those compliances.

The survey identified a number of areas that need attention. One of the biggest problems was that the WUIS was inadequately promoted. There was gross unawareness of the value of the data base. Throughout some of the Services, there was total confusion about what a DD 1498 was. The Navy for instance uses the DD 1498 for about six or seven different things--for instance as a tasking document. I gave a briefing to a bunch of Navy Captains, 6.2 program managers, and they told me they knew exactly what a DD 1498 was: it was the thing that they used to task labs to do jobs. It is the thing that they use for establishing proposals: for forwarding proposals back and forth within the Navy. These are uses totally unrelated to the data base, so there are a lot of problems there. The survey documented what I mentioned earlier that the WUIS was not as complete, timely, and accurate as it should be. The survey also pointed to a lack of feedback. Not feedback from the updates, but feedback to the contributors in terms of who is using the data base. That seemed to be a big problem that people in the labs evidenced. They say they don't input to it because they don't think that anyone important to them uses it--their boss, or their boss's boss--and that is not true. DoD use of the data base is large. Granted, contractors use it heavily, but the predominate use of this data base is within DoD. What we do not have is proof that we can give back to them. We do not have a history file, or usage file, and that was identified as a shortcoming.

The Navy said that retrieval is too complex, and I am sure that you are all aware of that. It also pointed out that the funding and program data, as I mentioned before, are not really accurate. You cannot aggregate or add up dollars on project numbers and program element numbers and get something that even remotely resembles the total amount of work within a program. There are some problems with definition. Even with the working group and the subgroup that I meet with quite frequently, as we have been trying to come up with requirements for system change, we are constantly arguing about how a term or concept is defined or applied among the Services. Even if we agree on what we mean one week, 2 weeks later we get together and we cannot agree again.

I will go quickly through some of the changes in the new regulation. One of the major changes was the releasability of information from the system. A decision was made last summer, for instance, that there will be no public release of information from the data base. That was a major change. Also the contractors can get the entire record. Initially in the system there was only a subset of the record that the contractor could see. That has been changed, and a contractor can now get an entire record, if that record has been identified in terms of the limitation statement as available to contractors.

I mentioned the limitation statements. Obviously, the new set of limitation statements that were announced in the Weinberger memo last October were incorporated. We also did away with the old S&T codes. These were converted to the COSATI field and group codes so that the work unit system is compatible with the subject categorization used in the bibliographic file and in the IR&D file. We also expanded the data field that attempts to identify civilian potential resulting from the work unit.

I'll now cover some of the remedial efforts that we were talking about in terms of finding ways to enforce compliance. Dr. Young agreed to entertain changes, and to forward changes through his office to the DAR council, to get

wording in the DoD supplement to the FAR to require that procurement officers, before starting procurement on a purchase request, have proof from the COTR that the COTR has initiated a work unit record. He has also agreed to forward correspondence to the DoD IG, both the Deputy for Inspections and the Deputy for Audit, asking that compliance with the work unit regulations be a mandatory inspection item at all RDT&E facilities. We also will have to make some changes in the regulation itself. One of the changes that we want to make is to put wording in there to strengthen the input requirement. When we were under pressure to get that regulation out, because the old instruction was so old, we took the coward's way out and put nothing in the initial version of the regulation that might impede swift coordination. In doing so, in retrospect, we left out some critical statements, like "thou shall not fund efforts without reporting."

We are looking at some simplified input forms, and some changes in the input process. We are also looking at some fundamental changes in the system itself--the data structure. There is a paradox that we are stuck with. In order to make the data base more useful, we have to get more detailed information, especially about dollars and program information. In order to get more input we have to keep the reporting requirement as simple as possible. Somewhere in between there, there is a middle course.

We are attempting to revise the input guidance. One of our biggest problems is the description of in-house work. It is done in many different ways in all of the Services, and there are different ways to report subefforts within in-house tasks. This has been a difficult thing to handle and describe. We are looking at expanding the scope of the system. There is some feeling that the system should be expanded to cover all RDT&E, and not just the Technology Base. That is difficult because within that RDT&E spectrum there is a lot of routine stuff that will just clog up the system. So, we are trying to figure how to expand the scope of the required input while being specific enough about the kinds of things that may be excluded--like routine data reduction, buying off-the-shelf equipment, and stuff like that. As Carlynn mentioned also, there is still the need to make that system flexible enough to handle planning information, or at least, not yet ongoing work, so we are working on those difficulties.

I would mention that we are also looking at the problem of how to, or at least developing a requirement for how to, develop some kind of a usage file that we might be able to feed back to the contributors.

One of the short-range things that we are working on is attempting to develop a simplified input form. What that means is, the input manual is half an inch thick, and we don't think that people, when they try to report to the work unit system, either can, or want to, plow through that input manual. So we are looking for a simple form that conveys the basic reporting requirements on the form itself. The paradox here is that a simple form is not simple to design. We are looking at OCR readable forms as an input medium. That is a way to get machine-readable input without having to keyboard it into a data base first. We are looking at ways to improve the reporting of feedback of delinquent status. One of the problems that we have with the system is that

some of the things that the system calls active are in reality very old. They are active only because no one has submitted a transaction that says that they are complete. So, we have submitted a request for a programing to go through the file and give old records, even though they are still "active," status called "delinquent" so that if you ask for active work, they will not automatically fall out as being current.

We are looking at re-MAIing existing records. MAI is the Machine-Aided Indexing system that assigns the descriptor retrieval terms to the file. Currently we only do that for new records. What happens is that sometimes those records substantially change with time, so the old indexing no longer applies. Also, what happens often is that the first input produces only a skeleton record, so we don't have a whole lot of words to index. So, we are looking to correct that by MAIing the record again whenever the title or the objective/approach narratives are changed.

We are also implementing some new direct feedback procedures from our update programs to the DoD person responsible for the work unit. As a new work unit is established a copy of the record is printed and sent back with a note thanking him/her for the input and asking that they keep it current. Also, as peoples' records are identified as within 60 days of becoming delinquent, a copy is sent back reminding them that they need to be updated. These are re-enforcement type feedback.

I mentioned earlier our attempts to design a simplified input form. This is so that the engineer, or the person in the programs office, does not have to rely on a manual or his memory to fill out the form.

My own feeling is we should not prescribe a form. We should prescribe the data elements, and the characteristics of the data elements, and let each individual Service, or each individual R&D division or command devise their own form, that is what best fits their local needs. I think that we have been hung up on the 1498 form itself for too long. Frequently somebody will talk to me about the system and say, "my problem with the system is I cannot fit something on the 1498." Well you do not have to fit it on the 1498. Every Service has their own separate requirements. The system even now allows Services to develop their unique data requirements and add them to the data base. What we are trying to do is come up with a core system, the mandatory set of data elements that would satisfy the DoD-wide need, recognizing that in order for any one Service to live with a system or to get the most out of it they might want to add additional things. The Air Force, I understand, is planning to get rid of the MASIS system, and they are going to want us to be able to take input directly from the Air Force labs, for instance, and to feed back to them what they used to get out of MASIS.

In the new input manual, DoD 3200.12-M-1, there are separate appendices that describe the Service-specific data elements that are currently in the system. They are each in a separate appendix, so you will know how to use them, but the point is that their use is not exclusive to the Service that originally required them. We have tried to convey that in the manual as well.

There is a project ongoing in our information systems and technology shop to try to develop an OCR capability. They are at the stage now of just looking at alternate vendors. Our crucial problem is that there is no money budgeted in FY85 for it, unless we can get either additional funds or reprogram. Actually most of our equipment is not that expensive.

In response to a question about the affect of the policy changes denying public release of WUIS data, it is time that previously DTIC provided to NTIS all the work units that were identified as being unclassified description, of unclassified which at that time were identified as publicly releasable. We have not updated that file for several years, even before Leo Young made the decision that the output from the file should no longer be publicly releasable. My understanding is that the old WUIS information is no longer available from the NTIS research in progress file.

We have reached the adjournment time. I will not have enough time to go into the IR&D data base. Thank you.

INDEXING PANEL - Gretchen Schlag/John Dickert/Eleanor de Chadenedes/
Barbara Lesser/Gordon Willey - DTIC

INTRODUCTION
Gretchen Schlag
DTIC-T

Good afternoon, I'd like to welcome you to the session on indexing. I'm Gretchen Schlag, the Shared Bibliographic Input Network focal point for both the Descriptive Cataloging and Indexing Branches. Today we are going to discuss and review some of DTIC's in-house indexing methods and procedures. Hopefully, the discussion will clarify any of your indexing input problems and make your information retrieval more accurate.

First, I would like to introduce Mr. Victor Furtado, Division Chief of the Data Input Division, which includes the Descriptive Cataloging Branch, Indexing Branch, Technical Reports Branch and Management Information Systems Branch.

The panel members include Eleanor de Chadenedes who will discuss abstract selection and abstracting methods. John Dickert will cover indexing methodology and the Machine Aided Indexing (MAI) process. Barbara Lesser will discuss the new COSATI fields and groups and Gordon Willey will review the security classification of indexing fields.

At the end of the session we will have time for questions and discussion on any aspect of indexing, not only those discussed here today.

ABSTRACT SELECTION AND ABSTRACTING METHODS
Eleanor de Chadenedes
DTIC-T

As you probably already know, DTIC has, at present, three online data bases to which abstracts or narratives are assigned. They are: the IR&D, or Independent Research and Development; the work unit which is also known as WUIS or 1498--from the form number on which it appears; and the technical reports also known as TR or AD--for Accession Document. The IR&D and work units were developed after the technical report data base, and so, from the "abstract" point of view, they have more capability. I will begin with work unit and IR&D data bases.

Both of these data bases have a field assigned for originator-provided keywords. While those two data bases have keyword fields, the technical report does not. They also have four narrative fields. In these two data bases, three of the narrative fields provide similar information. They allow for entry of the objective of the work, the approach and the progress, as well as for an additional field unique to that data base. Like other input fields in these two data bases, the abstracts may be updated over the course of the active life of the record. But the MAIing (Machine Aided Indexing) and/or the human indexing is performed on the initial input, and never again. So, if there was no data in the progress field in 1982, when the first input was received, the current output may show updated 1984 progress, but the subject terms will reflect only

the 1982 input. If the approach is changed over the course of a long-term program, the original approach is what has been indexed to, even though it no longer applies to the record. So, sometimes when you see discrepancies and you wonder what the reason is for them, that may be the reason. Sometimes information gets overlaid to the wrong record.

The maximum number of characters in the narrative fields varies across the data bases. In IR&D, the total for the four fields is 3,600 characters, with a maximum of about 1,400 characters per individual field. In work units, the three basic fields may each contain a maximum of 2,700 characters but the maximum total is 5,000 characters. Input for both of these data bases is in upper-case characters, which may sometimes make for momentary confusion in discriminating between CO when it is all caps for carbon monoxide, and capital C lower-case o when it stands for cobalt, etc. About 95 percent of the work unit input (out of about 10,000 new records per year) is received at DTIC in machine-readable or tape form, and the remaining five percent is received as hard copy. Thus most of the work unit narratives are generated directly, outside of DTIC. The five percent received as hard copy may have to be edited before being entered into the system by DTIC's terminal operators. At present, all of the IR&D input (about 7,500 new records per year) is received as hard copy which DTIC edits (e.g., verbalizes/cuts) if necessary before entering the data into the system.

Because of system limitations, common technical symbols such as Greek letters, exponents, etc., have to be verbalized, which occasionally results in an awkward text. A simple chemical structure diagram, or a mathematical statement must either be verbalized or omitted. A "Verbalization for Machinability" instruction sheet is provided in the input instruction manual for each system to standardize input format. Unfortunately authors frequently come up with new symbols, formulas or equations which resist verbalization, or whose meaning eludes the indexers who cannot be specialists in all fields of knowledge.

You have probably noticed that a series of IR&D and work units from one source may have the same narrative in one or more fields, such as "Problem," or "Technical Objective." In these instances, the originator has prepared a generalized boilerplate statement of the background and all topics to be covered, which is then repeated from citation to citation. Perhaps only one or two of the narrative fields is relevant to the specific title in the citation.

IR&D entries contain proprietary information and they must be unclassified. Each narrative field in the work unit may range from U to SRD. In these two data bases the indexer will see only the title, the keywords, and the narrative entries which usually, but not always, provides him with sufficient information. Sometimes you get a document from, say RPL, and of course they know they are talking about rockets, but they never mention it in the title, keywords, or abstract. The analyst may see statistical analysis, chemical analysis, structural analysis, but he does not know what it is an analysis of. Sometimes we are up the creek when we are indexing.

The rest of my presentation will be devoted to abstracts for the technical report system. The subject analyst normally receives the entire document from which he selects or constructs an abstract. Assuming that the author has

provided a succinct informative abstract on the DD 1473 (or its equivalent), the analyst selects the author's abstract. If the author's abstract is lacking or is repetitious, uninformative, too long or cannot be verbalized, then the analyst tries to extract an abstract from the report's summary/conclusions, or from the table of contents--wherever he can find it.

In the technical report data base, the abstract narrative is limited to 1,800 characters including the shifts for capitalization and special characters such as parentheses or question marks. Thus, the maximum number of characters for abstracts in the TR data base is half that of the IR&D, and much less than that of the work unit data base. Including the shift counts is the result of print requirements for TAB and for the Xerox 9700 printer for bibliographic printouts, which are printed in upper and lower-case. I estimate that this field can accept no more than 22 lines of relatively "shiftless" text at 80 characters per line. If there is much verbalization, if there are many chemical compounds mentioned, if acronyms are expanded, etc., the original text may have to be cut to accommodate these modifications. This reduces the amount of narrative information which can be revealed in the TR system when compared to the other two data bases. Thus, in the TR system the narrative content is limited to about 300 to 350 English words, which can be restrictive in summarizing work in a multifaceted, multimillion dollar research program or contract. This character limitation may suffice to provide a summary of a student's term paper, the wind tunnel test results of a jet engine component or a hazard survey of a small dam, but it is frequenty inadequate to cover longer more complicated documents.

If an overall technical report consists of more than one volume, and the originator's abstract is very long, but it is repeated on each 1473, and if one subject analyst receives the entire set of documents at one time to analyze, then he may excerpt the first section of the overall abstract on the volume I citation, the next section on volume II, ad infinitum, so that the entire original abstract can be revealed over two or more AD numbers. In some other multivolumed reports where the first one or two parts contain the basic text, and the remaining one or more volumes contain supporting data for the basic volume, we may not repeat the abstract information but merely note: "For complete abstract, see volume I AD, so and so." This procedure saves on both input processing and user scanning time.

In the technical report data base, abstracts may range in classification from U to SRD. The abstract, of course, takes on the highest classification of any one of its parts. Thus, if an author provides a three paragraph abstract each of 100 words, and the first two paragraphs are marked U, but the third is marked S, the subject analyst must either select only the first two paragraphs, and leave the abstract unclassified and available for all who have need to know this unclassified information, or he must select all three paragraphs and provide more information to the classified user who is entitled to receive it, but exclude the unclassified user access to the information to which he is entitled. It is an "all or nothing" situation.

Because of security classification and document distribution limitations, one user may not see an abstract entry online, or in a DTIC bibliography which is available to another user with higher security clearance. At present, in

selecting abstracts for the AD system, we try not to repeat cataloging data and title information in order to reveal as much of the subject matter of the report as possible. Thus, we may cut from the originator's abstract the sentence: "This interim report prepared by the so-and-so company under contract thus-and-so, discusses progress in 1984 in studies on..." which repeats the title. By eliminating redundant data, we can cut down on terminal operator's input time, proofreader's time, and retriever's scanning time.

Documents which were originally entered into the system under SBIN procedures tend to use the originator's abstract, which is usually good, but is occasionally inadequate, uninformative or repetitive. DTIC has agreed not to change SBIN input unless there are egregious errors. We sometimes supplement SBIN abstract input.

For the last 2 or 3 years we have been providing analytic entries for certain papers from selected proceedings. These analytics are normally supplied with abstracts, but abstracts are not currently provided for certain categories of reports. These include: reprint articles from journals which are available elsewhere, translations from foreign languages, announcement bulletins from foreign countries, and security classification guides. Also not abstracted are reports over 10 years old which are currently received. There is currently a test program to perform post review of MAIed titles and abstracts which is how we are processing IR&D and work units. Some documents are amenable to this processing, but, for others, there is insufficient data.

NARRATIVE FIELDS/ABSTRACTS

	IR&D (Proprietary)	Work Units (AKA WUIS/1498)	Tech Reports (AKA TR/AD)
Received in DTIC as	Hard Copy	Machine Readable - 95% Hard Copy - 5%	Hard Copy (Except SBIN)
Classification	U	U SRD	U SRD
Text Updated	Yes	Yes	No
Keyword Field	Yes	Yes	No
Narrative Fields	4	4	1
Max # of Characters:			
All Fields	3,600 (Upper Case)	5,000 (Upper Case)	1,800 (Incl. Shifts)
Per Field	C 1,400	2,700	1,800 (Incl. Shifts)

INDEXING METHODOLOGY AND THE MAI PROCESS

John Dickert
DTIC-J

My name is John Dickert, I was a Subject Analyst in the Indexing Branch for about 5 years. During my last year as a subject analyst, I served as the SBI indexing coordinator.

I have been asked to describe to you today the procedures used to analyze and index documents to aid in your retrieval of our documents. Note here, that by "document," I mean any product that is analyzed and indexed at DTIC. Thiss would include reprints, technical reports and work unit summary forms. The overall purpose of indexing is to describe in a few words the important subject content of an article or report. To determine the content, the analyst must first examine the report. Special emphasis in the review will be given to the title, the author's supplied keywords, the abstract, the table of contents, the conclusions and the introduction (normally in that order). The more straightforward the report the easier it is to analyze, and the fewer components that need to be reviewed. For example, the wind tunnel test reports from the Arnold Engineering Development Center could usually be analyzed using only the title, the author supplied keywords and the abstract. DTIC is beginning an experiment where only these three elements will be reviewed by the subject analyst before indexing in a document. For the purposes of my presentation we are assuming that the abstract selection and document analysis are separate activities, even though in the past they have been performed by the same individual.

After the document, or its components, are analyzed, and its ideas are comprehended, then comes the task of setting these ideas down on paper in the form of index terms. The index terms are broken into two groups, the control terms, or the posting terms or posting points, and the uncontrolled or the open-ended terms. And each of these can be broken down into generic terms which describe classes of things and specific identifying terms. The subject analyst then chooses terms which describe the document being indexed, choosing first posting terms. Now as an example, for a generic term that we would use in the primary selection for the control terms would be something like radar, which has come to mean some overall item. There is a lot of different radar so for a type of radar as a particular piece of equipment, one of the Army Navy equipment terms would be used as an open-ended term to describe it. The AN terms are no longer posting terms. We do have some specific terms that are also posting terms. An example would be names of countries. Most names of countries now have become posting terms. So that is an example of a specific term. But primarily the posting terms describe generic items, and the uncontrolled terms describe specific items, names of aircrafts, names of ships, names of specific projects, things like that. These open-ended terms are to be selected according to certain guidelines to limit open-ended terms to one desired format for each concept or specific item indexed. A guide for the selection of open-ended terms at DTIC can be found as a part of the SBIN guide.

If you look at the overhead transparency you will notice that we have got both F14 aircraft and F dash 14 aircarft. To the average reader this may describe the same thing. As far as our computer goes, it recognizes them as

two different things, and the idea of the guide is to show you which of these two forms we wish you to choose. In this case the second one is the appropriate one.

(VUGRAPH)

F14 AIRCRAFT

F-14 AIRCRAFT

AH-1S AIRCRAFT

AH-1S HELICOPTER

SA-6 GAINFUL MISSILES

GAINFUL MISSILES

The goal for indexing at DTIC is to use a controlled vocabulary to the maximum extent possible and secondarily to be consistent in our use of open-ended terms.

The indexing guidelines--the ones that I talked about earlier that are in the SBIN guide--prescribe the use of certain indexing tools. At the current time, most of these guidelines are limited to paper sources. But there are projects at DTIC in various stages to bring some of these tools online. Our major tool is our thesaurus, the DTIC Retrieval and Indexing Terminology, the DRIT. This was last updated in May 1979. The last printing of the complete list of posting terms was in May 1983. A new addition of the DRIT is currently being compiled. We also use the guide to open-ending for the general selection of open-ended terms. As an example, we would use the "AH-1S Aircraft" to describe the COBRA helicopter, and not the "AH-1S Helicopter." So we simply have made a selection, and it is not that either selection is right or wrong, we wanted simply to be consistent in our choice of terms. Two other important reference sources are the Jane's Defense Series Yearbooks and the Annual Aeronautical Weapons list published in Aviation Week and Space Technology. An important supplement to these tools is the cumulative list of our former utilization of terms indicating the frequency of the use of these terms across all of the data bases. This is called our "combined frequency count." The actual terms that are in the combined frequency count are now available online, but the number of times they are used across each data base is only available in the hard copy version which is classified as Secret. What this does is to allow us to determine what form a particular indexing term open-ended term has most frequently taken in the past, and, all other things being equal, we will choose the form of the term that has been used most frequently in the past. This is an attempt to approach consistency. As another example, we now retrieve Soviet missiles by a combination of the NATO code name, and their alpha numeric code.

One of their common surface-to-air missiles would be indexed, here is the "SA-6 Gainful missile." In the past it would have been only listed by the code name "Gainful missile." So that if you are actually retrieving far in the past, it is sometimes useful to use both terms, and then the third possibility that it could be indexed under, which I have not listed here, is simply the "SA-6 missile." As it turns out, most American missiles are listed only by their acronym, so that the "A-9 missile" would be the "Sidewinder missile" and you would retrieve it as the "A-9 missile." Although if you tried to use "Sidewinder missile" to retrieve it you will get some hits.

As a second example for the last 4 or 5 years, for acroynms, we have been listing the acronym first and then the titles, with the full title spelled out within parentheses. Before that period, we used to list it both ways, so that if you are searching for something, you have to realize that this is how you will find it in the current literature.

For those of you who can define your search by field and group categorization a new feature in the upcoming categorization guide will be of service. A majority of our posting terms will be indexed by their field and group--alphabetically by item, alphabetically by term, and numerically by field and group. Thus, if one can identify the concept by a field and group, one can scan this document and determine what the posting groups are that are available within that field and group. As previously mentioned, work is also in progress for updating the DTIC thesaurus, the new edition will include scope notes which will assist in defining the meaning we wish to give to multimeaning words assigned as posting terms.

Lastly, I would like to say a few words on machine-aided indexing, which is a computer process for pulling word phrases and index terms from the text. It is currently being applied to the indexing of the management data bases, which are then post-reviewed by the Indexing Branch on a time-available basis. It has also been applied to the technical report data base, as a review of the title and abstract to provide a list of candidate posting terms, which the subject analyst can then use during indexing as an aid to selecting the correct indexing terms. There is also currently an experiment underway to apply machine-aided indexing in a more complete way to the technical report indexing. MAI would then be used to select posting terms from the title, abstract and author-selected keywords. The subject analyst would then be able to review the selections of the computer, making changes where necessary. Then the analyst would receive only a computer printout of its input, basically the title, the abstract, the author keywords, and a list of keywords which the computer has generated after scanning this data. This is currently being performed, on an experimental basis, on an average of 20 documents per day. MAI does serve as a useful guide for selecting appropriate index terms from word phrases, but it does this by a basic word matching technique. It is not capable of discerning the meaning of a word from its context, and can only assign one basic meaning to a word. For a multivalued language like English, this can lead to a problem evaluating special usage. The words "Hawk missiles" and "chicken hawk" will either post to missiles or birds depending on the programed instructions. But it will not be able to vary this meaning for each specific usage. Thank you.

QUESTION: On machine-aided indexing, which fields does it search?

DICKERT: For the technical report data base it searches the title and the abstract; currently it is being expanded to the author-supplied keywords. For the management data bases, it searches the title and the entire narrative field.

QUESTION: It does not search the abstract?

DICKERT: For the management data base, the narrative fields are everything. Unlike the technical reports, there is no specific abstract; I simply list these as narrative fields: the progress, the approach, the objectives, and whatever the other one is. There is no specific abstract.

QUESTION: But now when you flag it with I?

DICKERT: Is this for a technical report? I know it searches the title and the abstract, now I think it searches the author keywords, but I am not sure. So it just searches the title and the abstract. You can add the author's keywords to the abstract, if you want to, and it will extract something from that. So you would add in Field 7 any words that you wanted to search to see if they were posting terms. Your maximum search in the TR abstract is going to be limited to 1,800 characters.

NEW COSATI FIELDS AND GROUPS

Barbara Lesser
DTIC-T

DTIC has been using the COSATI Subject Category List (DoD-Modified) since 1965 to control the dissemination of classified information, to register users in their areas of need-to-know, and for announcement purposes.

In the last 19 years there has been a rapid growth in technology, and it has become increasingly difficult to use the list effectively. Therefore, in July 1983, a committee was established at DTIC to revise the present list. Charles Davis is the project officer, John Dickert and myself are committee members.

The first thing that we did was to ask the people who use the COSATI list, on a regular basis, to tell us where the problems are. We went to our own DTIC retrieval and indexing staff, to those SBIN members who do a lot of input into our system, and also to R&D agencies such as DARPA. When we had gathered all this information together, we started work on the revision. We looked at every field, and every group in every field. When I say we, I am referring to the committeee members, and subject specialists either from our indexing or retrieval staff. We put together a first draft, which we then circulated in-house to see whether or not we had met the objections that people had had to that particular field. When we got the comments back, we composed a second draft. After we had gone through every field and every group in this manner, the committee looked at the entire document and made some minor changes. The result is the working draft, which we call the Subject Categorization Guide for Defense Science and Technology.

(VUGRAPH)

PRESENT LIST	PROPOSED LIST
22 FIELDS	25 FIELDS
188 GROUPS	251 GROUPS
4700 INDEX TERMS	12000 INDEX TERMS
1 INDEX	2 INDEXES
ALPHABETICAL BY TERM	ALPHABETICAL BY TERM NUMERICAL BY FIELD AND GROUP

This vugraph shows you some of the broad changes that have been made. As you can see there will be 63 additional groups for you to put your documents into. What we did is to establish new groups for areas of new technology that were not covered before. We also took some of the very large groups, such as "Aircraft, 01/03," and broke them up into smaller groups. We also separated the civilian aspects of a subject from the military aspects of that subject. An example of this is Civil Defense. We now have a separate group for Civil Defense. It is no longer part of the Military Defense group.

The general approach that we used is the same approach taken in the Subject Classification Guides. That is, we separated theory from application. An example would be a document on lasers. If it discussed laser theory, it would go in one place; if it was a document that covered the use of lasers in medicine, you would put it someplace else. If it was a document on laser weapons, it would go in still another place.

From the vugraph you can see that we have also increased the number of index terms substantially. We also created a second index. This one is arranged by field and group, and we think it will be very useful to you, because it will clearly delineate what concepts are contained in each group. However, the two indexes do not substitute for the scope notes. You must read the scope notes to be certain as to what belongs in one group, and what belongs in a related group. We have purposely increased the number of cross references for this reason. An example of the importance of reading the scope notes is the following: concrete is a composite material, and documents on that subject should be put into that group. However, if the document that you have deals with concrete as a building substance, the cross-reference tells you that the document should go in the building materials category. So you should read the scope notes in order to avoid making mistakes!

We have obtained approval to proceed with the implementation of this new document all the way up the line to Dr. Young and the STIP Operations Committee. We are now beginning the implementation phase. Needless to say this is going to be a horrendous task. We must reregister all of our users including those in the CAB, Recurring Reports, and ADD programs. We also have to change the fields and groups in the TR file, and management data base file. Now this is not quite as bad as it might have been because not all the fields and groups need to be

changed. Many of the fields and groups will remain exactly the same. Others convert in toto from one field to another. We can use the computer to do those conversions. We also have come up with a plan to have the computer look at the subject terms that have been assigned to documents and based on that make the conversions. For example, if a document has a term for Civil Defense assigned to it, the computer will move that document to the new group for Civil Defense.

However, even though we can do all this online, there will remain a large group of documents that will have to be reassigned by a DTIC indexer, especially in some of the classified areas. Therefore, I cannot tell you when this document will be put into use, because we simply do not know what problems we are going to run into. Bill Thompson estimated yesterday that it may take approximately 1 1/2 years, and I guess we will go with that for now.

QUESTION: Can you tell me the long wonderful title for that again?

LESSER: Subject Categorization Guide for Defense Science and Technology. We wanted to drop the COSATI out of the title, because COSATI no longer exists. We also found that we could not use the title DoD Subject Category Guide which we had wanted to use, because we would need to write a regulation giving us the specific authority to produce a subject category guide.

QUESTION: How can we get a copy of the draft?

LESSER: There are no copies available yet, because we are still working on the index. I can give you my card, and you can call me in a few months and I will let you know what the status is.

QUESTION: Is this in coordination with CENDI? Perhaps NTIS will be using the same thing?

LESSER: I doubt if they will use ours. They never have. There are two COSATI Subject Category Lists. One is DoD-modified, which we use, the other which was issued in 1964 is the one that NTIS uses. Since they never used ours, I doubt if they will use the new list.

QUESTION: If they take your documents, how will they announce them in their files?

LESSER: I do not know, but I would assume that they would convert them to their own systems.

QUESTION: I thought that you could talk to CENDI. That it is the group that discusses things like this.

LESSER: Right, but the problem is that everybody wants something else in a categorization scheme. The things that are important to us are not important to the Department of Energy. We looked at Energy's scheme, we looked at NTIS', and we also looked at NASA's scheme to help us come up with ours.

Gordon Willey will now speak.

SECURITY CLASSIFICATION OF INDEXING FIELDS

Gordon Willey
DTIC-T

Good afternoon, I am currently a subject analyst who indexes documents and have been doing it for years and years. I am going to talk about security classification of indexing fields. When indexing a classified report or data sheet, great care has to be exercised in protecting the fields in which classified terms appear. In the technical report data base there are three fields to protect. The field and group (Field 2), the open-ended (Field 25), and the abstract (Field 27). The indexer protects or alerts the viewer that the field is classified by outlining or circling the terms in the field in red. This process is called suppressing the term or terms in the field.

Examples of suppressing data within a field vary from one report to another considerably, according to whether the classified information is used or not. Suppressed information does not appear or print in TAB. Example one, a report is classified Secret or Confidential and every page is marked accordingly, only the title is unclassified, so your task is somewhat easier. You are looking at a Secret report, and every single page is Secret, so whatever information that you extract from it is classified Secret, so therefore, all terms must be suppressed in Field 25. And from the title that is unclassified, you are going to pick one term unclassified or two terms whatever is in the title, but everything else is suppressed.

The second example, a report is classified Secret or Confidential and only one paragraph in the whole report is Secret or Confidential. Then the indexer may get very few or none of these terms from that paragraph. If he does, then he has to suppress those terms in Field 25. If, however, he does not select any terms then Field 25 is unclassified, and does not suppress the terms. The classification of Field 25 is Field 26, and this is circled to indicate what the classification of Field 25 is.

The last example is that most reports are a mixture of classified pages and paragraphs, and have a blend of Secret, Confidential, and unclassified paragraphs on the same page. Then the indexer must exercise the great care indicated earlier and suppress or not suppress as necessary. Normally, the classification of Field 25 is the same as the report classification Field 20. So, for a Secret report the classification of Field 25 would be Secret. However, there are exceptions to that. When terms are suppressed in Field 25, the indexer may want to suppress Field 2, the field and group, and put in Field 2 a comparable number, which is based on the subject matter of those terms in Field 25. For example, suppose you have a classified document on naval operations. It will appear in TAB under Field 25, Group 07, under military operations. Suppose that the unclassified portions reveal that there is some kind of reconnaissance or surveillance going on, but the classified portion reveals that it is submarine detection or antisubmarine warfare, so you want to suppress that information because it is classified, and you want to indicate in Field 2 that it is Field 15 Group 01 which is antisubmarine warfare. Outline 15/01 in red.

There are special cases that we have in suppression. One of them is CNWDI, Critical Nuclear Weapon Design Information. We have a special format for that. We put one term that appears in our bulletin that you can see, and all other terms, each and every case, are suppressed in Field 25. This report is normally Secret Restricted Data. And another example of special note is NATO-furnished documents. We have a format where we do not put in our computer files any NATO-furnished classified information, so a title must always be unclassified, our fields and groups must be unsuppressed and appear in TAB and we can, however, put in Field 25 American classified terms and suppress them. We always indicate in Field 25 the words "NATO furnished" to alert the viewer that the information is of NATO origin.

The indexer wants to reveal as much of the indexing terms in the TAB as security measures will permit. So when a classified document has an unclassified abstract that will appear in TAB--Distribution 9--which is for classified reports with no limitations. Then, you want to index as many terms as appear in the abstract so they will appear in TAB, simply the abstract is there and you have parallel construction. You do not suppress these terms because they are unclassified. Now when you have a classified abstract which appears in TAB, as you know TAB is now Confidential, then the terms taken from that classified abstract, should not appear in TAB; they should be placed in Field 25 and suppressed accordingly. Field 28 is the classification of the abstract, Field 27. That ends the technical report data base.

Another data base we index considerably is the work unit information system (WUIS). In the WUIS data base, you receive a classified data sheet. There are two fields which concern the indexer. They are author keywords (Field 22) and the objective, approach and progress (Field 23). The title, Field 11, is always unclassified. So your task is somewhat easier because when you look at the author's keywords, they are either outlined as Secret or unclassified or Confidential. If you use that particular term and it is classified, you suppress it, by circling it in red. If you read the objective, approach, and progress, and select classified information there, you must suppress that also, so what in effect happens is that the sheet that you receive is divided into four parts. The two left parts are what the author has presented, and the two right parts are what you are adding as an indexer. That concludes the WUIS data base.

SHARED BIBLIOGRAPHIC INPUT NETWORK/LOCAL AUTOMATION MODEL FOR AN INTEGRATED CATALOGING/RETRIEVAL SYSTEM - Richard Hartt, Logistics Management Institute/ Bobbi Everidge, TRADOC/Susan Ewing, Wright-Patterson AFB/Gladys Cotter/Marjorie Powell/Jim Erwin, DTIC

SHARED BIBLIOGRAPHIC INPUT NETWORK

Gladys Cotter
DTIC-J

In 1977, our users came to DTIC, and they said, "we've been doing a lot of resource sharing with our book catalog via OCLC. We would like to do something similar with our technical reports file." DTIC thought about different ways of implementing such a resource sharing system. Because we already had DROLS online, and there were over a million citations to technical reports, we decided that the best way to go would be to use the DROLS file as a catalog. Now we have about 50 sites who input citations directly to our DROLS catalog.

SBIN has been going on since 1977. During that time, we found that there were some adverse effects of this program at the local sites. One of these effects was that many of the sites had Top Secret or intelligence data that they could not enter into the SBIN DROLS catalog; therefore, they had to maintain a local catalog. This meant that they were often cataloging the same report into a local system and also into DROLS. Of course, that was not saving them much time. The users came back to us and said," we would like a more user-friendly system for cataloging. We would also like a local system that is compatible with your system."

Today we are going to have Richard Hartt talk about the Local Automation Model which is being designed for users with a local need. Jim Erwin will talk about a project to design a new input system. Bobbie Everidge will talk about how she has implemented SBIN in her library. Susan Ewing will also talk about her experience with doing dial-up cataloging. Then Marjorie Powell will talk about some of the projects that she has been working on in this area.

At this time, I will turn it over to Richard Hartt from the Logistics Management Institute, who is doing the development of the LAM.

LOCAL AUTOMATION MODEL

Richard Hartt
Logistics Management Institute

I would like to start out with a description of what the local automation model is and then talk about some of the key features of the system and describe the progress and plans for the system. Basically, the local automation model is a library automation project sponsored by the Defense Technical Information Center. You are all familiar with the bibliographic services provided by DTIC; DTIC also provides system development and research into new information technologies as part of their service to the DoD technical library community. The Local Automation Model (LAM) represents some of DTIC's interests and expenditures in that area.

The LAM project encompasses a system design from the requirements definition through the typical ADP life cycle and the implementation of a prototype system. From the experience gained from the prototype development, the project continues with the development and acquisition of a production system for DoD technical libraries. So the "bottom line" results of the local automation model project is a production system available for acquisition by DoD technical libraries. Along the way we have the benefits of the experience gained in the development of the system and the efforts that went into determining the requirements and design. The key thing to remember is that this is part of the project to promote resource sharing, this is part of the resource sharing philosophy within the DoD technical information community. I will talk a little more about the tangible benefits of those tools and those capabilities to support resource sharing.

As I indicated, the initial focus of the project is on DoD technical libraries which are members of the Shared Bibliographic Input Network (SBIN). That group of libraries, the subject of our panel this afternoon, participates in direct cataloging into the TR data base. LAM is intended to provide them with the automation tools to reduce the burden of SBIN participation, that is, of participating in online input to the TR data base.

The LAM project originated at the request of and with the sponsorship of SBIN. SBIN participation involves resources. If you are cataloging and maintaining a local catalog within your library, and someone asks you to catalog into a second system, that implies some increased expenditure of staff resources. If you can catalog a report for which your library has primary distribution responsibility only once and have that cataloging as well as that document go to multiple sources, then that does not really represent a significant demand on your staff. So DTIC and the SBIN members have initiated this project with the idea of sharing the costs and the burden of sharing bibliographic information resources.

The key features of the systems, which provide the underpinnings for resource sharing, are as follows. We want to provide a flexible catalog format. We realize that throughout the community of several hundred libraries, not just SBIN libraries but within the DoD library community, libraries may maintain different catalog formats. Our survey and our work with libraries since the beginning of the project has indicated that this is certainly the case. Since maintenance of a local catalog is the key element of the system, we want to allow sufficient flexibility to accommodate different catalog formats. In other words, we are not addressing or forcing the issue of catalog standardization within the defense library community. The data base management approach to catalog implementation allows for differences in catalog format. With LAM we hope to speed up the process of getting technical information into the hands of the scientists and engineers, or, more appropriately, into the hands of the intermediaries, the retrieval professionals, the technical library staff members. I'll show you a little bit about how the implementation of the LAM will accomplish this.

We want to provide within the system remote data base access, which is really the key to information sharing, not only by allowing technical libraries to catalog directly in the technical reports data base, which is done today and which is the concept reflected by SBIN, but also by allowing retrieval from

those data bases. This is also allowed today--you are familiar with DTIC and DROLS--but the idea is to streamline that process and reduce some of the manual effort and intellectual effort that is currently associated with doing that. Part of the ability to do this rests with something called the single command language, or common command language, which permits access to diverse resources using a single or unified procedure or set of procedures or languages.

Here's a summary of the capabilities we want to provide within the system. We want local collection management capabilities, that is, the capability to maintain a local catalog of those holdings not eligible for inclusion in the TR data base: reports classified above Secret; restricted dissemination materials; intelligence materials; books, periodicals and other materials not acceptable for technical reports cataloging. We want to permit retrieval from that local collection (obviously) and then provide some measure of circulation management and control. Control the inventory to control the holdings. Control patron acccess or support patron access to the local holdings. By resource sharing, we mean access to remote sources. Our prototype system focuses on access to the TR data base as the first target data base in addition to the local catalog.

Schematically, what we have in mind is a computer resident in or accessible to the library, not necessarily a dedicated computer. You will be able to maintain and manage a local collection that is cataloged using the system, retrieve from your local collection using the system, and then through something called an intelligent gateway, which is a hardware/software product, gain access to other data bases. Thus, a single terminal or set of terminals will allow you to access the local catalog and the technical reports data base. If you are the originating source for a technical report, you will catalog that holding as you currently do. The system will aid you in reformatting that citation for DROLS if your local catalog format and content is different from the DROLS format. It will prompt the cataloger that the DROLS format is different in, for example, the subject terms field. DTIC uses the DRIT for subject terms. DRIT tends to be a great deal broader than most of the terms that are used by the technical libraries in their own catalogs, for obvious reasons. Well, DTIC allows the preservation of your local terms in the TR data base in a separate field. The system can automatically move those terms, your local terms, into the proper position for transmission to DTIC, and then prompt the catalog on the screen for additional terms, the broader DRIT terms that would be required to TR data base cataloging. This is probably a likely application for machine-aided indexing.

So now, essentially, you have entered the citation once and you have made some minor corrections to accommodate the differences in formats. The Local Automation Model will translate the format and, using your current DROLS communcations capabilities, transmit it via RTIS into the DROLS TR data base. Rather than entering it twice, you have entered it once, plus a small effort over and above to reconcile the differences. This points up what we have been pointing out to the libraries that we talk to about implementing LAM: the closer in format you are to the TR data base, the less work you have to do to submit that second citation. We feel that using the machine to translate citations and handle the transfer of the bibliographic citation significantly reduces the duplication of manual and electrical effort that you are faced with in any sharing of bibliographic information.

As far as retrieval is concerned, you can create a search strategy interactively on the system and, at your request, have that search run against both the TR data base and your local catalog simultaneously. The results of the search will be transferred to the local system. The results from two or more searches can be merged and post processed. Post processing can consist of further search refinement, re-sorting, reindexing on different terms (title, subject terms, publication data, classification, etc.), storing the bibliography online for a patron, or printing out the bibliography for review offline by a patron.

Project status to date: We have concluded the initial requirements determination for the system, developed a system design, and selected a prototype site, which will be the Defense Nuclear Agency, here in Alexandria, VA. Betsy Fox and Sandra Young are the people we are working with at DNA on the prototype system implementation project.

I want to point out here that there are a lot of good software packages on the market. We do not intend to write original software for this system. We will use commercial software to the maximum extent possible. To that end, we have conducted a survey of 68 software packages. From that survey we have picked six packages that we will be benchmarking, that is, doing a performance evaluation to implement the prototype system. The package selected will do the retrieval, cataloging and circulation management control functions. The intelligent gateway will be provided by a product called the integrated information system, currently under development and support by the Lawrence Livermore National Laboratory, in Livermore, California. The essence of the intelligent gateway features will be provided in the prototype system; that is, it will provide the features of connecting to and transferring between the TR data base and the local or unified system.

What do we have planned for 1985? In '85 we plan to implement the prototype system at DNA, in the May or June time frame. That is, we will have installed at the Defense Nuclear Agency an operational demonstration system. It will be installed at DNA for 180 days, 6 months, for the express purpose of evaluating and demonstrating the concept. As I indicated on the first set of slides, the ultimate objective is to put the mechanism into place, to acquire the production system or make it available to the SBIN members and to the DoD technical library community. That is the subject of the Acquisition Planning shown on this slide.

What are the benefits? What is the value of implementing a local automation model having these capabilities? Well, the idea of facilitating resource sharing is a primary benefit. It goes without saying that a DROLS conference consists of people who are accessing a broad range of information resources: the TR data base, probably DIALOG, perhaps OCLC for books. This idea of resource sharing is embodied in the intelligent gateway processor within the system. You'll have the ability to access external data sources without a proliferation of languages, procedures and terminals currently required to do that. Quicker access is another side of resource sharing. Input of information in the TR data base from libraries who are primary distribution sources for technical reports can be expedited. Demands for staff can be reduced. So, on the one hand, you get broader access without the hardware and equipment

redundancy commonly required today. On the other hand, you have the opportunity to expedite the availability of technical information through direct cataloging into the technical reports data base.

The last benefit is one associated with the local automation model project itself. DTIC, in its role as an information clearinghouse and focal point within the Department of Defense, is providing funding and support for this project to provide the opportunity, reduce the risk of participation and reduce the cost to those libraries that choose to take advantage of the technology. It is a case where DTIC is putting the money up front, taking the risk and taking the lead in technical investigation in this area with the intent of making the results of that work available to the technical library community at large.

QUESTION FROM THE FLOOR: You have a little block on your diagram of the LAM computer. Is that a specific piece of equipment or is that going to be a generic?

HARTT: No, it is not a specific machine at this time. For large SBIN libraries and the larger technical libraries, say, those in excess of 150,000 to 200,000 holdings that do a fair amount of original cataloging, that machine is probably a minicomputer. That's what we're shooting for at DNA. Something on the order of two megabytes in main memory and upwards of 600 MB of online storage. That online storage requirement depends on what you include in your catalog. It is extremely sensitive to including or excluding abstracts. But expect a machine of that size. Now, as you may be aware, the hardware technology is advancing fairly rapidly. Hardware costs have been cut in half over the 18 to 24 months we've been working on the project. Within 12 to 18 months we expect the hardware costs to be further reduced by about a third through the use of something called the supermicrocomputer. This is a smaller machine, physically, but with the capabilities that are required to support the transaction volume and the online storage required for the LAM. We have as an objective developing a micro version of the LAM.

Now is as good a time as any to mention that we are soliciting beta test sites for the Local Automation Model. DNA is the alpha test site, and it will be a minicomputer version of the system. We are soliciting interest and support for a microcomputer-based version of the system. A good candidate for the microcomputer version of LAM would be a library with 10,000 to 15,000 holdings and a relatively low transaction volume, a staff of two to four, and not more than one or two users at a time on the system. This is really a second size. When we look at automating libraries, we could divide them into small, medium and large, based on size of the catalog and number of transactions. You look at those figures in general terms and that will tell you the size of the machine that is needed to support automation of that library. With SBIN member libraries, we would look at the number of items, the frequency of cataloging, the number of retrievals done on it, the number of circulations, the size of the collection, the number of holdings, and the number of citations to be kept online. With the minicomputer-based system, we are addressing medium to large libraries, but there are more smaller libraries than there are libraries in the medium-sized range.

QUESTION FROM THE FLOOR: Which software packages are you going to benchmark?

HARTT: I could answer that question, but since we have the project leader for Lawrence Livermore here, I'll let her answer the question. I would like to have Hillary stand up, just so you all know who she is. Dr. Hillary Burton is the Lawrence Livermore Project Leader for the gateway integration. She is handling the information center network and the integrated information system. Hillary?

BURTON: We are testing LS 2000, Minisis, ULISYS, Bibliotech, BRS/Search, and DataLib. We have published a report on the software assessment. It will be available in the TR data base soon.

HARTT: The other documents, the design documents and the system specification, are also available in the TR data base. I don't have the AD numbers off the top of my head, but if you do an author search on my name or a title search on Local Automation Model, you will find the documents. It may be of interest to you if you are going through the process of trying to develop an RFP or trying to plan for automation within your library. If nothing else, those documents might give you some insights into how to approach automation and may save you some effort and time.

QUESTION: I have a question about the relationship between the systems specification document that Lawrence Livermore is going to be doing and the systems specification LMI did. Are they going to use LMI's or are they going to develop another document?

HARTT: No, LMI's document is the starting point. The system specification is now 6 months old, and in the intervening period the design has been refined and the requirements for the system have been refined. We will use the program specifications and a test plan to specify the requirements and the evaluation of the system that is produced.

QUESTION: Who is going to be responsible for the system specifications?

HARTT: Those are published by LMI.

QUESTION: No, the new system specifications?

HARTT: There will be no new system specifications. There will be a joint effort benchmarking the systems. It will be conducted as a joint effort between DTIC the project sponsor, DNA the prototype site, Lawrence Livermore, and LMI.

QUESTION: So then a library who is interested could take this document to their computer people, ask them whether they could write some routine specs from it, and get some idea as to whether they should participate or not. Is that correct?

HARTT: That would be a way of doing it, yes.

QUESTION: In your software assessment, did you consider micro-based packages?

HARTT: Yes, we considered micro-based packages. They were discarded from the prototype system because of the transaction time and the fact that we need a

package that supports multiple users. We need a package that would handle in excess of 100,000 citations online. That eliminated many of the micro-based packages, with some exceptions. The software assessment report describes micro-based packages that were eliminated. Generally the reasons are that they are single user systems, one, and that, from the perspective of a medium to large size library, they are somewhat limited in the number of holdings that could be cataloged and kept online. We did look at them, and we will certainly look at them again for a beta test site that will be microcomputer-based.

COTTER: If you have other questions, you can catch Rick between this session and the next one on the gateway.

Now I would like to introduce Jim Erwin who is with DTIC's development staff. He is going to tell you about the beginnings of the project to develop an input system that will be more user friendly for SBIN sites.

INPUT SYSTEM DESIGN PROJECT

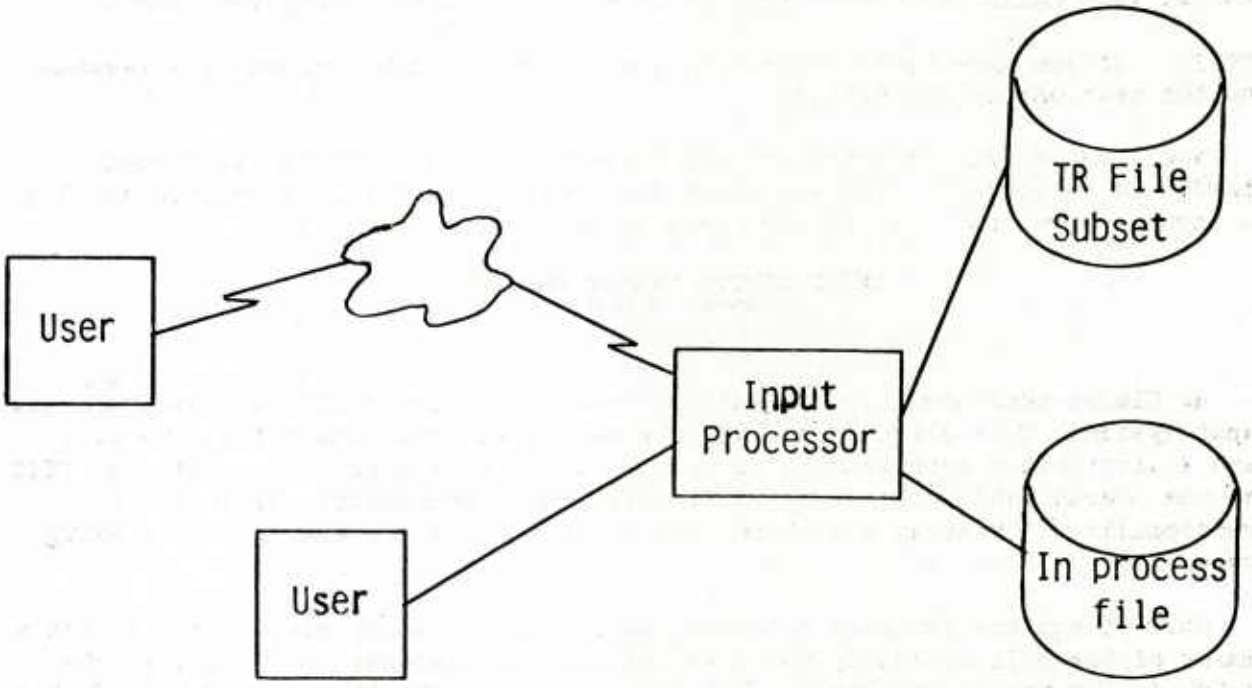
James Erwin
DTIC-J

As Gladys mentioned, we are establishing a project at DTIC to develop a new input system. This input system will be developed by a contractor. We will have a distributed architecture to provide full functionality for both the DTIC and the Shared Bibliographic Input Network (SBIN) community. By full functionality, I mean at a minimum, real-time duplicate checking and indexing tools.

Some of you are probably thinking, well, that's really nice, but I am not a member of the SBIN community and I am not a DTIC cataloger, so what will the system do for me, if anything? This system will do two things for you. Number one, by providing a vehicle for achieving a vigorous SBIN community, our technical reports data base will have more information, and the information will be more timely. The second benefit is that the distributed aspect of the architecture will mean that we can remove the current input process from the DROLS computer. By removing that process from the DROLS computer and reducing contention for the resources of that computer, we will be able to achieve a higher level of retrieval performance from the DROLS computer.

This first slide depicts the design concept and the five overall design goals. The design goals are: number one, full functionality. As mentioned before, that is real-time dup checking and indexing tools. Number two, a distributed architecture, which provides two benefits: it improves the performance for the input process itself by increasing reliability, and it will enable us to provide you better performance on our current DROLS system. Number three, ease of use. We will make every attempt to make the user interface not user antagonistic. "User friendly" is batted around quite a bit. But a user friendly interface is very subjective, so we can promise that we will do our best not to make it antagonistic. Number four, compatibility with the LAM. It will be designed to work hand-in-hand with the Local Automation Model. And number five, modularly maintainable and modifiable. That means it will be adaptable to changing functional requirements and changing capacity requirements. I would like to call your attention to the diagram at the top. We will go through each one of the individual system components.

DESIGN CONCEPT



GOALS:

1. Full functionality
2. Distributed
3. Not "user antagonistic"
4. LAM compatible
5. Modular/Maintainable/Modifiable

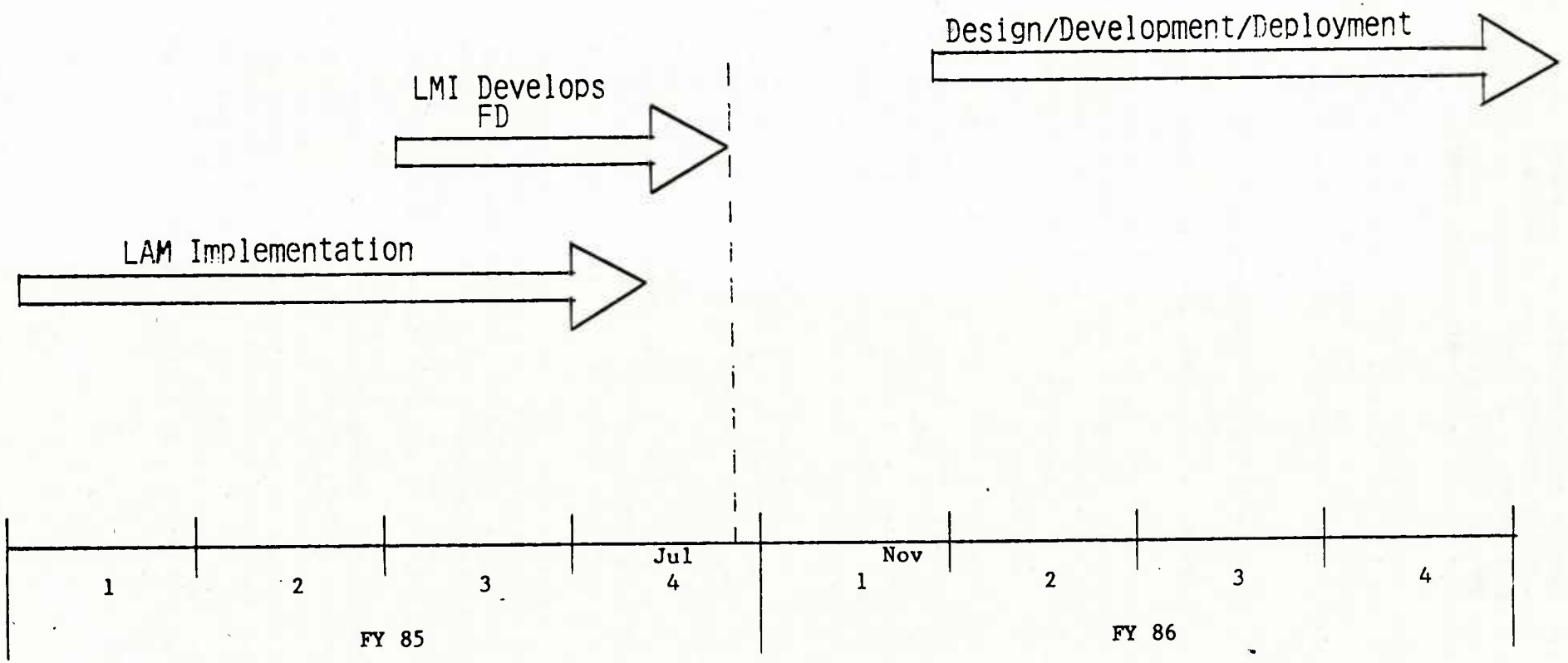
The input processor will be one or more minicomputers or a local area network of microcomputers. The TR file subset will be a file that will facilitate real-time dup checking. This file may or may not be feasible, depending upon whether we can identify a subset of information from the technical reports master file that would be suitable for real-time dup checking. If we can, then it will enable us to divorce this input system almost completely from the DROLS computer, and it will provide the distributed benefits that were previously mentioned. The in-process file will contain the records that are being uploaded from the user work stations. It will contain all the records that have not been updated to the technical reports master file. Two user work stations are depicted. The first one would be the DTIC cataloger work station, which is directly connected to the input processor. The second work station indicated would be a SBIN site work station, which is connected through a telecommunications network, which in this diagram is indicated by the cloud-like symbol. It depends on what the functional requirements turn out to be and where the technology is, but I would hope that the user work station would be microcomputer-based. If it is microcomputer-based, it would enable us to provide a higher degree of reliability, because most of the functions of the input system could be performed on the microcomputer. There would have to be interaction with the input processor itself only for the real-time dup check function and for uploading records to the in-process file. A microcomputer-based work station would allow us to provide a much more sophisticated user interface at the work station because we would not be constrained by the ability of the telecommunications network to transmit that interface to the work station itself. It would reside in the work station.

The second slide depicts the development plan. There are actually three phases to the development plan. The first stage is the definition or the system requirements, or, in life-cycle terminology, the functional description. The second phase of the development plan involved looking at the Local Automation Model development, mentioned before. The prototype is to be installed at the Defense Nuclear Agency in either the third or fourth quarter of FY 85. The second phase would determine whether the software developed for the LAM could be adapted for use as the input system. In fact, if that were feasible, that would save us a tremendous amount of development costs. The first two phases will be performed by the Logistics Management Institute. I estimate that those two phases will take 4 to 5 months and be completed in the fourth quarter of FY 85.

The third phase is the design, development and deployment of the actual system. As previously mentioned, if we can modify the LAM software, then that modification would be the third phase. If in fact we determine that it cannot be modified, then we would take the functional description (FD) out to the private sector and see who can meet our requirements. We could get a vendor response like, "yes, we can meet this requirement by developing software from the ground up and putting it on a piece of hardware and that's your input system." Or we could get a response from a vendor saying, "OK, we already have specialized hardware for the input process, we have specialized software, and this is how it can be adjusted or modified to meet your requirement." At that point, the determination of how to proceed would be based on the most cost effective approach.

To reiterate, we have established a project to develop a new input system. This system will provide two primary benefits to non-DTIC and non-SBIN users:

DEVELOPMENT PLAN



it will promote a vigorous SBIN community, which means there will be more data and more timely data in our technical reports data base, and the distributed aspect will allow us to remove the input process from the DROLS computer and free up resources that can be devoted to the retrieval process. That will improve the performance of the retrieval process itself.

COTTER: Thank you, Jim. The next speaker today is Susan Ewing. She is going to tell you about how she has implemented SBIN in her library. Susan is kind of unique for us because she is doing SBIN using dial-up, while most of our users have been using dedicated. We thought you would like to see how she is using it at her site.

DIAL-UP INPUT AT WRIGHT-PATTERSON AFB

Susan Ewing
Air Force Human Resources Laboratory

I am really happy to be here today to shed some light on the situation with dial-up input. Everything I've heard this week about dial-up input has been negative. So I'm happy to report that it is alive and well, and it works very well for me. I hope that I can persuade some of you to take the attitude that you can make it work for you, too.

I represent the Air Force Human Resources Lab at Wright-Patte Force Base. We have what is officially called an office collection. We are not really a library; we are called the Technical Documents Center (TDC). I'd like to discuss several topics with you today: I would like to tell you what we had in "the olden days," what we needed or wanted, what DTIC offered and how we implemented it, and what benefits we derived from it.

When I took this job, I inherited a collection of approximately 10,000 technical reports. This collection is unique, because it was an accumulation of those reports that the test scientists looked at and decided to keep. They had been doing that for 40 years. So we have a unique collection of items that deal with the areas of training, simulators, logistics and manpower studies, and a lot of information on the early space program, which is fascinating. So this was a one-of-a-kind collection that we wanted to be able to keep. We gave the documents accession numbers, starting with 1, and filed by those numbers; we are somewhere around 11,000 now. We did not want to change the numbers on all of those reports. We had an index that did not work well for us. It's called a Key Word in Context index; some of you may have heard of this. The index uses key words from the title. If the key word you are looking for is not in the title, you will not find the report in your index. This indexing system was over 10 years old and was therefore archaic by computer standards. The information that it had in it was bare bones: we had the title, if you could find it by the key word, and we had an author listing. That was it. We had very little information on dates, report number, corporate author. No abstracts, no indexing terms, nothing. This was really about as bare as you could get and still call it an indexing system! Our software that ran these paper indexes was managed by the ASE computer system at Wright-Patterson Air Force Base. We had a person in-house who had worked on developing the software originally, but about the time that she left, the computer center changed its program protocol. We would have had to rewrite the program in order to be able to run it. So we decided at that time to try to find some new type of indexing system that would serve much better than what we had.

We developed a list of capabilities we wanted the new indexing system to have. We looked at the list we had come up with. Some of the things we wanted were not really essential, but we decided we might as well go for it as long as we were putting in something new. We didn't ask for much. We wanted it to be online so that we could search it interactively. We wanted more sophisticated data than we had in our old system. We wanted low cost and minimal effort. And along with this, we wanted to be able to do computer literature searching for the test scientists in our lab. This is a function that we did not have prior to this time; we couldn't really justify it because it would not be cost-effective for the small number of people that I work with, and it was available elsewhere at Wright-Patterson. We decided that we wanted the searching capability, and we had to find a way to do all of this together.

About this time, a really nifty person came into my life. Her name is Gladys Cotter. I was invited to an NTIS-DTIC program at Wright-Patterson by a fellow librarian. Gladys got up and told about "Utopia," the SBIN system. This system offered the online search capability we wanted, and it was able to provide the printed indexes that we would need when the system was down or when I was not working on the system, etc. This met our online, interactive qualification. It had multiple field records with everything we wanted, plus a few things that we did not necessarily need, but were nice to have, so it met our sophisticated data need. We could get it through dial-up access using general purpose hardware. We had computer equipment available; they put a phone line in my office, so we were able to get dial-up at very low cost.

I was asked to be on this panel because I am using SBIN through a dial-up access. This means we access DTIC over telephone lines using the TYMNET communications system. We have a general purpose terminal. The first terminal I used was a Silent 700, which worked for searching but did not work for the input; in order to do input, you have to have upper and lower case. The Silent 700 I had did not have that capability. Then I went to an Execuport 4000D. That provided all the capabilities. It was equipment we had stacked in our lab that no one was using, so I don't think that we ended up spending any money for it.

The other capability SBIN offered was the capability to access the technical reports data base. Gladys said the TR data base already had the majority of the tech reports done by DoD contained in it; I believe she said at the time that it contained about 60% of the reports. When I searched my collection, I found that between 80 and 90 percent of what I had was already in there, so it really did turn out to be minimal effort. In addition to the capabilities it offered as far as the indexing system was concerned, it gave us the justification that we needed to get the DTIC searching capability. We would not have been able to justify getting that otherwise.

I'll tell you a little bit about the implementation process in the TDC. The first thing I did was go through the collection and make a list of my accession numbers, my shelf numbers, and see which documents had AD numbers marked on them. I made a record of that. I will show you the forms I used to record that information. After I did that, I searched all the reports that did not already have AD numbers marked on them to find which were in the data base. Then I input the holdings symbols on all of the records that had AD numbers

already. Then I cataloged and input the full records for reports that we had in our collection that were not already in DTIC. The next step in all automation is trouble-shooting and debugging, when you go through and find your percent of error, and go back and make your corrections. We are still not fully implemented yet. When we are, we will order paper paper indexes and will be able to search online anything that we have in our collection.

I made up some unique forms. I am really a nut for organization, so I developed my own. When I went through the collection, I recorded all the information on a sheet. There is the shelf number column, an AD number column, and an input column, used when I actually did the inputting. I would make a red mark for each report as I put in a holdings symbol, or I would mark in the full-record column if I put in a full record. At the same time I was gathering all this number information, I did a circulation study to see how many of our reports actually had circulated, how many times they had circulated, and the date of the last circulation. I also did a study on the number of AMRL reports (this information was for somebody else on our base who was building a data base at that time), and I had a column for remarks. When I processed the reports on the sheet, I would circle "Search" and record the date I did the search to find the AD numbers. This procedure helped me keep track, all the time, of where I was in the process.

Whenever I input, I made a red mark either for a holdings symbol or a full record, and I would mark down the date along the side. When the input information is processed by the computer at DTIC, you receive a printout back from DTIC so that you can correct and make changes to your data. When I received the printout, I made a green mark over the red mark. Then, after a certain period in the 2-week computer cycle, the information is input into the regular TR data base. You then have to go back and check to see if your information has, indeed, gotten into the data base. I made a slash over a blue mark on this side when I found the information in the data base and it was correct. The last step is to remove what you input from the storage report; at that time I would make a red mark down the middle here. I had very colorful sheets! At any time, I could tell where I was in the process, and it has worked very well for me to do it that way.

The other sheet I invented is called my SBI tape log statistics. Each of the SBI tape log sheets was numbered. I then would indicate that number on the sheet. Each statistics sheet would record the status of 12 of the tape log sheets. I recorded the following data: sheet number; total number of items on the sheet; the dates I searched those items; number of items I had to search; the date I put the holdings symbols on those items and how many holdings symbols I put on; the date of the full records and how many full records I put on; the dates that I received printouts of that information; and the dates I deleted that information from storage. That way I always knew where I was and what I had to do next. It made me look really organized, and it really impressed the people who work with me!

Finally I would like to make a quick run-down of the benefits we have realized from this system. It saves time over using the manual paper index. That is a God-send. We are able to do a subject search online, with our holdings symbol information, and produce something for somebody to carry out of the TDC with them. Before we had to do a search, get a listing of the reports, and then go through the paper index to see how many we had. Our patrons, who

have Masters' Degrees, PhDs, and so forth, would go through the alphabetical listing and find what they wanted, and then drop it on my desk. So this system saves me a lot of time. It saves money due to the fact that we did not have to buy any equipment. All we had to do was put in a phone line. It also saves money because, before ordering documents from DTIC, we can check to see if we already have them so we don't get double copies of reports. This will work even better when we are all finished and we have got everything we own online. The ease of access has been really good. Anybody could learn it because I did!

Everybody seems to think there is a real problem with dial-up. I can only speak from my experience, but I have really good luck with it. When I was going "full guns" on this project, I was working on the terminal 5 to 6 hours every day and really never had very many problems with it. What I did learn is that, when you spend that amount of time working on something like this, you learn all the quirks. You get to know the system very well. If you are thinking of doing something like this, you say to yourself I don't understand the system. Believe me, by the time you get done, you understand the system! You have to treat it like a spoiled child, because it will act that way. Treat it as though it has a personality, not like some kind of spooky magic. Just treat it like a child that has gotten all it's toys out and refuses to put them away!

The quality of the information we now have in our index is much better, because we have everything we need to know about a document. It's wonderful that we can always look up how many pages are in a document, especially after 1 Jan 85 when we have to pay by the page. We have the abstract; we have all the indexing terms; we have all the bibliographic information. Anything that you could want we can get. When we order a bibliography from a search, we order a TR9000, which includes our holdings symbols; average DROLS users order at TR6000. My holdings symbol includes my shelf number. Therefore, when I see that, all I have to do is walk to the shelf and pull that report. It has really helped streamline our collection. When we started this project, we had between 9,000 and 10,000 reports. To date, I have input 6,993 holdings symbols, including 500 full catalog records. In the process of putting those in and doing the trouble-shooting, I discovered 50 duplicate reports in my collection.

As we went through and pulled everything off the shelf that was not already in DTIC, I had one of our senior scientists review those documents to determine which we should keep. We weeded 400 reports; they included esoteric items like regs, pamphlets, etc. We weeded one that was paint chips for the Department of Defense, all the colors that you could get in paint! In the process of going through our collection, we discovered a subcollection of 920 reports produced by the first and second generations of our laboratory. They are original copies of the reports, not reproductions. We are going to send them to our headquarters library in Texas, because they maintain the history of our lab. Through that library we maintain a separate historical collection that should be kept all together in a central location. I cleared a lot of space on the shelves by doing this project.

The printed formats are available. I will start ordering these as soon as I finish inputting everything. This will work well for us; when we started this project, we had people saying "Well, what are we going to do when you are not in your office? How are we going to find anything?" Once in a while I do leave, and then they are on their own. So they will have to have the printed formats available to use when I am not sitting there to help them.

Last of all, one of the benefits that I have gotten from this project is the association with the people who work at DTIC. They have been very professional and very helpful and very friendly. I would just like to say here, they have done a great job, and they have helped me do my job, which has been great. Any questions?

QUESTION: Are you dealing only with unclassified documents?

EWING: Yes. I have unclassified and unclassified limited documents. We don't have any place to keep classified material.

QUESTION: Now that you have entered 500 new documents, can you give us an average time to input a document?

EWING: Between 10 and 15 minutes. I type fast. I type faster now then I did when I started.

QUESTION: When you are putting in your Field 48, accession number, are you doing this online?

EWING: I do it online. We have a cataloging sheet that we got from DTIC. I go through and fill out that sheet off-line with the exception of the narrative fields--title, abstract, and so on--which I type in right off the report. I fill out all the fields on the cataloging sheet, and then I type the whole thing in. I look at it and edit it right away, and I send it, and I'm done with it. I don't store it and bring it back up, as you can do. Once I deal with the data, I'm through with it.

QUESTION: Are you part of the ADD program at all?

EWING: No, I don't get ADD because our people refuse to use microfiche, which you know a lot of people do. Also, we are a lending collection, so I order our documents in paper copy. We are on the CAB, so we do our ordering through the bibliography we receive through the CAB. If it is a paper copy, I put it in a binder on the shelf. When I go around doing my Grim Reaper routine, which is well known at my lab, I can identify immediately which reports are mine and which are not mine. Microfiche disappears too easily, so we do not use that at all.

QUESTION: What did it cost you, as far as online goes?

EWING: Well, I live an ideal life; I live in a bubble. All the bills go to Texas. I have never seen a bill; I do not know what it costs. That is a great way to do it if you can work it out that way! Costs are $20.00 per connect hour. If you are going to do something like this, I would say hire yourself a typist who can type really fast.

QUESTION: Do you have an idea how much time you spend online?

EWING: I have never added it up. I get the records every month. There have been months when it has been 5 to 6 hours a day. By the time I get my collection all input, I will be adding, say, 50 new reports per month, and the time will go way down. It is just the backlog collection that takes so long.

QUESTION: What will you do when you have your entire collection input?

EWING: I will have to look for a new job; this one won't have any more challenge!

COTTER: Thank you very much. I think we are all really impressed with your success, and it has nothing to do with luck.

Our next speaker is Bobbie Everidge who is going to talk about how she is implementing SBIN at her library, libraries really, since she is in a network of her own.

SBIN AT THE COMBINED ARMS RESEARCH LIBRARY

Barbara Everidge
U.S. Army Command and General Staff College, Ft. Leavenworth, KS

I am going to concentrate on just the library that I'm with. I am the Systems Librarian at the Combined Arms Research Library, which is an academic library supporting the Army Command and General Staff College at Fort Leavenworth, Kansas.

When the SBI experiment was started in the mid-70s, one of the most important objectives was the capability to provide an online catalog for local library use. For a participant like CARL, this represented a return on investment for the amount of time that we were expending doing cataloging that would otherwise have been done by DTIC. We had been sending documents to DTIC and having them catalog the documents for a long time. We were a user of DTIC retrieval services since the early seventies. We started participation in SBI in 1980, so we have been participating now about 4 years.

This presentation is an overview of how things are done at CARL. Everything hinges on the capabilities that DTIC added to the DROLS/input system to promote an online catalog, capabilities that were not required for SBI in general. One was adding Field 48, which allowed a library to add a holdings code in a DTIC citation to indicate it owned a copy. Our holdings code is TRAL. When we do a search for a patron, we can either add the role code 59 (i.e., ?59TRAL) and limit responses just to those things that we own, or we can look at a printout which includes Field 48 and pick and choose from among the hits which ones we have and which we have to order from DTIC. So now life at CARL revolves around the DTIC terminal.

The AD number retrieved from a search will lead us first to fiche. Our fiche file is the main file; if we have a copy of the document in hard copy, we will put a card in the fiche file to indicate that the patron must go to the shelves at the back of the library to get the hard copy.

When we started SBI, we had about 100,000 documents all cataloged into a standard card catalog as we had been doing for years, a home-grown system. Now we have two collections. We still have the card catalog to access what is in the old system, which I'll refer to as ALIS (I will discuss ALIS in a minute), and we have another sequence of documents filed by AD number and accessed by the DTIC system. When we started SBI, we decided not to maintain our in-house call number system for the SBI documents. We might as well file by AD number. Very few people browse through the fiche anyway! We are in DTIC's ADD program; if

you are an SBIN participant and in the ADD program, when DTIC sends you ADD fiche, they will also automatically add your holdings code to those records. So each month when we get our ADD fiche, all we need to do is file them. We increase our collection, including on-line access to it, by about 500 documents a month.

I will very briefly discuss the changes to the various departments at CARL since SBIN has been implemented. The old cataloging procedure required six different listings: a source number listing, because our call number sequence depended on the source; an accession card, which is like a standard shelf list card; a main entry listing, because the shelf list cards can be removed from the file (the catalogers were typing exactly the same information on long sheets and filing them in books, so we would have the information permanently); a set of catalog cards for our card catalog, of course; a suspense sheet to let us know when classified documents needed attention; and, finally, an in-house system called ALIS, the Automated Library Information System.

The ALIS system was developed at CARL as a circulation system. ALIS had only that one function, and that function ran independently of the data base. However, our people in the Documents Center were faithfully chunking all this information into a data base that was not used for anything. At that time, we had one cataloger and two technicians, and we had a backlog, a considerable backlog. We were getting fiche from DTIC; at that time, we were cataloging these fiche into our local collection virtually from scratch, not taking advantage of DTIC at all. It was very complex.

Now, instead of those six listings, we have a single SBIN entry. Let me add here that when we put a citation into SBIN--and not everything goes into SBIN; I will get to that in a minute--that is the only record that we have in-house that we hold that document. We have increased our staff to three catalogers; that is because we have seen an increase in the amount of retrieval required, too. Our reference burden has gone up considerably because of additional curricula added to the Command and General Staff College. Those changes are independent of SBIN. Now we have a classified backlog. We do not have a classified terminal; we have a dedicated terminal, but it is unclassified for the time being. Because of the problems of technical information--you know, how much unclassified information can you send over the line before you give it away--we have decided that classified documents will still be cataloged by the old system. And of course SBIN input itself is complex. I am looking to the new input system to address that problem.

As far as acquisitions is concerned, we used to get about 3,000 documents a year from initial distribution. These were all in hard copy. When we special-ordered fiche from DTIC, we cataloged them into the collection. We had participated early on in the ADD program; but, because we were getting so many fiche each month in the ADD program, and we did not have time to catalog them into the collection, we stopped the ADD program. That was one solution. Once we got into SBIN and found that we could get the fiche and Field 48 tags at the same time, we started up the ADD program again. Now we are getting over 9,000 documents a year with no additional staff and no additional requirement, primarily due to what we get on ADD. This is a better solution.

Other changes have occurred also. Under the old system, we filed by source and classification; now we are filing by AD number. We were primarily in paper before. Now we have convinced our patrons, whether they like it or not, they have to use microfiche, particularly now that there will be charges for hard copies. Under the old system, we have three collections because we divided the collection up by the classification: Unclassified, Confidential, and Secret. Unfortunately, for the time being, we now have five: we have the three collections from the old system, plus microfiche and hard copy collections from DTIC. But eventually when we get entirely converted (in the year 2045), we will have only two: DTIC and ALIS. There will always be a part of the old documents collection, accessible through the card catalog, that will never be converted into DTIC.

Under ALIS, which was primarily a circulation system, we had an automated system so to speak. When we got into SBIN and started filing by AD number, we were changing all the parameters. We actually re-marked the documents with the AD number instead of the old call number on which the ALIS circulation system was based; therefore, we had to give up our automated circulation. But sometimes it is better to be manual. With SBIN, we have an automated retrieval and cataloging system and a manual circulation system, whereas before we had an automated circulation system with manual cataloging and retrieval. We are much better off now.

Service to the patron comes first, so this is the one area that makes the most difference. Under the old system, the patron came in and searched the card catalog generally by subject. If they could find nothing, they would do a secondary search of the DTIC system. We would order documents from DTIC for them; at that time, it took 7 to 10 days to get DTIC documents. Use of the Documents Center was so low that we were teaching the patrons how to do the standard quick searches on the DTIC terminal; that gives you an idea of how times have changed. We estimate now that at that time, fewer than one in ten patrons walked out of the library after one visit with something they could use. In most instances, they found nothing in the card catalog, and they had to wait at least a week to get things from DTIC.

Now when a patron comes in the library, the first thing they do is have a reference interview. The reference librarian sits down with the patron at the DTIC terminal and does a search. Of course, with Field 48 we can tell immediately what we have and what we have to order. We can also supplement that search by going back to the card catalog and getting some of the older documents that might fall in the same subject. Of course, now it is STAFF ONLY on the DTIC terminal; we do not have the time to teach, nor do the patrons have the patience to do the searches. We can now provide the patron, on his or her first visit to the library, at least one pertinent document.

We have about 45,000 citations in DTIC now tagged with our holdings code. Strangely enough, when we had as few as 13,000 citations tagged, more than 95 percent of our searches resulted in at least one hit that was there in the library, i.e., that had our holdings code on the record. Remember, that is 13,000 out of 1.7 million citations in DROLS. Now that we have 45,000 tagged, we hardly ever have a search where we cannot give the patron several documents pertinent to the subject being researched.

I want to second Susan's [Ewing] good comments about DTIC. We found that DTIC was very responsive to requests that we made for changes in the system to allow a local catalog to come about. First of all, we get bibliographic indexes through DTIC. These paper copies are used at CARL as backup when DTIC is down, which happens sometimes. We needed a way to solve the problems that our old suspense sheets used to take care of: what classified documents do we have, when do they need attention, when do they need regrading, and so forth. So DTIC implemented two changes. One is called the S/L change; whenever DTIC makes a change in the limitation or classification of a document, it inputs in the identifier field the term "S/L CHANGE TAB nn-nn." So by searching the identifier field for this terminology plus the TAB cycle, we can tell when DTIC has made a change, and we can make the same change on our document. DTIC also added Field 49 which gives the regrade authority, so we can go ahead and mark our documents accordingly.

Another problem came up: when we searched the DTIC terminal to find a citation--we dup check everything before we catalog it ourselves--we occasionally would find an ADE or ADF number. Even though it was put in by some other SBI site, we would still append our holdings code. When the document gets to DTIC, they change the AD number from an ADE or ADF to one of the DTIC numbers, ADA, ADB, or ADC. But if they do not tell us, we are still sitting there with our document over in the ADEs, and our online citation says we own an ADA. So, DTIC started telling us all the AD number changes made when SBIN input documents were changed to DTIC documents.

Another issue is holdings code transparency. You can see only your own holdings code. You cannot tell what has been input or what has been tagged by other libraries, except by the ADE or ADF number range. This is still a bit of a problem for us. We run into some other problems, too, but I hope the Local Automation Model will solve most of these problems. I can go on about the problems, but I'd rather concentrate on the benefits.

We have had some problems with acquisition. SBIN is great for controlling the document once it gets to your library, but SBIN does not address the problem of getting that information in the first place. I have heard a number of times throughout the conference this week that the important part is getting the author or the producer of the paper to get that information into the system. You cannot retrieve it if it is not there. SBIN doesn't solve that problem.

SBIN system constraints are being addressed. The complexity of the system, for example, is going to be addressed by the new input system. The problem of a non-inclusive data base--we found that some of our friends were not happy about our putting their citations into the data base--and the problems of poor response time and too much down time are being addressed by the Local Automation Model. So what is left is the problem of resource requirements, that is, the number of people required to do the cataloging, the level of expertise demanded and the need to keep up those skills. There is also the problem of the number of terminals. At the SBIN meeting Monday, person after person said that there is competition for the terminal. When we went into SBIN, the first thing we did was get a second terminal; one for retrieval, one for input. Now we have three reference librarians and two technicians, and they want five terminals.

Everyone has to have their own. With an online catalog, if you have only one terminal and two reference librarians, you've got one person sitting and waiting. So you get queuing problems very quickly. I am about to go out and ask for an addititional three terminals.

In 1978 we performed a little over 2,000 searches a year; in 1984 our projected total (I don't have the statistics from September yet) is about 22,000 searches, so there is a significant difference. We are now highly dependent on the DTIC system.

I'm a firm believer in SBI. I will talk with any of you during the break and convince you that it is a good thing to try, but keep in mind the constraints that come along with it. But again, I am enthusiastic about the Local Automation Model and the new input system. I think they will solve many of the problems.

COTTER: Thank you, Bobbie. And we have one minute for Marjorie Powell.

SBIN WRAP-UP
Marjorie Powell
DTIC-J

I only have about a minute's worth of things to say anyway. I wanted to say that this year we will be able to add more SBIN sites. We are going to have systems support because of some new programing. If you would like to join, please write your name on the yellow pad I'll have up here, or see Marie Clark, who is right there in the middle of the room (stand up, Marie). Her number at DTIC is Autovon 284-7206, if you want to call her.

The other thing I just want to mentioned is that I am beginning a project now which will be a networking configuration to consider the other options in networking of material that does not go into the DROLS data base. Maybe you would like to share among your sites some of that information also. So if anybody has any ideas, anything you have been thinking about along these lines, I certainly could use any suggestions that you might have.

COTTER: That concludes our panel presentation. I would like to thank all the panelists. If you have any questions, just corner them now. Thank you.

DOD GATEWAY FOR ACCESSING DIVERSE INFORMATION RESOURCES - Gladys Cotter/ Carol Jacobson/Marjorie Powell, DTIC/Frank Jones, Wright-Patterson AFB/Linda Evans, Rome Air Development Center/ Richard Hartt, Logistics Management Institute

Gladys Cotter
DTIC-J

Good afternoon. This is a session on the DoD Gateway system. We are going to have a panel presentation this afternoon. I will start off by giving you an introduction to the Gateway, and I will then introduce the panelists as we go along.

Most of you know that a few years ago we had a name change and a mission change, we changed from the Defense Documentation Center to the Defense Technical Information Center; and along with that name change came a mission change. We were to provide not only DoD-generated information but also information of interest to the DoD community. As most of you know, we have been supporting DROLS for many years; DROLS provided information on DoD-generated information, so the question was how do we have an outreach program and provide the other information as necessary? We thought the best way to do that would be through a Gateway system that would allow you to identify, access and interrogate other information sources, non-DROLS information sources, and then would allow you to download that data and analyze it.

This project is a joint agency project; DTIC is participating in it with the Department of Energy, NASA, the FAA, and the Department of Commerce. Lawrence Livermore National Laboratory is our primary contractor on this effort, and I would like to introduce Hillary Burton who is sitting in the back row. She is the Livermore project leader on this effort. Because it is a joint agency project, we have a steering committee and a technical committee. They meet quarterly to get together and determine objectives.

The software we are using at Livermore is called a Technology Information System. We liked this system because it had the basic backbone for a Gateway, which included a resource directory for accessing information, a protocol translator and data analysis routines. At this point, I would like to introduce Carol Jacobson from DTIC who will tell you about her work to develop a DoD directory of resources which will be available on the Gateway.

Carol Jacobson
DTIC-J

Many of you have seen the display of the data base directory and of DTIC's other reference services. This is the basis for the resource directory on the Gateway. Right now it is available in print format. If you look in the handouts you received when you registered, you'll find a small card which you can use to order copies of this directory. The directory is also online right

now at DTIC, on our 1161 computer, on the data base management system BASIS. We are in the process now of moving this data base from the UNIVAC environment to the Gateway computer on INGRES so it will be more widely available. If there are any questions, feel free to contact me after the meeting.

COTTER: Thank you Carol. In addition to the directory that Carol is providing, we eventually want to have a total DoD resource directory which would be subject-searchable. A user could enter the topics he or she was interested in, the search would go into the directory, and the directory would respond with a listing of data bases that might be appropriate. Eventually we would like to have some type of expert system for searching, so that a user could enter a natural language query, the expert system would translate the query into the appropriate language of the data base out there, and the directory would give them the answer. But that is a few years down the road.

We would also like to design a user interface with a single command language or a single menu interface for these different systems. DTIC sponsored a conference about 4 weeks ago in Williamsburg on computer interfaces. We had a lot of the experts in the field come out and tell us about how they are designing their interfaces now, and how they think they should be designed for the future. We want it to be easy to use, and we want it to translate protocol. Our goal in the near term is to support the intermediary. Yesterday, Marjorie Powell and I were at an ISO meeting on standard command languages for retrieval. The people there, especially Charles Hildreth of OCLC, Inc., had done a lot of research into the question, "do intermediaries want a standard retrieval language?" The answer was overwhelmingly, "yes." It is not just the end user who needs this tool. It is also the intermediary who has to learn more and more languages and has to have charts of commands pasted up on the walls to refer to while doing daily data base searching. So this is an area in which we are quite active now, looking for a way to come up with a type of menu system or command system that would be useful for you.

Another area we are developing right now is post-processing. Marjorie Powell is the project officer on that, and she will give you an overview of what we have been doing and plan to do in that area.

Marjorie Powell
DTIC-J

Post-processing, as Gladys said, is one of the most promising aspects of the Gateway computer system. I don't need to tell you all how difficult it is to find information and retrieve it in any succinct manner because there are so many data bases these days. The Gateway allows you to connect into several data bases automatically, with an automatic log-on. Then the user can do searches on any of these data bases, merge them together, download, eliminate duplicates, and post-process. The user sits at the terminal and does the searches, e.g., on DOE, NASA, DoD, with the transparent connect, etc. The intelligent Gateway processor then allows you to download and create files from these different data bases. A translation routine translates the downloaded files into a standard format. Then the merge routine creates an aggregate file, eliminating the duplicates. Then you are ready to get into the post-processing options.

A number of post-processing options are available. I won't discuss all of them, but I will show you some of the interesting ones. "Analyze" is one of the options that offers you a fast bibliographic text analysis that is nice to look at, as opposed to the usual format that you get when you do a search, for instance, in DROLS. "Review" is an interactive option with which you can look at each citation online and decide whether you want it or not. It prints out the authors and the titles, the numbers involved, and part of the abstract, so you can look at it and determine whether it is relevant.

The "analyze" option offers local options which include category, relevancy, and test ordering. The "concord" creates concordances by the author, descriptors, corporate author, or country. These usually are alphabetical, generated in whatever form the user wants. Just hot off the press in the last 2 weeks has been a new enhancement of this option with which you can also see the full citation online. "Permute" shows how many times in your file particular descriptors appear. A list might help you to get an idea whether your search is on the right track. "Cross correlation" is an interesting option showing a cross correlation of two expressions contained in any two fields, e.g., authors/authors or authors/descriptors. If you choose authors/authors, you can see just who is writing with whom. The authors/descriptors shows the author with all the descriptors he or she has used in the cited documents, thereby showing you just what fields he or she is interested in.

We are always open to suggestions. If you have a research project that you are working on and you need some post-processing capabilities, come talk to us and we can see about having them incorporated into the system.

COTTER: As Marjorie mentioned, this is an experimental system right now, and we have some experimental users. We have two of them with us today. They seem to have survived it so far. I would like at this point to introduce Frank Jones, who is at Wright-Patterson and has been one of our best users on the system. He will let you know about his experiences.

Frank Jones
Wright-Patterson AFB

I was first introduced to Gateway at our last users conference, and I saw potential in downloading and post-processing. This system has five commands I will discuss here. The one I use is the one Marjorie just discussed: permute.

The Gateway computer is at Lawrence Livermore, and I am in Ohio. I use TYMNET, because I have a TYMNET node at Wright-Patterson Air Force Base, to get to Lawrence Livermore and back to DTIC to download. After I am logged on to TYMNET and logged onto the Gateway computer, I issue a command to connect DROLS. My sign-on codes are already in the computer. The computer dials DTIC, signs me in, gives me the ITAR message, and then I am ready to put in the search. Some may wonder why I go to Livermore to post-process, why not go directly from Ohio to DTIC? Well, you need a computer or computer capability to download the keywords and operate on them the way that I am doing. Since my terminal is a dumb terminal like most of yours, there is no computer capability there. As you know from your security tests, you cannot get into the operating system at DTIC to execute programs (which is the other alternative to post-processing via Lawrence Livermore).

As an example, I would like to explain a search I did for a lieutenant. Levels one and two represent the keyword, "transpiration cooling." Level three asks how many of those reports also talk about "hypersonic velocity of flight." This is airplane research. Level two had 235 hits, and of those 235, 22 had the term "hypersonic" in them. This second lieutenant, an engineer, went back to his office completely satisfied. When he got back and talked to his supervisor, he discovered that his supervisor had a report that was not listed among the AD numbers retrieved. The supervisor suggested that perhaps the lieutenant's search was too limited. That put the lieutenant in a bind. He had just started working and had not been to any conferences or read any journals or learned much about the technology. He needed help, and that is where downloading and post-processing came in.

I went back to the 235 hits from level three and extracted descriptors for 73 of those reports. These were reports dated since 1975 with ADA, B, and C numbers. I pulled the descriptors and downloaded them to the Gateway computer. Just before you download descriptors, you set up a file in the Gateway system--giving it a name you choose--to receive the descriptors as they are downloaded; then you can operate on them when downloading is completed. When the display was completed, and descriptors from all 73 reports were in the file at Lawrence Livermore, I disconnected from DROLS with my normal termination. Then I was ready to operate in the Gateway. I input the "permute" command. For this engineer's purpose, we really didn't need the number of occurrences for each keyword. He only needed to see the terms; his problem was lack of familiarity with the technology and the ability to come up with the proper keywords off the top of his head. However, with a list of keywords presented to him, he could readily pick out those that are pertinent. The list contained 1,087 terms.

When you create the file and execute the permute command in the Gateway computer, you are really operating in the UNIX operating system. UNIX has a command called "more," which will bring up a screen full of keywords. After you review that screen of some 20 keywords, you simply touch the space bar and the computer will bring up the next 20, and so forth. To go through the 1000+ terms, the engineer sat there and hit the space bar 50 times. He had to look at all of them in order to make sure he covered enough of the main keywords of his subject. His objective, remember, was to find out if the work he proposed to do would duplicate anything that had already been done.

As a result of that review, we performed the subject search again with the newly-identified pertinent keywords. Level two still had 253 hits, but level three now had 147 hits. That was a seven-fold increase in the number of reports for him to review to see if he is possibly duplicating effort. And that is the name of the game.

COTTER: Thank you. I would now like to introduce Linda Evans. She is with the Rome Air Development Center. She was formally with NRL. We have been following her, because once we get a good user we don't let them go. So Linda is back with us again this year to tell you about her experiences.

Linda Evans
Rome Air Development Center

I promised Gladys Cotter no horror stories about the DoD Gateway. I intend to keep that promise because there really are no horror stories. Those of you who have worked with DROLS, or have known DROLS for a long time, can remember DROLS before the User Council came into existence. There were many horror stories about the design of the system. The end user was basically ignored when the system was designed. We are still trying to make DROLS user-friendly. Well, the folks at DTIC learned their lesson. When they were assigned the task of setting up the DoD Gateway, they made certain that the system would be evaluated by end users before it became operational. I have no horror stories about the operational DoD Gateway. The experimental DoD Gateway has given end users an opportunity to suggest corrections to the system before it becomes operational.

As one of the end users chosen by the DTIC Gateway staff to evaluate the new DoD Gateway, I have been asked to relate my experiences with the system. I discovered, however, while preparing my presentation that it was impossible to separate my experiences from my attitude towards the system. Gateway has made my work a lot easier. As Gladys mentioned, I have been at two libraries in the 15 months I have been using this system, and my work has been made easier at both those libraries in totally different ways. Therefore, this report is going to address a little bit about attitude as well as actual experiences.

I am a librarian. I am not a computer programer. I have not had any formal training in computers. I have had experience as an end user of bibliographic data base systems. When I want information, I want to get that required information from the computer without being required to understand the philosophy, budget constraints, programing system, operating system, language, and what not that went into designing it. Ease of use is one of the user friendly features in the DoD Gateway system. The more you know about the system, the more Gateway is capable of doing for you. However, you don't need to be a computer whiz to get started. A final personal note regarding my use of the DoD Gateway: little things frustrate me very easily. Big things I can handle, but busy phone lines, redialing numbers, switching buttons on the terminal for caps, handshakes, bauds, different sign-on and sign-off procedures, Telenet and TYMNET and direct dial differences, these things can get to be mighty frustrating--little details to clutter my already cluttered memory. Now DoD Gateway is operational, and all these little details are left behind. I have one terminal setting, one phone number, one password.

By now it may be obvious that this presentation does not apply equally to all of you sitting in this room. Those of you who love designing programs and are computer literate may find this a little boring or simplistic. Gateway is easy to use, and I don't need to provide all my own programing. You may have the money to have in-house systems, or you may be capable of programing your own machines. You can figure out search procedures, download and rearrange bibliographic information in any format you desire. You might have clerical help to type and retype memos or reports, and great Autovon lines, so you don't need to use electronic mail.

Gateway has become my answer to all these functions. A little bit later, I am going to discuss in detail the Gateway feature that I have enjoyed using the most and which has the greatest potential for us as librarians: the integrated information system which includes the post-processing capabilities. First, however, I am just going to go over, very briefly, some of the Gateway functions I have used. DoD Gateway has the ability to store, edit, move, transfer, or do a number of other things to a file created by a user. Other users may look at the file, execute it, or write over the file if permission has been granted by the original user, or a file may remain a private file. During this evaluation period, I created several files for in-house use. I update and produce these files frequently, but no one knows that these files exist because I have not granted permission for anyone to access them. On the other hand, I have given the DoD Gateway word access to my demo files. Other DoD Gateway users have been able to read those files or execute those program for their own use. This has saved them time in downloading their own files, and it has also saved storage space. For the future, if several DoD Gateway users are working on a similar project--we often find that the Air Force is duplicating a lot of the work the Navy is doing and vice versa--each user might create his or her own file, give access to other users, or transfer it to the other users via electronic mail. Each would benefit from the other users' work on the project, and all would have access to the results without the duplication of effort.

Gateway's electronic mail system transmits mail instantly, but the addressee does not have to be able to receive it instantly. This process eliminates the problem of trying to establish phone contact when people are not in the office, or when lines are busy, or when time differences create difficulties. I often log-on early in the morning, prepare and send my mail, then log-on in the late afternoon and have an answer to my mail. Another advantage of electronic mail in DoD Gateway is the ability to dial into the electronic mail through any phone connection and any terminal. People are able to keep in touch even while on travel. Gladys pointed this out to me last week--we were in Panama City, Florida, together. She brought a terminal down with her, and she said she was going to check to see if there were any messages from the office concerning my coming to this conference.

Gateway's visual and pattern substitution editors are easy to use to create reports, prepare memos, or maintain files. I have used the visual editor to create and keep up-to-date a patron registration file. Soon, we may be using it at RADC as a circulation tickler file. The editor was designed for use with a CRT, but it is one of the few systems that can also be used with a teleprinter.

Now for what I consider the exciting part of the DoD Gateway: the Integrated Information System, or IIS. Imagine sitting down at your terminal, logging on and being able to switch between several remote computerized bibliographic data systems such as NASA, DOE, DIALOG, and DTIC, as easily as we now switch between DIALOG files or between the TR and work unit data bases in DTIC. Then imagine being able to store all the relevant information and produce one bibliography in a format which best suits the library user's needs. This is available today through Gateway. I have available for anyone who wants to look at it a copy of a transcript that I downloaded Tuesday night. This shows the different examples of what can be done.

Briefly, the user logs onto the DoD Gateway, either dedicated or dial-up, and enters the IIS portion of the system. The user then enters a connect command for the desired data base. Gateway checks to make sure the user has access to the requested data base, sets all the protocols, and dials the remote computer. Gateway logs the individual user onto the remote computer, and the user begins the search. At this point, the Gateway computer becomes merely a communications link, or gateway, between the user and the remote system. At any time, the user may signal the Gateway computer for help, for additional information, or to start downloading information from the remote computer. Gateway temporarily suspends transmission to the remote computer, replies to the request, and once again sits back and acts as a communications link. The user can use a single command to disconnect from the remote computer and then can use another single command to connect to any other remote computer. Once all the remote data bases have been queried and the information downloaded into Gateway, the user may use it as it is or post-process it in several different ways. Frank showed you some examples of that.

With the ability to access so many diverse data bases so easily, the task of DoD librarians to provide all relevant information to library users will be much simpler and cheaper. Although a request for information about super computers might suggest searching all the available data bses, few would have thought to check DOE for information on global positioning systems, or NASA for information on the NRL SOL-CHEM project. Yet I found relevant information in these files, and I found this information only because it was so easy to use the connect command in DoD Gateway. I did not have to set NASA and DROLS data bases, the system will eventually be able to eliminate the duplicate and retain only one citation. The commands are simple, the program is menu driven, and the final product is a useable bibliography. Every system must be debugged, and I am sure that before the DoD Gateway goes public, the case of the missing AD numbers will be solved. As a result of the suggestions (I am not going to say "complaints") received from the end users over the last 15 months, the programers and designers of the DoD Gateway system have brought the system from being very barely user-friendly up to being definitely user-friendly. They are still working on this; they are still adding improvements to it.

I have used many features of this system, but I have been most interested in the information retrieval and processing. Maybe those of you who have an understanding of computers would be able to produce your own program for some of these features. I do not have that capability. DoD Gateway has given me that capability without requiring budgets or learning time. Therefore, DoD Gateway has proved its usefulness to me. As someone said in an earlier session, I am really excited about it.

I'd like to add one note as an addendum. I promised Gladys no horror stories about the DoD Gateway, and I think I have kept that promise. But remember, the Gateway is in a computer currently located in California, yet the moment we sit down at the terminal, we tend to think Gateway. An adequate understanding of all the local equipment and capabilities associated with it is necessary in order to access Gateway. Know the limitations of the terminals and the problems of transmitting over standard phone lines rather than dedicated networks or data lines. My horror stories relate to these areas, making Gateway guilty by association. Don't place the blame on the central system for the

problems created by local conditions. Next year I hope we will have a discussion among many Gateway end users. My user name is EVANS; if I can be of any assistance, send me electronic mail.

COTTER: Linda mentioned the Gateway being located at Livermore. We are planning to purchase a computer and install the Livermore software on the DoD Gateway system probably in the second or third quarter of FY 85. Bill Saunders is the project officer. He is working to acquire the equipment and make sure that everything goes right. The equipment will be located at the Pentagon, and our date has slipped a little past November.

Marjorie Powell and Marcia Hanna are working on a separate project right now to set up a user support office for the Gateway system. We found through our work with Linda and Frank and other people on the system that we really need to have a hot-line service. We need to have someone, at least during regular working hours, whom users can call on the phone when they run into a problem. We also need some documentation with exercises to do, similar to the type you receive when you attend DIALOG training. This documentation should be at the user level as opposed to some of the training manuals we have now which are more at the programer level. We are working right now to correct that so that we will have a full support service similar to the one we have for DROLS.

Some people have been interested in the costs associated with the Gateway system. Right now, anyone who is using it is a test user and is giving us feedback on the features that they like and don't like. It is free of charge to them. We are covering all the costs. But you will face costs in the future. You have to have a dial-up terminal. We are not thinking about a classified DoD Gateway for at least 3 years. We have talked with the people at the Defense Data Network and explored the possibilities of having a classified Gateway through them, but we think that is at least 3 years down the road. Training is also a cost because, at least in the beginning, we will have the training centralized in the DC area.

We estimate that the connection charge will probably run about $20.00 per connect hour, approximately what DROLS is today. If any site wants to have specific enhancements made, we are in a position to do that, since we have been established as the DoD focal point for the Gateway system. We are in a position where you can give us money to send to the system developers to have your specific design done. There are also some agencies like the Naval Surface Weapons Center who have been supporting the Gateway project over the past couple of years; we would like to thank them for all that support.

Finally, when you access other systems, there is also a charge. We don't get involved in billing at all, so if you already have an account on DIALOG and you are going to search DIALOG through the Gateway, your bills will come to you as they always did. The bill will not come through us to you. As far as DIALOG is concerned, or SDC, you are just another terminal out there. They do not know whether you are on a Gateway or not.

At this point, I would like to introduce Richard Hartt from the Logistics Management Institute. He is working on a project to design a local automation model. That work was originally being done through the Shared Bibliographic Input Network, but we found that LAM is merging the Gateway technology with a

local cataloging system technology. Just to distinguish the two projects for you up front: one involves the design of the DoD Gateway system which we see as a clearinghouse for information, and it takes advantage of Gateway technology. On the other hand, the LAM project involves designing a local system that is really a tool for your use locally, but LAM is also building on this Gateway technology.

Richard Hartt
Logistics Management Institute

I participated in a previous session in this room that focused on the background and design and requirements for the system called the Local Automation Model, LAM. What I want to do in the remaining minutes of this session is talk about a subset of capabilities that we have defined and that our users have indicated are required for the Local Automation Model.

When we talk about the Local Automation Model, we are talking about an integrated library automation system resident on a computer in the library and dedicated to supporting local collection management and remote access to resources. A key function is this ability to access bibliographic resources external to your library, data bases such as the work unit data base, DOE and NASA RECON, and some of the commercial services like DIALOG and ORBIT. The local automation model will provide tools for local collection management, including a local catalog, with the ability to catalog into and retrieve from it, and circulation management and control. The local catalog can include those records which are not eligible for input into the TR data base through SBIN. The system we specified and are developing will be demonstrated as a prototype at the Defense Nuclear Agency in the third quarter of FY 85.

The LAM will provide a single point of entry for citations. This means that you will enter the citation once and it will go to at least two places without the human intervention typically required to catalog into two different systems. The citation will go into your local catalog; the citation will also go into the technical reports data base. It gets to the TR data base through use of a Gateway. The libraries in DoD are not configured like DTIC, and they do not use the same format used by DROLS and the TR data base. The Gateway reconciles those differences. For those differences that cannot be handled by the Gateway, the Gateway will prompt the cataloger for the changes that are required. This is a significant reduction in effort over cataloging twice on two separate terminals, into two separate systems, with two separate sets of commands and procedures. The prototype system will demonstrate the ability to maintain a local catalog and send citations to the TR data base. With this capability, we expect that the time between publication of a technical report and its announcement in the TR data base will be shortened considerably, at least for SBIN participants.

Now imagine if you will the extension of that capability to other sources. Currently you probably access a host of other systems, both government and commercial, through a number of terminals or, as a minimum, through a single dial-up terminal with a number of procedures and commands and prompts, etc. If you have OCLC, for example, you may have a dedicated terminal for that system. With the addition of the intelligent Gateway and the Gateway procesing features in the local automation model, you'll have a single point of entry into all systems, not only for cataloging as I talked about earlier, but also a single point of entry for retrieval.

The LAM has been designed to support multiple users on terminals distributed throughout the library. These users will be able to search simultaneously your local catalog and a remote data base such as DROLS. The local catalog can be tailored to meet local patron needs; it can hold citations to documents which are not eligible for cataloging into the TR data base because of classification restrictions, limited distribution, or the fact that they are not technical reports, etc. Monographs and periodicals, whatever are not cataloged into DROLS, can be searched simultaneously with DROLS, with the results of the searches returned to your library on the Local Automation Model computer.

How do those search results get back to your computer? The intelligent Gateway translates and merges the search results. The post-processing features Frank Jones discussed allow you to identify what is available at your location. If you are an SBIN participant, your holdings symbol will tell you that already, but if you are not, you can tell what you hold by looking at these search results. You can eliminate duplicates and refine your search on a local computer, which means you are not contending with potentially 600 other DROLS users. You are disconnected from DROLS and are post-processing, doing a search refinement, on your own computer within the library under your own control. You can print out these citations. Your user can sit down with the retrieval specialists, the intermediaries, and see what is available within your own collection and what is available for ordering from DTIC.

So, LAM will incorporate the features of an intelligent Gateway. I want to make sure it is clear that the Gateway Frank Jones and Linda Evans talked about is a centrally located system. They have dumb terminals and dial-up a centrally located computer. That computer then routes them and connects them to other resources. I want to make the distinction that the Local Automation Model is a computer, and the intelligent Gateway processing capability resides within that computer, as part of that computer and software. Now, if we can provide interactive access to a local collection and the TR data base through the Local Automation Model, then, give the resources and the ability to overcome some translation and format problems, we can connect to any number of other sources. Therefore, one of the topics we will pursue after implementation of the prototype is other data bases to which we can connect the LAM. We will seek out sponsors and members within the DoD technical library community to assist us in doing that. We would like to provide the capability to connect not only to the TR data base but also to some of the commercial sources and government data bases like DOE RECON and NASA RECON.

There are many difficulties to overcome in implementing a system like this. I'd like to take this time to recognize some people who have contributed to the project. Most of the topics discussed today, particularly what I have talked about, are the work of Viktor Hampel, at the Lawrence Livermore National Laboratory, and Hillary Burton, a recent addition to the staff there. Richard Marcus at MIT developed a system called CONIT, and there have been probably a number of other people involved in developing the concept of the intelligent Gateway. So, through both the DoD Gateway and the Local Automation Model, we are seeing results of labor and funding from DTIC, DOE, NASA, the Federal Aviation Administration, and the Air Force over the last 5 to 8 years.

What are the benefits? You have a broader access to resources under a single command language and a single set of procedures and protocols. The development of a common command language, a single command language, a unified user interface--all those terms are used interchangeably--is a major piece of work in systems access. Quicker access is another benefit. If you have primary distribution responsibility for your agency or installation, with the Gateway and the local system you can disseminate that information quickly, and make other people within the scientific community aware of the work being done. From the standpoint of staffing and efficient use of resources, the Gateway features in the local system will certainly reduce much of the duplication of effort required to catalog into multiple systems. It can also reduce the manual and intellectual effort required to search several different systems and do the search refinements, duplicate elimination and report formatting necessary to generate a good product for your patrons.

Are there any questions?

QUESTION: Do you have a publication about this?

HARTT: Yes, on the system called the Local Automation Model there are documents available in the TR data base. The titles of all the pertinent documents begin with Local Automation Model. I don't have the AD numbers off the top of my head, but the authors' names are Hartt, Hamilton and O'Conner. A good DROLS searcher should be able to find at least three documents that pertain to the Local Automation Model. In the general area of gateways, the work done at Lawrence Livermore by Viktor Hampel and Hillary Burton is documented the the TR data base. For work on CONIT and work by Dave Toliver on SIMAT, I would expect to find them on DIALOG in COMPENDEX or some similar data base.

QUESTION: At last year's conference, reference was made to Gateway. Unless I heard it incorrectly, the initial implementation would be for DoD users only. Is this still the case, or was it ever the case, and secondly what is the projected implementation?

HARTT: You would have to talk with the Gateway project sponsor. Originally we were starting with DoD users because that seemed like an easy group to begin with. We did not get into the question of copyright and things like that. Eventually when we have our system up and running, it will be open to the DTIC user community, which will probably be much broader than the DROLS user community.

QUESTION: What if we were interested in becoming a test user?

HARTT: If you want to become a test user, see Marjorie Powell. She has a waiting list right now of people waiting for training. We did not want to bring any more people on board until we have the user support operation set up. If I am not there and Marjorie is not there, a lot of users end up frustrated because they cannot get an answer to a simple question.

QUESTION: Can you use dedicated terminals to access the Gateway?

HARTT: No, you cannot use dedicated terminals, only dial-up.

QUESTION: Is training in the near future?

HARTT: For those already in the system, we will be having a 2-day refresher course in the near future.

QUESTION: Will the commands be similar to DROLS commands?

HARTT: We thought about this; initially we said no. But in talking with the other people, we've decided that you can work it either way. One option would be to allow a user to use the DROLS command if they wanted to, and the DROLS command would be translated into the DOE RECON command language, or the NASA RECON, or DIALOG. Another option is to have a standard set of commands. You would learn that one set, and it would work on all the systems. We have not decided which way we are going to go yet, but whatever way we go, you will always be able to search in the native mode. So you would always have two options, the standard command and the native command.

COTTER: OK, thank you very much and thank you to the panelists.

STEPS TO ACQUIRE A DROLS TERMINAL - Theodore Zinna - DTIC

Theodore Zinna, Chief of the Telecommunications Support Office, advised the session attendees of the then current requirements and procedures for acquiring a DROLS terminal. Since the date of Mr. Zinna's presentation, however, the policies governing the process have been placed under review by DoD and significant changes are expected. To avoid possible confusion at some later date, the requirements and procedures outlined by Mr. Zinna during the session will not be included in these proceedings.

MANPOWER AND TRAINING RESEARCH INFORMATION SYSTEM - Lois Richards - DTIC

The Manpower and Training Research Information System (MATRIS) stores, manipulates and retrieves data related to Manpower, Personnel and Training (MPT) research and development efforts throughout the U.S. The system provides service only to DTIC-registered researchers, managers, planners and policy-makers concerned with people-related research sponsored by DoD. The primary aims of the MATRIS program have been to develop and evaluate a prototype system which can (1) facilitate the sharing of reliable and valid information among researchers in the MPT community, and (2) assist managers, planners and policy-makers of all DoD levels with the optimal development and utilization of research and development programs. As such, MATRIS has been developed to serve jointly as an information-sharing network and as a Decision Support System (DSS). The capabilities and resources of MATRIS are continuing to expand. What began as a prototype program has evolved into a fully operational system assisting researchers, developers and planners in a most vital task--that of information-sharing and utilization.

PROTOTYPE DEVELOPMENT

The MATRIS program began with the implementation of two independent information systems: the Training and Personnel Systems Technology (TPST) and the Research and Development Information System (RDIS), each designed to track unique but limited aspects of ongoing research and development efforts. TPST and RDIS served as feasibility projects, with emphases on delineating useful data elements, identifying necessary data sources, and initial formatting of the data bases.

Pivotal to the development of MATRIS has been the collaborative work of consultants and a multidisciplinary staff from the computer science, data base management, management science and social science research fields. High priority was given to the responsiveness of MATRIS to the information requirements, cost considerations, organization characteristics and work objectives of immediate and potential system users. For MATRIS to be an effective and useful system, it was necessary to ensure that its data elements were reliably and validly linked, and that the system was perceived to exemplify an appropriate and efficient DSS and information-sharing network. Evaluations of MATRIS's operational capabilities over its 2-year history indicated the reliable storage and valid linkage of data in the system's 200 data element fields, and served to document the system's momentum in achieving its goals of information-sharing and decision support. The structural and operational characteristics of MATRIS, which are discussed next, continue to be dynamic in nature.

THE OPERATIONAL SYSTEM

MATRIS is a DSS which collects, stores, updates, permutes and retrieves textual and discrete information concerned about the conduct, evaluation and planning of MPT research.

Storage and retrieval functions are carried out on the UNIVAC 1100/60 computer at DTIC. The updating and data processing functions of MATRIS--the abstracting and indexing of textual material and entry of current fiscal data--are performed on a Harris/100 computer, located at San Diego.

The BASIS Data Management System is used for data storage, manipulation and retrieval functions. MATRIS terminals are in operation at DTIC and at San Diego with direct system access and information transfer between the Harris and UNIVAC computers via telephone communication lines. Hard-copy products can be generated and received at DTIC and San Diego.

STRUCTURE AND CONTENT OF THE DATA BASE

MATRIS is concerned with information pertaining to three funding levels within the MPT research and development area: the program element, project and work unit levels. Program elements relate to the four-dimensional categorization of MPT research according to: (1) DoD funding/strategic priorities (MATRIS tracks only "research and development" program efforts); (2) the general nature of the research and development effort (i.e., basic research, exploratory development, advanced development, etc.); (3) equipment/activity type (e.g., military sciences, aircraft and related equipment, etc.); and (4) branch of service (i.e., Army, Navy, Marine Corps, etc.). The project level is concerned with major research and development "thrusts," "objectives" or "goals" (e.g., simulator development, operational flight training) which are derived from the larger concerns defined by the various program elements. Information and decision support aids pertinent to these first two levels are used primarily by research and development managers, planners and policy-makers. The work unit level, typically of primary concern to researchers and developers in the field, focuses upon data and provides for information related to the specifics (e.g., methodology, research findings) of past, present and planned research and development efforts.

Each of these three levels includes data pertaining to fiscal and budgetary concerns as well as information regarding the nature and objectives of the work being conducted, the organizations and individuals involved (i.e., DoD laboratories and investigators, Service branches, universities, private contractors, etc.) and the interrelationships of the various levels of effort (in terms of research and development funding data and content). The three levels of funding data and research information are subsumed in hierarchical fashion by the four congressional categories (Human Factors, Manpower and Personnel, Education and Training, and Simulation and Training Devices), which partition major goals and objectives of MPT research and development.

SERVICES AND PRODUCTS

Of course, the existence of a DSS is justified not only by the system's flexibility and capacity for data storage, manipulation and retrieval, but also by the products and services thereby available to present and future users. To the extent that the MATRIS program provides the right information to the right people, at the right time, and in a cost-effective manner, it may be said to fulfill its functions as a DSS. Accomplishment of these objectives depends not only upon the hardware and software configurations of the system, but also upon the continual processes of data collection and valid reduction and reliable coding, indexing and updating of information pertinent to the MPT community.

Also critical to the output of worthwhile products is the accuracy, timeliness and completeness of that data made available to MATRIS. Presently, most MATRIS data sources are in hard-copy form consisting of: summaries and reports from various research and development laboratories and field units, including DD 1498s (Research and Technology Work Unit Summaries), MASIS reports (Management and Scientific Information System) and Laboratory Program Summaries; MPT budget documents such as Congressional Descriptive Summaries and apportionment review/technical review documents; and supplementary information obtained through the MATRIS staff's direct contacts and consultations with researchers, managers and planners.

Information from these data sources included in the data base allows the MATRIS staff to respond to user inquiries about the history, present status, future directions, and funding and fiscal details of research and development efforts within the MPT area. Major products of the MATRIS program are:

o **The Training and Personnel Systems Technology Research and Development Program Description (the "Budget Book")** - a document providing an overview of the MPT program. It is published annually, though updated segments can be generated at any time. It contains program element and project synopses and fiscal information derived from the President's budget. Laboratory planners and managers, and Service and OSD headquarters personnel use this document as a forecasting and decision support device.

o **The Directory of Researchers** - a document listing those who perform and/or manage present, people-related research and development for the DoD. It is published annually, but also can be updated in segments. The directory has served both researchers and managers as a useful aid in their pursuit of open communication lines within the MPT community.

o **Subject matter retrievals** - information provided through systematic and structured searches of the data base along lines prescribed by interested researchers. Such retrievals are based on the reliable, subject matter indexing of textual data at the work unit level. MATRIS staff index each work unit in the system through the Human Resources Research Indexing Vocabulary (HRRIV)--a unique, hierarchical, concept-based indexing system developed for MATRIS to capture the essence of MPT research efforts. Presently, the HRRIV consists of approximately 1,800 vocabulary terms. It is a dynamic indexing system, continually exposed to the processes of conceptual refinement, term additions and appropriate hierarchical reorganizations. The scope and nature of the HRRIV allows the MATRIS staff to pursue searches and information retrievals based on inquiries ranging from specific questions concerning research methodology and findings to global inquiries related to the levels of effort allocated to various research and development priorities.

o **Program element/project listings** - information on the funding bases and fiscal plans for selected program elements and/or projects of interest. This product has been useful to program managers and planners in their review of past DoD fiscal priorities and in their anticipation of future budgetary trends and goals within the MPT community.

o **Contract effort summaries** - documents resulting from flexible research and retrieval strategies providing information pertaining to those DoD contractors who have pursued, or have contracted to pursue, work within specific research and development areas. These documents can gather information pertaining to past, present and future DoD/contractor needs, determine centers of expertise within given research and development areas, and evaluate levels of effort within the private and government sectors.

o **Multiservice retrievals** - documents displaying fiscal and/or research content information (e.g., program goals and priorities) across the various DoD services. This information is potentially useful to planners and managers in avoiding duplication of effort across the Service branches, in keeping up-to-date on changing research and development priorities within the MPT area, and in monitoring the progress and budgetary expenditures within the various Service branches and program element/project categories.

Also available as products from the MATRIS program is a myriad of documents based on specifically framed inquiries regarding the fiscal details and/or content of research and development efforts within the MPT community. The initiative and inquisitiveness of MATRIS users, and the systems and research knowledge of the MATRIS staff, set the boundaries for present and potential utility of MATRIS as a DSS. As in any area of technology or information management, it is the human element in the MATRIS system that is responsible for realization of the system's full potential.

FUTURE DIRECTIONS FOR MATRIS AS A DSS

The MATRIS program has been characterized as a flexible, integrated DSS, useful for researchers, managers, planners and policy-makers in the MPT community. The MATRIS program has completed its 2-year prototypal development stage and is now in operation for government laboratories, OSD agencies, and DoD contractors and grantees concerned with people-related research and development activities. To date, MATRIS has developed and functioned within the content of a research and development atmosphere, progressing iteratively through development, evaluation and refinement. As MATRIS continues to be responsive to the needs of those within the MPT community this process of development-evaluation-refinement remains a vital aspect of the system.

Below are some examples of the developmental and operational issues MATRIS is concerned with.

o Implementation of hardware configurations and software packages which will render the system most directly accessible to and easily managed by users.

o Implementation of graphics capabilities to supplement user products.

o Entry and updating of specified data via remote terminal sites.

o Expansion of the present data base and data resources through the cultivation of more open communication and information-sharing among personnel within the MPT community.

o Continual refinement and restructuring of the MATRIS indexing system to accurately capture the character of research and development efforts being pursued.

o Extension of the prototype system designed by the MATRIS program to other technology areas.

o Creative use of both the MATRIS capabilities and data base to make available the product and information which best serve the goals of MPT researchers and administrators.

MATRIS was developed as a prototypal system to meet the needs of research and development personnel concerned with the direction and future of DoD-sponsored, people-related research. As a now fully operational system, MATRIS continues, through the encouragement of information-sharing and provision and revision of decision support aids, in its goal toward serving the MPT community.

SMALL BUSINESS INNOVATION RESEARCH PROGRAM. Robert B. Wrenn/Randall W. Bergmann - DTIC

This morning we want to address a new federal program for small businesses engaged in research and development, and talk specifically about DTIC's support to those organizations participating in the program.

The SBIR (Small Business Innovation Research) Program was mandated in 1982 by Public Law (PL 97-219) and designed in accordance with the Small Business Administration (SBA) National Directive 65-01.1. Length of the program is for 6 years, which began in FY 83 with participation by those 12 U.S. Government agencies that have extramural budgets of at least $100 million for research and development. The budget percentages to be set aside throughout the program life are: FY 83 = 0.1, FY 84 = 0.3, FY 85 = 0.5, FY 86 = 1.0, FY 87 = 1.25, FY 88 = 1.25. Estimated dollar amounts for DoD are: FY 83 - $16.7M, FY 84 = $44M, FY 85 = $79M, FY 86 = $160M, FY 87 = $240M, FY 88 = $262M.

Administration of the program is in three phases. Phase I is initiated each year with a printed solicitation containing topics on which small businesses may compete, through formal proposal for 1/2 to 1 manyear of effort with performance over 3-9 months, to determine the scientific and technical merit of new ideas. The Phase II award is made on the basis of results from Phase I efforts, and covers 2 to 5 manyears effort over a 2-year performance period. Phase III is expected to involve private-sector investment and support resulting in a commercial product; however, the government may award a non-SBIR contract for products or processes meeting that agency's mission. So far, DoD has awarded 283 Phase I contracts from 2,903 proposals for FY 83 and 373 Phase I contracts from 3,007 proposals for FY 84. About 100 awardees have been selected from FY 83 to receive Phase II contracts.

What is DTIC doing to support the different phases of the program? Let's begin with the annual Phase I solicitation. The Army, Navy, Air Force, DARPA, and DNA select research topics of interest to them for inclusion in the solicitation, and send them to DTIC for preparation of an information package on each topic. The information package contains a bibliography of the 50 most recently published unclassified/ unlimited technical reports; a modified format (title, keywords, technical objective, approach, and name and telephone number of the principal investigator) on a maximum of 30 active unclassified work units releasable to contractors; and referrals to other information sources. Copies are printed and stocked on each topic prior to the release date for the solicitation. These packages are furnished upon request to small businesses wishing to submit a proposal for any particular topic. Copies of technical reports contained in the bibliographies may be ordered from DTIC without cost for the first 20 report copies. After that prepayment or an NTIS deposit account is required. DTIC also acts as the secondary distribution point for copies of the solicitation.

We want to be sure that the "little guy" can get the needed support from DTIC doing his Phase I contract. To do that, we have asked for and received blanket approval to register Phase I awardees to receive unclassified DTIC service for the duration of their contract. Once registered, the principal

investigator is contacted by one of our retrieval analysts to discuss an approach for updating a search of our technical report and work unit files. During the duration of the Phase I contract registration the small business will also receive special help in document ordering and identification services through the SBIR office at DTIC.

Upon notification that a Phase II contract has been awarded, DTIC will contact the small business principal investigator and help process his or her registration for DTIC services. Special help will also be extended on data base searching and document ordering. We are not sure at this time what DTIC services will be required for Phase III contracts.

Let's look at DTIC support furnished to participants in the SBIR program so far. During the FY 83 solicitation period, 910 organizations requested and received 3,766 information packages, and 2,050 technical reports on 406 topics. DTIC also filled 7,225 orders for the solicitation brochure. The FY 84 solicitation shows a great increase in DTIC support with 1,474 organizations requesting and receiving 13,199 information packages and 7,330 technical reports on 566 topics. Orders for copies of the FY 84 solicitation decreased to 6,024 due to a wider initial distribution by the printer. The FY 85 solicitation you are now holding in your hands opened 1 Oct 84 and will close 31 Jan 85. To date 820 organizations have requested 2,500 information packages and we expect the final numbers to show a great increase over FY 84.

Improvements are an integral part of DTIC's support to the SBIR program. Many improvements have been added since we began in FY 83; however, others are needed and we will move to make these happen:

1. Get topic managers more involved in choosing keywords for searching our data banks and providing specific references for their topics.

2. Work for 100 percent submission of work unit summaries for ongoing contracts and technical reports for those completed to DTIC data banks.

3. Establish a registration procedure that will ensure that all awardees are given equal opportunity to obtain DTIC services.

4. Provide for special help and specific guidance in the use of DTIC to those awardees new to our system.

This list is by no means complete, and I am sure others will surface as we proceed through the program.

That concludes my presentation. Are there any questions on the SBIR program in general or any specific ones on DTIC's support to participants in the program?

QUESTION: How does DTIC control information flow to these contractors?

ANSWER: We have established a DTIC user code that will validate for unclassified/unlimited information only. Requests for information other than unclassified/unlimited would be rejected by the system.

QUESTION: Does DTIC give an SBIR requester 20 free copies of each technical report requested?

ANSWER: No. That's a total of 20 free copies for each solicitation period.

QUESTION: What happens if an SBIR proposer asked for a limited distribution technical report?

ANSWER: We would refuse and explain that proposers receive only unclassified/ unlimited information.

QUESTION: Has DTIC measured usefulness of this program to the small business and to DTIC?

ANSWER: A feedback sheet, designed to help do just that, is included with each initial order of information packages mailed to each requesting organization. Positive results were received from about 20 percent of the organizations requesting information packages during the FY 83 and FY 84 solicitations. Three out of every four FY 84 Phase I awardees used DTIC services for preparation of their proposals. We believe that the SBIR program has been a useful tool for DTIC in reaching small research and development organizations. DTIC has used SBIR to experiment with new service ideas that may improve its services to all users.

QUESTION: Do the Phase I and Phase II SBIR contractors get free DTIC services?

ANSWER: No. We only give them special help with registration and service.

QUESTION: Who certifies subject fields and groups on the SBIR Phase I DD Form 1540?

ANSWER: No one. DTIC does not validate fields and groups for unclassified service. All Phase I contractors are registered for only unclassified service.

DTIC DIRECTORS' WRAP-UP - William Thompson, DTIC-T/Charles Gould, DTIC-D/
Jerry Milstead, DTIC-S/Richard Douglas, DTIC-J

WILLIAM THOMPSON
DTIC-T

Good morning. The other morning I mentioned the existence of a new DD Form 1473. A lot of people have asked me for copies. I have a few copies with me, but only what I have been able to steal from DTIC. These were locally printed. I tried yesterday afternoon to wend my way through the thicket of procedures. I tried to figure out when and if and how these things get stocked by the various Service publications centers. I am told that the Navy Publications and Forms Center will stock the form, but probably not until sometime after the first of the year; although the DoD forms manager says she is going to talk to the Navy forms manager and see if she can improve that a little. I have not been able to contact the Air Force and Army publications centers. The forms are available, I am told, through the normal military forms management channels. So those of you in DoD laboratories ought to be able to get them through your normal forms channels. The contractors should probably be able to get them through their military sponsor until the Navy, Air Force, and Army publications centers actually get them.

A question came up about GIDEP and whether there will be some future merging of the GIDEP and DTIC data bases. At one time in the past, DTIC did handle GIDEP documents. GIDEP withdrew from the arrangement. GIDEP maintains its community through a very closely-monitored quid-pro-quo arrangement. They don't want to jeopardize that by getting other people in the act of serving their community.

Mr. Robey touched briefly on the COSATI revision. In the process that we have gone through over much of the past year, in terms of doing the intellectual effort involved in coming up with our revisions, we have spent considerable time looking at the categorization schemes used by other government agencies and especially those of intelligence and security organizations because that was one of our major concerns. We tried to solicit comments from as many people as we could. We took all this input and synthesized it into the revised new field and group structure that I mentioned the other day. We have briefed a number of people in DLA and at the OSD level, including the OSD policy and security people. There is no way we can afford to send the proposed revised scheme out for hand coordination. There is no way we could attempt to ask for and get broad consensus on such an endeavor. That is why COSATI was never able to revise its original scheme. What we have now is the new structure. However, as I mentioned, it is not going to be implemented for some time. Therefore, we can't afford to send copies around, because the last thing that we want to happen is for people to start using the new codes prematurely. Because one four-digit code looks like another four-digit code, we would have chaos. We will not distribute copies widely until we get close to the point where we are ready to implement.

Mr. Pendergast mentioned a number of new IACs. Some IACs are directly involved with DTIC in that they input their bibliographic information to us. The bibliographic data generated by these IACs can be searched on DROLS using their terminology. A unique role code, or a unique prefix to their terms, is necessary in order to search their data. There is a publication, DTIC Handbook 4185.9, which essentially is a subject-term frequency count of all the IACs' subject terminology. This handbook also identifies the specific role codes, or the specific prefixes that must be used in searching the IAC terminology.

There was some interest in the data elements that the CENDI cataloging group has approved. I understand there is a publication coming out soon which will provide detailed descriptions of the data elements and the standards applied to them. As of now, the data elements that the CENDI group has approved include: accession number, organization name, organization code, title, subtitle, personal author, publication date, pagination, the type and size of the document (whether it is fiche or film, and the reduction size), contract number, report number, availability statement, supplementary note, and document classification. The document will be assigned an AD number. It will be made available by DTIC, NTIS, and the Department of Energy.

A few questions have been asked about the IR&D data base. The IR&D data base is proprietary; therefore, it is not available to contractors. It is available to all DoD users, but not to contractors. There are no restrictions on the formats that may be used in the IR&D data base. It has the same level of flexibility--in terms of format--that the work unit system has. We occasionally get questions about who may input to the IR&D data base. Contractors who are required to negotiate advanced agreements with the DoD by which a ceiling is established for their IR&D and Bid and Proposal costs, and who must submit technical plans describing their planned IR&D programs, must also submit summary data describing their IR&D projects to the data base. That does not say that a contractor can't voluntarily submit data into the data base. There are some benefits from doing that; for instance, it gives them some visibility. For those of you from contractor organizations, or who deal with contractor organizations, I suggest that you call either me, or Mr. Garrett, in the Management Information Branch (telephone: 274-6875). There is precedent for contractors to submit data even though they may not be required to do so.

In my session on the work unit system, I covered the fact that one of the problems that we have had in Machine-Aided Indexing of the work unit system is that indexing had only been applied to new input. The problem is that as time goes on some of these work units are rewritten, so the indexing no longer applies. Also, frequently the new input is only a skeleton record, so there is not much data to index. We have submitted a program request to change this, so I suspect that before too long we will implement a change through which any time a work unit record is updated, and that update touches the title or any of the narrative paragraphs, it will be reindexed.

The last thing I want to mention is that the old Contractor Users Manual for the work unit system is, strictly speaking, no longer applicable since DoD 3200.12-R-1 did away with data element and format restrictions for contractor

output. I have to admit that is something that kind of fell through the cracks. We are working now on coming up with a consolidated users manual, since there is no longer any true distinction between a government or DoD user and a contractor user for the work unit system. In the meantime, since there is no distinction you can probably just as easily use the existing, although old, DoD or government users manual because that will give you an indication of the available formats.

CHARLES GOULD
DTIC-D

Good morning! For the last 3 days, I have been arriving at DTIC early in the morning, urging the troops to get the documents out, coming on down here and then at lunch time I have been going right back to DTIC and repeating that performance again. All the time I have been spreading the word about all these nice users that are down here. I even told my supervisors to allow as many people to come down here as possible so that they could meet the nice people that we are serving. Then all of a sudden I opened the suggestion box. Boom. You folks sure know how to intimidate the new guy on the block. This has been an enlightening experience though, thanks to all of you. Many people have been involved in these 3 days, many more have been committed. You ask me what is the difference. I choose to differentiate between involvement and commitment by asking you to visualize a plate of ham and eggs. You come to realize that the chicken was involved, that the pig was committed. That is how I view the role of my directorate and all the people in it. We are committed to providing the best service possible to each of you, every day. With that in mind I would like to address some of those items that pertain to my directorate. The majority of the questions that were submitted were comments concerning turnaround time. Now I did mention this slightly on Wednesday and told you that we would do everything that we could to try to speed it up. Some of you even suggested that we go to an NTIS-type rush or priority processing service and have deliveries by Federal Express or something of that nature. Honestly, we sincerely try to give you the fastest turnaround time possible. Sometimes it just does not work. Your requests for documents are steadily rising, while our capabilities have remained rather constant. Why?

Our equipment is able to do only so much and that also goes for the operators. Even with the availability of ample overtime that our management office has been so generous with, we still find it difficult to even keep up, let alone get ahead. Instituting a rush or priority processing service will only jeopardize the service that we try to give everyone that does not come in there and ask for rush service. I hesitate to allow this to happen, because, like I say, everybody is going to suffer then. Why? Because those same persons that I call on to do a rush order, for you, or you, or for any of you, are going to be the same persons that I am going to have to divert from the regular processing in order to get the rush order out. So where somebody might get something in a 1- or 2-day turnaround time, someone else is going to have to be pushed back 2 more days. We try to avoid that. I know this answer does not satisfy everybody, it probably does not even satisfy half of you, but believe me we are trying. Every once in awhile, I come up with what I consider to be a great idea, until I have it pointed out to me that there are certain flaws in there. When this occurs, I back off, regroup, swallow my pride. And you know what, it is non-fattening. I found that out.

The second most popular question concerned the Forms 55, with suggestions ranging from writing a regulation to establishing uniform procedures, all the way down to doing away with the Form 55 procedure all together and coming up with something new. On Wednesday I suggested that those of you with questions or suggestions concerning Forms 55 for limited documents should attend the new users orientation, not necessarily because they were going to answer your particular question right there, but because the people that were hosting that are the resident experts. That is still true. That is why Elaine Burress, who you saw a minute ago in the back, and her staff are here today. If there are particular questions that you want answered, some questions that you have on how the Form 55 process could be streamlined, I suggest that you get with Elaine and her staff. They will be here after the session, and will be more than happy to work with you. I think that would be a lot better than to stand up here and listen to me. I don't have the answers. I will be truthful with you, I don't have the answers, but they do. That way you will go from smart to brilliant. You ask what is the difference? Smart is when you believe only half of what you hear, brilliant is when you know which half.

The third most popular concern dealt with quality control of our products. I happened to see this firsthand on Wednesday, when Joyce Van Berkel brought a document all the way from Albuquerque. Needless to say I was embarrassed, because it was a miserable copy. I was so embarrassed that I took it upon myself at lunch time to go back to DTIC and had a new copy reproduced, and said to her "sorry it happened, we will try not to let it happen again." Unfortunately all of you do not get this very special treatment. Therefore, I have made it top priority to revamp, revise, whatever, our quality control and inspection procedures. I know this is not going to get them all, but I hope to cut down on the bad products that you might be getting. I hope to cut down on that considerably.

There were a few other single items that the suggestion box held, but I will not go through them and burden you with all of them right now. I will be around for as long as there are some questions that you have and will do my best to try to answer them.

Finally, I wish to emphasize something that is usually overlooked by many of your here. At DTIC we have what we commonly call three operating directorates. Document, ADP, Data Base. Each of these directorates has one basic commonality--the last word in the title of each one of them is Services. I can say without reservation that we take it seriously in the Directorate of Document Services. Our primary purpose--no I change that--our sole purpose is to provide the best possible service to you. So if you find that anything that you get from us is less that satisfactory, I expect a call. I will even go one step further, I will ask you to call the appropriate office to handle your particular problem, and if by that time you still are not satisfied with your answer, then I urge you to call me. Now, that is not to say that I am a miracle worker, or anything of that nature, but I have been known to get some things done. Right Joyce! I have been known to get some things done once in awhile.

One other item, Mrs. Alice Turner, I think, had asked about a complete set of TAB microfiche for 1983. Unfortunately, we do not keep TABs on file. We hold them I think it is three cycles, and that is all, and every three cycles we purge, so we can go back only to three cycles. So the 1983 TABs on microfiche are not available.

That is the extent of my little response. I want to thank each of you for putting up with me for these 3 days, and wish all of you a safe trip home. Thank you. Any questions?

JERRY MILSTEAD
DTIC-S

I will answer not only the ADP questions that were directed, but the ones directed to the Office of User Services.

We had some questions on DROLS downtime in September and October. We reviewed the logs and could find no particular problem.

The meaning of the validation reject statement came up several times. The statement is confusing so we are going to change the statement to be a little more definitive so you will know why you are being rejected, rather than just the generalized statement.

We were asked why we could not have one sign on for the front-end processor and the host. The way our system is set up, the front-end processor does all the communicating with the users, and then just passes the data back and forth to the host. It is technically feasible to have one sign on, but we prefer not to because of the way our system is set up, because it gives us one more area of control and because of security reasons.

We were asked if there were different mailing labels for rejection notices and for the actual mailing of the technical reports. No, it is the same label. We only carry one mailing address, so if you are getting the documents, you should get the reject notices, because it is the same address.

The question about DRIT available online came up again. When DRIT is updated, will it become available online? That is one of the tasks that we are working on in Data Systems, but frankly at this point in time, it does not have a high priority. We have other things that we feel are a little more important, especially since the the inverted file statistics are available online. We will eventually try to get DRIT iself online.

People have asked about adding the date and time to the welcome online message, which we do not have now. They are concerned about when their charges start. We will add the date and time to the welcome online message, but if you are a dial-up user, your charges do not start at that point in time. We do not start charging until you actually execute some definitive command. You can come online, you can browse through the information file and so forth, but your charges do not start until you actually execute a search command or something of that nature. We will look at the system and see if there is some way that we could let you know what the time is.

As every year, we had several comments that there are too many sessions, and there are too many sessions at the same time, and, therefore, you cannot attend everything. As we have said before, it is very difficult to schedule all the sessions over and over again, so we schedule as many as possible in the 2 1/2 days we have. We will try to work with the User Council in selecting the sessions that should meet multiple times.

There is a suggestion that DTIC should come up with some type of a demonstration or briefing packet that could be used at other conferences and seminars. This could be used to demonstrate DROLS and perhaps the use of personal computers, and other types of things to assist in using the DROLS system. Personally, I think that is a good idea and that is something that DTIC will look into. Maybe Data Systems could work with the Office of User Services and come up with some type of demonstration.

We had some complaints about the comment file, i.e., that they are not always getting their answers back. I asked the people in User Services, and they were not aware that they were not being answered. It was suggested that the order file be modified to confirm receipt of these comments. Frankly, I do not think the effort required to do this can be justified but we will work with User Services and try to get your answers back the next day, or shortly thereafter.

Another question was asked about advanced training. We had a big problem with training. We have so many new users that we have had an extremely difficult time keeping up with the online training. And, as some of you know we were sometimes 3 and 4 months behind in training users. We are catching up because we have been scheduling training at least twice a month for dial-up users and once a month for dedicated users. In the past, and I think this is probably a good way to handle it when people want advanced training, they could just call Jim. When he gets enough people that are interested in advanced training, they schedule an advanced training class. So if you are interested call Jim DePersis directly. His number is Area Code 202-274-7206, Autovon 284-7206.

Questions as to when updated operators and training manuals will become available were raised. Again, as I said they have been very shorthanded in User Services. They are working on some of these manuals now. I understand the reference guide for dedicated users is in draft form and should be finalized very soon. We will set up a schedule for updating all the manuals pertaining to the online system. When these schedules are set up and we have some fairly definitive dates, we will give a copy of this to the User Council.

I would like to say one other thing. As you all know, Paul Ryan has been the President of the User Council for 3 years, Paul is retiring this year and is getting completely out of the online business. I have had an opportunity to work with him for several years, and I would like to extend my personal thanks to Paul. He has been a great help to DTIC as well as the DROLS users. He has been a very easy informative person to work with, so I would like to thank Paul Ryan for all the effort that he has put into the online system.

A California user inquired as to the possibility of extending the number of hours DROLS is available. Unfortunately, we really cannot extend that time. We only have one major computer that we utilize, and we have to use that to do all of our batch work, and all our normal production work. DROLS is up from 0800 in the morning our time until 1930 our time which of course is 1630 your time. As soon as that system goes down we start doing our batch work, and it is extremely difficult to get it done by 0800 the next morning. As a matter of fact, we are having a difficult time keeping up. We run three shifts a day, 5 days a week.

We normally work two to three shifts a weekend. So at this point in time, no, we just cannot extend the time. The only way that we could extend the time is by taking it out of the morning, and then of course people in other areas would suffer.

RICHARD DOUGLAS
DTIC-J

Some of what I will be responding to are more in the area of comments than questions, although there are a few specific questions as well. Before I do, however, I want to talk about something Paul Robey mentioned. Paul made a comment about technical manuals, and RFPs and that kind of information. As a result of some of the efforts that we initiated during our long-range planning effort in DTIC, we got DoD interested in looking at information within DoD. I would like to lobby with you a little bit, and suggest to you that there is a window of opportunity available to you during the next few months to influence USDRE concerning your information needs. If I were a contractor, I would be contacting DoD and laying out my information needs. When I say information needs, I would go beyond the products and services providd by DTIC right now and would make my entire information requirements known to USDRE. I have become more and more convinced that managers, planners, researchers, etc., both in industry and DoD have information needs that go far beyond the services that come strictly out of our own DTIC environment. They have needs for technical manuals, regulations, reliability documents, specifications, and other kinds of information. Dr. DeLauer, who is in charge of R&E, will be leaving roughly in the January timeframe. He is going to be replaced. Edith Martin has left, and she has been temporarily replaced. I assume after the election someone will be coming in to both positions on a permanent basis. You may have a chance to make your case for information to either of these new people. Leo Young has also become very interested in this area. So all three people of influence within the R&E community are either interested or are going to be brand new and, therefore, may be subject to some influence from you. I would like to very strongly suggest that you may want to state your needs to these people. I think there is an ideal opportunity to influence some new people as to what your total information needs are.

Paul Ryan had an item in his letter concerning CENDI, and another concerning cataloging, and you have heard from Elaine Burress on the same subjects. I think the item was self-explanatory. However, some of you may not be fully familiar with what CENDI is and that is what I wanted to address first. CENDI stands for Commerce, Energy, NASA, Defense Information. The heads of NTIS, DTIC, the NASA information facility, and the Energy information Center get together monthly and talk about joint problems and joint projects. They have instituted several joint initiatives, one of which is the cataloging that you have heard about. There are several others, the most important of which I think is a joint effort to serve the Space Nuclear Program, which is a joint NASA, DoD, and Energy project. CENDI is putting together a joint data base of information from all these different activities to serve the programs. NTIS is also involved. The idea is to demonstrate that information can make an

important impact on a program of national level importance. There are several CENDI projects as well. There is an international STI project, a productivity enhancing project, and there are several others. Supporting CENDI is a planners' group of which I am a member. We help the heads of the agencies monitor these programs. Additionally, all these projects have a chairman in charge. If you are interested in any of the particular projects you might contact the chairman. Elaine Burress is the chairman of the cataloging project.

We had a question in regard to the two-sided microfiche printer. As you know, we blow back from microfiche onto paper copy and you get a one-sided printout. The equipment that does this is getting quite obsolete. We would like to have a piece of replacement equipment that prints on both sides of the piece of paper. We have been looking at this requirement for the last several years, and we are getting close to the point where we want to implement. The equipment that we have is starting to wear out, and there is no sense in replacing it with like equipment. There is money in the FY86 budget for the two-sided printer. Right now it is an expensive project, there are only two vendors who could meet our needs. One is Xerox, and one is Kodak. They are the only manufacturers that make a high-speed two-sided copier. Within the next few months, RECO, a Japanese concern, will be in the market with a two-sided printer and their printer is a lot cheaper. Within the next 2 years you will see the results of our two-sided printer initiative.

We had a comment from an organization that basically said that within 3 years, their library will be moving into a computer control automated document storage and retrieval environment. Much of our collection will be converted electronically into digital form. DTIC appears to be moving in the same direction. We would like to suggest that DTIC survey all users to determine who else is moving in this direction and provide some coordination to ensure compatibility with the various forms of equipment and configurations being considered. Good suggestion, I have talked to the project engineer, and we will go ahead and do something on this. You should be hearing from us shortly.

Will DTIC get into facsimile transfer, or full-text searching in the future? We monitor a lot of the new technologies, and that is one of the fundamental missions of my organization. We have been looking at facsimile. We haven't done much with it. The equipment is not up to the speed and cost that make it attractive for a production environment at the moment. We are following it and at some point we may want to get more active in this area. Yes, we are looking into the full text. That is definitely one of the things the long-range plan talks about.

RESOURCE SHARING ADVISORY GROUP (RSAG) - Peter Imhoff, Chairman

Good morning.

Some time ago, I was asked to say a few words on behalf of the Resource Sharing Advisory Group (RSAG). The difference between RSAG and the DROLS User Council is we are more restricted in our charter and focus, but both groups are working towards enhancing the DTIC-user interaction. Hopefully, we are working together to accomplish the same end. RSAG's primary interest is to foster the resource sharing environment.

RSAG, for those of you who are not familiar with it, really had its informal roots back in 1977 when the Shared Bibliographic Input Experiment (SBIE) started. SBIE started as a result of Ruth Smith's efforts to get DTIC to become more responsive to its user community. She wanted DTIC to provide a tool that hopefully would be parallel to what was happening at OCLC. OCLC at that time was just about overtaking, or had recently overtaken the Library of Congress, as the primary source of local cataloging information. Ruth thought there was a great opportunity for DTIC to provide more of the services needed by its users. As the SBIE group became larger our ability to interact with DTIC diminished. By 1980 the original SBIE site representatives felt that resource sharing and user-DTIC dialogue had become very important. So important that we persuaded Hu Sauter to set up an advisory group to the Administrator of DTIC to advise him on matters of resource sharing. In the letter that went out from DTIC, the purpose of the group was defined as "to advise and recommend appropriate procedures on matters dealing with resource sharing programs."

RSAG started with representatives from the Air Force Weapons Laboratory, Air Weather Service, ARRADCOM, Battelle, DCA, DNA, IDA, and NRL. At the present time the representatives are from the Corps of Engineers, TRADOC, Air Force Weapons Laboratory, Air Force Space Command, Los Alamos, NSWC, DNA, and NRL. Earlier I alluded to the question "Why RSAG?" We, the SBIE members, felt a need to maintain a close dialogue with and provide input to DTIC's top management if the goals of the experiemnt were to be achieved.

SBIE started in 1977, it was declared SBIN in 1980, and it is still limping along. I am hoping that it will become a roaring success. To become successful, SBIN needs to have a hospitable input subsystem and to give to the user the ability to retrieve information about local holdings with one search command. That is, it must eliminate duplicate systems and queries. At the present time most participating sites are only entering token records since they feel that DTIC cannot meet local needs with SBIN.

The Local Automation Model (LAM) is being designed as a single point source for cataloging and other information about local holdings. We are told that in the third quarter of FY 85 the LAM installation will start at DNA. I am looking forward to seeing that. I am hoping that Betsy Fox will be able to come and tell us that LAM is a success because LAM has a potential for being great. If it is to be a DoD-wide success, it will have to be flexible enough to meet the needs of DNA and other sites. In hopes of accomplishing this, the Logistics Management Institute (LMI) has been doing most of the spade work on this

project. LMI has been working on the project in a very thorough manner. Hopefully they will have uncovered all needs and elicited sufficient input to enable them to separate the true general needs of the community from those specific to individual sites. Realistically LAM cannot be expected to meet all needs. LAM will have to be generic and meet the common needs.

RSAG members feel that at this point in time, we must continue working towards a broad sharing environment, in which all parties including DTIC will benefit. I think this concept is very important, because as we look back on SBIN, one of the reasons why SBIN is limping along is that the sites do not feel that there is sufficient return for their efforts. The main reasons why we have been pushing for a more user friendly input subsystem is to lower the amount of local effort needed so that tangible system benefits can be realized. We have been pushing for LAM so that each of the participants, including DTIC, can say "hey, there is something in it for me." Once we have reached that point SBIN will move forward not only as a concept, but as an actual system. Whenever possible DTIC has taken action on these requests. There have been cases where what has been asked for has been desirable; however, it was just not feasible in terms of the resources that were required to complete that action. The input subsystem and duplicate checking have received much attention from DTIC.

Last but not least, under RSAG there is the Cataloging Rules Committee. The Cataloging Rules Committee early on revised the input manual and started a dialogue between catalogers from remote sites and DTIC. The Cataloging Rules Committee has done an excellent job, and that is one area where cooperation must continue if shared cataloging is to be a success. Everyone's needs must be considered. All must abide by the same rules and feel that they have a stake in the system and its operation.

I would like to say thanks to Gladys Cotter who has been a super performer in coordinating RSAG's activities with the needs and realities of the Administrator of DTIC.

Thank you.

PAUL ROBEY, DEPUTY ADMINISTRATOR, DTIC: It is my pleasure now to be able to introduce to you one more time, and I am really sorry to say it will be the last time for at least the next couple of years, Paul Ryan with the DROLS User Council.

RYAN: One of the first things I would like to do is to announce the results of the Council elections. As you know this year there were six members whose terms expired. The top vote getters were: William Hansen, Army; Patt Pulliam, Navy; Annie Davis, Air Force; Blanche Shifflet, DoD; Alma Spring, DoD; and Harold Smith, contractor. I would like to congratulate all the newly elected Council members.

One other item of business that occurred was that the new officers for the coming year were elected. They are: President, Bill Hansen; Vice President, Rosalind Cheslock; and Secretary, Sandra Young. I would like to congratulate all the officers and wish them well in the coming year.

I would be remiss if I didn't thank two outgoing Council members this year, neither of whom were able to be here this year. Laura Thompson from the Naval Coastal Systems Center and Ann Klos from the Air Force Weapons Laboratory. The two of them did an excellent job for the years that they were on the Council and I think they deserve a round of applause for their effort.

I listened to the directors this morning and listened to them make their comments to several of the items that the Council had brought to the attention of DTIC in the name of the users. I was pleased to hear some of the items that DTIC is willing to investigate. I would have liked to have heard some specific dates or timeframes that went along with the investigation. "Soon" and "in the future" do not tell us a lot. We would like to have some kind of target date that DTIC is shooting for, so when it passes we know to start asking questions again.

One of the items that Jerry Milstead mentioned concerned users who had complained or commented on the fact of concurrent sessions and not enough time in certain sessions. Last year the Council had suggested to DTIC that they extend the conference another day. A second item that we had proposed for this year's conference was the result of a suggestion from a user. The annual meeting is a great opportunity, having as many users as are here, to provide training, more than what is available in an hour and fifteen minute session. We had suggested that one day prior to the conference, the entire day be set aside to a very comprehensive training session. A lot of people come a long distance, a lot of money is spent getting here and it would be a good opportunity. The response for this year's conference was that there was not enough time to plan for that and making the meeting arrangements and that type of thing which we understand. Therefore, we would like to ask DTIC to consider that proposal again for next year's conference. The new User Council probably will have some input to that and some suggestions, I would hope, shortly. But now is the time you have got to start thinking about it for next year, I urge you to consider that option.

I think there are at least three main thrusts I would like to mention that occurred over this past year that the User Council has been interested in and I think will be equally important in the coming year. One of them, of course, is the management data bases. Attention needs to be given toward making them more complete. Richard Bruner talked on Wednesday about getting ammunition. I would hope that we would not get that ammunition and then shoot ourselves in the foot. The fact that we let these data bases be incomplete, that this is the information that we operate with, hardly presents a convincing case of need to OUSDRE. Pete Imhoff, who was just up here before me, said that things are moving slowly. I would urge DTIC to consider instead of many things, or everything moving slowly that some items be put on a back burner to allow other items to move at a quicker pace. Improving the comprehensiveness of the management data bases in addition to the technical report data base would go a long way to improving the credibility of DTIC, the credibility of the users who are out there in the labs trying to deliver the most complete information that they can to their end users.

The second thing, and this point I think really follows closely to the first, is that DTIC itself needs to be more aggressive in getting the information that they are lacking. Fifty-five percent of the technical report data base is not enough. They need to go out after that other 45 percent. The same thing needs to occur with the management data bases. In addition to DTIC, the users themselves, many of whom have the capability of influencing their own organizations, need to push for inputting documents to DTIC and to input documents in a timely manner. Finally, I think that the User Concil needs to pressure OUSDRE to require more adherence to regulations by DoD organizations and to submitting reports and 1498s and RD-5s in a timely manner.

The third item I think that I would like to emphasize would be I would hope that DTIC would do some planning and some looking into the capability to have more classified terminals on the system. They are at the saturation point, or reaching a saturation point. Those of you who have both classified terminals and dial-up terminals have done comparisons of the searching capability of each. There is a world of difference between the information you get out of a classified terminal and the information you can get out of a dial-up. Not only the amount of information, but the efficiency with which you can get it. From my position at my organization, I can't overestimate the value of a classified terminal over an unclassified terminal. We need to push for more equipment, more crypto, and easier access to classified information in order to make the whole process easier. I think that needs to start with DTIC.

Other than that I don't have any more business that I would like to address. I don't know whether there are any questions or any comments that anybody out there has to make. If so, now would be the time.

LEON BURG, ARMY TANK-AUTOMOTIVE COMMAND: I am always talking. Some 20 years ago, that is probably before some of you users were even born, the military decided there should be a person who was the DTIC representative. The Army would name a representative to that command, a representative to that subcommand, or representative to that company. This person of course gets a lot more mail, for example in a military agency like mine, I get to see most of the incoming Forms 55 before you get to see your classified report for the reason given. At least one thing is accomplished in that I don't get very many

reminders of stale, dead, lost or strayed Forms 55. The DTIC office that follows up on them does not have to send me a whole lot of follow-ups. By the same token, as the liaison representative, my office is very close to the contract monitor people so that for a document data requirement that is attached to a contract that says way down in it, thou shalt furnish a final report thou shalt set aside copies for DTIC, etc., I am the enforcer of it, so the contracting officer does not take the final papers to the contractor, until everything has been turned in. That includes the reports. Now from time to time there are what you might call enforcements efforts. I know that the Army Audit Agency has sent an inquiry team asking how many reports have you sent in to DTIC.

RYAN: Thank you, Leon.

The comment from up front was in regard to classified terminals and the crypto which is probably the biggest hurdle to get over. The comment was that they would urge DTIC to focus on the activities that are responsible for supplying the equipment particularly in the Navy or in the Air Force. Ted Zinna is in the back saying that they can't do it. I would urge them to do it anyway. I think it needs a push from all directions. Obviously, the comment was made that the demand outstrips the capabilities to produce the equipment, but that is hardly an acceptable answer. You want to talk about cutting time off the front end of the acquisition process. When you take a look at the whole picture, some things you just keep bitching about I guess.

The comment was in regard to one of the many sessions yesterday, a representative from CENDI was there. Some questions were asked about what was going on. Our User Council member was there and asked the question and they really did not get a response. Susan is urging that it be returned to the User Council to pressure for more information about just what is going on with CENDI, and I agree.

COMMENT: Paul, in relation to that question what we really need is somebody who might ask the user community how they feel about things before they make these cataloging rule changes, i.e., although the inverted file had the first two author's initials, the direct file had a first name, but no longer will have it, and this I find unacceptable.

RYAN: To wrap up, I would just like to say a few words myself. It should be no surprise to many of you that in a position such as this there are many demands, especially on your time. You get pulled in a lot of different directions. Certain groups of users want this, and other groups of users want exactly the opposite. Believe me, I know how DTIC feels after several years in this position. I must be a glutton for punishment, it was not enough to be President of DROLS, but for the past 2 years, I have been President of my community association at home. I see the same things happen there. Come April though I am out of all of it and I'm going to take a rest. Paul Robey referred to my birthday. I know many of you will understand what I mean when I say that over the past year it seems that I have aged greatly. It is almost as if I have had several birthdays this year alone. I would like to say that serving 4 years (2 years as Vice President) has been a very enjoyable experience, not only working with the users themselves but also working very closely with DTIC management and right on down through the structure. It has been a tough job. There are

aspects of it that are not easy. I compare it to baseball where the American League has what they call a designated hitter. All he does is bat for the pitcher. Many times I have seen, and felt that as the President of DROLS I am the "Designated Complainer." All I do is complain. But it is an important position. I think you have to have a "Designated Complainer." I think you always have to have somebody who does not feel things are right, so that they prod, and prod, and prod to get things changed, to get things working the way the users want them to work. DTIC has a problem, and I don't mean to say that negatively, but they are on the inside, they don't know what it is like on the outside. They need somebody on the outside telling them what it is like. I think over the past 3 or 4 years DTIC has tried very hard to find out what it is that the users want. They have oriented themselves to asking and trying to understand what it is that the users want. They don't deliver, they can't always deliver. They are constrained just the way you and I are constrained in what we want to do back where we are.

I would like to state what really should be obvious. Even in a role as "Designated Complainer," I have always (and probably after the last 4 years it's grown) had a great respect for DTIC and for DTIC personnel whom I've known and worked with over the past 11 or 12 years. Many of them I consider good friends. I'm going to miss them, I'm going to miss all of you. I would like to thank some of them that I've known for quite a while. I know I'll probably miss some names, but I would like to thank people like Hu Sauter, Paul Robey, Jerry Milstead, Bill Thompson, Dick Douglas, Chuck Gould, Paul Klinefelter (who's not here), Ed Thorpe, Jim DePersis, Judy Pickeral, Dave Williford, Norma Ayala, Larry Jenkins--I could probably just go on and on right through the DTIC roster. I've worked with and known these people for a long time and I do appreciate the help and the information they've given me when I've called on behalf of my own organization and on behalf of the User Council and I thank them.

At this point I would like to ask Bill Hansen to come up--the new President. I'd like you to give him the cooperation you've given me for the past few years.

When I took over for Margaret Putnam as President, I had a flower to give her. I hope you don't have a flower to give me. Congratulations, Bill.

BILL HANSEN, U.S. ARMY ARMOR SCHOOL, FT. KNOX, KY: Good morning. Well, I suppose the first thing I should say, is that I've really got a hard act to follow. In the years that I've been associated with DTIC, I think that Paul Ryan has taught me more about DTIC, and about dealing with people and with organizations and accomplishing things than I've learned anywhere else. Paul, I thank you personally.

I'm not going to take up too much of your time this morning other than to say that I certainly appreciate you confidence and your votes, and I appreciate the confidence of the members of the User Council in selecting me to try and fill these very large shoes. And that's not a comment on Paul's feet. I would like in the coming year to emphasize communications. Remember that the User Council represents all the users, and of course all of the users have different aspirations and requirements. And in order for us to represent you, as an

intermediary with DTIC management, we need to hear from you. So please, I urge you to contact us, contact the members of the User Council, call me personally, we'll all be very happy to talk with you and work together to see if we can't accomplish what needs to be accomplished.

Very briefly, a couple of items that we have considered in the past, that is that the User Council has addressed, are unfinished business as far as I can determine and we will continue to look into these areas. Concern is still being expressed about the Form 55 issue. And indeed the larger issues surrounding the whole question of releasability of limited information. This is something we're going to continue to look at. The status of the management data bases, we've heard a lot about that at this conference, we're going to hear more about it in the future because it is very important. It is probably the most important service that DTIC provides to some of our contractor users. And we're not going to forget about that one. In closing I suppose I'll throw my first jab at the DTIC management. One of the items that we talked about earlier was the problem of personnel in the technical control area. It was intimated that there was impending doom in the technical control area. I would like to ask as the first question of the next session. First of all, what does DTIC management say or have to say about this impending doom, are we being told something that is not true, and if it is true that they're having problems in technical control, what are we planning on doing about it. Again, I thank you all for your confidence and I certainly hope that you will contact us in the coming year and that we can work together to make the DROLS system a better system. Thank you.

ROBEY: Well, I think the Council did a fine job of electing a designated complainer. That's going to be pretty good. I think he wanted me to answer that next year, but I'll make a stab at it now. Yes, it is a serious problem, because these people basically were being downgraded two grades, we've gone back with a reclama trying to get the grades back. But that's really not the total problem, because even if we do get the grades back, we still have problems of filling these positions in the government, because people in industry are doing the same type work and making a lot more money. Jerry has taken action to detail some of the computer operators into those slots on a temporary basis, and we're going to do the best damn thing we can to keep going. What else we can do? I don't know.

So, I'll try to wrap it up here, so some of you that have to catch a plane can get out. Unfortunately, Hu Sauter couldn't be with you this morning. Some guy who wears a blue coat, with a lot of gold on the side and another guy with a green suit and a bunch of stars up here, asked him, or requested, or something said hey you be over at a meeting over in my office this morning. So that's where he is. I would like to remind everybody before we get out of here, that we do have a whole schedule that was in your pamphlets, of the regional conferences that are coming up. 14, 15 March, we're going to be at the DLA Auditorium for the local. 28, 29 March, we'll be out in Seattle, Washington. 1, 2 April in Richardson, Texas. 18, 19 April, Atlanta, Georgia. 29, 30 April in Champaign, Illinois. And 9, 10 May in Watertown, Massachusetts. I'd like to take the opportunity to thank all the DTIC people who planned and supported this conference and participated in it. I'd like to thank the DROLS Council, I'd like to especially thank Paul Ryan for 2 great years. And believe me he was a complainer. I'd like to congratulate Bill for being elected. I hope you're not quite as much of a complainer as Paul was. I'd like to thank Pete Imhof for

coming in this morning and saying a few words on behalf of the Resource Sharing Advisory Group. And I'd like to thank all of you attendees for attending. I hope you have enjoyed yourself and I hope that you've learned a few how-to's while you were here, such as how to get a terminal, how to search better, and so forth. But before you go, I would like to once again encourage you to really do two things. Think about what Bruner told you on Wednesday morning, think about what Young told you on Wednesday morning, and send them the ammo that they need. And also it wouldn't hurt to communicate with the powers that be up on the Hill, basically so that they'll have a better understanding of what technical information transfer is all about. And I think that will help us in our budget hearings.

So I'd like to thank all of the attendees, and wish you all a safe trip home. Unless someone has some ugent business to bring up, I don't see any hands. The Annual Users Conference is hereby adjourned.

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