LEADERSHIP & MANAGEMENT
for the
MILITARY LIBRARIAN

Proceedings
of the
TWENTY-FIFTH ANNUAL
MILITARY LIBRARIANS WORKSHOP
14-16 OCTOBER 1981

Hosted by:
Air University Library
Maxwell Air Force Base, Al.
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Proceedings of the Twenty-Fifth Annual Military Librarians Workshop

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FOREWORD

The theme of the 25th Military Librarians Workshop was "Leadership and Management for the Military Librarian." Two basic premises supported this choice. The first was that, although a lot has been written and much is understood about the nature of great leaders like Caesar, Joan of Arc, Lincoln or Roosevelt, the knowledge gained from a study of such charismatic figures is not particularly applicable to those who, while intelligent and competent, cannot count on leading by virtue of extraordinary power over others. They must substitute competence for charisma.

The second premise focused on the management part of the workshop theme, and held that management cannot be taught but it can be learned. This idea was borrowed from the Harvard Business School Curriculum of the 50s and 60s, and provided at least a partial explanation for the extensive use by that prestigious school of the case method: one learns management by managing.

And that is what the 25th Military Librarians Workshop was all about. Well before the participants arrived at Maxwell Air Force Base, they were already involved in the workshop process as they and their colleagues completed the Organizational Assessment Package—a unique application of a measuring technique developed and refined by Air University's Leadership and Management Development Center (LMDC).

The quantitative findings of the OAP were reported early in the workshop, and were used in small group settings working on the nuts and bolts kind of problems that confront managers, supervisors, and employees every day. The ultimate workshop goal was to give participants tangible ideas, methods, and strategies to take with them and actually put into use.

The workshop was by all accounts a thematic and logistic success. The attendees enjoyed the kind of splendid fall weather for which the southeast is justly noted. They were housed and fed on base, so little time was lost in travel, and expenses were kept to a minimum. Best of all, the planners received absolutely outstanding cooperation from the LMDC Commander, Colonel Guy H. Winstead, Jr., and his faculty and staff. All of the general sessions and most of the small group meetings were held in the LMDC building. The Directorate of Management Strategies and Education provided speakers, group leaders, registration assistance, and guided the entire OAP process from beginning to end. We are deeply grateful to all the men and women of the Directorate, including Colonel Robert E. Culton, Director, and, most especially, Lieutenant Colonel James L. Saddler, Chief, Management Consultant Division, who, as is evident in the pages that follow, was a key player from start to finish in this silver anniversary event.

ROBERT B. LANE
Director, Air University Library

DONALD E. PETERSON
Project Officer

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Maxwell Air Force Base, Alabama
1 May 1982
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PROGRAM

WEDNESDAY, 14 OCTOBER

0600-0800 Breakfast

Officers Dining Hall, Bld 1420, Opens 0600
Officers Club, Bld 144, Opens 0630

0730-0830 Late Registration

Air University Library

0800-0830 Welcome Coffee

LMDC Lounge, Bld 1404

0830-1000 First General Session

LMDC Auditorium, Room 1/4

PRESIDING, Robert B. Lane
WELCOMING REMARKS, Lt Gen C. G. Cleveland,
Commander, Air University
AIR UNIVERSITY BRIEFING, Major W. S. Pine,
Directorate of Education, AU
KEYNOTE ADDRESS, Dr. Thomas J. Galvin
Dean, Graduate School of Library and
Information Science, University of
Pittsburgh

1030-1130 Second General Session

LMDC Auditorium

PRESIDING, Robert B. Lane
ORGANIZATIONAL ASSESSMENT PROGRAM
(OAP)
FEEDBACK, Lt Col James L. Saddler,
Chief, Management Consultant Division,
LMDC

1145-1315 Workshop Luncheon

Maxwell Officers Club

1330-1430 Third General Session

LMDC Auditorium

PRESIDING, Robert B. Lane
GOAL SETTING: CREATING THE PICTURE,
Lt Col James L. Saddler

1500-1700 Optional Seminars

(Location will be announced)

Seminar A - STRESS AND THE MANAGER
Lt Col James L. Saddler
Seminar B - EFFECTIVE INTERPERSONAL
COMMUNICATIONS
Dr. John A. Kline, Dean of
Communications, Academic
Instructor and Foreign
Office, School
Seminar C - LIBRARY MANAGEMENT
Dr. Thomas J. Galvin
Seminar D - TIME MANAGEMENT
Capt Michael Meyer, Management
Consultant, Leadership and
Management Development Center

1830-2130 Dinner

Maxwell Officers Club

Entertainment provided by
The Air University Show Band
THURSDAY, 15 OCTOBER

0600-0730 Breakfast
Officers Dining Hall, Bld 1420, Opens 0600
Officers Club, Bld 144, Opens 0630

0800-1015 Fourth General Session
LMDC Auditorium
PRESIDING, Donald E. Peterson
COMPUTERS AND THE MANAGEMENT FUNCTION,
Capt Grace M. Hopper (USN), Head,
Naval Program Language Section,
Department of the Navy
GOAL SETTING/ACTION PLANNING,
Capt Michael D. Meyer, LMDC

1030-1130 Goal Setting Seminars
(Locations to be announced)

1145-1315 Workshop Luncheon
Maxwell Officers Club

1330-1430 Goal Setting Seminars (Cont)

1500-1700 Fifth General Session
LMDC Auditorium
PRESIDING, Donald E. Peterson
RESOLVING PERFORMANCE PROBLEMS,
LMDC Staff

1830-2130 MLW Banquet
Maxwell Officers Club
GUEST SPEAKER, Lieutenant General
Raymond B. Furlong, USAF (Ret),
Former Commander, Air University

FRIDAY, 16 OCTOBER

0600-0730 Breakfast
Officers Dining Hall, Bld 1420, Opens 0600
Officers Club, Bld 144, Opens 0630

0800-0900 Resolving Performance Problems (Seminars)
(Locations to be announced)

0915-1115 Sixth General Session
LMDC Auditorium
PRESIDING, Robert B. Lane
MANAGEMENT STRATEGIES,
Lt Col Saddler
HOST REMARKS, Robert B. Lane
MLD BUSINESS MEETING,
Martha Blake
ADJOURNMENT

1330-1530 Optional Tours
ANTEBELLUM MONTGOMERY, Historical Tour
Conducted by John Napier, Lt Col,
USAF (Ret), former Historian
for Air University
(Bus departs from in front of AU Library)
AIR UNIVERSITY LIBRARY TOURS,
conducted by AU Library staff
Let me start by saying that I am a member of the working Air Force. Although it may have been a year or two since I was in a squadron or flew with a wing, believe me, I've been there. I know what it means to operate without enough people to really get the job done right. I know how frustrating it can be to work with a laggardly supply line, and I've put up with personnel offices that seemed willing to give me anything except the kind of qualified people I needed. Telling you I've been there may not help you accept the thousand and one frustrations that go along with getting the job done in a military environment, but I wanted you to know—up front—that your problems are not unique and solving them is part of the challenge—even part of the fun—in being a member of the working Air Force, Army or Navy.

Now, there are a number of things I want to say this morning and the first one may sound like an innocuous pleasantry but let me assure you, it is not. We are very pleased that you chose Maxwell and the Air University to host this, your 25th annual Military Librarians Workshop. Why? Well, for one thing, 24 years is a long time between workshops. We're proud of all the things we do here at Air University, and we want people to know about them. Your presence this week helps achieve that goal. Later today, you will see the Air University Briefing and that will give you an idea of the range and scope of the Air Force Professional Military Education Programs for which we are responsible.

Secondly, we're proud of the Air University Library and of the role it plays here. The AUL is not just an asset to our education programs here on Maxwell and across town at Gunter. It is much more than that. It is practically a national asset and one to which I give my unqualified and whole-hearted support.

Now, I also know that AUL provides a variety of services that help a lot of you. Its Index to Military Periodicals is used by libraries and organizations throughout the DoD. Its bibliographies receive wide circulation, and its interlibrary loan services are used regularly by many of you. Let me just comment in this regard that I am fully convinced of the worth and utility of these services and will ensure that they continue.

Parenthetically, let me observe that I am aware of the fact that the subject of contracting out of library services is a source of continuing concern to you, and that this topic has been one of the subjects dealt with in your last two workshops in Washington and out in Monterey. It is well that you have been studying contracting out because it is not going to go away. It is a fact of life. What can you do to avoid being contracted out? Most important, I believe, is by being
totally involved in the mission and life of your particular environment. The more valuable the services you provide, the less likely is your commander to submit to this particular form of cost reduction.

But if your situation proceeds to the comparative cost analysis stage and beyond to the statement of work, then you’ve got problems! Never give up. That statement of work is important. Make it as accurate, as detailed, and as comprehensive as possible. Get all the help you can. Write as if your life depends upon it, for your job certainly does.

Turning back now to the workshop, let me observe that I am astounded by the variety of organizations represented here. You come from base, ship and post libraries. There are academic, special and technical librarians with us and, of course, command, headquarters, and naval district librarians in the audience. I am, by the way, especially pleased that some of our Canadian friends are here, and I am delighted that retired librarians such as Harry Cook, Ruth Longhenry, and Bill Holloway are here, and that retired AUL staffers—among them Flo Oltman and Ken Cameron—have come (all at their own expense) to be with you.

As you well know, there is great value in these workshops. They provide an opportunity for the many types of libraries that you represent to seek a common meeting ground. The formal programs and discussion groups that the Leadership and Management Development Center people will put on for you will be, we hope, beneficial, but the opportunity of meeting new people, exchanging ideas, seeking solutions to common problems will not be restricted to the formal programs. You will be learning from one another during breaks, meals, and I suspect, over cocktails as well. Do that! Get the full value of this short time you have together.

Let me take another moment to tell you that—contrary to what you might expect—the leadership of the Air Force, Army, and Navy is not insensitive to your programs or your needs. Just because an individual is wearing a colonel’s eagles or two or three stars on his shoulders, does not mean that he is too busy to be interested in libraries. These leaders have come up through the ranks. They have used your facilities. They know (or should know) how important is the role you play in mission accomplishment, off-duty education, troop morale, and family support.

These leaders are not insensitive to your needs. They know what it is to be frustrated in attempts to get the right personnel to fill vacancies, or to obtain funds for a new building or a program. They know—or they should know. Don’t be intimidated by rank. Get out there every day. Beat the drum for your program, but do it the right way. By this I mean know the sources of funds. Know the people who count on your base or post. Be sure you’re not left out because the base or post commander didn’t know about your requirements. Assume that the ranking officers in your command are going to be interested in what you have to say—and say it clearly, back it up with facts and keep on saying it.

Well, that’s enough preaching from me. When you leave on Friday afternoon or on Saturday morning, I hope you will conclude that your time here was well spent. God knows, Bob Lane, Jim Saddler, and Don Peterson have spent enough of my time and money on doing their best to ensure such a result.

If you do go away rededicated to a belief that libraries are important, that the ranking officers in your organizations are interested, and that your leadership and management skills can make the difference between limited success or outright failure, then we will have succeeded in achieving one of the primary goals of this workshop.
WELCOMING REMARKS

Colonel William D. Palmer, USAF
Commander, 3800th Air Base Group

On behalf of all the men and women of the working
Air Force both at Maxwell AFB and Gunter AFS I'd
like to add our very sincere welcome to you the
members of the 25th annual Military Librarians
Workshop. General Cleveland noted that you come
from all of the services including the Canadian
Forces and from libraries around the world and we
here at the home of Air University are extremely
proud to be your host.

Some time back I had the opportunity to host at
Air University, a visiting group from the Peoples
Republic of China and there was a very definite
language problem. We were talking through inter-
preters and they were trying to find out from each
other what the base commander did as I was telling
of my responsibilities of fire protection, police,
logistics, the contracting functions, the libraries
etc., and I didn't seem to get through to them
until I finally said, "well in reality I am your
inn-keeper." When that was translated you could
see them beam and they knew exactly where I stood and what I did.

You know, just as Alex Haley's recent best seller Roots has generated a new interest
in genealogy, we at Maxwell are proud to trace our aviation heritage back to the
Wright Brothers and to the Aviation School founded right here at Maxwell AFB. In
fact their hangers stood on the site that is presently occupied by our base flight
operations building right down the road. Since 1917 this has been an operational
military flying base and during the 1930's the Air Corps Tactical School developed
the strategy, tactics, and concepts that contributed so much to the employment of
air power and the ultimate air power victory in World War II.

Since World War II we have been the home of Air University and our mission which
you'll hear more about today has been one of professional military education. This
is a mission that has relied heavily on our Air University Library. The reason I
mention all this is because I hope that you'll have a little time to take from your
busy schedule to look around Maxwell and, if possible, Gunter to get a feel for our
heritage and our mission, our pride in what we have done and what we are doing
today, and our enthusiasm for the mission for the future development of leadership
and management. However while you're doing that I and all the people of the 3800th
Air Base Group will be doing everything in our power to make your stay here as
enjoyable and productive as we can.
This is my first visit to Maxwell Air Force Base, and my first chance to see the Air University and its library, a library that is both very well known and very highly regarded in the national library community. I'm glad to have the opportunity to see all of this at first hand. I'm equally glad to combine that with an opportunity to spend some time with a group of people who practice librarianship and who function as library managers in organizational settings that are largely outside of my own immediate experience.

My general objective as a participant in this workshop is to find out what it's like to do library management these days in the context of a military organization. My speculation is that in some respects it's very much like managing any other type of library, and in some other respects it's significantly different. The significant differences will, I hope, become more apparent to me during the course of the day as you and I have a chance to interact informally, especially in our seminar group this afternoon. Since I'm not in a very good position right at this moment to speak about what is unique and special in your particular environments, it seems most sensible to use my time this morning to focus on some aspects of the current library management environment that appear to me to be common to the broad range of libraries of all types and sizes.

Before I move to looking at several general concerns of library management that I believe may be as pertinent to military libraries and librarians as they are to all the rest of us, I would like to share with you one perception that I've formed, admittedly as a result of fairly casual and non-systematic observation. It is my impression that military librarians, especially those on installations outside the Washington area, often seem to me to be rather isolated from and lacking regular contact with their civilian counterparts in the local, state, and regional library communities. I can think of individual military librarians who would qualify as striking exceptions to that generalization, and I'm sure you can too. Nevertheless, I think the generalization does have some merit. A couple of years ago, I had occasion to make the rounds of a number of the state library associations, and I met very, very few military librarians. I've even seen local library directories that omit the military libraries in a given city or region, as if nobody knew that they existed.
If in looking at your own individual situation you find that you haven't established strong, close, and regular working relationships with the public, academic, school, and non-military special libraries in your immediate area, I'd urge you to set about rather aggressively to establish those contacts, because I think they could be critical to your capacity to maintain high quality library service in a time of fiscal austerity.

I make this point because I think one of the great advantages you do have as a group is that very often you have strong linkages and very effective working relationships with other military libraries. Those relationships are a great source of strength when resources get scarce. If you could develop equally strong ties with the civilian library community, especially by linking into the local and regional multitype library networks that are now taking form all over the country, then I believe you will be in a better position to cope with the further rounds of budget reductions that may be inevitable.

It seems clear to me that those who are responsible for the management of all types of libraries will, in the decade of the 1980's, be challenged very strongly to respond to the requirement of increased productivity—to improve service to their clientele, to run leaner and better, and to operate with less of the traditional kinds of resources. Doing more with less is easy to say, but as I suspect every one of us in this room knows, it is damnably frustrating and difficult to do!

I'd like to focus this morning on what seems to me a few key aspects for library managers in responding to the challenge of increasing library productivity. Let me assure you at the outset that there are no easy or obvious answers, or if there are, I'm afraid they have eluded me up to this point. But there are several managerial strategies that seem to me potentially very useful in addressing the kinds of challenges that now face the library community.

The first and most important function of leadership is always the definition of the goals of the organization. I notice that tomorrow's agenda includes a session focussing on goal definition. Without trying to intrude too much on somebody else's topic, let me just suggest to you that the formulation of goals is an activity that deserves to be taken very seriously. The very manner in which you state the goals of your library has the potential either to greatly enhance or to significantly reduce the range of options that are available to you as a manager in trying to achieve those goals. For example, if your stated goal is to build a comprehensive collection of materials on a given topic, then collection size becomes your only measure of success, and the only strategy available for you to pursue is to get more and more money each year so as to be able to buy more and more books. Suppose, instead, you define the goal as one of providing effective and timely access for your clientele to the broadest possible segment of the published literature on a given topic. You then are in a position to develop a set of measurable objectives and to employ a mix of strategies to achieve the desired result.

I chose that particular example because it leads directly to what I consider the most important and the most complex problem that library managers face today. That is the problem of evaluation of library services; the problem of measurement. In my opinion, the most urgent and the most complex problem now facing all types of libraries, military and civilian, governmental and non-governmental, is the problem of evaluating library resources, library programs, and library services.

I think that most of the people in this room would probably agree, especially if you yourself have management responsibilities, that libraries are being required to operate these days in an increasingly rigorous climate of fiscal and programmatic...
accountability. As I look ahead, I expect that, if anything, the pressures to justify library costs will become more and more intense from those to whom we report, because they, in turn, will be under more and more pressure from those to whom they report to increase productivity and to lower current costs, especially personnel costs.

There are a couple of aspects of the current emphasis on accountability and productivity that I think are especially important for library management and that are worth our taking just a few minutes to explore this morning. First of all, many of us tend to have a kind of reflex negative response to terms like "productivity," "cost-benefit," and "cost-effectiveness." The late William Axford, former Director of Libraries at the University of Oregon, in a paper prepared shortly before his death for Advances in Librarianship, attributes our characteristic suspicion of and distaste for the language of the new management science, with its emphasis on data and quantification, to what he calls the library profession's "cottag industry mentality" which, among other things, tends to see the practice of librarianship through the eyes of the artist rather than those of the pragmatist. One does not, after all, contemplate Beethoven in terms of cost-benefit ratios or assess Picasso in the context of enhanced productivity.

It's enormously tempting for library managers to take refuge behind the comfortable and comforting generalization that you simply can't quantify good library service. But given the current character of managerial thinking in the larger organizations that control the destiny of our libraries, it's a little bit like a passenger on the Titanic saying, "This boat can't possibly sink because I don't know how to swim!" Whether we approve of it or not, whether it offends our professional sensibilities or not, those of us who manage enterprises like schools and libraries are simply being obliged to come to terms with the demand for quantitative performance measures that can be related meaningfully to costs.

Just between ourselves, aren't we really more than a little bit inconsistent when it comes to quantification? The truth is that we have not only been willing, but eager to quantify inputs while at the same time adamantly resisting most efforts to quantify outputs. Our whole traditional approach to writing library standards has centered on setting quantitative norms for resources--staffing formulas, per capita or per student financial support, minimum standards for collection size, minimum square footage of usable floor space per reader or per staff member--all measures of input. The simple fact is, the predicament we find ourselves in as librarians in a managerial environment that places more reliance and more credibility in numbers than in rhetoric, is that library operations are characterized at the moment by a weak accountability structure. The weakness lies in the fact that we lack reliable, convincing measures on the output side; the benefit side of the cost-benefit equation. As my economist colleagues at Pittsburgh keep reminding me, cost-benefit analysis is possible only when we can devise a way to at least partially quantify benefits.

The development of meaningful ways of measuring library effectiveness has become a priority concern for library managers, and I'd like to mention just a few examples of work currently in progress that I think merit the attention of anyone who is responsible for and accountable for library resources. The single most useful state-of-the-art review of methods of evaluating library services is, in my opinion, F. W. Lancaster's The Measurement and Evaluation of Library Services (Information Resources Press, 1977). At my own school, we have been involved in a long-term study directed toward understanding the cost-benefit aspects of library resource sharing. In the process of this investigation, we've devised a method of measuring collection use that is accurate on the basis of sample periods as short as three days, making it possible for any library to get a firm fix on
the use of its collections at very minimal cost. We're now at work on a computer-
realizable simulation model that we hope will be useful in applying objective 
performance criteria to either planning new library resource-sharing networks or 
existing ones. I also want to mention a study recently completed at Pitt and 
scheduled for publication by the Special Libraries Association shortly. The author 
is James Matarazzo and the subject is "Closing the Corporate Special Library," an 
examination of the factors that led to the decision to terminate the special 
library in a number of large research and manufacturing firms. Matarazzo's book 
points up just how dangerous the weakness on the output measures side of the library 
accountability structure can be, and how vital it is to be able to document and 
provide objective evidence of the relevance and value of the library's services to 
its clientele. I also want to recommend that you have a look at the results of 
the work sponsored by the Public Library Association of ALA and carried out by 
Gene Palmcur of King Research, published by ALA as A Planning Process for Public 
Libraries. I think this book offers an extraordinarily promising approach to 
developing client-centered measures of library performance and a methodology that 
is readily applicable with appropriate modifications to any type of library.

Going back for just a few minutes to the input side of the library productivity 
accountability equation, it's rather obvious that the largest and most costly 
single resource available to the library manager is staff. The people on your 
staff are, at least potentially, the most promising means available to you to 
enhance library productivity. In most library organizations, the staff believe 
themselves to be, and, in fact, quite often are, under-utilized. For most libraries, 
the single most important and most promising avenue available to improve library 
performance as a function of operating cost is to raise the level of staff perfor-
mane and staff productivity. Two key elements in any management strategy 
directed toward enhancing staff performance are the effective utilization of 
technology and staff development.

We have now had about twenty years of experience in applying modern computer and 
telecommunications technology to library operations. I think it's important to 
try to evaluate what we have learned from that experience. First, we've learned 
that sound, carefully planned applications of appropriate technology to library 
operations have the potential both to enhance the productivity of the individual 
staff member by several orders of magnitude and to even alter, in a very positive 
way, the fundamental character of certain basic library processes. On-line cata-
loguing and on-line data base searching probably represent our outstanding successes 
to date in these respects.

We've also learned that the pace of technological research and development is 
almost always more rapid than the pace of effective application at the operational 
level in libraries. To put the matter directly, we can invent new technologies 
far faster than we can figure out how to apply and use those technologies in the most 
beneficial way.

One consequence of that fact is that we find ourselves, as managers, in a period 
of increasing technological abundance, faced with a bewildering and growing array 
of attractive technological options. As the range of choice expands, the problem 
of making the optimal choice - selecting the best technology - becomes more and 
more acutely painful. I would offer the hypothesis that choice of technology is, 
at present, the leading cause of insomnia among library administrators. Three 
weeks from now, we're expecting several hundred librarians and library administra-
tors to be in Pittsburgh for a three-day conference centering on just that topic - 
how to choose and apply the best available technology in libraries. If you aren't 
able to come, the Conference proceedings are scheduled to be available in book 
form next spring. They will include a library administrator's primer on technology
which we hope will improve your chances of shaking hands with the computer sales representative and still having all five fingers left intact afterwards.

Let me turn now for just a few minutes to the topic of staff development. The central problem can, it seems to me, be expressed in relatively simple terms. How do we, as library managers, motivate those people who we supervise to grow in their jobs as to make their maximum potential contribution to the work of the library?

The problem is hardly a new one, but I submit that it has taken on a special urgency, a special importance and a special complexity in libraries today. There are several aspects to the problem that merit our attention as library managers. Job stagnation has been a longstanding problem in our profession because a high proportion of the staff in many libraries consists of people who have long ago mastered the jobs they were originally hired to do, but who will not or, more often, as a consequence of lack of mobility cannot move on to higher level jobs in another library. In the 1950's and 1960's when libraries were in an expansionist mode, the problem was, to a large extent, manageable because of growth in staff size, turnover at the higher levels with accompanying opportunity for internal promotion, and because, when the library's clientele or mission expanded, it was almost always possible to add new positions in response to new demands. In that kind of environment, which was pretty much the norm at the time that at least a few of us in this room were learning our trade, the organization didn't suffer too badly if even a fair number of the staff "plateaued-out" early in their careers. The current situation in which most of us find ourselves, however—one in which we are continually expected to produce more, to provide more service, while being given less and less with which to provide that service—dramatically reduces the capacity of the organization to tolerate the staff member who is merely holding down a desk and filling a place on the payroll—coasting down a long and gentle slope toward retirement. The existence of severe constraints imposed by the rules and protocol of civil service and collective bargaining—across-the-board salary increases, lockstep promotion, time and energy consuming grievance and appeals procedures—significantly restrict our capacity as managers to motivate and to reward superior performance. Yet within this formidable set of constraints and restraints on managerial initiative, we are simply obliged to create, maintain, and enhance the climate for job growth within our organizations.

It is not merely that current circumstances oblige us to ask more of people; it is that we have to ask different things of people, to persuade and to motivate staff to take on new responsibilities. As I look back on twenty-five years of doing management in my own career, it seems to me that what is really different today, by contrast with ten or twenty years ago, is that the "zone of change" has expanded enormously and continues to expand very rapidly. Those two terms "zone of permanence" and "zone of change" are for me a convenient way of looking at a library or, for that matter, any kind of organization. The "zone of permanence" stands for that part of any organization which it is reasonable to assume will continue indefinitely without substantial change, while the "zone of change" represents that part which is subject to expansion, reduction, or even termination, depending on the negotiating skills of the administrator and the economic circumstances of the funding source. For example, for a public library, lending books is a function that would reside in the zone of permanence, while sponsoring film programs might belong in the zone of change, representing a function that would be carried out when money, staff, and space were adequate, but dropped when budget support was reduced.

The distinction is nicely illustrated by the difference between traditional "object of expenditure" budgets and more recent approaches such as PPBS and "zero-
based" budgeting. In traditional object of expenditure budgets, the funding level represented by the current budget is essentially non-negotiable and accepted as a "given." Budget negotiation is concerned only with increments above current funding levels, and only the incremental portion of the budget is within the zone of change. But with PPBS or zero-based budgeting, there are essentially no "givens" - the entire existing base budget is placed within the zone of change.

My point in elaborating this two-zone organizational model is related very specifically to the topic of staff development. As the zone of change expands, it requires people to begin to make extremely hard choices about what they do and how they do their jobs. The necessity to adopt new, radically different and seemingly undesirable ways of providing basic library services becomes the proverbial irresistible force, and established job descriptions become the proverbial immovable object.

I spent the first ten years of my administrative career trying to learn how to write job descriptions, and the last fifteen years trying to learn how to avoid writing job descriptions. Like my favorite author in the field of management, Robert Townsend, whose 1970 book Up the Organization I consider a minor classic, I have become convinced that we must break out of the tyranny of job description and make it both possible and rewarding for individual jobs to expand horizontally. In a section titled "Job Descriptions--Strait Jackets" Townsend writes:

> Insane for jobs that pay $150 a week or more...the good people should be allowed to use their jobs and see how good they are.

> At best, a job description freezed the job as the writer understood it at a particular instant in the past. At worst, they're prepared by personnel people who can't write and who don't understand the job.

I think if libraries are going to respond successfully to the mandate to enhance their effectiveness, we have to create organizational structures that make it possible for job descriptions to grow organically, and we are going to have to find ways to motivate staff, to reward staff, and to make it attractive for staff to grow in their jobs.

To summarize, I think that these are challenging times for library administrators and that in order to respond effectively to that challenge, we need to give special attention to reducing the isolation of individual libraries, strengthening the library's accountability structure by creating better performance measures, making thoughtful commitments to technologies that extend existing resources, and placing a priority on staff development that results in job growth.

In his latest book, Managing in Turbulent Times, Peter Drucker writes:

> In turbulent times, the first task of management is to make sure of the institution's capacity for survival, to make sure of its structural strength and soundness, of its capacity to survive a blow, to adapt to sudden change, and to avail itself of new opportunities.

Can we do it? Can we manage so skillfully to (again in Drucker's words) "feed the opportunities and starve the problems" that our libraries not only survive, but flourish in times of turbulence. Can you do it? Of course you can! Will you do it? Of course you will!
Dr. Thomas J. Galvin has been Dean of the School of Library and Information Science at the University of Pittsburgh since 1974.

Before joining the Pittsburgh faculty, Dean Galvin was Associate Director and Professor in the Graduate School of Library and Information Science at Simmons College in Boston, where he held faculty and administrative appointments from 1962 through 1974. He was Assistant Director of Libraries at Simmons from 1959 to 1962; Chief Librarian of the Abbot Public Library, Marblehead, Massachusetts from 1956 to 1959; and Reference Librarian at Boston University, College of General Education from 1954 to 1956.

Dean Galvin holds the baccalaureate degree with distinction in English from Columbia University, the Master of Science in Library Science from Simmons College, and the degree of Doctor of Philosophy from Case Western Reserve University. He is a member of Phi Beta Kappa and Beta Phi Mu.

In 1972, Dr. Galvin received the Isadore Gilbert Mudge Citation, presented by the Reference and Adult Services Division of the American Library Association. In 1978, he received the Alumni Achievement Award of the Graduate School of Library and Information Science, Simmons College. In 1979, he was named a Distinguished Alumnus of the School of Library Science, Case Western Reserve University.

Dean Galvin is the author or editor of seven books. The most recent is Excellence in School Media Programs, co-edited with Margaret M. Kimmel and Brenda White, and published by the American Library Association in 1980. The Structure and Governance of Library Networks (1979), co-edited with Allen Kent, was named the Outstanding Information Science Book for 1980 by the American Society for Information Science. A regular contributor to professional journals, he is the author of more than 100 published articles, research papers and reviews on various aspects of library and information science.

Dr. Galvin was elected President of the 35,000-member American Library Association in 1979-80. Previous elective office in that Association include the Presidency of its Library Education Division and three terms as a member of the ALA Council. He is past Chair of ALA's Wilson Indexes and Reference and Subscription Books Review Committees. At the state level, he served three terms as Treasurer of the Massachusetts Library Association. He was a member of the Pennsylvania State Advisory Council for Title IV of the Elementary and Secondary Education Act from 1975 through 1979.

Dr. Galvin was a delegate-at-large to the 1979 White House Conference on Library and Information Services. He is a member of the Public-Private Sector Task Force of the National Commission on Libraries and Information Science and of the National Advisory Board for the Center for the Book at the Library of Congress. In 1980, he was named by the Secretary of State to the U.S. National Commission for UNESCO. He has appeared on several occasions as an expert witness before committees of the United States Congress.

Since 1977, Dean Galvin has been U.S. Principal Investigator for a multi-year national library and information service development project co-sponsored by the Ministry of Culture of Spain and supported by the Spanish-North American Joint Committee for Educational and Cultural Cooperation. From 1976 through 1978, he was External Examiner in the Department of Library Studies, University of Ibadan, Nigeria. He has served on the Fulbright-Hays Selection Panel of the Council for...
the International Exchange of Scholars. He is currently advising on the development of library and information science education programs at King Abdul Aziz University, Jeddah, Saudi Arabia.

Current special appointments include membership on the Visiting Committees of the Matthew A. Baxter School of Information and Library Science, Case Western Reserve University and the School of Library Science, Texas Woman's University. He has served on accrediting teams on behalf of the American Library Association and the Middle States Association of Colleges and Secondary Schools. He is a former Trustee of the Thayer Public Library, Braintree, Massachusetts.

Dr. Galvin has been a consultant to numerous international, national and local organizations, publishers, government agencies, colleges and universities, public and special libraries. Current and recent consultant assignments include evaluation of library services at Brooklyn College of the City University of New York, evaluation of the Interlibrary Cooperation Consultant Program of the Illinois State Library, development of library programs and services at Buena Vista College, Iowa, and at the Free Library of Philadelphia and curriculum development at the Graduate School of Library and Information Studies, Rutgers University. He serves on advisory committees for the Applied Management Sciences' evaluation of the Library Services and Construction Act and for Radcliffe College's "Women in the Community" project, sponsored by the National Endowment for Humanities.

Dr. Galvin's major areas of teaching and research interest include education for the library and information professions, international library development, library management, reference and information services library networking, information and public policy.

Dr. Galvin is a member of the American Association of University Professors, the American Library Association, the Special Libraries Association, the American Society for Information Science, the Association of American Library Schools, Friends of Libraries-USA, the Freedom to Read Foundation, Pennsylvania Citizens for Better Libraries, the Pennsylvania Library Association, and the Pennsylvania School Librarians Association.

Dean Galvin is listed in Who's Who in America, Who's Who in the East, Contemporary Authors, and A Biographical Directory of Librarians in the United States and Canada.
In our job as management consultants at LMDC, we generally do not spend much time in this building. Our directorate is out in what the General has said is the working Air Force. There, we're working out real problems. Even though I had been assigned here at Maxwell in the Squadron Officers School and the Air Command and Staff College, I really hadn't known much about the library. I had used the collection and it seemingly had satisfied my needs while a student here. It wasn't until this past spring when the AUL Director approached my boss about working together on the 25th Annual Librarians Workshop that I met Bob Lane. I have come to know him fairly well over the last few months while we worked together, and have learned more about library operations during this time.

You're going to have to endure me for about two and a half hours today and, for those of you who are in my seminar on stress, maybe a little longer. Starting with the seminars, you're going to meet some twenty of our consultants and I need to tell you about them right up front.

First of all, they are just back from various trips. This week has been on our calendar since back in the early spring and we have brought these consultants back to Maxwell expressly for your workshop. You will meet them in groups of twos and threes in the seminars. These people have a lot of experience. There will be senior and chief master sergeants, technical sergeants, captains, and majors. However, what I want you to really understand is that with these people you have some of the best experience in the pragmatic, action-centered leadership management thought that's around. For the most part, they are not academicians. That's not the credentials that we like to get in this business. We want proven leaders, good managers. These people are all hand-picked. I tell you this not to make them seem ten feet tall, but to identify them as a resource for you. Learn what you can from them. First, it will be non-threatening, no questions will be unfair, and they will certainly appreciate your confidence. I will promise you that on their behalf.

What I would like to do in this hour is prepare you for the seminars coming the next couple of days and show you some of the comments you made about your libraries. Not what we said or what we think, not being in your functional area. Let me say at this point that we are not functional people. We see ourselves as leadership and management specialists, so we're not going to try to get inside your heads and tell you how to run your libraries. One area we can talk about is the people resource business and what makes good managers and leaders. This will be our target area.
Mr. Lane alluded to the dynamics of the conference and I just want to embellish them a little if I may. You have been participating, at least some of you, in the surveys before you came here. I wish all of you could have done that. About seven of the packages came back too late to get into our data base. We regret that, but I hope you took the survey and that your information will show up as part of the results here today. If not, having knowledge about the data we have collected will give you something to take back to reflect on.

We are going to do some experiential exercises today. For those of you who are well ahead and read slides critically, you will notice that the word is misspelled. You know, I'm an Andrew Jackson advocate. He said..."It's a damned poor mind that can only think of one way to spell a word." I appreciated that and I knew that would bring a few of you stress.

We are going to do some "hands-on," letting you work back and forth with some things. The point I want to make here is that you are not to be intimidated. It's not threatening, but rather fun. D. H. Lawrence once said..."Work ought to be like an interesting game and if it isn't any fun, then don't do it." So try to find something interesting and fun in these seminars and use your skills.

The third part of that is the implementation of skills. We can't go back to your libraries or to your staff jobs and accomplish this. We can encourage you to do it. The motivation must be within you. We hope to push a few buttons so that you will say that this is the kind of thing I need to do and I will go back and do it.

Some time later, along about the first of the year when you have had a chance to get back into that world of yours and do all the things that Dr. Galvin talked about in terms of planning and management, inputs and outputs, we will send you a survey to find out how it is going. We will ask if we did anything that made some positive changes for you within your organization. We are very pleased to participate in this way for we see these dynamics this week to be a part of a total program.

For those of you who did not participate in the survey, we have a booklet with 109 statements, not questions, but statements which note how people feel about their job, supervision, the organization and such. This is our survey. We have been in the business of doing such a survey since May of 1979. We have perfected our process. We think it's a credible one and that the input we receive from you will be sufficiently credible that you can use it. We were introduced to inputs, throughputs, and outputs, and this more or less tells you how we look at an organization. Notice, there are no functional areas included. We don't tell you how the circulation desk is doing, rather we ask about the state of human conditions and attitudes toward jobs.

These are the inputs. We take the 109 statements, mix them up, and then put them all back together in what we call variables. Then we try to assess them. We have a scale from one to seven, four being the midpoint. Essentially we're looking for high numbers, so we would generally want people to give us high scores. If you were a leader-manager and people were rating you in your work group, you would hope that everybody would give you a seven. It also says that if everybody was distributed more or less normally in your work group, that 50% of the people would have values less than four and 50% higher. These numbers we will go over are based on that scale of one to seven. So if you see a number around four, this tells you that about 50% of the people agreed and 50% disagreed. Except for a couple of questions, we are looking for positive scores and I will point those out to you.
Let's take a look at this group who took the survey. In doing so you will find out something about yourself. Please get out the feedback package, "Survey Summary and Analysis," and follow along with the slide presentation.

**COMPOSITION AND DEMOGRAPHICS:** This first section will tell us something of the nature of the population who took the survey. We have not expanded the categories that would clarify origin or race. We do not intend to do that. However, it presents no problem.

In the Supervisory Section we took a look at your inputs and found that 562 did not supervise anyone directly. People chose to put "not applicable because I'm not a supervisor" rather than to put "None." That's a systematic issue in all organizations we go to.

Now I am going to turn your attention to the question: Do you know who writes your performance appraisal? The statement says "OER," the acronym for Officer Effectiveness Report but in the survey it says "My Performance Appraisal," so we asked the right question, but as we normally present this survey to Air Force personnel we did not change it for this group. Note that 81 people, almost 10% of this group, said they were not sure who wrote their performance appraisal. When I look at your work force in terms of the stability that you have, I find that to be a concern. If you have people in your organization, at any level, who are not comfortable in knowing who they work for and who gives them a ticket for their evaluation, then you have problems. If it is distributed normally, that applies to at least 10% of the people surveyed throughout your organization. That, in and of itself, may have an impact on your organization's productivity.

**FREQUENCY OF MEETINGS:** This is looking at the "work-group" thought process. We can't make a lot of this, except notice that 96 and 457 of the people marked "Never" or "Occasionally" which adds up to a fairly big group. That's over 50% of the people surveyed saying that we don't have very many meetings around here. It might be nice to know that 19 people are in continuous meetings. I don't know how they got out to take the survey. You can see where the problems are solved. Of the people surveyed, 174 said meetings are "never" used to solve problems or establish goals. You have to involve your staff in setting goals and understanding the library problems. You should be concerned about this. Are you really letting some upward flow of communication take place? As managers and leaders, are you prepared to let ideas float up? If you're not conducting meetings and thereby no forums or you don't use meetings to solve problems or to collect information, you may be excluding some of that creativity we know is there.

I thought you might be interested to know the marital status of this group. We were a little cautious in listing single parents but then we took a look at the distribution of grades and decided that this probably tracked. Of the people surveyed, probably 10% are of a younger age and could be single parents. This doesn't seem to be out of line with the Air Force or the other armed services. The number of single parents making a career within the DoD structure is increasing and will probably continue to increase.

**EDUCATION:** This is a very significant point for this group. Would you please notice the difference in the two groups between those with less than two years of college and those with more than two years of college. You are really an over-educated group of people. You are super achieving people. On the other hand, you have a number of people who are non-high school graduates or high school graduates with a couple years of college. You have a polar group of people that you are dealing with as their education is not distributed normally or as you might think.
education would be distributed. This is something you should be sensitive to in your organization. Don't exclude the people on the low end of the educational scale in preference to your superior educated, achieving people. You have to get both groups productive.

Here I want to make some points about the data gathered from the OAP. As the numbers show, when you are compared with other groups taking this survey, you come through as a fantastic group. Your's are super good scores. It says that your people think that they are managed well, at least, relatively speaking, better than people we've surveyed.

Our data base is made up from surveys of 72,000 people. In your particular case, we surveyed 862 people from participating libraries. In almost every category, librarians rated better (more positive) than our data base averages. If you can, pat yourselves on the back. When we looked at "Job Performance Goals," we found you're doing a lot of things right. This is one of the most critical tasks you have to perform as managers and leaders.

When we looked at the following "Task Characteristics," we found that you think a lot of your jobs:

**TASK AUTONOMY:** Do you have the freedom to do your work? Many of you feel like your are independent and that's what you should expect. If you give super-achieving, well-educated people jobs, then you should give them the freedom to perform them. Fortunately, this is working for you but it doesn't work in a lot of organizations. We often tend to hire super-achieving and well-educated people only to constrain them. It would seem to me that you in the library system are not doing that and I commend you.

**JOB DESIRES:** The opportunity to have independence in your jobs appears significantly higher. You scored 6.07 in the area of Personal Growth in Jobs. Let's go back to what Dr. Galvin told us about that in terms of staff development. People are eager to personally grow and stretch. Fortunately, many of the people who took the survey felt that they could do that.

**PERFORMANCE BARRIERS AND BLOCKAGES:** Here you scored 4.83. When compared with our data base of 4.57, you're still positive. When we arrayed the various library surveys, we saw some individual problems. As you look at the data for your individual library, you will want to check the item on Performance Barriers and Blockages. See where your library stands up against other libraries in the survey. Now here is our concern. We can identify the libraries, per se, that have road blocks or bottlenecks; however, we don't know what the barriers are. It is your job to find them. This should invite some inquiry on your part to find out these specific things that people are concerned about. Is it trying to get something on contract? Is it trying to get something through the front office? We cannot answer that question from our survey. However, you need to know it or know the answer to it if your scores are relatively low.

The rest of the scores here are high. There is a negative figure for Organizational Bottlenecks, -3.73. Even though you are significantly better, because that's one of those negative scored questions, this still means that about 50% of the people agree and disagree. So while you are better off than the mainstream of people surveyed, I think there's still a concern here. Look at your Management and Supervision. Notice that you are .51 higher than the rest of the base. These are very positive numbers.
SUPERVISORY ASSISTANCE: This variable recognizes poor performance and this is a concern. In this one area you are negative compared to the data base. We have to make a supposition here. Three categories of people generally get poor feedback, meaning that they don't get enough. When it comes to poor performance, they trail way behind the data base. These are shift workers, E-4's, E-5's and minorities. If you have military people on your staff, please be mindful of giving them the feedback they need. The last category might be very applicable to this group and that is the category of minorities, including women. This is the area you ought to be tracking in terms of recognizing poor performance, as the predominant group of people surveyed were women. We looked at the breakout on minorities and found that they were not skewed very far. It might be a function of the number of women who are in the library system.

SYSTEM OUTPUT/PRIDE IN OUR JOBS: As a group, you appear to be very proud of your jobs. It would seem to me that most of you understand the commitment you have taken and the obligation that you have plays a vital role in supporting all the functions and activities of your libraries.

ADVANCEMENT/RECOGNITION: You're below the data base. This variable has always indicated a problem. For the uniformed contingent of DOD it tends to be more recognition; for the civil servant, advancement seems to be of more importance. I would imagine that it would track the same with the library field. Also, I would surmise that this is what we are seeing here—a perception that people may feel stymied in their jobs. Dr. Galvin talked to us about this, about developing staff so that they do have some opportunity. It is an overriding issue in your library system. What can you do about the situation? I cannot give you a solution. This might be something that you will want to discuss with your library staff when you return. It is an important issue and with your super-achieving people it is an even more critical one. In this case you are lower than our data base, you will have to work harder to satisfy this need of your human resources.

GENERAL ORGANIZATIONAL CLIMATE: These are very strong numbers here and nothing I can point out as a real concern. We always like to see higher numbers, but don't be complacent and assume that you are near perfect. However, you are very good.

JOB RELATED SATISFACTION: Again very high numbers here. When you see the number six or one close to six on co-worker relationship, it is almost a whole percentage point above the data base. I sense that you work together well as teams in your libraries and that you are supportive of each other. Again, you're going to have to look at your discrete data, but overall that's what the numbers are telling us.

WORK GROUP EFFECTIVENESS: You perceive that your quality and quantity of work is very high. Let's go back in light of what Dr. Galvin has said to us. We have a problem measuring in hard data terms the output of organizations. Those numbers represent your perceptions that you work hard and do quality work. The onus is on all of us to identify the key areas that we need to measure in order to come up with some hard data, because perceptions cannot be considered valid in evaluating quantifiable output.

Summarizing the data, your major strengths appear to be: task autonomy, pride, perceived productivity, job related satisfaction, organizational communications climate, supervisory assistance, management/supervision, and job related training. Your areas of concern are: advancement/recognition and organizational bottlenecks.
We looked at the men versus the women and I tried to take a positive look because your numbers are so good. I mentioned to you that one group was higher over the other, but the reverse is true. It means the other group is lower, so perhaps you ought to focus on why the other group is lower. In the first category, men are higher in skills and pride. They perceive that they have a greater array of skills that they can perform within the library setting. This may or may not be significant. Women were higher in that they thought they had more significant jobs and that their job performance goals were clearer, at least clearer than the men's. I will let you "internalize" that and you can make whatever sense out of it you will for your own work setting. Finally, women's job related satisfaction was higher in perceived productivity.

We also took a look at the data by educational level. This we broke at more than two years of college and lower. Notice the need for job enrichment. Remember those super-achieving people. They want to grow and to stretch, they want to have meaningful jobs. That's why you hired them. So make sure that there is opportunity for growth and personal development. Those with less than two years of college felt that they were supported better in their work. This might go back to what I said earlier about the need for care and attention at the lower level. There is a correlation between the lower grades and the lesser education. Notice their perceived productivity was less. Productivity is an issue and I believe this data will give you a target area.

We took a look at the GS-1-8's with the premise that your professional grades begin at the GS-9 grade. We observed the differences. By the way, in all these categories, I am only bringing out the differences that are statistically significant between the two groups. It appears that the GS-9's and above have a higher perception of advancement and recognition. When you look at your individual data you won't be able to discern how the lesser grades scored in certain areas nor how the higher grades scored them.

We arrayed all of the various services in DOD and the Canadian Forces and you all seem to be fairly consistent in your scores and find that "Advancement and Recognition" is a universal problem in your business just as in all businesses.

Included in your packet are some models. The models are an elementary way to array the data and look at various characteristics. If you have individual data from your library, pull the number off the data that answers that question and put in the value on the blank. This will allow you in a model form to array your data with the aggregate of all the libraries plus the aggregate of the 72,000 data base. This is true for all of these models. We want to introduce you to the models so that you may use them in your analysis of the climate of your own system. Go back and create a picture for those people who are eagerly awaiting the report of your conference. Tell them about the data and how all the libraries look. If you will do that, I believe you will get some results.

The suggested guide for conducting a feedback meeting is a very simplistic one. It tells you how to plan, how to set up the agenda, and how to carry out the interaction with your work group. Prepare for a meeting back at your home base, a meeting where you can interact with your people. Let me give that upper communication to you. Identify or have them identify for themselves the bottlenecks in the system. We have found that if people have an opportunity for feedback, their performance will be noticeably improved. If you will take this data back to those supervisors and managers who will study and analyze the information, then we predict that you will see more productivity, higher morale, and higher career intent.
Normally, in a four to six month period we would go back and conduct a post-survey. If the "pre" and "post" results were the same after the six month period, you would expect the means of all those variables we discussed to stay the same. What makes our jobs meaningful in this business is to see the data after four to six months and appreciate the fact that there are some perceived improvements as a result of what we did and more significantly what people like yourselves accomplish when the data is used to the best advantage. This I challenge you to do for I am confident it will work for you. You have a valuable tool in your hands which you can take back and use in getting people to commit themselves to the goals and activities ahead for your libraries.

There's a story told about a Baptist minister. He was really getting into it one Sunday morning preaching hellfire and brimstone, really laying it on. The congregation was just enthralled by this. One lady in the balcony got the call that very morning, jumped over the balcony, and shouted..."Hallelujah, I'm Saved!" On the way down she caught her dress on the chandelier and there she was, this beautiful lady, hanging out there on the chandelier in front of the preacher. The preacher, being quick, said..."The Lord will strike any man blind who looks upon that woman," and one elder spoke up and said..."I'll risk one eye!"

Will you risk one eye? Don't throw the data in the round file but take it back and reflect on it. Just risk a little and make it work for you.
Lt Col Saddler's education includes a Bachelor of Science degree in Engineering from Ohio University and a Masters degree in Systems Management from the University of Southern California. His specialized training includes an education fellowship with the Rockwell Corporation and Air Command and Staff College. His civilian work experience has been with the Anchor Hocking Glass Corporation and the Cummins Engine Company as a production control engineer. During his military service, Colonel Saddler has served in various phases of logistics management including logistics planning, supply management, and contracting. His prior assignments have included duties with the Defense Logistics Agency, Air Force Systems Command, and the Tactical Air Command. In addition to his military duties, he has served as an instructor at Franklin University in the Department of Administrative Sciences and has presented courses for the Central Ohio Management Association. His decorations include the Meritorious Service Medal and the Defense Meritorious Service Medal. Colonel Saddler became a certified Management Consultant in 1980 and has worked with clients in major Air Force Organizations. He participated in the development of the Lieutenants Professional Development Program and has served as Course Director for the Management Strategies Course and Assistant Chief, Education Division. He is a certified instructor with specialization in the areas of management, interpersonal skill development, and stress management. He has conducted the Mid-Level Seminars and other specialized training programs. He has worked as a group facilitator with clients to resolve group problems for team building. Colonel Saddler has consulted in the private sector with hospitals and small businesses in the area of human resource development.
SUMMARY AND ANALYSIS
OF
ORGANIZATIONAL SURVEY DATA
### BACKGROUND INFORMATION

**ORGANIZATION:** Military Libraries Aggregate  
**TOTAL SURVEYED:** 866

<table>
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<th>SEX</th>
<th>Male 171</th>
<th>Female 665</th>
<th>Unknown 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAY GRADE</td>
<td>Off 5</td>
<td>En 12</td>
<td>GS 757</td>
</tr>
</tbody>
</table>

1. Total years in U.S. DoD or Canadian Equivalent:

<table>
<thead>
<tr>
<th>Years</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>68</td>
</tr>
<tr>
<td>More than 1 year, less than 2 years</td>
<td>49</td>
</tr>
<tr>
<td>More than 2 years, less than 3 years</td>
<td>38</td>
</tr>
<tr>
<td>More than 3 years, less than 4 years</td>
<td>40</td>
</tr>
<tr>
<td>More than 4 years, less than 8 years</td>
<td>138</td>
</tr>
<tr>
<td>More than 8 years</td>
<td>100</td>
</tr>
<tr>
<td>More than 12 years</td>
<td>421</td>
</tr>
<tr>
<td>NA</td>
<td>12</td>
</tr>
</tbody>
</table>

2. Total months working as a librarian:

<table>
<thead>
<tr>
<th>Months</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 month</td>
<td>10</td>
</tr>
<tr>
<td>More than 1 month, less than 6 months</td>
<td>38</td>
</tr>
<tr>
<td>More than 6 months, less than 12 months</td>
<td>29</td>
</tr>
<tr>
<td>More than 12 months, less than 18 months</td>
<td>19</td>
</tr>
<tr>
<td>More than 18 months, less than 24 months</td>
<td>24</td>
</tr>
<tr>
<td>More than 24 months, less than 36 months</td>
<td>36</td>
</tr>
<tr>
<td>More than 36 months</td>
<td>522</td>
</tr>
<tr>
<td>NA</td>
<td>199</td>
</tr>
</tbody>
</table>

3. Total months at your present duty station:

<table>
<thead>
<tr>
<th>Months</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 month</td>
<td>13</td>
</tr>
<tr>
<td>More than 1 month, less than 6 months</td>
<td>74</td>
</tr>
<tr>
<td>More than 6 months, less than 12 months</td>
<td>87</td>
</tr>
<tr>
<td>More than 12 months, less than 18 months</td>
<td>51</td>
</tr>
<tr>
<td>More than 18 months, less than 24 months</td>
<td>54</td>
</tr>
<tr>
<td>More than 24 months, less than 36 months</td>
<td>68</td>
</tr>
<tr>
<td>More than 36 months</td>
<td>500</td>
</tr>
<tr>
<td>NA</td>
<td>19</td>
</tr>
</tbody>
</table>

4. Total months in present position:

<table>
<thead>
<tr>
<th>Months</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 month</td>
<td>21</td>
</tr>
<tr>
<td>More than 1 month, less than 6 months</td>
<td>118</td>
</tr>
<tr>
<td>More than 6 months, less than 12 months</td>
<td>123</td>
</tr>
<tr>
<td>More than 12 months, less than 18 months</td>
<td>85</td>
</tr>
<tr>
<td>More than 18 months, less than 24 months</td>
<td>57</td>
</tr>
<tr>
<td>More than 24 months, less than 36 months</td>
<td>79</td>
</tr>
<tr>
<td>More than 36 months</td>
<td>381</td>
</tr>
<tr>
<td>NA</td>
<td>2</td>
</tr>
</tbody>
</table>
5. Your ethnic group is:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>American Indian or Alaskan native</td>
</tr>
<tr>
<td>2</td>
<td>Asian or Pacific Islander</td>
</tr>
<tr>
<td>3</td>
<td>Black, not of Hispanic origin</td>
</tr>
<tr>
<td>4</td>
<td>Hispanic</td>
</tr>
<tr>
<td>5</td>
<td>White, not of Hispanic origin</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
</tr>
<tr>
<td>7</td>
<td>NA</td>
</tr>
</tbody>
</table>

6. Your highest education level obtained is:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Non-high school graduate</td>
</tr>
<tr>
<td>2</td>
<td>High school graduate or GED</td>
</tr>
<tr>
<td>3</td>
<td>Less than two years college</td>
</tr>
<tr>
<td>4</td>
<td>Two years or more college</td>
</tr>
<tr>
<td>5</td>
<td>Bachelors Degree</td>
</tr>
<tr>
<td>6</td>
<td>Masters Degree</td>
</tr>
<tr>
<td>7</td>
<td>Doctoral Degree</td>
</tr>
<tr>
<td>8</td>
<td>NA</td>
</tr>
</tbody>
</table>

7. Highest level of professional military education (residence or correspondence):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None or not applicable</td>
</tr>
<tr>
<td>1</td>
<td>NCO Orientation or USAF Supv Course (NCO Phase 1 or 2)</td>
</tr>
<tr>
<td>2</td>
<td>NCO Leadership School (NCO Phase 3)</td>
</tr>
<tr>
<td>3</td>
<td>NCO Academy (NCO Phase 4)</td>
</tr>
<tr>
<td>4</td>
<td>Senior NCO Academy (NCO Phase 5)</td>
</tr>
<tr>
<td>5</td>
<td>Squadron Officer School</td>
</tr>
<tr>
<td>6</td>
<td>Intermediate Service School (I.E., ACSC, AFSC)</td>
</tr>
<tr>
<td>7</td>
<td>Senior Service School (I.E., AWC, ICAF, NWC)</td>
</tr>
</tbody>
</table>

8. How many people do you directly supervise?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>4 or 5</td>
</tr>
<tr>
<td>6</td>
<td>6 to 8</td>
</tr>
<tr>
<td>7</td>
<td>9 or more</td>
</tr>
<tr>
<td>8</td>
<td>NA</td>
</tr>
</tbody>
</table>

9. For how many people do you write performance reports?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>4 or 5</td>
</tr>
<tr>
<td>6</td>
<td>6 to 8</td>
</tr>
<tr>
<td>7</td>
<td>9 or more</td>
</tr>
<tr>
<td>8</td>
<td>NA</td>
</tr>
</tbody>
</table>

10. Does your supervisor actually write your performance reports?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Not sure</td>
</tr>
<tr>
<td>4</td>
<td>NA</td>
</tr>
</tbody>
</table>
11. Which of the following best describes your marital status?

- Not married
- Married: Spouse is a civilian employed outside home
- Married: Spouse not employed outside home
- Married: Spouse is a civilian employed outside home--geographically separated
- Married: Spouse not employed outside home--geographically separated
- Married: Spouse is a military member
- Married: Spouse is a military member--geographically separated
- Single parent

12. What is your usual work schedule?

- Day shift, normally stable hours
- Swing shift (about 1600-2400)
- Mid shift (about 2400-0800)
- Rotating shift schedule
- Day or shift work with irregular/unstable hours
- Frequent TDY/travel or frequently on call to report to work
- Crew schedule

13. How often does your supervisor hold group meetings?

- Never
- Occasionally
- Monthly
- Weekly
- Daily
- Continuously

14. How often are meetings used to solve problems and establish goals?

- Never
- Occasionally
- About half the time
- All of the time

15. What is your aeronautical rating and current status?

- Nonrated, not on aircrew
- Nonrated, now on aircrew
- Rated, in crew/ops job
- Rated, in support job

16. Which of the following best describes your intentions?

- Planning to retire in the next 12 months
- Will continue in/with the Air Force as a career
- Will most likely continue in/with the Air Force as a career
- May continue in/with the Air Force
- Will most not likely not make the Air Force a career
- Will separate/terminate from the Air Force as soon as possible
EXPLANATION OF OAP VARIABLES

INPUTS:

Job Performance Goals: My job performance goals are clear, specific, and realistic. I know what is expected of me.

Tasks Characteristics: My job requires a variety of talents and skills, involves doing a whole task, and affects a lot of people.

Task Autonomy: My job allows me independence in scheduling work, selecting procedures, making decisions and doing the job as I see fit.

Work Repetition: My job requires me to perform the same tasks repeatedly within a short period of time and I am faced with the same type of problem on a weekly basis.

Job Desires: In my job, I would like to have opportunities for independence in my work, personal growth, to use my skills, to perform a variety of tasks, and a job that is meaningful.

Desired Repetitive/Easy Tasks: I desire a job in which tasks are repetitive and relatively easy to accomplish.

Job Influence: I feel accountable to my supervisors in accomplishing my job and my co-workers maintain high standards of performance.

Job Related Training: I am very satisfied with OJT and other technical training that I receive.

PROCESSES:

Performance Barriers/Blockages: Additional duties do not interfere with the performance of my primary job. I have adequate tools, equipment, and work space to perform my job.

Work Interferences: I have the necessary supplies to accomplish my job. Details do not interfere with the performance of my primary job, nor does a bottleneck exist in my organization which affects the flow of work to or from my group.

Management/Supervision: My supervisor--is a good planner, sets high standards, encourages teamwork, represents the group, explains procedures, and works well under pressure. He/she gives me help when I need it, lets me know when I'm doing a poor job, and I go to him/her for technical advice.

Supervisory Assistance: My supervisor--takes the time to help me when needed and lets me know when I'm doing a poor job. When I need technical advice, I usually go to my supervisor.
Supervisory Communications Climate: My supervisor--asks members for ideas, explains how much my job contributes to the mission, helps me set specific goals, lets me know when I do a good job, helps me improve my performance and sees that I get needed training.

Organizational Communications Climate: Management readily accepts ideas developed by work groups. I have all necessary information to do my job. This information is accurate and adequate. The goals of the organization are clear-cut and reasonable.

OUTPUTS:

Pride: I am proud of my job and my job gives me a feeling of pride.

Advancement/Recognition: I have the opportunity to progress up my career ladder, or learn skills to improve promotion potential. People who perform receive recognition. I am being prepared to accept increased responsibility.

Work Group Effectiveness: The quality and quantity of output of my workgroup is very high. We handle high priority programs in an outstanding manner, and get the most out of resources.

General Organizational Climate: My organization is very interested in workgroup attitudes, and is concerned about our welfare. I am therefore proud to work for my organization and I feel responsible to accomplish our mission. This organization recognizes its best performers. We have a high spirit of teamwork and cooperation, and I feel motivated to contribute my best efforts to my organization's mission.

Job Related Satisfaction: Doing my job well improves the welfare of others. A spirit of teamwork exists among my co-workers. My family recognizes the importance of my work. I am acquiring valuable skills which are preparing me for the future.
ORGANIZATIONAL ASSESSMENT PACKAGE ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>AF DATA BASE</th>
<th>LIBRARIES AGGREGATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>72,000</td>
<td>866</td>
</tr>
</tbody>
</table>

1. WORK ITSELF

a. **Job Performance Goals**

<table>
<thead>
<tr>
<th>Question</th>
<th>AF Data Base</th>
<th>Libraries Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you know exactly what's expected of you?</td>
<td>5.41</td>
<td>5.67</td>
</tr>
<tr>
<td>Are job performance goals difficult to accomplish?</td>
<td>3.66</td>
<td>3.55</td>
</tr>
<tr>
<td>Are job performance goals clear?</td>
<td>4.94</td>
<td>5.32</td>
</tr>
<tr>
<td>Are job performance goals specific?</td>
<td>4.81</td>
<td>5.13</td>
</tr>
<tr>
<td>Are job performance goals realistic?</td>
<td>4.68</td>
<td>5.10</td>
</tr>
</tbody>
</table>

b. **Task Characteristics**

<table>
<thead>
<tr>
<th>Question</th>
<th>AF Data Base</th>
<th>Libraries Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job requires different things using variety of skills</td>
<td>4.87</td>
<td>5.43</td>
</tr>
<tr>
<td>Job involves whole task</td>
<td>4.98</td>
<td>5.40</td>
</tr>
<tr>
<td>Job significant in that it affects others</td>
<td>5.71</td>
<td>5.75</td>
</tr>
<tr>
<td>Can you determine how well you do your job without feedback?</td>
<td>4.44</td>
<td>4.94</td>
</tr>
<tr>
<td>Do you know when you do a good job/responsible for work?</td>
<td>5.03</td>
<td>5.52</td>
</tr>
<tr>
<td>Does doing your job well affect a lot of people?</td>
<td>5.54</td>
<td>5.72</td>
</tr>
<tr>
<td>Does job allow you to completely finish work begun?</td>
<td>5.05</td>
<td>5.15</td>
</tr>
<tr>
<td>Does job require a number of complex skills?</td>
<td>4.32</td>
<td>4.87</td>
</tr>
</tbody>
</table>

c. **Task Autonomy**

<table>
<thead>
<tr>
<th>Question</th>
<th>AF Data Base</th>
<th>Libraries Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job provides freedom and independence in scheduling work</td>
<td>3.85</td>
<td>5.02</td>
</tr>
<tr>
<td>Job provides freedom/independence in selecting procedures</td>
<td>3.97</td>
<td>4.82</td>
</tr>
<tr>
<td>Does job give you freedom to do work as you see fit?</td>
<td>3.99</td>
<td>4.95</td>
</tr>
<tr>
<td>Allowed to make major decisions to do job well</td>
<td>4.13</td>
<td>4.70</td>
</tr>
</tbody>
</table>

d. **Work Repetition**

<table>
<thead>
<tr>
<th>Question</th>
<th>AF Data Base</th>
<th>Libraries Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you repeat tasks within short period of time?</td>
<td>4.98</td>
<td>4.71</td>
</tr>
<tr>
<td>Do you face the same problems on a weekly basis?</td>
<td>4.84</td>
<td>4.50</td>
</tr>
</tbody>
</table>

NOTE: The numbers preceding each question/statement refer to item numbers in the OAP.
e. **Job Desires**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>51. Opportunities to have independence in my work</td>
<td>5.08</td>
<td>5.62</td>
</tr>
<tr>
<td>52. A job that is meaningful</td>
<td>5.78</td>
<td>6.12</td>
</tr>
<tr>
<td>53. Availability for personal growth in my job</td>
<td>5.64</td>
<td>6.07</td>
</tr>
<tr>
<td>54. Opportunities in my work to use my skills</td>
<td>5.73</td>
<td>6.03</td>
</tr>
<tr>
<td>55. Opportunities to perform a variety of tasks</td>
<td>5.43</td>
<td>5.76</td>
</tr>
</tbody>
</table>

f. **Desired Repetitive Easy Tasks**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>56. A job in which tasks are repetitive</td>
<td>3.06</td>
<td>2.77</td>
</tr>
<tr>
<td>57. A job where tasks are relatively easy to accomplish</td>
<td>3.08</td>
<td>2.90</td>
</tr>
</tbody>
</table>

g. **Job Influences**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>33. Do you feel accountable to your supervisor?</td>
<td>5.04</td>
<td>5.38</td>
</tr>
<tr>
<td>42. Do co-workers maintain high standard of performance?</td>
<td>4.80</td>
<td>5.24</td>
</tr>
</tbody>
</table>

h. **Job Related Training**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>104. On-the-Job Training (OJT)</td>
<td>4.37</td>
<td>5.05</td>
</tr>
<tr>
<td>105. Technical Training (other than OJT)</td>
<td>4.46</td>
<td>5.16</td>
</tr>
</tbody>
</table>

2. **WORK GROUP PROCESS**

a. **Performance Barriers/Blockages**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Do additional duties interfere with primary job?</td>
<td>(-3.59)</td>
<td>(-3.67)</td>
</tr>
<tr>
<td>24. Do you have adequate tools/equipment?</td>
<td>-4.62</td>
<td>5.37</td>
</tr>
<tr>
<td>25. Is work space adequate?</td>
<td>-4.66</td>
<td>4.80</td>
</tr>
</tbody>
</table>

b. **Work Interference**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>48. Do you have supplies necessary for job accomplishment?</td>
<td>4.56</td>
<td>5.44</td>
</tr>
<tr>
<td>49. Do details interfere with primary job performance?</td>
<td>(-3.54)</td>
<td>(-3.47)</td>
</tr>
<tr>
<td>50. Organizational bottleneck exists which affects workflow</td>
<td>(-4.16)</td>
<td>(-3.73)</td>
</tr>
<tr>
<td></td>
<td>Management - Supervision</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------</td>
<td>---</td>
</tr>
<tr>
<td>58.</td>
<td>Supervisor is a good planner</td>
<td>4.83</td>
</tr>
<tr>
<td>59.</td>
<td>Supervisor sets high performance standards</td>
<td>5.19</td>
</tr>
<tr>
<td>60.</td>
<td>Supervisor encourages teamwork</td>
<td>5.14</td>
</tr>
<tr>
<td>61.</td>
<td>Supervisor represents the group at all times</td>
<td>4.83</td>
</tr>
<tr>
<td>62.</td>
<td>Supervisor establishes good work procedures</td>
<td>4.82</td>
</tr>
<tr>
<td>63.</td>
<td>Supervisor makes his responsibilities clear to group</td>
<td>5.00</td>
</tr>
<tr>
<td>64.</td>
<td>Supervisor fully explains procedures to each group member</td>
<td>4.65</td>
</tr>
<tr>
<td>65.</td>
<td>Supervisor performs well under pressure</td>
<td>5.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Supervisory Assistance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>66.</td>
<td>Helps subordinates when needed</td>
<td>5.39</td>
</tr>
<tr>
<td>71.</td>
<td>Recognizes poor performance</td>
<td>5.36</td>
</tr>
<tr>
<td>75.</td>
<td>Subordinates seek technical advice</td>
<td>4.49</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Supervisory Communications Climate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>67.</td>
<td>Supervisor asks members for ideas on task improvements</td>
<td>5.00</td>
</tr>
<tr>
<td>68.</td>
<td>Supervisor explains how job contributes to mission</td>
<td>4.58</td>
</tr>
<tr>
<td>69.</td>
<td>Supervisor helps me set specific goals</td>
<td>4.24</td>
</tr>
<tr>
<td>70.</td>
<td>Supervisor lets me know when I am doing a good job</td>
<td>4.70</td>
</tr>
<tr>
<td>72.</td>
<td>Supervisor always helps me improve my performance</td>
<td>4.46</td>
</tr>
<tr>
<td>73.</td>
<td>Supervisor insures that I get job training when needed</td>
<td>4.62</td>
</tr>
<tr>
<td>74.</td>
<td>Job performance has improved from supervisory feedback</td>
<td>4.35</td>
</tr>
<tr>
<td>76.</td>
<td>Supervisor frequently gives feedback on job performance</td>
<td>4.36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Organization Communications Climate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>82.</td>
<td>Ideas by work group are readily accepted by management</td>
<td>3.98</td>
</tr>
<tr>
<td>83.</td>
<td>Organization provides information to do job effectively</td>
<td>4.36</td>
</tr>
<tr>
<td>84.</td>
<td>Organization provides adequate information</td>
<td>4.45</td>
</tr>
<tr>
<td>85.</td>
<td>Unit aware of important events and situations</td>
<td>4.78</td>
</tr>
<tr>
<td>86.</td>
<td>Complaints are aired satisfactorily</td>
<td>4.12</td>
</tr>
<tr>
<td>91.</td>
<td>Information is widely shared in the organization</td>
<td>4.39</td>
</tr>
<tr>
<td>96.</td>
<td>Organization has clear-cut goals</td>
<td>4.59</td>
</tr>
<tr>
<td>99.</td>
<td>Goals of my organization are reasonable</td>
<td>4.93</td>
</tr>
<tr>
<td>100.</td>
<td>Organization provides accurate information to work group</td>
<td>4.49</td>
</tr>
</tbody>
</table>
### 3. SYSTEM OUTPUT

**a. Pride**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Example Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>32. Are you proud of your job?</td>
<td>4.90</td>
<td>5.45</td>
</tr>
<tr>
<td>46. Does your work give you a feeling of pride</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. Are you proud of your job?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**b. Advancement/Recognition**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Example Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>41. Are you aware of promotion/advancement opportunities?</td>
<td>4.11</td>
<td>3.93</td>
</tr>
<tr>
<td>43. Do you have opportunity to go up your career ladder?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. Are you being prepared to accept more responsibility?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. Do people who perform well receive recognition?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. Opportunity to learn skills which will improve promotion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**c. Perceived Productivity**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Example Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>77. The quantity of output of work group is very high</td>
<td>5.51</td>
<td>6.00</td>
</tr>
<tr>
<td>78. The quality of output of work group is very high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79. My work group handles high priority work very well</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80. Work group gets maximum output from available resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81. Work group performance in comparison to others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**d. General Organizational Climate**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Example Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>87. Organization is interested in job attitudes of members</td>
<td>4.54</td>
<td>5.07</td>
</tr>
<tr>
<td>88. Organization has strong interest in welfare of people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>89. Proud to work for organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90. Feel responsible to organization and its mission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>92. Unit personnel are recognized for outstanding performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93. Given opportunity to present results of work to others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94. High spirit of teamwork between co-workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95. Outstanding cooperation between work groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>97. Feel motivated to give best effort to mission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98. Organization rewards people based on performance</td>
<td></td>
<td></td>
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</table>

**e. Job Related Satisfaction**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Example Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>101. Feeling of helpfulness</td>
<td>4.98</td>
<td>5.71</td>
</tr>
<tr>
<td>102. Co-worker relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103. Family attitude toward job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106. Work schedule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>107. Job security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>108. Acquired valuable skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>109. My job as a whole</td>
<td></td>
<td></td>
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## OAP SUMMARY

<table>
<thead>
<tr>
<th>WORK VARIABLES</th>
<th>DATA BASE</th>
<th>MILITARY LIBRARIES</th>
<th>ARMY LIBRARIES</th>
<th>NAVY LIBRARIES</th>
<th>AIR FORCE LIBRARIES</th>
<th>CANADIAN LIBRARIES</th>
<th>DoD LIBRARIES</th>
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<td>5.35</td>
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<td>Pride</td>
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<td>5.35</td>
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<td>5.30</td>
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<td>5.49</td>
</tr>
<tr>
<td>Advancement/Recognition</td>
<td>-</td>
<td>3.93</td>
<td>4.00</td>
<td>3.91</td>
<td>3.87</td>
<td>3.62</td>
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<td>Work Group Effectiveness</td>
<td>-</td>
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<td>5.95</td>
<td>5.96</td>
<td>6.11</td>
<td>5.86</td>
<td>5.98</td>
</tr>
<tr>
<td>General Organizational Climate</td>
<td>-</td>
<td>5.07</td>
<td>5.11</td>
<td>4.87</td>
<td>5.24</td>
<td>5.11</td>
<td>5.01</td>
</tr>
<tr>
<td>Job Related Satisfaction</td>
<td>-</td>
<td>5.71</td>
<td>5.81</td>
<td>5.56</td>
<td>5.71</td>
<td>5.71</td>
<td>5.88</td>
</tr>
</tbody>
</table>
MISSION
Feel motivated to give best effort to the mission.
5.11/5.96

SUPERVISOR
Do you feel accountable to your supervisor?
5.04/5.38

DATA BASE/LIBRARIES AGGREGATE
72,000  866

ORGANIZATION
Proud to work for the organization.
4.71/5.66
Feel responsible to the organization and its mission.
5.60/6.33

COMMITMENT

JOB
Are you proud of your job?
5.06/5.59
TEAMWORK

Do co-workers maintain high standard of performance

(SUPVISOR)

Supervisor encourages teamwork

(INFORMATION)

Orgn provides adequate information
Orgn provides accurate information to work groups

(BETWEEN WORK GROUPS)

Outstanding cooperation between work groups

(AMONG TEAM MEMBERS)

High spirit of teamwork between co-workers

(WORK GROUP EFFECTIVENESS)

PERCEIVED PRODUCTIVITY

Quantity of output is high
Quality of output of work group is very high
My work group handles high priority work very well
Work Group gets max output from available resources
Performance compared to others

(OUTPUT)

JOB RELATED SATISFACTION

Feeling of helpfulness
Co-worker relationships
Family attitude toward job
Work schedule
Job security
Acquired valuable skills
My job as a whole

(DB) (LA)
4.45 5.08
4.45 5.08
4.49 5.01
5.51 6.00
4.98 5.71
5.08 5.89
4.95 5.55
5.06 5.67
5.03 6.01
5.21 5.96
5.41 5.09
4.91 5.78
COMMUNICATIONS

Ideas by work group are readily accepted by management
Complaints are aired satisfactorily
Orgn interested in job attitudes of members

RECOGNITION
Given opportunity to present results of work to others
Do people who perform well receive recognition

SUPERVISOR
Supervisor helps me set specific goals
Supervisor lets me know when I am doing a good job
Supervisor frequently gives performance feedback

Supervisor asks members for ideas on task improvements

ORGANIZATION

COMMUNICATIONS
Organization provides information to do job effectively
Orgn provides adequate info
Unit aware of important events and situations
Goals in my orgn are reasonable
Orgn has clear cut goals
Orgn provides accurate info to work group

RECOGNITION
Unit personnel are recognized for outstanding performance
Orgn rewards people based on performance

JOB PERFORMANCE GOALS
Do you know exactly what is expected of you
Are job performance goals clear
Are job performance goals specific
Are job performance goals realistic
Information is widely shared in organization

Data Base (DB)
Libraries Aggregate (LA)
FEEDBACK VS PERFORMANCE

DATA BASE (DB) / LIBRARIES AGGREGATE (LA)
72,000
866

Supervisor Helps Me Set Specific Goals
Do you know exactly what is expected of you
Are job performance goals clear
Are job performance goals specific
Supervisor fully explains procedures
Supervisor sets high performance standards

Can you determine how well you do your job without feedback
Do you know when you do a good job/responsible for work

Given opportunity to present results of work to others
Do people who perform well receive recognition
**Data Base (DB) / Libraries Aggregate (LA)**

### Delegation

**Job Performance Goals**

<table>
<thead>
<tr>
<th></th>
<th>DB</th>
<th>LA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are job performance goals clear</td>
<td>4.94</td>
<td>5.32</td>
</tr>
<tr>
<td>Are job performance goals specific</td>
<td>4.81</td>
<td>5.13</td>
</tr>
<tr>
<td>Are job performance goals realistic</td>
<td>4.68</td>
<td>5.10</td>
</tr>
</tbody>
</table>

**Job Itself**

To what extent does your job provide freedom and independence in scheduling your work | DB   | LA   |
---|------|------|
| 3.85 | 5.02 |
To what extent does your job provide freedom and independence in selecting procedures | 3.97 | 4.82 |
To what extent does your job give you freedom to do the work as you see fit | 3.99 | 4.95 |
To what extent are you allowed to make major decisions to do your job well | 4.13 | 4.70 |
To what extent do you desire opportunities for independence in your work | 5.08 | 5.62 |

**Organizational Factors**

To what extent does a bottleneck exist that affects the flow of work | -4.16 | -3.73 |
My organization is interested in member's job attitudes | 4.04 | 4.53 |
My organization is interested in the welfare of its people | 4.23 | 4.67 |

**Supervisory Practices**

My supervisor establishes good work procedures | 4.82 | 5.37 |
My supervisor helps me set specific goals | 4.24 | 4.94 |
My supervisor is a good planner | 4.83 | 5.41 |

**Performance Enhancement**

My supervisor always helps me improve my performance | DB   | LA   |
---|------|------|
| 4.46 | 4.86 |
I am being prepared to accept more responsibility | 4.36 | 4.03 |
I have opportunities to learn skills to improve my promotion potential | 3.77 | 4.04 |
ORGANIZATIONAL ASSESSMENT PACKAGE
INSTRUCTIONS FOR COMPLETING
SECTION 2

1. The response sheet has a 0-7 scale. The survey statements normally require a 1-7 response. Use the zero (0) response only if the statement truly does not apply to your situation. Statements are responded to by marking the appropriate space on the response sheet as in the following example:

Using the scale below, evaluate the sample statement.

0 = Not Applicable. 4 = Neither agree nor disagree.
1 = Strongly disagree. 5 = Slightly agree.
2 = Moderately disagree. 6 = Moderately agree.
3 = Slightly disagree. 7 = Strongly agree.

2. Read the following sample statement:

Sample Statement. The information your work group receives from other work groups is helpful.

If you moderately agree with the sample statement, you would blacken the oval (6) or the response sheet.

Sample Response:  

NA (0) (1) (2) (3) (4) (5) (6) (7)

3. When you have completed the survey, please return the OAP Response Sheet to the Leadership and Management Development Center using the pre-addressed envelope. Return the Survey booklet to your Project Officer.

4. Remember, this is not a test. There are no right or wrong answers. Your responses will merely express your opinion. Thank you for your participation.
We believe that military librarians are genuinely interested in improving overall conditions within their work areas, in increasing organizational effectiveness, and in achieving a more satisfying way of life. One route to achieving these goals is by a continuing refinement of management processes. Areas of concern include job-related issues such as leadership and management, personnel training and utilization, motivation of and concern for people, and the communication process.

This survey is intended to provide a means of identifying areas within your organization needing the greatest emphasis in the immediate future. You will be asked questions about your job, work group, supervisor, and organization. For the results to be useful, it is important that you respond to each statement thoughtfully, honestly, and as frankly as possible. Remember, this is not a test, there are no right or wrong responses.

Your completed response sheet will be processed by automated equipment and summarized in statistical form. Your individual responses will remain confidential and will be combined with the responses of all other MLW 25 attendees. You will receive a summary of your responses during the workshop.

**KEY WORDS**

The following should be considered as key words throughout the survey:

--- Supervisor: The person to whom you report directly.

--- Work Group: All persons who report to the same supervisor that you do.

--- Organization: The military unit to which you are most directly connected. If you work in staff/support agencies, the division, directorate, or similar echelon would be your organization.
PRIVACY ACT STATEMENT

In accordance with paragraph 30, AFR 12-35, The Air Force Privacy Act Program, the following information about this survey is provided:


b. Principal Purpose: The survey is being conducted to assess your organization from a leadership and management perspective.

c. Routine Uses: Information provided by respondents will be treated confidentially. The averaged data will be used for organizational strength and weakness identification and Air Force-wide research and development purposes.

d. Participation: Response to this survey is voluntary. Your cooperation in this effort is appreciated.
INSTRUCTIONS

1. All statements may be answered by filling in the appropriate spaces on the response sheet provided. If you do not find a response that fits your case exactly, use the one that is the closest to the way you feel.

2. Be sure that you have completed Section 1 of the response sheet, before beginning Section 2.

3. As noted, the response sheets will be tallied by automated equipment. Therefore, we ask that you please use a #2 pencil and observe the following:
   - Make heavy black marks that fill the spaces.
   - Erase cleanly any responses you wish to change.
   - Make no stray markings of any kind on the response sheet.
   - Do not staple, fold or tear the response sheet.
   - Do not make any markings on the survey booklet.

4. The response sheet has an 0-7 scale. The survey statements normally require a 1-7 response. Use the zero (0) response only if the statement truly does not apply to your situation. Statements are responded to by marking the appropriate space on the response sheet as in the following example:

   Using the scale below, evaluate the sample statement.

   1 = Strongly disagree.   5 = Slightly agree.
   2 = Moderately disagree. 6 = Moderately agree.
   3 = Slightly disagree. 7 = Strongly agree.
   4 = Neither agree nor disagree.

Sample Statement. The information your work group receives from other work groups is helpful.

If you moderately agree with the sample statement, you would blacken the oval (6) on the response sheet.

Sample Response: (0) (1) (2) (3) (4) (5) (6) (7)

5. When you have completed the survey, please return it to Air University Library/MLW 81 using the inclosed pre-addressed envelope.
BACKGROUND INFORMATION

This section of the survey concerns your background. The information requested is to insure that the groups you belong to are accurately represented and not to identify you as an individual. Please use the separate response sheet and darken the oval which corresponds to your response to each question.

1. Total years in the U.S. Department of Defense or equivalent Canadian department:
   1. Less and 1 year.
   2. More than 1 year, less than 2 years.
   3. More than 2 years, less than 3 years.
   4. More than 3 years, less than 4 years.
   5. More than 4 years, less than 8 years.
   6. More than 8 years, less than 12 years.
   7. More than 12 years.

2. Total months working as a librarian.
   1. Less than 1 month.
   2. More than 1 month, less than 6 months.
   3. More than 6 months, less than 12 months.
   4. More than 12 months, less than 18 months.
   5. More than 18 months, less than 24 months.
   6. More than 24 months, less than 36 months.
   7. More than 36 months.

3. Total months at your present duty station.
   1. Less than 1 month.
   2. More than 1 month, less than 6 months.
   3. More than 6 months, less than 12 months.
   4. More than 12 months, less than 18 months.
   5. More than 18 months, less than 24 months.
   6. More than 24 months, less than 36 months.
   7. More than 36 months.

4. Total months in present position:
   1. Less than 1 month.
   2. More than 1 month, less than 6 months.
   3. More than 6 months, less than 12 months.
   4. More than 12 months, less than 18 months.
   5. More than 18 months, less than 24 months.
   6. More than 24 months, less than 36 months.
   7. More than 36 months.

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5. Your Ethnic Group is:
   1. American Indian or Alaskan Native
   2. Asian or Pacific Islander
   3. Black, not of Hispanic Origin
   4. Hispanic
   5. White, not of Hispanic Origin
   6. Other

6. Your highest education level obtained is:
   1. Non-high school graduate
   2. High school graduate or GED
   3. Less than two years college
   4. Two years or more college
   5. Bachelors Degree
   6. Masters Degree
   7. Doctorate

7. Highest level of professional military education (residence or correspondence):
   0. None or not applicable
   1. NCO Orientation Course or USAF Supervisor Course (NCO Phase 1 and 2)
   2. NCO Leadership School (NCO Phase 3)
   3. NCO Academy (NCO Phase 4)
   4. Senior NCO Academy (NCO Phase 5)
   5. Squadron Officer School
   6. Intermediate Service School (i.e., ACSC, AFSC)
   7. Senior Service School (i.e., AWC, ICAF, NWC)

8. How many people do you supervise directly?
   1. None
   2. 1
   3. 2
   4. 3
   5. 4 to 5
   6. 6 to 8
   7. 9 or more

9. For how many people do you prepare performance evaluations?
   1. None
   2. 1
   3. 2
   4. 3
   5. 4 to 5
   6. 6 to 8
   7. 9 or more

10. Does your supervisor actually prepare your performance evaluation?
    1. yes
    2. no
    3. not sure
11. Which of the following best describes your marital status?

1. Not married.
2. Married: Spouse is a civilian employed outside home.
3. Married: Spouse is a civilian employed outside home--geographically separated.
4. Married: Spouse not employed outside home.
5. Married: Spouse not employed outside home--geographically separated.
6. Married: Spouse is a military member.
7. Married: Spouse is a military member--geographically separated.

12. What is your usual work schedule?

1. Day shift, normally stable hours.
2. Swing shift (about 1600-2400).
3. Mid shift (about 2400-0800).
4. Rotating shift schedule.
5. Day or shift work with irregular/unstable hours.
6. Frequent TDY/travel or frequently on-call to report to work.
7. Crew schedule.

13. How often does your supervisor hold group meetings?

1. Never
2. Occasionally
3. Monthly
4. Weekly
5. Daily
6. Continuously

14. How often are group meetings used to solve problems and establish goals?

1. Never
2. Occasionally
3. About half the time
4. All of the time

15. What is your aeronautical rating and current status?

1. Nonrated, not on aircrew
2. Nonrated, now on aircrew
3. Rated, in crew/operations job
4. Rated, in support job

16. Which of the following best describes your career or employment intentions?

1. Planning to retire in the next 12 months.
2. Will continue in my present job.
3. Will most likely continue in my present job.
4. May continue in my present job.
5. Will most likely not continue in my present job.
6. Will separate/terminate from my present job as soon as possible.
JOB INVENTORY

Below are items which relate to your job. Read each statement carefully and then decide to what extent the statement is true of your job. Indicate the extent to which the statement is true for your job by choosing the phrase which best represents your job.

1 = Not at all
2 = To a very little extent
3 = To a little extent
4 = To a moderate extent
5 = To a fairly large extent
6 = To a great extent
7 = To a very great extent

Select the corresponding number for each question and enter it on the separate response sheet.

17. To what extent does your job require you to do many different things, using a variety of your talents and skills?

18. To what extent does your job involve doing a whole task or unit of work?

19. To what extent is your job significant, in that it affects others in some important way?

20. To what extent does your job provide a great deal of freedom and independence in scheduling your work?

21. To what extent does your job provide a great deal of freedom and independence in selecting your own procedures to accomplish it?

22. To what extent are you able to determine how well you are doing your job without feedback from anyone else?

23. To what extent do additional duties interfere with the performance of your primary job?

24. To what extent do you have adequate materials and equipment to accomplish your job?

25. To what extent is the amount of work space provided adequate?

26. To what extent does doing your job provide the chance to know for yourself when you do a good job, and to be responsible for your own work?

27. To what extent does doing your job well affect a lot of people?

28. To what extent does your job provide you with the chance to finish completely the piece of work you have begun?

29. To what extent does your job require you to use a number of complex skills?
1 = Not at all
2 = To a very little extent
3 = To a little extent
4 = To a moderate extent
5 = To a fairly large extent
6 = To a great extent
7 = To a very great extent

30. To what extent does your job give you freedom to do your work as you see fit?

31. To what extent are you allowed to make the major decisions required to perform your job well?

32. To what extent are you proud of your job?

33. To what extent do you feel accountable to your supervisor in accomplishing your job?

34. To what extent do you know exactly what is expected of you in performing your job?

35. To what extent are your job performance goals difficult to accomplish?

36. To what extent are your job performance goals clear?

37. To what extent are your job performance goals specific?

38. To what extent are your job performance goals realistic?

39. To what extent do you perform the same tasks repeatedly within a short period of time?

40. To what extent are you faced with the same type of problem on a weekly basis?

41. To what extent are you aware of promotion/advancement opportunities that affect you?

42. To what extent do co-workers in your work group maintain high standards of performance?

43. To what extent do you have the opportunity to progress up your career ladder?

44. To what extent are you being prepared to accept increased responsibility?

45. To what extent do people who perform well in your organization receive recognition?

46. To what extent does your work give you a feeling of pride?

47. To what extent do you have the opportunity to learn skills that will improve your promotion potential?
1 = Not at all  
2 = To a very little extent  
3 = To a little extent  
4 = To a moderate extent  
5 = To a fairly large extent  
6 = To a great extent  
7 = To a very great extent  

48. To what extent do you have the necessary supplies to accomplish your job?

49. To what extent do details (tasks not covered by primary or additional duty descriptions) interfere with the performance of your primary job?

50. To what extent does a bottleneck in your organization seriously affect the flow of work either to or from your group?

JOB DESIRES

The statements below deal with job-related characteristics. Read each statement and choose the response which best represents how much you would like to have each characteristic in your job.

In my job, I would like to have the characteristics described:

1 = Not at all  
2 = A slight amount  
3 = A moderate amount  
4 = A fairly large amount  
5 = A large amount  
6 = A very large amount  
7 = An extremely large amount  

51. Opportunities to have independence in my work.

52. A job that is meaningful.

53. An opportunity for personal growth in my job.

54. Opportunities in my work to use my skills.

55. Opportunities to perform a variety of tasks.

56. A job in which tasks are repetitive.

57. A job in which tasks are relatively easy to accomplish.
# SUPERVISION

The statements below describe characteristics of managers or supervisors. Indicate your agreement by choosing the phrase which best represents your attitude concerning your supervisor.

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<td>Strong disagree</td>
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<tr>
<td>Moderately agree</td>
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Select the corresponding number for each statement and enter it on the separate response sheet.

58. My supervisor is a good planner.
59. My supervisor sets high performance standards.
60. My supervisor encourages teamwork.
61. My supervisor represents the group at all times.
62. My supervisor establishes good work procedures.
63. My supervisor has made his/her responsibilities clear to the group.
64. My supervisor fully explains procedures to each group member.
65. My supervisor performs well under pressure.
66. My supervisor takes time to help me when needed.
67. My supervisor asks staff members for their ideas on task improvements.
68. My supervisor explains how my job contributes to the overall mission.
69. My supervisor helps me set specific goals.
70. My supervisor lets me know when I am doing a good job.
71. My supervisor lets me know when I am doing a poor job.
72. My supervisor always helps me improve my performance.
73. My supervisor insures that I get job-related training when needed.
74. My job performance has improved due to feedback received from my supervisor.
75. When I need technical advice, I usually go to my supervisor.
76. My supervisor frequently gives me feedback on how well I'm doing my job.
WORK GROUP PRODUCTIVITY

The statements below deal with the output of your work group. The term "your work group" refers to you and your co-workers who work for the same supervisor. Indicate your agreement with the statement by selecting the phrase which best expresses your opinion.

1 = Strongly disagree 4 = Neither agree nor disagree
2 = Moderately disagree 5 = Slightly agree
3 = Slightly disagree 6 = Moderately agree
7 = Strongly agree

Select the corresponding number for each statement and enter it on the separate response sheet.

77. The quantity of output of your work group is very high.
78. The quality of output of your work group is very high.
79. When high priority work arise, such as short suspenses, crash programs, and schedule changes, the people in your work group do an outstanding job in handling these situations.
80. Your work group always gets maximum output from available resources (e.g., personnel and material).
81. Your work group's performance in comparison to similar work groups is very high.

ORGANIZATION CLIMATE

Below are items which describe characteristics of your organization. The term "your organization" refers to your library work place, or staff agency. Indicate your agreement by choosing the phrase which best represents your opinion concerning your organization.

1 = Strongly disagree 5 = Slightly agree
2 = Moderately disagree 6 = Moderately agree
3 = Slightly disagree 7 = Strongly agree
4 = Neither agree nor disagree

Select the corresponding number for each item and enter it on the separate response sheet.

82. Ideas developed by my work group are readily accepted by management personnel above my supervisor.
83. My organization provides all the necessary information for me to do my job effectively.
1 = Strongly disagree  
2 = Moderately disagree  
3 = Slightly disagree  
4 = Neither agree or disagree  
5 = Slightly agree  
6 = Moderately agree  
7 = Strongly agree

84. My organization provides adequate information to my work group.

85. My work group is usually aware of important events and situations.

86. My complaints are aired satisfactorily.

87. My organization is very interested in the attitudes of the group members toward their jobs.

88. My organization has a very strong interest in the welfare of its people.

89. I am very proud to work for this organization.

90. I feel responsible to my organization in accomplishing its mission.

91. The information in my organization is widely shared so that those needing it have it available.

92. Personnel in my unit are recognized for outstanding performance.

93. I am usually given the opportunity to show or demonstrate my work to others.

94. There is a high spirit of teamwork among my co-workers.

95. There is outstanding cooperation between work groups of my organization.

96. My organization has clear-cut goals.

97. I feel motivated to contribute my best efforts to the mission of my organization.

98. My organization rewards individuals based on performance.

99. The goals of my organization are reasonable.

100. My organization provides accurate information to my work group.
JOB RELATED ISSUES

The items below are used to determine how satisfied you are with specific job-related issues. Indicate your degree of satisfaction or dissatisfaction with each issue by choosing the most appropriate phrase.

1 = Extremely dissatisfied  
2 = Moderately dissatisfied  
3 = Slightly dissatisfied  
4 = Neither satisfied nor dissatisfied  
5 = Slight satisfied  
6 = Moderately satisfied  
7 = Extremely satisfied

Select the corresponding number for each question and enter it on the separate response sheet.

101. Feeling of Helpfulness
The chance to help people and improve their welfare through the performance of my job. The importance of my job performance to the welfare of others.

102. Co-Worker Relationship
My amount of effort compared to the effort of my co-workers, the extent to which my co-workers share the load, and the spirit of teamwork which exists among my co-workers.

103. Family Attitude Toward Job
The recognition and the pride my family has in the work I do.

104. On-the-Job Training (OJT)
The OJT instructional methods and instructors' competence.

105. Technical Training (Other than OJT)
The technical training I have received to perform my current job.

106. Work Schedule
My work schedule; flexibility and regularity of my work schedule; the number of hours I work per week.

107. Job Security

108. Acquired Valuable Skills
The chance to acquire valuable skills in my job which prepare me for future opportunities.

109. My Job as a Whole
OPENING THE WORKSHOP

LEFT: Bob Lane opening MLW 25

BELOW: Opening Session
One of the demands of being a management consultant is to do what we call process observation. Now all of us try to do this, but mostly on a subconscious level. In this job they teach you how to do it on a conscious level. While talking to the people who hired me, they tried to paint the picture that I was going to have to observe people and then draw some conclusions.

I'm going to ask you to do some process observation with me today. I'll also ask you to go back and think through some of the pictures you're carrying around and some of the pictures you create. That's why I call this "creating the picture." I don't know anything a manager does that is more vital than creating the picture. It should be fun!

I recall when I was about nine years old; I had this picture that I wanted a printing press. Some place in the hardware store I had seen one. It wasn't much. It was a little piece of tin and had a roller and would ink paper one piece at a time. I visualized that's what I wanted for Christmas and if I got it I would be ultra powerful. I could put my name in print - do all kinds of things - maybe even publish a mini-newspaper. I had created a fantastic picture. By the way, I got that printing press for Christmas. I was very satisfied. I also got a lot of other things. Do you know that I wasn't really interested in them. I was more interested in the picture I had of being satisfied with the printing press. We do that. It's not just typical of a nine year old.

When I was 39, I put together a sports car. It is not a sophisticated sports car. It has a VW chassis and a fiberglass body. It looks like a 1937, SS 100, Jaguar. It's fun to run, especially down here. The interesting thing is that I started that project in Ohio in the winter when I bought the old car. It had been out in a field in the mud. I had to wait a couple of months until the ground was cleared before we could go and get the car. I had this picture, that at some point in time I was going to run that car down to the beach. All through the winter months and the summer months as the car began to take shape, I still had this picture. It wasn't until I towed the car down here that I got a chance to drive the car to the beach. I was in Tucson; I looked at my schedule and it looked like I could get back to Alabama on a Friday night. I had a whole weekend free and I had the picture of taking that car to Florida. I called and made reservations from Tucson, came back, got off the airplane on Friday afternoon, got in the sports car, and drove to Florida.

Once you create a picture you must satisfy it. I hope that to some extent you have created a picture about this conference and that it is a positive picture. I hope that you have some other neat pictures about what's going to happen in your lives and in your organizations. To the extent that we can't visualize where we are going, I daresay we won't work very hard to get there and probably we won't know when we arrive. That's what painting pictures is all about. It sounds like a nine year old talking but I assure you it's not. It happens in all our lives. If we can no longer create a picture, then we certainly don't have much purpose for our lives.
I want to talk about creating a picture. I am not going to offer you a special program like management by objectives or the Job Performance Appraisal System. What I am going to talk to you about is very similar in concept though. You know there's nothing really new under the sun; there's just some new ways of looking at old things. That's what I want to do with you today. When you leave here you will have a better picture of your management situation and how you can create a positive picture of your organization. I think that this is a universal problem that exists in most organizations. Take a minute to reflect on that. Isn't that what we want to do -- to create a strong commitment to be productive? It's a universal concern whether you're in Japan, in America, in the church, in the university, in libraries or out on the flight line.

How do we go about creating a picture that will help our organization and solve problems? Let's take a look at the implication, particularly for the individual. I know something about me. Even in building that car or running that little printing press, I tend to gravitate toward the things I can measure. I could be very specific about the printing press; how much ink it would take, how many copies could be made, the size of the paper, and the same way with the sports car. I appreciated my engineering skills when I was building the sports car. I wanted to work with the things I could measure. In the instruction book, I would check off things completed showing my progress. I knew when I was 75% finished or I only had the wheels left. Had I not been able to do that, I think I would have been very frustrated. I would not have seen any progress nor have been able to internalize it.

As individuals we tend to seek to find out where we stand so we gravitate toward things we can measure. If you had asked the pilot while coming out here, "How far is it?" and gotten some vague answer, he probably wouldn't have convinced you that you were getting here when you wanted to. We like to be able to measure our progress.

During the last couple of years, I've travelled and presented seminars to various groups of people. A large part of those groups were young officers just starting their first job in the Air Force. There were 60-70 people in a seminar. Before biasing them with any of my thinking, I would ask this question within the first hour, "How many of you, since you have been assigned to your present job, have sat down with your boss and had him or her tell you explicitly what they expect of you?" What percent of the group do you think unhesitatingly held up their hand? It is about 8-10%. Can you imagine that? How many of you in your present job, having been on the job at least 60 days, have sat down with your boss and had this interchange? Reflect on that. I don't think that many hands would go up. I suggest that may be a part of the frustration that you pack around with you every day.

Expectations are critical if you are going to solve the problem of productivity. It doesn't just exist in libraries. It exists most places where people work together. What is the implication of not having the right picture of what the organization wants? Notice that it is not enough just to set goals. You must get commitment. In building that sports car, I had set the goal in July. I knew how much money it would take, how much time it would take, and what I wanted to do. I had very well-defined goals. I did not, however, make a commitment to do it until the following February. There's a difference between setting goals and committing yourself to those goals. I would suggest that management by objectives, the Job Performance Appraisal System, and a lot of other programs that we have had spend more time in setting goals than they do in wondering whether anybody is committed to them. When there's an inspection, we spend more time pencil-whipping the results to make it look like we were interested in the goals all the time.

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Experience tells us that we must set goals and must get commitment if we want to maximize our application of human resources.

Let's talk about another part of productivity; let me share with you an experience that I had. A year and a half ago, our organization hosted a productivity conference. We brought in some long-ball hitters from super organizations. We spent a couple of days talking about how we could improve productivity in the Air Force and in other organizations. My job was that of a facilitator. Nobody asked me my opinion on productivity. My job was to keep the dialogue going and to arrive, within the allotted time-span, at some helpful conclusions.

Since then, I've had time to look at a lot of data and visit a lot of organizations. If I were allowed to make input, I would have said, "Don't buy any more sophisticated computers; don't buy into any more super training programs." We need to train people and develop staff. We need to get in on the fringes of gad-getry to improve our technology, but if we really want to make a difference, let people know what it is that you want them to do. Then get out of their way and let them do it. I suggest to you, that if you buy all the super computers, send people to the best training that you can find, and still do not create the picture, then all of that is for naught. Productivity is the result of the picture we create and the expectations we set. It's a good old concept but I think we need to take a good hard new look at it.

We say that we don't have time to plan. However, if you apply good planning techniques in your work groups or in your organizations, you can take advantage of some up-front planning time. It will initially cost you some time and money, but what might happen in future years is a reduced operating cost. Managers tend to stay away from up-front planning. They tend to plan, at least to the extent that they should. I'm talking about the things for which we have been trained, through our educational backgrounds and through our experience. We need to sit down and deliberate about how we are going to tackle the problems we have. How are we going to set the expectations, create the picture with our people, and create in their minds an image of the job that has to be done. You must plan to do that!

When I was a young scout at about age 12 or 14, I was working on my life-saving merit badge. I had never been a strong swimmer. I'm not now. I remember that a part of the criteria for the merit badge was to go into the pool at the deep end and retrieve a large pipe wrench that weighed 10 or 15 pounds. Everyone had done it but me. With all the excitement, the stress, the peer pressure, even with two attempts, I couldn't reach the bottom and grab the wrench.

The scout master told me to sit on the side of the pool and as I calmed down, he created a picture for me. He said, "Jim, here's how I think you can do it. Just dive in and get the maximum depth possible. Then, thrust with your arms and kick--you must get to the bottom quickly and find the wrench. Then, as you come up, use your feet and kick off the bottom. You can do it! I see you doing it." A little bit later, I did it just as he pictured.

Essentially, he trained me. He gave me the ability to do the job. A few years later, I was fishing in Minnesota and, reluctantly, my father let me borrow his new casting rod and reel. To dad, it was like borrowing his new shoes. A friend and I were out in the boat. Somehow the rod and reel fell overboard. Now you don't know my dad but I wasn't going back home without that rod and reel. I did a very foolish thing. It was late in the afternoon, the weather was beautiful, and the water cold. I got into my swimsuit and I dove in. I retrieved the rod and reel - just like the pipe wrench in about 25 feet of water. I credit the scout master with having saved my life.
That's what we need to do with our people in training; create the picture and see that they can do it. We should not throw people into the losers bin or on the trash heap of human resources just because they do not have the ability. What are you doing to get them there—what are you doing to create the picture?

Let's take a look at role perception. Odds are, if I don't know what I'm expected to do, why I'm doing it, or what happens if I don't do it, then I won't do it at all. People need to see what it is you want them to do and they will modify their efforts to get the necessary performance based on the role expectations you have of them.

I visited an organization last week and found that the employee of the month award was not of any particular value to anybody. I told the commander that he was spending a lot of time and money each month picking someone from the organization, publicly recognizing them and the response was "so what." My point is that you have to find out what people value when you create a picture.

You're confronted by a very difficult problem in your organizations—how to provide advancement and recognition. Did you ever find out, given the GS grade, the fixed pay, and the reward system, what your people value? You have limitations on what you can offer in this line but until you determine what it is that they value you'll be hard pressed to meet their expectations and have them meet yours.

Dr. David C. McClelland, from Harvard, is noted for a concept about human behavior. He taught us that we have three basic needs. We have the need to achieve, that is, there is something important to be done and we want to do it. We have the need to affiliate with other people, that is, wanting to be a part of a group that's going some place. So much so that we'll even sacrifice our time to be a part of that group. Lastly, we have the need for power. All of us have these needs. In most of us, one of these needs is dominant and it varies from person to person. Have you identified your subordinates' dominant needs? If you are going to create a picture and set expectations, you will need this information.

There tends to be some confusion about the relationship of leadership and management. If you have been through earlier training programs, you may see leadership as the superior term. If you're more into the contemporary theories, you would probably see management as being the superior term. We've got a lot of problems with people talking to each other through their different perceptions and training. I put leadership first because it's the energizer, it's the dynamo, it gets things going. However, they are both important. One deals with human resources and the other deals with our ability to work through administrative and organizational problems. Elements of the leadership and management mosaic, such as delegation, goal setting, stress, fellowship, etc., are interdependent and they are all complex.

Leadership and management each has a scientific base and each is an art form. We can talk about theories with empirical data to back them up. However, how you use what you take back with you will depend on your art form and it will be different for each of you.

Most of you are aware of the Pareto principle. Pareto was an early 19th century economist who gave us the theory that there are the trivial many and the important few. He said that 80% of the value of a group of items was contained within 20% of the items. In thinking back to many of my job assignments, I find that to be true. When I was an engineer with a large glass company, we had a consulting firm come in and do an assessment of our inventory. We found that 20% of our customers represented 80% of our profit, and that 20% of our inventory represented 80% of our
sales. The idea is to understand that and to cut through all the trivia. You must deal with the pivotal issues, which represents the biggest hunk of your actions and which is worth making more efficient and productive.

There is no regulation that says you have to create goals and pictures, but there are regulations that say you have to do the reports on time and get the budget in on time. If you don't, you are penalized in some way. As a manager, no one sets you down and says that you have to set goals, draw pictures, or create expectations. I suggest to you that the consequences of not planning are greater, as far as productivity and effectiveness are concerned, than in getting the reports in on time or getting all the books back in the library. People want to know what kind of pictures you have for them. Setting the picture is not an easy task. It takes a lot of energy and it takes commitment on your part, but it's important. If you don't set the expectations, people are going to continue the way they are.

Let's talk about success versus effectiveness. As leaders and managers, we want to get something done. We want to reach goals. We may want to recatalog books or move them around. Therefore, we attempt some behavior which can be measured. It is either successful or unsuccessful. One of the ways we can tell if this conference was successful is that all of you came, you were all fed, all had places to sleep, and the programs took place approximately on time. However, effectiveness of this conference can not be measured until you return to your organization and implement the new ideas and use the skills you found here.

We become very concerned about being successful. We're interested in putting out short-term brushfires. We're not interested in creating pictures, setting goals, or creating expectations that make the long-term challenges in our personal and organizational lives successful. That's what's important!

The challenge that we hope we can respond to is to use the skills we have to offer you. If you create the picture, you are responsible for the outcome. It's risky. If you work with your subordinates to set goals, set expectations, locate bottlenecks, etc., it's risky because they will not be satisfied until they are rectified.

Let me close by saying, you must get in the game. My purpose is not to shock, embarrass, humiliate, or intimidate, but to allow you to see the creativity that is latent in you and to move you from the novice stage into the real world of being an effective manager.
STRESS AND THE MANAGER
Lieutenant Colonel James L. Saddler

There may be no stress in your jobs but I assume there is because there's stress in most of our lives. You don't know where it's going to come from always and sometimes it gets loaded on us when we can't avoid it.

My focus today is going to be on stress and the manager. If you're currently not a manager and if you don't have people that work for you, you probably soon will. So I want you to create a picture, if you will, of the stress that's going to join you when you become that supervisor or manager. There's two things you should know about managers under stress. They are both victim and carrier. That is they must mitigate or handle stress as a manager but they also tend to dump a little stress on other people. So my objective is to try to get you to see both sides of that: The stress in your own life and that which you dump on other people.

I hope that by improving your lot you will make more productive those people that you are responsible for. I probably won't tell you a lot of things that you don't already know. A lot of things about stress are just common sense. But do you know what I've found out? Common sense is very uncommon. What I'll try to do is build some models and show you some linkage that hopefully will increase your awareness so you'll be able to handle the stress in your personal life and maybe help other people.

I once saw a headline in the Midnight Globe that bannered "Free Yourself from Stress." It not only implied that you could break the shackles of stress but at the same time, and for only 35¢, you could learn "How to Save Your Marriage and Job." Well if you'd seen that sheet and bought it, you probably wouldn't have had to come over here. Another classy paper, the Enquirer offered you, and for only 40¢, "The Number 1 Plan to Beat Stress" and "In These Uptight Times Beat Stress," and also the "World Famous Mayo Plan to Beat Stress."

Now, by the way, why do you think either the Globe or the Enquirer would so frequently and so boldly stress "stress" as a major headline? Well, it is a common problem. That's the first thing. So much so, if you never before bought the Enquirer or the Globe, you may be tempted just because of that headline, thinking if you did, you might get just one little bit of help for only 35¢ or 40¢. How about another possibility. Why might those people who publish that paper do that? What drives this world? Economics—that's right! So they want to sell papers, you see, but they feature stress because it's pervasive as a problem and they want to pick up on it as a sales attraction and chances are you might buy one. Many people will buy a copy every few months if they have some big banner headline on stress and the editor are going to tap that market; it's a pretty big market! In fact, the latest figures I saw in terms of what stress costs us in just the United States alone is estimated at $30 billion annually. Now I don't know how you estimate that, but I would say that's probably a modest figure in terms of productivity, illness, and everything else that's associated with it.

Let me give you another perspective. A while back in one of the Sunday papers I saw an advertisement describing a clinic in Gulf Breeze, Florida where you could get help with alcoholism, drug abuse, or stress. Now I suggest to you that many

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people wouldn't go to that clinic for help in coping with stress because they wouldn't want to be associated with a bunch of drunks or a bunch of dope heads. You see, when you associate stress with those sorts of problems, a lot of people say, "I don't want to get into that--I don't want it on my record that I went to an alcoholic clinic or drug abuse clinic even though I was there for stress." Some of us have an aversion to the linking of stress with drugs or alcohol.

In a recent Montgomery Advertiser ad, there was featured a seminar on "Coping with Executive Stress" conducted by Dr. Rav Troxler and sponsored by the Mental Health Association. Dr. Troxler is an Air Force colonel who has done a lot of clinical research in stress at Brooks AFB. He often comes to LMDC and makes presentations on stress. Dr. Troxler and I have chatted several times and we differ on a couple of points. First of all, the ad highlights "executive." That presupposes that if you've just got plain old "truck driver's" stress, it's not as good as "executive" stress. Dr. Troxler and I argued that point and agree that there are some similarities. His position is though, that there are certain jobs, i.e., executive, manager, director, etc., that by their nature they are highly stressful. Now I agree to that but as far as I'm concerned, if you've got stress as a housewife, air controller, or librarian you've got stress and that is what bothers me about the Advertiser's ad. I've been to where the seminar was held and it's a classy place. However, not very many stressed truckers are going to go to that seminar. The seminar is targeted to a select group and Dr. Troxler somewhat buys into that. For this reason, I'm concerned that other people do not have seminars to go to and they're really not targeted that way. Another part of that advertisement that concerns me is who's putting it on. Do you want to get your name on a list of people that're going to the Mental Health Association? Probably not! Many of you may recall that when George McGovern dropped Senator Thomas Eagleton as his Vice Presidential running mate, not much opposition appeared. And why? Well probably because it was revealed that Senator Eagleton had had a bout with a mental problem and he wasn't fit to be Vice President. And, as I said, very little protest was made because of the "mental health" image conjured up. We don't want to get our name on some list that shows any association with things "mental" and we don't want to have our affairs of state conducted by anyone similarly associated, even if the problem is stress. And that's why I'm really concerned about stress and the way we handle it culturally.

One of the ways we handle stress culturally is with humor. And it's a neat way to relieve tension, sometimes. A little humor allows us to tolerate stress and yet it focuses on some of the subtle stress messages. Some of the best examples are the creations of cartoonist Thaves, "Frank and Ernie." They're full of subtle messages reminding us of our social, psychological and physical prejudices, biases, and other frailties. The point is, that they're funny, but when it happens to us, we feel the stress.

Speaking of subtle stress messages, I once saw two restrooms in a major headquarters one marked "officers" and the other "enlisted." I've often wondered how female officers handled that. I can picture them thinking, "I'm an officer, but do I want to go in there?" I hope those signs are changed now, but that's kind of a subtle message that could cause alot of stress.

It's always good to have a couple of definitions, but I want to point out several things about the definitions so that you can internalize them and, when you do a self-assessment or look at others you can link back to a couple of key points. First of all, what makes stress such an elusive subject is that it's nonspecific. Dr. Hans Seyle, the Canadian physician who has probably done more clinical research on stress than anybody, defines stress as: "The nonspecific response of the body to any demand made upon it." The word nonspecific suggests two possibilities:
That different stressors can cause the same stress on individuals and that the same stressor can cause different stress on individuals. Does that sound confusing?

Let me give you an illustration. Suppose you were in a parking garage downtown at night. A dark gloomy parking garage. Can you sense the picture? It's late; you park the car on the fourth level and as you begin to walk toward the elevator you hear some noise near one of the corners of the garage. You may think: "That's scary! This is it! I know I'm going to be wasted right here; a mugger or somebody is going to be after all my loot, probably take my car keys, and take my car!"

That could cause you a little stress. On the other hand, another person may think: "It's probably just a cat over there. I've been in this parking garage before and I'm not worried." This person would not be affected at all. You see, the same stressor, just a little bit of rustling, caused each of them to internalize the stress differently. Now the one not stressed may have had a .357 Magnum in her purse. See what I mean about being nonspecific? Now take the other possibility that different stressors can cause the same stress. You find out that your plane is cancelled out of Montgomery. How would that make you feel? Would you feel any stress? Especially if you wanted to get back home on schedule. Or suppose someone found out his obnoxious mother-in-law ran his new Cadillac over a cliff. That could result in mixed emotions. Anyway, two different stressors could cause both these individuals to be similarly stressed. That's why stress is nonspecific and that's why it's important to know that what stresses you in the office, in your home, and in your relationships may not stress somebody else and vice versa.

That's why as managers and leaders you have to be sensitive to the fact that stress is a nonspecific response.

Let me present another definition from Woolfolk and Richardson's book, *Stress, Sanity, and Survival*. You can probably get it from your library when you return. Stress is defined as: "A perception of threat or expectation of future discomfort that arouses, alerts, or otherwise activates the body." What is interesting about this definition is the word "perception." Were you aware that it didn't matter whether or not there was anybody in the parking garage? Was it necessary what the perception might be? The perception can also be of something that you internalize emotionally that gives you stress. It does not have to happen to you at all. People who anticipate getting a pink slip in their pay envelope week after week have all the stress as if they actually received it. All they have to think is this is the week! I know this plant's going to shut down or one shift is going to change and I'm going to be out of a job and they carry that around. The perception that there's going to be a GS-12 register created and I'm not going to be on it, or I'm on it but I perceive that I sure can't compete with somebody else, is a stressor. Well, I deal with pictures a lot and I'm suggesting, if you don't like these classy definitions, just create a picture that stress is like a bug that gets under your skin.

Let me give you two points about stress that if you remember nothing else today, hopefully you'll remember this. Stress and its effects build slowly and silently. This means there's no one time when somebody comes up and goes "whamo" and you recognize you've got stress. I want you to remember that stress is inescapable and I don't think I have to belabor this point. We are going to have stress in our lives in some degree from the moment we're born till we die. It's a human characteristic and so it's going to be inescapable and we might as well accept that. It's inescapable for us and it's inescapable for the people that work for us.

I don't want you to leave here saying all stress is bad. In fact, I can hopefully make a good argument that we need stress in our lives. It's not only the type of stressor but the level that's important and decides whether it's good for us and a motivator for our employees or bad for us and a demotivator for our employees.
Probably the best way to make that point is to note that research shows that as stress grows, performance increases. But only to a point. If stress continues to increase, performance drops off sharply. Most of us who've gone to college, learned a new job, been successful, gotten promoted, have done so because there was something to stretch for. There was some stress put on us and we answered that stress by calling forth higher performance. But there's a point when you add more stress, you get on the back side of the curve and performance plummets.

Let me share a personal story about a friend of mine who was a Deputy Director of Procurement. I liked to work for him. He was tough and demanding and not generally well-liked, yet he and I had a good relationship. As he neared retirement, I asked him to let me pick his brain about his management techniques and how he saw management at the executive level. We chatted and I asked: "How do you know you've got people tuned in and turned on?" He responded, "Jim I only have one thing I do. When I get people working for me. I keep giving them jobs and giving them jobs, and when they come in and say 'hey boss I've had enough, I can't handle anymore!' Then I know I've got them." I just couldn't believe it, I was crushed with his explanation. You see he was insensitive to the fact that he could get people on the downside of that curve and two things could happen. First of all, he wouldn't know it and, secondly, do you think I would have gone in to that man and said, "I've got too much, I'm going belly up?" I wouldn't do it and I don't think a lot of you would. I might change jobs, I might start popping pills, I might get sick and all those sorts of things, but probably what I wouldn't do immediately is go to my boss and say, "hey boss, I can't handle your assignments!"

As leaders and managers if you do that to people and you're not able to read them in terms of how much stress they're loaded with--are you getting more performance or are you getting less performance--then you could really be destroying some people. That's where you get to be the carrier of stress and may not even realize it. I'm not for making everybody stress free because we know that doesn't work either. In fact, if you have people in your offices under challenged or under employed that will add as much stress to them as if you gave them too many projects.

Earlier I told you that stress builds silently. Professor Daniel Levinson's book, The Seasons of a Man's Life, depicted a profile showing that we're born with stress--it's never a zero--but our ability to handle it increases up until about age 38. On the other hand, our lifestyle demands continue increasing until about age 55 when they drop sharply and at age 60, our ability to handle stress is only slightly less that our lifestyle demands. At about age 40, there's a crossover point where your declining ability to handle stress intersects the increasing curve of lifestyle demands. This becomes a critical time of your life. Hopefully, you can make it to your late sixties where it moderates.

How many of us have the illusion that when we get to be about 40, life is going to get better, we're going to have a better job, going to have more money and more independence? What we forget is we have other stressors. What we find out is while we can keep the work (stressors) away from our heels in the twenties and thirties, there comes a point, like a trip wire, where our ability to handle stress is no longer adequate. We have to deal with it individually. We also have to be aware of this as we become the leaders and managers of other people.

Let me turn to what I believe are four influencing factors of stress: physical, personality, environmental, and emotional. There's a little place in the lower part of the brain called a hypothalamus which automatically causes us to internalize a stressor. Physically here's what happens. A signal is sent to the pituitary gland which produces a chemical called ACTH. That triggers the adrenal gland which
produces various steroids such as cortisone and adrenaline. Now the effect of that reaction, which happens automatically when your body reacts to stress, when you think the mugger is waiting on you and so on, causes certain physical things to happen. It'll cause the heartbeat to increase, the blood pressure to rise, and the blood to be diverted from the internal organs like the intestines to the extremities and to the brain. Did you ever, when you're under stress, feel like your ear lobes are warmer, your hands clammy, and your heart beating just a little faster? Were you also aware that you had better muscle tone, you could hear better, and you could see better? Happ's automatically! There's another reaction. Hydrochloric acid gets injected into the stomach. Did you ever notice that when you're under some stress that you had almost a nauseous feeling? Maybe you even upchucked. The reason for that is the body doesn't need to be fooling around trying to metabolize food when you're under stress. So that's an automatic signal to the stomach by producing hydrochloric acid. It eliminates, if it's bad enough, what's in your stomach so the blood can be working elsewhere to give your brain more blood and oxygen so you can think better.

How many of you have met a fellow like Nick, a friend of mine, who had a tough job and would carry Maalox around in little cellophane packets. He'd start out each day with about 12, and by three o'clock in the afternoon if he only had three left then you knew he had had a nine Maalox day. Well he was trying to fight that stomach problem. It happens automatically and that's the key. You can't do much to control it.

The first thing that happens when we are under any stress is some sort of alarm reaction. Our ability to resist stress goes below our normal resistance. That's that sinking spell you had the last time you went through an intersection and almost got hit by an 18-wheeler and it was after you got through the intersection that you had the sinking spell. That automatic system takes over and drives our resistance even higher and then at some place it tapers off to exhaustion stage.

I remember the morning that I went over to meet my instructor to go fly and I thought to myself this is going to be the morning I'm going to get to solo. I felt good about it. I saw myself doing all the flying. We got to the airport, flew to a small remote strip and started shooting touch-and-go landings. I tried about 20 or 25 of them and didn't make a good one. They were either too fast, too slow, or not lined up with the runway. There just wasn't a good one and I was working really hard. The sweat rings were down around my belt, that's how hard I was working. I knew that this was not going to be the day that I'd get to solo. The instructor said, "Jim, make this a full stop landing." So, I did and we taxied off the active runway. There was a little shack there with a radio and a Pepsi machine. Normally, we'd stop there and he'd get us a couple of Pepsi's--that's how he helped his stress--and we'd fly back after a couple hours of instruction. Well, I thought that's what he would do. But he got out of the airplane and said, "O.K. give me three good landings." Now, it's decision time isn't it? I want to tell you where I was. I was right there at alarm reaction. In just seconds my feet became like lead weights. I didn't think I could move either one of them. I knew I couldn't get my hands off the control column and put my hand on the throttle. But it wasn't but a very few seconds, that I rationalized--I can shut the airplane off, tell the instructor that I'm not brave enough, that I don't want to do it today, or I can decide to go. I decided to go! It's amazing, just a few seconds later, I was taxing over to the active runway and, it's interesting because I always had trouble hearing the radio when I was flying, but that day I could hear the radio very well. Perception: I could see everything. Muscle tone: it happened very quickly. Just from the time I taxied to the runway. I took off and made three of my best landings. I haven't made them that good since. In fact,
I don't recommend you fly with me. I do not land the airplane well at all. What happened? My body automatically gave me some resistance to overcome my stress. I flew back then to the main airport, landed the airplane, put it in the hangar and I was exhausted! I was beat--spent! All that happened automatically. My physical system, without me ever telling it, automatically reacted to handle that stress. It happens to us all the time. You are aware of it sometimes after it happens. You say, "That's good."

Yes, it's good that we have a system like ours but there's a side effect that I want you to be aware of. Dr. Seyle says we only have a finite amount of adaptation energy. Now, I've got to ask you to accept that on faith. But he says once you burn the adaptation energy, it's never replaced. So we have to be alert not to run our systems automatically in the over-load position.

How about the astronauts: The author of The Right Stuff makes a point that Charles Yeager and all the Astronauts, almost to a person, when they've been in the X15, the Appolo, and even the Columbia, their pulse rate, their heart beats have been normal. Do you know why that is? They're trained so they don't have to depend on that automatic system to take over. That's what we have to do and that's what training is all about. If you train your people well you tend to take away some of the stress.

I've heard some supervisors say, "If you've got personal problems, leave them at home. I expect you to come in and work." That may be something you can say but that's not very realistic. I suggest that if you've got a dose of stress from some personal problems outside the work area, you will bring them into the work area anyway. Supervisors have to be aware of that and understand where people are in terms of their life profile and whether they're on the back or the front side of the performance curve. As a supervisor that's one of your responsibilities because stress can make workers sick and sick workers don't produce! In fact, two significant illnesses have been tied to our ability or inability to handle stress: high blood pressure, and coronary disease. Obviously, if you're running your body at a higher than normal stress mode, even though it's automatic, you're going to be having a higher blood pressure. It is also linked to the coronary problem, not just the high blood pressure but also the fact the body automatically produces cortisone and cholesterol. The cortisone damages the heart muscle and the cholesterol literally stops up the arteries. I think you can make the link to ulcers from what I told you about my friend Nick. If you can't handle stress and you get all that hydrochloric acid, it literally burns a hole in your stomach.

We're just starting to see in the literature where cancer is linked to stress. I'm by no means that fully aware of all the clinical research but the body has a way of creating its own natural immunity. Those chemicals that are produced by stress also destroy that natural immunity the body has and so if the body's immunity can arrest various viruses, and we know that's true, and if cancer is in fact a virus, then reducing our immunity because we're under so much stress may allow the cancer cells to dominate the body's natural immunity. I think there's a very strong case made for linking cancer and stress.

If none of those illnesses concern you, here's a whole list of some others: migrain headaches, constipation, dermatitis, menstrual pain, diabetes, backaches, asthma, colitis, diarrhea, arthritis, and ageing. Some of us have had some of these.

I did not become involved with stress as an issue in my life until I began to get severe headaches. Headaches that almost made me incapacitated. I went to the flight surgeon and on the first visit he gave me some pills. I don't know what they were
--let's call them nerve medicine or downers-- but they didn't help! I had a job as a contracting officer. Every day I had 250 people and about $1,500,000 on the table. I likened that job to being in jail. Do you know what the worse thing about being in jail would be? You have to be good every day and that's the way my job was as a contracting officer. Well the second time I went to the flight surgeon he did what few physicians will do. He gave me more that just 3 or 4 minutes of his time and we sat down and we talked about some things and he said, "Jim, you can't be on drugs the rest of your life. You have to deal with the events in your life; in the job." And, that was good advice. What I had to do was work through the stress in my own life.

A man I worked for in the space program had diarrhea every time he went to the weekly staff meeting. I know that's not a very pleasant thing to discuss but that happened to that man routinely and it was a response to stress. I'm convinced that a lot of these illnesses that we and our employees have are symptomatic of our ability to handle stress. What I'd like to suggest to you is that on the death certificates of people it may say coronary, stroke, or cancer. It'll never say you died of stress, but I'm convinced that it can kill. Just like getting hit by that 18-wheeler in the intersection.

Let's look at another aspect of stress and that's the personality factor. Friedman and Roseman in their work on Type "A" and Type "B" personalities identified unique characteristics for each as follows:

<table>
<thead>
<tr>
<th>Type 'A'</th>
<th>Type 'B'</th>
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<tbody>
<tr>
<td>Impatient</td>
<td>Free of Type 'A' traits</td>
</tr>
<tr>
<td>Walk, eat rapidly</td>
<td>Harbor no hostility</td>
</tr>
<tr>
<td>Unduly irritated</td>
<td>Relax without guilt</td>
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<tr>
<td>Relaxation Guilt</td>
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<tr>
<td>Overscheduling</td>
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<tr>
<td>&quot;Challenge&quot; Type 'As'</td>
<td></td>
</tr>
<tr>
<td>Nervous gestures</td>
<td></td>
</tr>
<tr>
<td>Afraid to stop</td>
<td></td>
</tr>
<tr>
<td>Evaluating in numbers</td>
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They suggested, that there are two personality extremes. If you exhibit any of the conditions or behaviors under Type "A," (impatient, walking and eating rapidly etc.) then you might be more prone to be an "A" than a "B." Just reading that list will cause you to know where you are. Another gauge is if you try to put words into people's mouths. They are trying to tell you something and you jump in and offer the word you want. Another gauge is do you always have the keys to your car and house ready before you get to the lock? If you do that, that may be an indication that you are Type "A" and a little impatient. Now, here's the interesting thing about Type "A" and Type "B" behaviors that came out of their work. First of all, they said Type "A" people have more physical problems, namely heart attacks. The second thing they said is that Type "Bs" are normally more successful and the third, they found that normally Type "As" work for Type "Bs." Type "Bs" go out and get all these charging "As" to work for them. Normally, the sales manager is a laid back "B" who's putting a lot of stress on a lot of "As." Now that may not be a universal truth but just reflect, are you an "A" or "B" and who are you working for.

Now what can you do if you end up being an "A" and you don't want to be or you're a "B" and you feel that you're too laid back? Well consider this model. You can't just be a laid back "B" and let the whole world go and you can't be such an energetic "A" that you're intolerant of every little bit of noncompliance. You must
trade-off the situation. How important is the situation to your ability to tolerate noncompliance. We've all worked for bosses that if you misspell one word you retype the whole damn letter. Right! I used to be that way and now I say I'm like President Andrew Jackson. He said, "It's a damn poor mind that can only think of one way to spell a word." That's no longer an issue with me! Just pen the damn word in any way anybody wants it and let the letter go. Now there are certain things you can't do. If it's a legal document, then you turn square corners. But there're a lot of things in our lives that do not have to be "letter perfect." My wife doesn't do window: I've learned to tolerate that. The windows get dirty in our house. Ten years ago I'd say there's a cobweb and a dirty window, get that one. I have found out that T.V. works alright with a cobweb and a dirty window. It doesn't really lay stress on me anymore. We start plugging in our personality and become very rigid in certain noncompliance areas. You have to trade that off and let me make two points. Don't sweat the small stuff - point number one. The second point is--it's all small stuff.

Let's talk about the environmental factor. Certain jobs have a lot of pressure because of time constraints, suspenses, and criticality of issues. I think when I just say job pressures you can think of three or four right now that you have. For instance, who's running your in and out basket while you're at this conference? The are a lot of subtle messages in our job environment, no question about it. Some years ago, in order to get some attention in the organization, I perfected some memo pads. If I send you a little note that says, "Write it don't say it," I hope that message gets across that this is important enough for me to write it down. Specifically, I want you to know the time, the date, and so on. Then if there's something that I really want you to get I'll put it on a note that says, "Take a look at this." STOP. The reason is that there's so much paper that goes through our in baskets we have trouble prioritizing. So I'm presumptuous, I'm going to tell you to look at this one next. You don't send those on everything but when you get one of those and you work for me or if we're collaborating on something, I hope you'll read it now, put that at the top of your stack and concentrate on it! Then I have one that's a "Panic Note." It implies if you get one of these Sadder is in trouble; go help him; he needs you! I'm really saying, "Come help me with my stress!" And then I have the one that's my little friendly schmoe. Hopefully, if you get one of those it's like getting a flower and you know it's going to be good before you read it. So, you're ready for something pleasant. That's when you give them a little "attaboy" and if you get one of those and I draw in the belly button you really know that you've got a good one.

What I find is there're a lot of people that send you an "up yours" message. In fact, we send a lot of terse notes and we get a lot of terse notes. How can you identify a terse note? They are usually written with felt tip pens and they are very bold. They start out rather legible and they are always slanted on the paper. Did you ever notice that when you get a terse note it's written at an oblique angle? It's also terse because of the word choice and because it's usually in purple or green ink. The last three or four words can hardly be read. You know they are terse and here's what I recommend you do with them. Put them in your bottom desk drawer and whenever you need a terse note for someone, get one of those out. If it worked on you, it'll work on somebody else! I worked for a colonel, his name was Precise, and he was really a Type "A." We called him "Precise," "Col Precise," but he would call and leave a note, "See me, Col T." Lo and behold if I would come back to the office there would be the note. It didn't say see me at seven, see me before you leave today or see me on this problem. And, then if I was gone too long, there'd be two notes. Remember how secretaries used to put them on the end of your desk pen. There's two notes "See me, Col T," "See me, Col T." Paranoia! I'd go to his office, get in line, and I'd go in to see him. Sometimes it'd just be a little problem like he just wanted me to be aware of something. Next time, it may
"here's your weekend project." So he never realized the amount of stress he laid on me just by those notes. Notes, subtle little notes, cause a lot of stress in organizations.

There's another thing in organizations that cause some stress! Performance appraisals. For most people, to get a performance appraisal can be stressful and very few organizations are prepared to help their employees with stress. Oh, there's enough time in an organization to collect flowers when they're in the hospital or maybe visit them when they are a corpse in a funeral home. Unfortunately there's not much time given to dealing with people while they're alive and stressful.

In our jobs, there are other stressors I think of some of them as personalities. Did you ever meet a personality that just by his presence caused you to tighten up? Let me give you a gauge. As a leader, you're going to have one charge or the other. You will either be positively charged and draw people to you and people will want to be around you or you'll be negatively charged and people tend to move away from you. It is better to create a positively charged work environment, one where people can at least come and share their problems, their difficulties, and their concerns. Let them be your eyes and ears and then help them. That's your critical job as a supervisor--to remove the barriers so your people can be productive. But if you become so negatively charged that you're one of the barriers, you're part of the problem and a stressor.

Let's talk about emotion as a factor. Emotionally, stress is like a resident critic in your head. When you get up in the morning, it tells you you're late. When you look in the mirror, it says you're getting older. When you arrive at the office, it tells you you're behind. When you go to a cocktail party, it tells you you're boring. When you fall in love, it tells you that you're not good enough. We keep building on that, we keep reacting to negative self talk of that resident critic. The emotion of anger and anxiety can stimulate the same elevated-stress-responses as much as any other stressor I know. Let's deal with anger first. Three things generally cause anger. Infringement is somebody getting into your psychological space and physical space. Did any of you ever live in an apartment, a VOQ room, or a hotel room and the people next door had a 45-amp stereo system with the windows open and they liked good rock and roll music? Did you feel infringed upon when you had the candlelight dinners, a little bit of wine, and your best friend over? You really wanted to talk about tender things and these finks next to you are playing that music. Did you feel infringed upon? Did it make you angry? Did it arouse some stress in you? Did you feel a tightness? A second element of anger is frustration? The best example I know is the office copy machine. You go to the machine to run off ten copies. You get there and somebody is running off a book or there's a sign that says "Out of Order" or there's a monitor who says, "You can only make two copies; if you want ten you must get the director's O.K.!!" Where's the director--he's on the golf course! We really pack a hell-of-a-lot of anger around because of frustration. A third element is wrongfulness. Do you know what they're saying about you? Well, I don't know whether it's true, but... I believe I should tell you. It's probably nothing, but... It will cause you just as much stress as if it were true because somebody wronged you. That's what happens with the grapevine. Do you know who's seeing so and so? Who'd like to see so and so? If it's about you, you feel wronged. It's a vicious thing that they've done to you and you want to react. Usually it makes you angry! Suppose you're driving along the interstate, and you're going about 65. Here comes a big Lincoln followed by an 18-wheeler passing you at 80. You do gown the road five miles and a patrolman pulls you over. You know you are breaking the law but, what's your first inclination? Why didn't you get those two turkeys who passed at 80? That's not fair! Would it make you angry? You betcha!
Let's talk about the other component of emotion and that's anxiety caused by guilt and worry. Erica Jong in her book *How to Save Your Own Life*, gives 14 ways to save your life. At the top of the list is "renounce all guilt." You see, guilt is a cause of anxiety and sister stressor to anger. Guilt, you see, is like the other components of emotional stress. You can make your guilt small or you can make it large. The same with worry. You can worry a little, you can worry a lot. Worry comes from an old Anglo Saxon word, which means to strangle. Isn't that what worry does to us? It literally shuts us down and strangles us. We have the ability to throttle it up and down. Most things I've worried about in my entire life, never happened. In fact, I can't ever remember worrying about something that ever happened. Can you? I've worried about getting on the right airplanes, worried about getting to the airport on time, and even worried about getting to some foreign country and not being able to speak the language.

Let's talk about some responses to stress. The first one, is bio-feedback. It can be anything from going to a physician or stress clinic and being connected to some little probes where they measure your heart beat, cholesterol level, and skin temperature. The idea is that they can teach you to handle stress by teaching you how to slow down your body and relax. Transcendental meditation is thought by many to be an Eastern religion. It's not. It's only a mechanical way to slow your system down, bio-feedback wise, and it works! I've been a meditator for about ten years. It will work, but it's not the only type of meditation. There's several books out like, *The Meditation Response*. I would suggest that if, in your busy day, you could find some place, mid-morning, to just sit quietly for 15 minutes it will help. That's a very subtle form of relaxation but a part of bio-feedback. It's here now and it's going to become common place. Wrist watches will probably have another component such as a probe under the skin or something with a sensor and you'll get a readout showing how you're doing at any given moment. Then you could go in to see your boss, watch your stress meter and judge how to control your responses. That'll be a pretty sophisticated form of bio-feedback, but you can get there now by just learning how to relax on your own.

Now, the second response is nutrition. Let me remind you we're probably the worse country in terms of nutrition. We have a lot of great food but we eat junk food, the wrong food, the wrong quantities, and at the wrong times. I suggest that if you're doing any of those things, it is putting a lot of stress on your system. We are what we eat!

The third response is philosophic. You can't do much about that except that each of us have to sort out individually who we are and where we're going and why we're here. It may be Christianity for you, or Buddhism for someone else. It may be stopping in and seeing Joe the bartender every other night and being plugged into that little social group. Sometimes it's not church for people; sometimes churches can lay more guilt on you and add more stress to your life. Dr. Hans Seyle has a concept called alteristic egotism and he says it has two components. Alterism is doing good things for other people. We are here for a purpose. We are here to be a good librarian, good government employees, good mothers, and good fathers. We do have a purpose beyond ourselves. Dr. Seyle believes that we give some joy and that brings us some peace. He also believes in our ego. We want to do something for ourselves and we need to find a balance and not feel guilty about it. So start there, it may be Christianity or it may be something else for you but you are going to have to come to grips with your philosophic response. The other responses to stress can be several things. There are two that I want to talk about. If I can recommend any response to you, exercise would be one of the strong ones. And not necessarily jogging. There's a concept I read a while back and I've been practicing. It's called "roving" and this is how to do it. Go out and rove for
hour, whether you walk through the park, walk through the neighborhood, jog a little, or skip. If you want, swing on the trapeze bars in the park. Keep in motion for one hour. My roving includes a mile and a half jog on the perimeter road, and a walk back. Now here's the best benefit. It is the walk back that is the most beautiful part. It'll be the most creative, relaxing time of your day. I suggest you go by yourself. When you finish the roving, even if you don't jog, you'll come up with five or six, maybe ten, great ideas. I had to go out and buy some new running shorts with a pocket to carry a little note book to copy them down. There's a friend of mine who is a runner, he's a Type "A" runner. I don't recommend that Type "As" jog because if you're a Type "A" you'll start off exercising and next year you'll be in the Boston Marathon. He really gets into running and he keeps asking me to go run with him because we can talk about some neat things. I keep giving him all kinds of excuses because I don't want to go run or rove or jog with him. That is my private time and walking back is so neat. If you want to mitigate stress, exercise.

I want to share something that I did a while back. I put together a sports car, it's a fiberglass body built on a VW chassis. Remember I mentioned my headaches, well, the doctor told me to do something other than playing in that $1,500,000, 24-hours a day. So, I bought a car kit and that was more than pocket change, I assure you. But I got to where I'd go home, put on my old shop clothes, work on that car and within a matter of just weeks, I got rid of the headaches. Do something like that. It doesn't have to be a super big project in terms of money or duration. The car took over two years. I wanted to get something I could get totally involved in. I wanted to get something that was going to take me away for an extended period of time.

Well, to get to the bottom line, to get to the point where you can employ some stress management techniques, you've got to be aware. Awareness is important. Awareness from your own point of view. Where are you? What do you feel about stress? How do you feel about responsibility for the stress of those people who work for you or are in your organization? I hope I have raised your consciousness a little bit. You know right now where the stressors are in your life and how you're doing. But you've got to do some self-assessment and also assess the people around you. Probably one of the biggest problems that we have in the work force today is getting to know the people that work for us. We think we know them but many times we only know them very superficially. So by not knowing our people, we don't know where they are stress-wise. As a consultant, I travel to many Air Force bases and I talk to many personnel, military and civilian. One of the questions I always ask is: How many of you within the last 60 days or since you've had your current job, have sat down with your boss and had a discussion so that you know what's expected of you? What percent do you think are prepared to say, "Yes I have and I know what's expected of me?" It's about eight percent. But what I also find that when I go downtown and talk to bankers and other groups, it is the same percentage. It's not peculiar to the military. Somehow we don't do a very good job to know our people, setting job expectations, and giving performance feedback. We've got all these big programs with a capital "P" and now it includes the Job Performance Appraisal System. I predict that'll be another marginal program. You know why? We still won't talk to each other. On my watch I have a little red dot. I spend a lot of time looking at my watch and when I see red, I think of responses to stress. Red is a flag color and when I look at my watch and see the red dot here's what I internalize. I think of the acronym R-E-D. It reminds me that I need to do three things for myself each day. To Relax, Exercise, and control r.v Diet. Those are the best things that I can do for myself.
I believe our common goal as human beings, whether we're librarians or management consultants; whether we live in the north or south; whether we work for the Army, Navy, Air Force, or Canadian Forces should be to improve the quality of our lives. And it doesn't make any sense trying to help our subordinates, either professionally or personally if the quality of our own lifestyles is suspect. This holds true for any occupation, including librarians.
EFFECTIVE INTERPERSONAL COMMUNICATIONS

Dr. John A. Kline, Academic Instructor
and Foreign Officers School

I'm happy to be here. You probably are not very much surprised that I would say that since most speakers say that they are happy to be wherever they are, talking to whomever they're talking to, and talking about whatever they're talking about -- so I'm happy to be here. I like to talk about communication. So I'm glad you are here and I hope you are willing to listen to some of my thoughts about communication. However, I certainly wouldn't want you to think that I am an effective communicator in all situations.

I wouldn't imagine that if each one of you thought for just a little while, you could think of situations that happen to you daily where you have misunderstandings because you fail to communicate effectively. That's what we want to think about today. You surely have said such things as "What we have here is a failure to communicate," or "What we have here is a communication breakdown," or "You and I just aren't communicating." When we say these sorts of things, what we are suggesting is the fact that it's possible to 'not communicate.' I would like to suggest as a basic assumption here today that you cannot 'not communicate.' Now I meant to use that double negative folks. You cannot 'not communicate.' You are going to communicate something, but are you communicating the kind of thing that you want to communicate. You see, if I stand up here and talk and you choose not to listen to me, I've communicated something. It may be that I'm not worth listening to or that I don't have enough interesting material to keep you awake, but I communicate something. Now we are interested in communicating effectively. Effective communication, if we wanted to define it, comes down to simply an effective sharing of meaning.

If I were to go over to the Air University Library I could find hundreds of books written on communication and the writers of each book would have defined communication in some certain way. In a book that Bill Eadie and I wrote, we defined communication as "the process by which sensory data is organized, transmitted and interpreted." It doesn't matter much what your definition is. The bottom line, when you look at all definitions, is simply that effective communication is an effective sharing of meaning. As we think about how to share meaning more effectively -- on our jobs, with the people we work for, with the people who work for us, with the patrons we talk to, in our homes or in our social life -- the same kinds of problems keep coming into play.
Consider with me now, if you would, this outline of the points I want to talk with you about today. First, we'll consider the process of communication. This is the theory part of my lecture. I will discuss some basic ways of looking at communication. We'll think about talking with others and some common communication barriers we have when trying to communicate interpersonally. Second, we'll spend a little time on listening since being an effective listener is the biggest problem most of us have in communication. Third, we'll try to tie everything together and, hopefully, come up with some guidelines or suggestions that will help us communicate more effectively.

As I said before, this first point is the theoretical part of this talk. Everything else that I have today consists of practical suggestions, guidelines and examples of problems that we have communicating. The way we look at communication goes a long way towards determining the kinds of communicators that we are.

Some people see communication from a point of view that might be referred to as 'communication as self-action.' When we talk about 'communication as self-action,' we are saying simply that we are a communicator sending a message to a receiver and we are very much concerned with the message we send. We may be guilty of taking a "self-action" approach when we have a briefing to give. We decide first what we are going to say, we deliver the briefing, somebody listens to it, and we think communication is complete. We have been mainly concerned with the message that we've sent. If you think about the times when you have had to prepare a five or ten minute talk or when you were going in to talk to the boss about something, you organized the 'message' in your mind and determined what you would say regardless of whatever else happened. Obviously most of us realize that communication is a lot more complex than this, but we become much as actors sending messages. How many of you have ever been in a play? Remember what you did? You learned your lines and tried to say them the same way every time. If the play was on for several nights you said them the same way night after night after night. This behavior is much like what we do in every day communication situations. This approach is 'communication as self-action.'

Now we may instead describe communication as 'interaction.' When we think of communication in this way we have added a fourth element. Now, not only the communicator, the message, and the receiver are main concerns, but feedback is important also. For example, how you respond as I talk to you is very much going to affect what I do up here. I am still concerned with the message I'm sending to you, but I'm also concerned with the messages you're sending back to me.

While communication is often viewed as self-action or interaction, communication can best be looked at as a transaction or a total process. When we look at communication as a transaction we still consider communicator, message, receiver and feedback, but we also notice other factors. We see that the communicator is not only sending some powerful messages to the receiver, but the receiver is certainly sending some powerful messages back to the communicator. Not only is there feedback coming from the receivers or the listeners to the speaker, but the speaker is responding to the messages from the receivers. As a speaker, I am feeding back to the messages that I receive from you. If I become nervous or, on the other hand, act very much at ease, whatever I do in addition to the basic message I'm sending is probably a response to the total transaction and a response to you as receivers. Now, let's think of other important factors in addition to the communicator, the receiver, the message and the feedback. I can think of some right now that are important: the time of day, the fact that some of you are very tired, a few of you are still trying to recover from your travel to get here, maybe some of you are having indigestion from the meal. What are other possibilities that can affect any kind of communication situation? Other factors that are important to
consider are age of members of the audience, temperature of the room, attention span, language comprehension, and education of the audience or the speaker. You see, that's the neat thing about talking about communication. Everybody knows the importance of communication because it applies to so many areas of their lives.

Certainly the interest in the material itself being presented is a significant factor, and then there are a lot of things that I as a speaker do that make a difference. We have talked primarily about audience characteristics, but, as the speaker, my attitudes, my beliefs, my values are as important as the audience's when it comes to understanding the message. Suppose I had been born and raised in a large eastern city rather than a little rural community in Iowa? This might have influenced the kinds of examples I use. It might have influenced in some way the type of message that is communicated to you. My point is that there are many, many factors of communication and even though most of us realize the complexity of the communication process, we fail to take those factors into consideration when actually communicating. We behave as if communication is a very simple interaction without even thinking of what the total system or the total transaction is. The bottom line is that when we begin to consider all these factors we are concerned not so much with the message, but with the meaning that's being created. Effective communication is an effective sharing of meaning.

Since communication is a process in which everything works together to affect other elements in the transaction, let's think specifically about various kinds of problems that we have when we're speaking to other people. We might divide these into two areas, the verbal area and nonverbal area. There are a couple of basic problems that we have when verbalizing with other people. The first is simply that situation where the same word means different things to different people. Another verbal problem we have is that of two different words meaning the same thing. Most of our verbal misunderstandings stem from one of these two situations, where the same word means different things or where different words mean the same thing. Let's think why we have such misunderstandings. We may consciously admit to the reason but we don't internalize it and make it a part of our communication behavior. One of the problems is that we act as if a word has only one meaning, the one we want to use at the time. Would you want to guess at the average number of meanings for the 500 most commonly used words? The average is at least ten, possibly more. Let's take the word "fast." Some meanings of the word "fast"--rapid, to do without (as in eating), loose morals, tight, colorfast, fast greens (in golf), fast film (photography). We can go on and on and come up with more meanings. The fact is, we know that many words have different meanings but we act as if the only meaning is the one that we are using right now.

Another problem, perhaps even more basic, is that meanings are not in words, but rather in the people who use the words. We act as if words are only receptacles for meanings. Just as I could take a gallon jug and fill it with milk, alcohol, antifreeze, kerosene or any one of a number of things, the jug is simply a container for what I put in it. A word also is only a container for meaning. When those of us who work so closely with words begin to think that words have meanings in and of themselves then we have a problem because we may not communicate effectively with people.

Verbal problems with the same words meaning different things and different words meaning the same things are certainly basic problems. Perhaps an even bigger problem in interpersonal communication is the way we communicate without words. Let me suggest nonverbal communication is of two types -- performance and non-performance. Let me explain what I mean. My gestures, my eye contact, the things I do up here
are all performance factors of nonverbal communication. The meanings that we attach to these nonverbal symbols of performance are crucial to understanding. We also communicate nonverbally in a whole area that we might think of as non-performance. The clothes you wear communicate. That's why you buy a new dress when your other ones have nothing wrong with them. You may want to communicate something. This is often the reason for buying a new automobile when the other one is running just fine. Perhaps it makes us feel better or maybe we communicate something to others. If you were to come into my home never having met me before and look at the books that I have on my shelves, and look at the things that I have on the wall, you could make some pretty good guesses about John Kline without ever having met me. We might say that our "artifacts articulate."

Space also communicates. Have you ever noticed people waiting for a bus? They don't stand too close to each other unless there is a crowd of people. On the bus you may sit next to a stranger, but have you also noticed that in our culture we never touch? We always keep an inch or two away from one another. Even in the subway, people try to stand away from each other until it gets so crowded that they cannot. Your behavior depends on what your spatial needs are. "Space speaks" just as artifacts articulate. "Time also talks." We are an interesting society of people who judge so many things on time. For example, we save time, we spend time, and we try to get places on time and we judge others by how they infringe on our time.

These basic verbal and nonverbal problems that we have talked about apply to us in our day-to-day conversation because so often our misunderstandings happen because the same words mean different things, different words mean the same things, or we have some of the performance or nonperformance nonverbal problems. Communication and its problems are at the heart of all successful or unsuccessful human interaction.

Perhaps, however, the biggest communication problem we have is the problem with listening. Have you ever thought about the time we spend at least attempting to listen? The average person spends about 70 percent of his or her waking day in some form of communication -- reading, writing, speaking or listening. Of that 70 percent the average person spends about 25 percent reading and writing, about 25 percent talking to others and 50 percent listening, or at least in a listening mode. In our schools we teach youngsters how to read and write and sometimes how to give a talk, but how many courses do they have in listening? Most of you have not had any formal instruction in listening because we assume that people are listeners.

A lot of poor listening results because we made some wrong assumptions about listening. There are four kinds of common mistakes that we make in regard to listening. The first false assumption is that a person with good reading ability is also a good listener. This assumption is often not true. In a study at the University of Missouri, we tested student's reading and listening ability with different kinds of listening tests. We found a surprisingly low correlation between reading and listening ability. There was a slight positive correlation but not a high one as you might expect. This finding reinforced what other researchers had previously found -- that is, people could be good readers and still be poor listeners.

A second false assumption is that there is a strong correlation between hearing ability and listening behavior. Of course, if you can't hear the signals, or can't discriminate between them, then you do have a problem. However, if you have basic learning ability, then it doesn't matter too much if, say, you're deaf
in one ear as long as you are able to hear with the other. On the other hand, you can have super hearing ability and not be a good listener.

A third false assumption is that as we get older we become better listeners. This assumption is not true. Dr. Ralph Nichols, the foremost expert on listening, did a study on listening some years back. He started with children in the first grade. After the teacher had taught a lesson she would ask her students privately what she had just said. Children in the first grade could tell her 90 percent of the time. Over 80 percent of second grade children could tell her. By seventh grade only 45 percent of the students were listening. By high school slightly less than 30 percent could tell her. Now, if you have youngsters I'm sure you understand what I'm talking about.

It is generally felt that after we get out of high school we become better listeners again. Not true at all. Dr. Charles Rositer, University of Wisconsin, found as we get older there is a linear tailoff in listening and we become poorer listeners. There are many reasons for this, the main one being that we get in the habit of not listening. After all, if it's very important someone will probably say it again. Also, we are sometimes rewarded for not listening. If my wife calls me from another room, it's best to pretend I didn't hear her, because she probably has a job for me to do. In other words, many times we are rewarded for not listening. Assuredly, as we get older we don't become better listeners.

Finally, it is false to assume that high intelligence correlates highly with effective listening. College students, for instance, show a surprisingly low correlation between intelligence and listening ability.

Now, let's consider the various types of listeners. You may recognize some of them. There is the person who listens only for the facts, the intellectual listener. The person who says, "This is exactly what you said because I wrote it down." You reply, "But that's not what I meant. You took it out of context." This intellectual listener hears only facts and listens only to the verbal communication, unwilling to look at the nonverbal. A second kind of listener is the tricky listener. My wife says that I am a tricky listener because I can be reading the paper and she'll say something and accuse me of not hearing a word she said. Then, I'll repeat what she said almost word for word. But this kind of listening does not help the relationship. There's also the superficial listener who listens only to what's important to him or her at that particular time. Next, we have the passive listener. Many of you may have children whose listening is like this. Finally, there is the total listener. I feel certain most of you here are total listeners who listen to both verbal and the nonverbal communication.

We could talk about many types of listening. There is the situation where we are listening for enjoyment, or where we are trying to listen with a critical ear to discern something or where we are listening to evaluate a message. But, two kinds of listening that are very important as we do our jobs must be labeled informative listening and relationship listening.

Informative listening is the listening we do to understand the message or to gain information. This is the kind of listening we do when we are trying to get instructions or trying to learn things. While informative listening is very important, perhaps one that's even more important in terms of our effective interpersonal communication is the listening that we might refer to as relationship listening. Many writers refer to this as empathic listening. Counselors talk about listening with empathy, with understanding, putting yourself in the other person's place, almost a vicarious kind of experience as you begin to "feel for"
that person. Relationship listening is important to us certainly in our families, with our co-workers, and even with people we don't know very well because we want to understand the person. In understanding we can do a better job in communicating with others.

Each of these requires different kinds of guidelines in order for us to be good listeners. Let's start with relationship listening. One of the factors that seems very important in terms of relationship listening is that you have to want to listen. We don't always communicate the fact that we want to listen and that is very important in terms of improving the relationship. A second requisite for relationship listening is the importance of suspending judgment. One of the greatest hindrances to good listening is that we tend to over-react. Another is that we are too critical. When we become critical, then we do not get the kind of honest information we need. One thing you can learn as a supervisor is to reward your people for honest news, not necessarily good news or bad news, but honest news. A third important factor is encouraging other people to share. How do we encourage the sharing? Be a good listener, appear interested and, hopefully, be interested. Put the other person at ease, be honest with them and show appreciation of their sharing with you. You have to encourage other people to share if, in fact, you want them to share. Finally, although you want to suspend judgment, you should be aware of your own feelings. Make no mistake about it, our feelings, our beliefs, our attitudes are all going to affect what we hear.

Another kind of listening that is very important to us is informative listening. The guidelines for this type of listening are so simple we really shouldn't have to talk about them. On the other hand, since we make so many problems for ourselves by not being good informative listeners, let's look at some of these guidelines. First, a good informative listener is prepared to listen. When you attend a briefing, for example, you had better be ready at the beginning because most briefings are just that, brief and to the point. If the speaker talks for two or three minutes and you weren't ready at the beginning, you can often "hang it up" because if you didn't catch the top line you are not going to get the bottom line. So be prepared to listen. A second action we can take is to adjust to the transaction or situation. For instance, it would probably be easier for you to listen now if we were seated around a table and there were only eight or ten of us. I could hold your attention better than I can in this auditorium, but you must adjust. If you don't like striped ties or there is anything about me you don't like, you would need to adjust to such things. You must adjust to all the different things that can present a problem to effective listening. You have to realize what the handicaps to listening are and try to listen beyond those handicaps. A third consideration is to adjust to the speed differential. For example, if you can read at 400 words per minute and I can only talk at 150 words per minute, there is a lot of time for your mind to be lazy and wander. Make good use of that differential. The fourth guideline will help you know how to use that differential. Discern the key points or key ideas. Too many times we get off on trivia instead of staying with the major concept or idea. Finally, organize for learning. To be a good listener we sometimes have to jot things down, and then later we can organize everything for learning. If the speaker doesn't organize the topic very well for you, maybe you have to organize it in order to remember it. Or perhaps what the speaker tells you can be organized along with information you already have.

Now that we've considered the speaking and listening process, let's see what we can come up with in terms of some guidelines to help us in all communication situations.
First, here are six statements that hinder communication: ONE OF US NEED HELP - When we say this sort of thing it probably doesn't help the relationship since we are suggesting that it is the other person who needs help. OUR RELATIONSHIP IS HOPELESS - Saying this indicates a "giving-up" on the situation. We may not mean it but we say it at the time. OUR PROBLEMS ARE YOUR FAULT - This statement reflects a human tendency to blame our problems on the other person. YOU HAD BETTER CHANGE - The emphasis here is on you. In order to 'get along' it's so often the 'other' person who has to change. I AM THE WAY I AM - I was this way and you liked me last year. This is an excuse for not changing. My mother used to say people are the same as they always were only 'more so' as they get older. There's a lot of truth in that statement but we can change. I hope that we change for the better.

Here are six statements that help communication: I MADE A MISTAKE - Isn't it tough to make that statement? We get defensive and say "Well I did this, but ... everybody else was doing it." It's just so hard to say, "I made a mistake." YOU ARE AN IMPORTANT PERSON - I have the greatest secretary in the world and I try to tell her often just how important she is to me and to our office. Think about the people you work with and how many times you tell them of your appreciation. It certainly helps the communication in your office. I WILL KEEP YOUR CONFIDENCE - A real plus factor in communication is being certain that the 'other person' will keep your 'confidences.' This certainly is, of course, true in a marriage, a friendship, and in all working relationships. You value people you can trust and keeping confidences helps communicating. I WILL SHARE THE RESPONSIBILITY - That is to say, I will share the responsibility for our relationship and not put it all on you. Any good interpersonal relationship involves your going beyond half way. The good friendship and good working relationship involves people who will go the second and third and fourth mile. I WILL TRY TO CHANGE - If it is pointed out to you that perhaps you are the cause of a problem, do make an effort to change things. Instead of being defensive, try to adjust to the situation. I NEED YOU - Sometimes people have a need to be needed. This remark will help a relationship for people will feel that you actually need them and not just because some work needs to be done.

Here are some steps to take to improve communication. Let me deal with the "SO WHAT?" on the chart. What are some things we can do? ALWAYS PUT YOURSELF IN THE OTHER PERSON'S PLACE - This behavior has to be the number one priority in improving interpersonal relationships. By putting ourselves in another's place, we learn how our behavior, both verbal and nonverbal may affect others. IF YOU DON'T UNDERSTAND, ASK A QUESTION - We must be willing to try for understanding when people are talking to us. It is important to ask questions when you don't understand. The asking of questions to acquire the actual meaning of information being given is of the utmost importance. BE APPROACHABLE WHEN OTHER PEOPLE ASK YOU A QUESTION - Being approachable or being willing to answer in more detail contributes substantially to good communication. BE SENSITIVE TO CONTEXT - By taking any statement or sentence out of context, you can probably get about any meaning you want. One of the most damaging occurrences in interpersonal communication can be the taking of statements out of context, rather than making the effort to understand fully the person and the situation.

Finally, if we apply these axioms and some of the others we have discussed today on word meanings and problems in listening, I feel we have a start on things to think about and apply to our own lives that should help us to be better communicators on the job, in our families and in social situations.
DR. JOHN A. KLINE

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Dr. Kline was born near Conrad, Iowa, in 1939. After high school he operated the family farm for six years before attending Iowa State University, where he received a bachelor's degree in English and Speech Education. His masters and Ph.D. degrees in Interpersonal Communication are from the University of Iowa. He was Assistant Professor of Communication at the University of New Mexico, and Associate Professor and Director of Graduate Studies in Speech and Dramatic Art at the University of Missouri.

Dr. Kline has published over seventy-five articles, professional papers, book reviews, and books. He lectures and conducts workshops for various educational, professional, religious, and business organizations and has served as consulting editor for several national communication journals. He has received awards for superior teaching and was recently named Federal Employee of the Year for the Montgomery, Alabama, area. He has been selected for membership in numerous honor societies, professional associations, and biographies, including International Who's Who in Education and Who's Who in the South and Southwest.
LIBRARY MANAGEMENT
Dr. Thomas J. Galvin, University of Pittsburgh

I would like to make this, not a lecture, but a workshop and give you an opportunity to share some experiences with one another.

One of the smartest persons I know is my boss. One of the chief reasons I went to work for him is because I thought that he was smarter than me and I could pick up something from him. One day I said to him, "You have been in the field of management of higher education for twenty-five years." "You've seen a lot of people try to do management jobs; some people fail and some people succeed." I asked, "Why do you think people fail or succeed in a manager's role?" He said, "When it comes to management jobs, a lot of people want to be something. They want the titles, or the salary, or the perquisites, or the big offices. But there are few people who want to really do things."

That seems to be a very important difference. We've spent a long day of talking about the principles of management, what some of us might call the theory. Theory and principle are great, but I see management as a contact sport; it's an applied discipline. What's really important is whether or not you can apply the principles in a real situation. This is why I would like to suggest that we spend some time together this afternoon looking at a real problem situation. A situation that I believe, from the results of the survey (Organizational Assessment Package), is very relevant to many of you and to many of the people who work with you.

We talked this morning about a common problem. We have people who are stymied in the job, people who are concerned about advancement and recognition or the absence of opportunity for advancement and recognition, and the need for job enrichment.

So this afternoon, I'd like you to focus your collective attention on an exercise entitled "Dead End Jobs." I want you to recognize that this problem is not one that calls for reflection; it calls for action and action with a time deadline. You are expected to develop a plan that will lead to a positive result within twelve months. In developing your plan, don't spend a lot of time analyzing whether or not people are taking this situation seriously. Just solve the problem. Focus on some recommended action reflecting the group concepts about what actions should be taken. Come up with a good answer, a plan to deal with the problems. After you are done, each group will be asked to discuss their proposed plan.

Dead-End Jobs

You supervise a library staff of twenty full-time employees, including seven professional librarians. Your parent organization has just undergone a management review, conducted by an outside agency.

The results of the review indicate highly negative attitudes on the part of the library staff toward their jobs. Many are long-service employees (the average tenure of the total staff
is 5.8 years in their present jobs and 7.4 years in government service). The dominant complaints among both professionals and support staff are the absence of opportunities for advancement, career development, or job growth. The dominant attitudes reported are feelings of lack of recognition, lack of motivation to improve job performance, lack of incentive to expand knowledge, and skills.

Your superior has instructed you to develop a plan to reduce these reported feelings of job dissatisfaction, the positive results of which are to be apparent in a follow-up employee attitude survey scheduled for twelve months from now.

Group Responses

Group eight: One of the members of group eight observed that this was really our final examination in Dr. Galvin's course. It was apparent that some guidelines for this exercise had been provided in this morning's session and if we had been attentive, we would pass with flying colors. Well, you are to decide whether we listened to the lesson this morning or not. The question arose, in the context of this problem about dead-end jobs, of whether the supervisor had a definition of the organization's goals. The first step would be to identify these goals and objectives and identify them clearly enough to the employees so they would keep on the track. The supervisor should get feedback from the members of the group on how they saw their jobs in the context of those goals and objectives and to identify how they might enhance what they are doing. A great many devices already exist to provide recognition and motivation for these people. The general performance appraisal standards, the individual development plan, and the current awards system already exist in the Department of Defense. Fear is an important motivator and should be used, to some extent, to make people realize that the skills they are comfortable in using are not always sufficient for the demands of today. An outside expert in organizational development would be very valuable in a case like this. He could give help in coming to a consensus on how people could better perform the goals and objectives of the organization. Such employees could be challenged by expanding the duties they are performing. It was also suggested that since they had been frozen into their position, those who could go up or out should be helped in that direction. It was suggested that the functional supervisor, in the area under consideration, should be given an honest appraisal of the defects observed in meeting the goals of the organization. Finally, the verdict was that the staff needed to be challenged with expanded missions and advanced technology and not allowed to rest at the current level of their performance.

Group seven: Keeping in mind the goals and objectives of the organization, our group decided the best thing to do is have a general staff meeting, hear complaints, and be aware that they were going to hear some things they didn't want to hear. We also suggest possible rotation of the duties of the staff; this could be training in reference, somebody moving to circulation, etc. Since services overlap, you must be willing to train your personnel for departure or promotion. Job enrichment could involve developing subject collections, being a bibliographer or getting new training on the computer. The supervisor could obtain funding to send personnel to some kind of night training school. Your staff should be mobile and willing to move. Recognition includes quality step increases in pay, awards, a certificate of recognition, or letters of commendation for the personnel record.

Group six: Each staff member should identify their personal and professional goals. We need to have frequent meetings so we will have an opportunity to communicate
two ways. Perhaps we could have an individual development plan where employees would identify their short-range and long-range goals. The opportunity to go to training during work time might be considered. There should be opportunities to go to workshops. Job satisfaction could be enhanced by cross-training, which you can do within your own staff. You can work with the base education office to provide off-duty education for your staff. You can also advertise any vacancies that occur. The supervisor's attitude is important because it creates the atmosphere in your library. A committee might also be established to write new performance standards.

Group five: The supervisor should have staff meetings to discuss both job and personal goals. There should be training in both functional and technological areas. When appropriate, upward mobility devices, which are available in the federal government, should be utilized. You should have a program for people to cross the bridge from the technical jobs into the professional jobs. Job descriptions should be rewritten so that more responsibilities could be assigned to go along with cross-training. We also decided that the employees must understand the structure of the organization. This would help the employee understand where they and the organization stood. Teamwork is important; working together should be stressed. The term "professional" should not be used as a barrier between technicians and the professional staff.

Group four: There should be a general meeting to identify problems. There should be an individual meeting where personnel could discuss personal problems. There should be some group involvement in the development of future goals with the library's goals added to organizational and personal goals. We looked at the various options of recognition such as librarian of the week or month. There should be regularly scheduled meetings to discuss matters and get feedback on how the plan is working. We discussed the question of using educational opportunity as a reward. We decided that looking at the weakness of an individual and working on that weakness would be useful training.

Group three: We decided to use a positive and personal approach. The key to our problem is really communication. Based on that, we came up with a four-way plan of attack. Keep in mind that communication is a two-way street. First, the employees should be interviewed individually to find out what their expectations are as far as their jobs are concerned. On the other hand, make sure that they understand that the organization was limited in what it could do. The third thing we decided to do was to try and reconcile employees' personal goals with those of the organization; by that we mean training, job rotation, changes in job duties, etc. The fourth thing is for management to recognize achievement. Recognize what the employee would like to do, help him to do a good job of it and then praise him for doing that job.

Group two: We hope to bring the staff together for a group discussion. We want to determine what the jobs are, or what the jobs should or could be in that organization. We want to emphasize the possibility of people expanding their own jobs horizontally. In other words, we want people to contribute to their own job description. There is also a greater need for communication between management and staff. We would invite our Civilian Personnel Office to come in to explain job opportunities, explain job classification and how it is done, and to explain educational opportunities. We want to emphasize that workers' education is to be done on their own time and for their own self-development. We dealt with the question of providing recognition through some means other than monetary awards. The attitude of the supervisor is important in the question of awards. If the supervisor is cynical about awards, everybody else will be. You might initiate an award for the library staff i.e., librarian of the year, or library technician of the year.
It doesn't have to be monetary. The possibility was mentioned of an organization where the supervisors are not branch supervisors but simply supervisors within the organization.

Group one: We decided that it was too complex a problem to discuss in half an hour and that twelve months was too short a time in which to expect results. As managers, we looked at some new and untried ideas. We would like to eliminate job descriptions altogether. We would like to write contracts between supervisor and employee. The consensus of the group was that involving the employees in some kind or participative management, such as quality circles, would offer an opportunity for career development.

Dr. Galvin: Now I know how you all scored so high on the inventory (OAP). You don't need a seminar on management; you are very well informed about management techniques and know how to apply them. I do not have any experience in military management and some aspects of your environment are a mystery to me.

One of the problems in communication between the supervisor and staff is that sometimes they are operating from different perceptions of the value system. Sometimes the things that supervisors believe the staff places highest in importance are not necessarily the most important things to the staff. Good wages, job security, chance for promotion, good working conditions, interesting work, loyalty to staff, tactful discipline, appreciation for work done, feeling in on things, and help on personal problems are aspects of job satisfaction. They are things that most of us feel are essential. A number of studies, based on supervisors' opinion of employee preferences, show little correlation between perception and fact. For instance, supervisors believed that employees would rank job aspects as follows: (1) good wages; (2) job security; (3) chance for promotion; (4) good working conditions; (5) interesting work; (6) loyalty to staff; (7) tactful discipline; (8) appreciation for work done; (9) feeling "in" on things; and (10) help on personal problems. However, employees actually ranked them as follows: (1) appreciation for work done; (2) feeling "in" on things; (3) help on personal problems; (4) job security; (5) good wages; (6) interesting work; (7) chance for promotion; (8) loyalty to staff; (9) good working conditions; and (10) tactful discipline. What we as supervisors think is most important, obviously is not most important to the employee. So it is important to get a sense of what the people we are trying to motivate value and what kinds of recognition are important to them. If you can get them to really open up, you can get a sense of how they find your organization as a place of work. What they say may not always be pleasant, may not always be flattering and, in fact, may not always be what you want to hear. So, be warned and take this warning seriously because there may be some risks.
TIME MANAGEMENT

Captain Michael D. Meyer, USAF

Let me tell you a story about a friend of mine at my last base. This individual's job was to bring in instructors for all the maintenance training, to have the materials ready, and to have the budget set up for this program. It was a very important position; he felt he was a very important person and a powerful individual. We called him Captain Crowbar. All the reports had to go by his desk. When he went to a meeting he was invariably late. He would have all these papers; he would come in with a flourish, sit himself down, and, whoosh, down would go all these papers. If someone asked him about a specific project, do you think he had the right material? No sir. "It's at my office, it's at my desk, I grabbed the wrong stack when I left, I just had a whole bunch of things to do."

When he got back to his desk, his phone was ringing, there was a group of people waiting to see him. He was one of those people who really liked his power and liked to have a line of people waiting to see him.

At night, he would grab his briefcase and I would go home and have a martini. He would stuff all his paperwork into a briefcase and take it home because he, and no one else, was worried about all the work that had to be done. He would think about Meyer at home having a martini. He would decide to have a martini because he was in a more important position than Meyer. He'd have dinner, spend time with the family and then watch television. He'd say that he would get onto the work he brought home when the program was over. He'd put his briefcase beside his chair and watch television longer. At eleven, he'd wake up, think that he'd had a hard day and was just too tired to do the work. He'd close the briefcase and go to bed.

He spent the whole night worrying about all he had to do; the budgets, the people, the training - all those things that had to be done. It was all right there in his briefcase and, by golly, somebody had to worry about it and it didn't seem that anybody else in maintenance worried about it.

He didn't have time for breakfast because he got up too late. He got caught in the snarls of traffic. He arrived at work frustrated. There were memos to review, calls-a friend called to tell him about some incident at the club the night before. Captain Crowbar talked about his importance and the work that he had to do which kept him from going to the club. Next, it was time for a meeting he had to attend.

How many of you know about an effectiveness report? Captain Crowbar never even heard of one. Captain Crowbar was a loser. He was thrown onto the trash heap that Colonel Jim Saddler talked about. The commander had to get rid of him. He was a bottleneck in the organization. He wasn't a bad manager; he was a bad
time manager. He wasn't doing the things that needed to be done. That's what we need to do and that's what we're going to work on for the next couple of hours.

Ben Franklin put it right. He said, "Don't squander time, for it is the stuff that life is made of." How much time do you get? Twenty-four hours today, twenty-four hours tomorrow. Can you save it? Can you spend it fast? Can you spend it slow? No. You can only spend it a minute at a time. It's what we do with that minute that counts.

Queen Elizabeth I said, "All my possessions for a moment of time." Why would she say something like this? Did she accomplish everything she wanted to? Had she done the things she wanted to with her life? Are we doing the things with our lives that we really want to be doing? Are we going to get to the end of this trek, of this life and say that I didn't do that one thing I really wanted to do? We should have done that one thing we really wanted to do. We shouldn't get to the end and say, like Queen Elizabeth, "All my possessions for a moment."

In the next couple of hours, we are going to learn some skills to help us do the things we want to do. We are going to go through a time planner. We will see a movie, put out by Alan Lakein, called "A Perfectly Normal Day." I think you will find some things in there that hit home. I know I did. Next, we are going to talk about some time management skills so that you can gain control of your time and, thus, gain control of your life. Controlling your time is controlling your life.

One means I recommend to control time is to keep a notebook. You can save 200-500 hours a year! The book becomes your tool to help you change behavior and start controlling time. The mechanics of the book are simple. Find one that suits you (style, color, size etc.) something convenient to get to and to use. It'll become a toolbox for you and you will fill it up with tools (ideas) that will get you through the day.

How do we do it? Paul Meyer said, "If you're not making the progress you would like to make and are capable of making, it is simply because your goals are not clearly defined." Let's set some goals. Write down five, six or seven goals. I'm not talking about job goals, but lifetime goals. Everything you do affects your time; things you do at home with the family, at church, or with friends.

Quickly look at the things you wrote down. What are the most important? Those are priority A. What are the next most important things, they are not life and death matters and are not as important as the first things. Those are priority B. The whims, like wanting to climb Mt. Everest when you don't even know how to mountain climb yet, those are priority C's. You may find that your C's become your A's and your A's become C's, because of changes in your life or changes in your job.

What do you want to accomplish in the next six months? Write those down. Think of everything you can: Be realistic; be challenging; be specific. These are the characteristics of good goals. Be consistent with your lifetime goals. If you want to be rich in your lifetime and to travel around the world, then don't rob a bank, because you could get caught.
Prioritize. What are the most important things? What are your A's, your B's, and your C's? List the things that have to be done, then the things that need to be done, but really aren't absolutely important to you.

If there is one key to time management, it is the reduction of stresses and pressures that will result from effective time management. We must first find out where we are really headed. We don't do a goal, we do tasks. A lifetime goal looks overwhelming, but don't look at it that way. We must do a little bit every day. We select things and do them by developing action plans.

Take one of the six-month goals and put it into an action plan. Take all the tasks that we have to do to accomplish this goal. If the goal is putting on a conference, we must draw up a schedule, make sure that everyone is informed, make up an agenda, do our research, etc. If you have an end result, make sure you put down who is responsible. Hopefully, you can delegate. Unfortunately, a young lady I was talking to at lunch can't delegate because she's a one-woman operation. Who do you put down if you are a one-person library? You put down yourself. That's what I have in my goal statement, I have "self."

Set a deadline. If you have to, make a flow chart of the whole goal and figure out when the deadlines have to be. When you have reached them, put a big "X" beside them. It is important. When you review that action plan, you can determine how far you have come in the project.

Vilfredo Pareto's principle states that 80% of the value of a group of items lies in 20% of those items. Did you know that 80% of the questions are 20% of the material on exams; 80% of your books are checked out by 20% of your patrons; 80% of your meals repeat 20% of the recipes you have? It goes on in life. Look at your tasks and determine which ones will give you the best results. Those tasks that are most important and worthwhile will give you the best results. Too often, we do a task here and a task there but don't know exactly where we are headed.

There is more than our goals; there are other people's goals. There are the boss' goals, and the goals of our families and friends. These goals place duties on us and give us additional things which must be done. For example, if my wife wants a copy of our tax record, then I must remember to get the tax record. To do that, I write it down. I write down who I'm doing it for, what I'm doing, when it has to be done, and why I'm doing it. People feel better about you as a person because you remembered to do something for them; plus, you feel you've really helped somebody when you remember to do something. If you don't write it down, it's gone. The man with the new idea is a crank until it succeeds. I go a little further and say that a forgotten idea can never be successful and a successful idea is seldom forgotten.

Write down your ideas; then review them. As you review them, you will find that you can make them better. When you make an idea better, the action plan begins to take form. If you work through your idea and reach your goal, it's yours, nobody else owns it.

This seminar was an idea that I had before leaving Camp New Amsterdam. I had the book which had done a lot for me and I wanted to share it with a lot of people. I could have let it drop there. I kept reviewing it because I wrote it down in the idea section of my book. I realized that if I didn't do something with it in the
next month, then it wouldn't happen. Before leaving, I gave a seminar to 50 people and they are still carrying the book.

What else goes in the book? Names and numbers. When you find the information in the book to be no longer relevant, take it out. An insurance salesman called on me and when I didn't buy, I crossed it out. I write down who it is, what the numbers are, and why I have them in there. As soon as I realize I no longer need it, I take it out of there. That keeps the thickness of the book down and makes everything in there relevant.

I keep notes for documentation. How many times do you go to meetings and get a regular set of minutes, or go and get a bunch of responsibilities? That's why you need minutes; they delineate responsibilities and tell who is responsible for what and when it is required. If you have kept some notes on meetings, you can field questions and know where you stand. Keep your own set of minutes. Why? Because it climactics surprises.

Let's get into the best use of your time. I suggest that you keep an annual calendar. It is important to have an annual calendar to ensure that trips for business or pleasure and set schedules are not in conflict. It is your responsibility to keep your employer and yourself happy.

Do we live a year at a time? All I can afford is one day at a time. We have to plan one day at a time, keeping our goals and our calendar in mind. People do it. Most successful executives have effective use of their time, whether they have been taught it or whether they just do it naturally. There is one real key - a daily time plan. We should look at our A-1 priorities; since they are the most important things to do, they are the only things we should be doing - right off.

What do we do with people? We do one of three things. We can call them, visit them or have a meeting with them.

Group related tasks together. Group your calls together. If you are at the phone, group those calls and do them at one time. If you get a call, make sure that you can call them back; this way, you can control your time.

What can you do with paperwork? When you pick up a piece of paper, prioritize it. If it is an A-1 priority, pick it up, complete it and do it, or delegate it to someone else to do. Before you delegate, make sure that your people have the training, the ability, the authority, and the capability to do it. In other words, delegate with some smarts.

Sometimes you are inundated with information. You, as librarians, know the bulk of information available. How do you keep up on the latest technology? How do you keep up with correspondence? One of the keys here is to do selective reading. If you have someone to hand it to, or have a professional guide to review materials for their value, that's ideal. Determine what paperwork is really needed. Review it in the daily plan and deal with it.

On the daily plan, put in something that is interesting to you, something that only you want to do; be a little selfish. Don't plan something for every minute of the day. If you do, you are going to get behind immediately. Be flexible. Now that we have a daily plan, we have an effective time planner. We are going to show you how you can have a perfectly normal day.
Aldous Huxley said, "There is only one corner of the universe that you can be sure of changing and improving, and that's your own self." Only you can improve your own self, your own job, your own life. That's why we give you the tools you need - the feedback from our data, time management, stress management, and communication skills. All I can do is tell you about time. I hope that you can be the agent of change.

How do we change our habits? It is a matter of personal commitment and it is something which we must do today. It's like a diet; there are many ways of breaking a diet by allowing exceptions but the exceptions tend to mount and lead back into previous eating habits. One good tool in changing a habit is to advertise. When you advertise, you make an announcement in the presence of your peers, your office mates, your family, etc. Advertising does much to keep you honest. When you begin to change, take one habit or one facet at a time. If you try to change all of the bad habits at once, they will overwhelm you, exhaust you, and cause you to fail. To take on the whole task at once is to set yourself up to fail. You must prioritize and work only with the A-1 habit.

Face problems. If problems are not faced, they can only be avoided, not solved. Sit down with a subordinate who isn't doing the job properly. Tell him he is doing a poor job, or that he is not doing his job. Leadership is a matter of assuming responsibility.

Do your research. When a report is complete enough, then let it go. If it is something for the general, it should be letter-perfect. If it is for subordinates, just give them enough so that it will be clear and useful to them.

There are certain things that will help. Delegate authority and tasks. If you have examined the need for delegation, trained the subordinate well, and made sure that he can do it, delegate it. Learn to say no when a subordinate asks for help and endeavors to get you to do the work for him. Be sure to pass the praise.

Screen your visitors. When they are interrupting your tasks, stand up, ease them out, or say no. Postpone the discussion if it is not important in relation to the task you are working on. If necessary, use other tools, funny signs, for example, or have a secretary keep unwanted visitors out.

Screen your calls. If there is someone to take the calls, have that person find out the nature of the call or take a message. If a message can be taken, then you know what they want and can have that information when you call back. Returning a call gives you control of the situation.

Relegate correspondence to the waste basket if it is really not business. Screen the paperwork: handle it once; avoid revisions; avoid copies; prioritize; use the telephone where possible.

If possible hold meetings. Limit those attending to those who need to be there. If a meeting is not possible, set up a conference call. Select the best time, place, and draw up an agenda.

Through effective use of time, you can get where you want to go. If the job is one you don't like, one you truly don't like, change jobs. Don't wind up at the end like Elizabeth I. Only you can change your life. If you can control interruptions, minimize crises and get rid of time-wasters, then you can do the things you want to do.
Above: Featured singers from AU Show Band Dave Brown and Melanie Huson with Edith and Bob Lane

Below: Members of the Air University Show Band
COMPUTERS AND THE MANAGEMENT FUNCTION
Fourth General Session
Captain Grace Murray Hopper (USN)
(Wires, Wit, and Wisdom)

I like to be introduced as the third programmer on the first large-scale computer in the United States because it gives me a chance to remind you that the first large-scale digital computer in the U.S. was a Navy Computer operated by a Navy crew in World War II. I find I have to remind people of that because there has been a tendency over the past few years by a junior service to claim credit for those honors, and I just want you to remember that the first was a Navy Computer.

I hope that by now you have enough acquaintance with computers to know that every record put into a computer has to have an identifier on it or else you will never find it again. There's something peculiar about those identifiers because they have to be understood by both the person who originally puts it or the record and the person who later looks at the record. Now this Navy cap is my identifier. On the other hand, people who look at it don't always seem to understand what it means. When I go wandering around airports people constantly come up to me and ask when the next plane is leaving. I got totally demoted one night in San Francisco. A couple in an elevator remained when I got out. The wife asked, "what was that?" The husband said, "that was a security guard."

I went to Canada to speak and had to go through immigration at the airport. I handed my passport to the immigration officer. He looked at it and looked at me and said, "what are you?" I replied that I was U.S. Navy. He took a second real hard look at me and said, "you must be the oldest one they've got." I didn't think that was a real polite way to welcome visitors, but the only 'put down' I could think of was "no, Admiral Rickover's six years older." However, I don't think he knew who Admiral Rickover was. At least the next time I came through he looked at me and said, "you've been here before!" His remark was an indication that my identifier wasn't working too well. When we work with computers we must understand the vital importance of using understandable identifiers.

I can remember when Riverside Drive in New York along the Hudson River was a dirt road and on a Sunday afternoon, as a family, we'd go out and sit on the drive and watch the traffic. In a whole afternoon there might be one car. They were enormously expensive and gas stations were rare. You carried extra gas and if you broke down in Utah, you wired the manufacturer to send along a part and a mechanic to fix it. Then along came Henry Ford with two concepts: standard interchangeable parts and an assembly line. He started to build Model T's and you could have any color you wanted as long as it was black. They cost between $300-$600 and now
people started to own cars. The world changed. It demanded roads and we built them. Gas stations and garages that stocked interchangeable parts appeared. People found they could move to the suburbs and drive to work. The whole world changed as a result of his actions.

We did a pretty good job of managing all of it but we totally neglected an underlying situation which was transportation as a whole. Because we did not look at transportation as a whole, today when it looks as though we might need them, the railroads are falling apart, they're dropping polyvinylchloride and nitrous oxide around the country. If we want to move our tanks from the center of the country to the coast for shipment, there are not enough flatbed cars to move them. If we wanted to move coal to replace oil, there are probably not enough hopper cars to move both grain crops and coal. The truth is that we have been doing a poor job of looking at transportation as a whole.

Whether you recognize it or not, the Model T's of the computer industry are here. We are now at the beginning of what will be the largest industry in the United States and I'm afraid we'll make the same mistakes over again. I fear that we will continue to buy hardware and put programs on it, when what we should be doing is looking at the underlying situation, which is the total flow of information. We should consider the total flow of information to and through any organization and then select computers to implement that information flow. We have to change the direction of our thinking.

Now if we do that, one of the first things we need to know is something about the value of the information we are processing. It's close to eight years now that I have been asking people how they value their information. I have gotten a real assortment of blank stares. No one has done any research on the value of information. I finally had to make up an example showing that information does have different values. I know of a chemical plant in Michigan which is totally operated by computers. Information comes in from marketing, goes to the computers. The computer opens valves, shoves stuff through a pipe, tells inventory what is made, pays people, and computerizes reports about the prices set.

Now suppose there are two pieces of information that enter that system simultaneously from two different points. One comes from a valve out in the plant that says, "If you don't open me the plant is going to blow up." You have less than a minute to act with a hundred lives at stake in a multimillion dollar chemical plant. At the same time at another point there is a request for two hours of employee overtime. Is there a difference in value of the two pieces of information?

What are our criteria? I mentioned three possible criteria. The time in which you have to act, the number of lives affected and the number of dollars affected. I think there is a fourth one and that is the importance of that piece of information in making a decision. What is the value of information? We need to know those criteria. We need to know some way of looking at information because we are going to have to make decisions.

The Coast Guard did a very interesting job on bouy information. They have a file with online immediate access on all their bouys, so that when a ship goes out to service the bouys, in a certain part of Chesapeake Bay they can check the file on those bouys to find out what has been done to them in the past year and whether there have been any changes. The file started out years ago as just the Coast Guard's. In time, as they did more and more things about the bouys, the files and records got longer, and the longer they got the slower it was to access them. So they took a look at those records and found that to service the bouys all they
needed on record was what had been done in the past year, the front end of the record. The rest they only needed for information to show justification for buying new buoys. They could break that record in half, put that immediate information online so that they could get at it quickly and then put the rest of it back where they could get it four or five hours later. They recognized the timeliness of information. They kept online which they needed immediately and put the rest where they could get to it later because it was rarely used.

We haven't looked at this question of timeliness of information--of value of information, yet it is going to be critical. It is also going outside of the computer field. When you have to make a decision with lives depending on you, that's going beyond just computers and yet that will be the case in many of these situations.

I finally thought of a couple of curves. I have no numbers to put on them because the research hasn't been done yet. Suppose I say that one is dollars, another is time, and an event which occurs at a given point. The value of information about an event goes up sharply immediately after the event. But over time, the value of that information levels off. Eventually you decide you don't need it anymore and it is replaced by a new piece of information or it can be put in the historical file. So the value occurs like this, a sharp rise immediately after an event, then a levelling off, then replacement by new information or use for history only.

Now what about cost of information? The cost of collecting information is very low at the time of the event. The further you get away from an event in time, the more costly it becomes to collect information about it. Also, the cost of storage and maintaining it increases.

Now beyond the crossover point it is costing more to keep that information on file than it is worth to us. That is the point at which it should be transferred to batch files or history. We don't know what that point is because we have no knowledge of the value of information.

The only way we're going to clean up the online system is by convincing people that there is a cost and value curve and that much of the stuff does not need to be online because it is cluttering up our system. On the other hand, information which should be online and on direct access is not getting there because we are clogged up with information that shouldn't be there. We have made no study of the value of information.

I got concerned about all this future business in a very curious manner. We ran the Mark Computers all during World War II. I thought you might like to know that the first computer "bug" is still in existence. We were building a World War I temporary building. Things weren't very good and it was very hot. There was no air conditioning and Mark II stopped. We finally located the failing relay. It was one of the big signal relays and inside, beaten to death by the relay contacts, was this moth. We got tweezers and carefully fished it out of the relay. We put it in the log book and labeled it as the first computer bug. The log book is now in the Navy Surplus Weapons Center at Dalton, VA. In the July issue of the Annals of History of Computing, which probably won't come out until October, you will find a picture and the story of the first computer bug. I think it's nice we are keeping a few of the artifacts like the bug and me around for posterity.

However, it got to be 1945 and the war was over. Each of us had to decide what we would do. Up to this time the WAVES had all been reservists. The Navy offered to transfer WAVES into regular service positions, but I was turned down because I was too old. The cut off age was 38 and I was 40. Incidentally it's just as well to be told you're too old at age 40. Then you can get the traumatic experience over and
it never bothers you again after that, so I highly recommend it. However, I elected to remain in the Reserves. Now we had three jobs to do, summer training, weekly training, weekly meetings, and taking correspondence courses. We took correspondence courses according to our designators. I was given the designation of an ordinance officer and classified under the miraculous personnel system of the Navy as an aeronautical engineer. I completed the available ordnance courses and learned all about the big guns and gun charts which were then being phased out of the Navy. Then the only courses left which would add to my credit were War College courses. I was absolutely terrified of War College courses!

The first problem came. The task was to fuel a task force at sea in minimum time with the only information given being how fast different ships could pump and receive oil. I knew nothing about fueling ships at sea, but I had to do something. I lined up an oiler and a carrier and started pumping from the oiler to the carrier. That wasn't going to get me any minimum time. I found that I could simultaneously pump from the carrier to the destroyer and both ships could be filling up because the rates were different. Along the line somebody had given me a course in problem solving. They told me that I could always extend every solution, so I pumped from a destroyer to a corvette. The same course also taught me that I must generalize every solution and so I did on this problem. On the other side of the oiler I put a cruiser, a destroyer and a corvette, so I ended up fueling a task force. All of this was done sailing down the middle of the ocean. My problem was returned with the comments, "An interesting solution."

The next problem they gave me was to scout the Caribbean with a squadron of submarines in minimum time. I knew less about submarines than I did about oilers, so this time I called on a friend, the computer, to help me. Using a random walk program, I returned a solution involving minimum time, only the submarines were cruising across each other, making U-turns, etc. It was also, "An interesting solution."

I was sure that I was well on the way to flunking the course when the third problem came. The problem was to make a plan to take an island. After completing the plan, I was to review it in light of all possible enemy actions and all possible future events and then I was to review the cost of not carrying out the plan. These two reviews you must use in making any plans using computers or anything else.

We have been going out for computers on the basis of what we are doing now and the equipment we have in-house. We have totally failed to review our own requests in light of the equipment that will be available in the future and the projects we will be working.

Probably one of the deadliest phrases you can use is that horrible one, "But we've always done it that way." This is a forbidden phrase in my office. To emphasize the fact, I keep a clock in my office that operates entirely counter-clockwise. The first and second days this troubles people. It's not until about the third day most realize that there was never any reason clocks had to run clockwise. They could just as easily have been set up to run counter-clockwise. We don't always have to do things the same way. I would like to give each one of you a small gift, and that is to promise you something. During the next 12 months if any of you say "but we've always done it that way" I will personally haunt you for 24 hours. I know it works because I have already had 27 letters from people thanking me for the warning.

Sometimes it is hard to change the boss's mind. I have watched our young people try to bring in new ideas. I found one technique that helps when you have to
change the minds of those higher up. If I had a boss who did not believe in micro-computers, I would meet him at the coffee pot, water cooler, etc. and say, "Aren't micro-computers nice?" Then I would move on not giving him a chance to say anything. At the end of two weeks, I would knock on his door and carry in a report over one inch think noting that it was the report he had asked for on micro-computers. Now he won't remember asking for the report because he didn't. He'll look at the over an inch thick report and think that you never in the world would have done this kind of work if he hadn't told you to.

You want to get your best ideas right in the first three pages and then you can put xerox copies of articles at the back to make sure that the report is over an inch thick. You will be amazed, for he will look at it and you have your first wedge in for moving toward the future. It is very difficult to change peoples' minds. Wanting to continue with the known is a very human trait.

The second angle of your review is the question of the cost of not doing it. You will be amazed that the cost of not doing something is often so much more than the cost of doing it that it becomes your best weapon in getting a budget of some program through. Yet many people do not make that second assessment.

A very good example is the question of standards. I have long advocated the use of standards of high level languages for programming computers. I point out that if we don't use these standards we will waste a lot of money. Many times I have told installations this but they say they don't want to do the standards this year because new forms would have to be printed. After I beat all programmers over the head, they say, "We will do standards next year." They wouldn't look at the cost of not using improved computer standards.

I finally looked around Washington to see which agency scared people the most. I decided that it was the General Accounting Office (GAO) because they prowl into everything and then tell Congress about it. So I went over to GAO and asked if they realized how much money we are losing by not using the standards? They admitted that they did not and then made a very long study, "Federal Information Processing Standards Program." The study pointed out many potential benefits, little progress and many problems.

The heartbreaking thing is what it is costing us not to use the standards and you, as tax payers, should at least be interested in that aspect. The Department of Defense has estimated that over 80%, or about 8,500, of the general management computers in the total federal inventory will be replaced by 1985. A recent report to Congress estimates that there is a $450 million dollar drain each year simply because government installations are not using computer standards. You have no idea how bad the situation is as far as standards are concerned with the use of computers. If you use computers you really should use standards but, sadly, most computer people don't.

You might be interested in the best implemented of all the federal government standards. This is the standard punch card. Of the government installations, 70% are using government standard punch cards and know that they are; 11% are not using the standard punch card and know that they are not; 19% don't know whether they are or not. In this day and age I'm still wondering how they are getting paid. I hope that you will coordinate computers and simultaneously look at standards, adopt them and see that they are used. It will make a tremendous difference in the cost of using computers and of moving into the future with computers.

When I met Mark I back in July 1944 she was 51 feet long, 8 feet high, and 8 feet deep. She was in a magnificent glass case designed by Norman Bel Geddes. She
could do three additions every single second and could store 72 words. This sounds trivial today, but there was a reason why she was the most remarkable machine ever built. She was the first tool that could extend man's brain. From that point of view a terrific step forward.

Back to 1944 and Mark I, when she did additions it took her 333 milliseconds to do one addition, or 333 thousandths of a second to do an addition. We didn't stop there. During the rest of the war a large number of computers were built, usually under contract with universities, for the Department of Defense. It was not until 1951 that a commercial electronic computer was built. In 1951 came old UNIVAC I, the first of the commercial electronic computers. Recently, at the National Computers Conference in Chicago this spring, they celebrated her birthday with birthday cake and all.

UNIVAC I did an addition in 282 microseconds, 282 millionths of a second and we were going a thousand times faster. We picked up a factor of a thousand in speed. We didn't stop there. In 1964 out came the first CD 5400 and it did an addition in 300 nanoseconds or 300 billionths of a second. Again, we were going a thousand times faster.

If we are to meet the needs of the future we must progress. Let's see what must happen next. We need an 'XY' system that adds in 300 picoseconds, 300 trillionths of a second which is another 1000 times faster. We need it right now. However, we cannot build it the way we have been building our computers. We have to do something different.

First of all, why do we need it? For one example, we live in a world of increasing population with a demand for food supply which is going to increase steadily. One of the greatest assists we could give to increasing food supplies would be better long-term weather forecasts. We do not yet have a computer which will run a full scale model of the big heat engine which consists of the atmosphere and the ocean. We haven't even tested many of our models. One thing that slows us down is the lack of data to feed into these models.

The Navy has been dropping radio buoys into rivers to get more information. We are putting censors on commercial airlines to record their takeoff and landings, and now we have satellite photographs and those are so good that when you fully enhance them by computer you can actually tell how high the waves are out in the middle of the ocean. They can give us the temperature 20 feet below the surface of the ocean.

Another area where we need more sophisticated computers is in the management of water. My sister lives in northern New Jersey. This spring they were limited to 50 gallons per person per day. In Norfolk, where they depend on wells for water, they got a cute idea and drilled two wells in the corner of the naval base there. The wells are in Suffolk County and now Suffolk County is suing Norfolk County for stealing ground water. In Florida they are using so much water that they have caused sink holes. Out in Colorado the eastern half of the state is dry and the western half has water. There is going to have to be some equitable means to make those people share their water so that all may have some. Computers are going to be vitally necessary for this task. It will be one of the biggest jobs we have ever tackled and we have only started.

Management needs better information for planning. About eight years ago, U.S. News and World Report, Business Week, and Fortune had articles which contradicted one another. One said that the recession was all over, another said that we were in the middle of a recession, and still another magazine said that the recession would
begin next year. This information would make planning difficult, so I set out to
find out what was wrong. I found that they were using linear models. As soon as
you get a shortage of something the price goes up. Then after a delay other
prices go up, etc. It's exactly like dropping a pebble in a pond with the ripple
effect that follows. That's the 3rd clause in 5th order function. We do not have
computer power yet to run these higher-order models. Yet management badly needs
this information.

At the other end of the scale we need mini-computers. I am very fond of a small
town in New Hampshire. They used to have a septic system and a great open burning
dump. Along came EPA and said, "You can't do those awful things anymore." We will
give you the money for a sewage treatment plant and an incinerator for the dump.
They completed the projects, dedicated them, and found themselves with another
problem. A charming little old lady was in charge of the town records, which con-
sisted primarily of two lists--one of voters and one of taxpayers. When they paid
taxes or voted she checked their names off. Now, government reports must be made
and she needs a computer to get the reports out on time. Physicians, attorneys,
businessmen, educators--we will all need computers in the future. We are all
going to have to live with them and everybody will have to learn to use them.

Back in '76 we began to learn about history. In the young days of our country when
they moved heavy objects around, they did not have tractors or big cranes, but used
oxen. When people had a big log which one oxen couldn't budge, they didn't grow
bigger oxen they just added another ox to the job. I think that tells us some-
thing. If we need greater computer power, the answer is not in getting bigger
computers but in getting another computer which is what common sense would tell us.
It is perfectly respectable to use common sense in problem solving.

We will be building systems of computers over the years and the big gain will be to
look at what we need to do and then select a system of computers to do it. Ten
years ago this would have been impossible. A computer cost $10 million dollars.
The cheapest computers that you can buy today, just the computer without peripher-
als, is Intel-8021 which has 64 words of data storage and 1000 words of program
storage all in a single chip. Today you can buy 100 of them at a cost of $3 a
piece and the manufacturers are getting them for 96¢ a piece. There is nothing to
stop us from building systems of computers except our own ingenuity of finding out
what we want them to do and making them talk to each other.

I have here a micro chip. There are eight processors on this chip--not one but
eight on a chip. This is part of the massively parallel processor being built for
NASA. It consists of an array of 120 by 128 of these chips. There are 16,384
computers and, of course, one computer to manage the system, all operating in
parallel. Each one of those computers receives one picture of LANDSET photos and
can relate to the ones around it. It is being used to analyze LANDSET photos for
oil and minerals. It's absolutely fascinating. It consists of three small boxes,
one to hold all of the computers, one to hold the communications, and one for the
PDP1134 that manages the 16,000 computers. We have only started with what we can
do now that we have the chips, multiple computers on the chips, and all these
things.

Well it finally got to be 1966 and I received a letter from the chief of Naval
personnel. The first paragraph said you have completed 23 years in the Naval
Reserve which is more than 20, and I knew that. The second paragraph was aimed
right at me. It said you have reached the age of 60 and I knew that too. The
third paragraph said here are the forms--please apply for retirement. I did
retire and was officially placed on the Naval Reserve retired list at the rank of
commander on December 31, 1966. Thanks to our highly automated pension system I
got my first pension check on April 1, 1967. Two weeks later I had a call from the Pentagon to come down to Washington saying they wanted to talk to me. Of course I came running as I always do when the Navy sends for me. I was asked to return to active duty for six months in order to develop a standardized computer language for the Navy and to get them to use it. On August 1, 1967 I reported for six months temporary active duty and so far it has been the longest temporary duty assignment I have ever had. I was given two Navy men, an attic office, no equipment except desks, pencils and pads. We scrounged up and down the halls taking anything not bolted down to set up our offices and were finally given a "Jolly Roger" flag to fly as our symbol. We lived on borrowed computer time. We begged for any five or ten minute intervals we could get on any computer available and that meant that our programs had to be interchangeable and run on any computers. You should be able to transfer programs from one system to another and it can be done.

One of the successful aspects of our program was that the Navy programmers were young people. They had not been told that things couldn't be done and had not built up mental obstacles in their way. We developed a set of programs that would test COBAL. We presented it to the Navy hierarchy, received their approval, and in time with additional staff and funding began compiler testing for the Department of Defense and then for the entire federal government. This worked well in the Navy until the House Appropriations Committee discovered that the Navy was performing a federal function and decided to move the "COBAL Compiler Testing" to the Government Services Administration for all the government work. I could have become real upset over the move except I knew that since all the staff was Navy or ex-Navy, the program would continue in good hands.

One thing we must remember in working with young people in whatever field we are is that they are young and they are looking for positive leadership. I don't know how it happened but we seem to have lost that word 'leadership' during the past thirty years. We went all-out for management rather than leadership. I think if I were to ask a Marine his opinion, he would say that when the going gets rough you cannot manage a man in combat--you lead him. You manage things, you lead people. You must be willing to take care of your crew and that can be a rough job with both loyalty up and loyalty down. It is part of your job to train good people for their jobs, it is part of leadership. It is part of bringing up our young people. I hope as you return to your positions you will become better leaders as well as managers.
CAPTAIN GRACE MURRAY HOPPER (USN)

Grace Brewster Murray was born on 9 December 1906 in New York, New York. She claims as her second hometown, Wolfeboro, New Hampshire, to which she first traveled in the summer of 1907. She attended Vassar College, graduating in 1928, with Phi Beta Kappa and a Vassar College Fellowship. She attended Yale University, where she received the degrees of MA in 1930, and PhD in 1934, together with election to Sigma Xi and two Sterling Scholarships.

She returned to Vassar as an Assistant in Mathematics in 1931, becoming successively, Instructor, Assistant Professor, and Associate Professor. During this time, she received a Vassar Faculty Fellowship and studied at New York University (1941-42).

In December 1943, she entered the United States Naval Reserve and attended the USNR Midshipman's School-W at Northampton, Massachusetts. Upon graduation, she was commissioned Lieutenant (JG) and ordered to the Bureau of Ordnance Computation Project at Harvard. Here, she learned to program the first large-scale digital computer, Mark I. In 1946, she resigned from her leave-of-absence from Vassar and joined the Harvard Faculty as a Research Fellow in Engineering Sciences and Applied Physics at the Computation Laboratory where work continued on the Mark II and Mark III computers for the Navy. In 1946, she received the Naval Ordnance Development Award.

In 1949, she joined, as Senior Mathematician, the Eckert-Mauchly Computer Corporation in Philadelphia, then building the UNIVAC I, the first commercial large-scale electronic computer. She remained with the company as a Senior Programmer when it was bought by Remington Rand and later merged into the Sperry Corporation. She was appointed Systems Engineer, Director of Automatic Programming in 1952 when she published the first paper on compilers. In 1964, she became Staff Scientist, Systems Programming. She retired from the UNIVAC Division of the Sperry Rand Corporation in December 1971, while on military leave.

During the years from 1952 to the present, she has published over fifty papers and articles on software and programming languages. Her interest in applications programming sent her to the first meeting of CODASYL with a strong interest in the development of COBOL. She has also served on the ANSI X3.4 Committee on the standardization of computer languages. She is presently serving on the CODASYL Executive Committee.

She has served, starting in 1959, first as Visiting Lecturer; in 1962, as Visiting Assistant Professor; in 1963, as Visiting Associate Professor; and since 1973, as Adjunct Professor of Engineering at the Moore School of Electrical Engineering of the University of Pennsylvania. In 1971, she was appointed Professorial Lecturer in Management Science at the George Washington University and served until 1978.

In 1962, she was elected Fellow of the Institute of Electrical and Electronic Engineers. In 1964, she was selected to receive the 1964 Achievement Award by the Society of Women Engineers. In 1969, the Data Processing Management Association selected her as their first Computer Sciences "Man-of-the-Year." The American Federation of Information Processing Societies gave her the Harry Goode Memorial Award in 1970. In 1971, the UNIVAC Division of the Sperry Corporation initiated the Grace Murray Hopper Award for young computer personnel to be awarded annually by the Association for Computing Machinery. In 1972, she received the honorary degree of Doctor of Engineering from the Newark College of Engineering, a Wilbur Lucius Cross Medal from Yale University, and was made a Fellow of the Association of Computer Programmers and Analysts. In 1973, she received the honorary degree of Doctor of Science from the C.W. Post College of Long Island University, was elected...
to membership in the National Academy of Engineering, was presented with the Legion
of Merit by the Navy, and was selected as a Distinguished Fellow of the British
Computer Society. In 1974, she received the honorary degree, Doctor of Laws, from
the University of Pennsylvania at the 50th Anniversary Convocation honoring the
Moore School of Electrical Engineering. In 1976, she received the Distinguished
Member Award of the Washington, D.C. Chapter of the Association for Computing
Machinery, and an honorary Doctor of Science from Pratt Institute. In 1979, she
received the W. Wallace McDowell Award from the Institute of Electrical and Elec-
tronic Engineers (IEEE) Society. In 1980, she received the Meritorious Service
Award from the Navy, an Honorary Doctor of Science from Linkoping University,
Sweden, Honorary Doctor of Science from Bucknell University, and an Honorary Doctor
of Science from Acadia University, Nova Scotia. In 1981, she received Honorary
Doctor of Science degrees from Loyola University, Chicago and the Southern Illinois
State University and an Honorary Doctor of Public Service from George Washington
University, Washington, D.C.

She is a Fellow of the Institute of Electrical and Electronic Engineers, a member
of the Association for Computing Machinery, the Data Processing Management Assoc-
iation, the Armed Forces Communications and Electronics Association, a Fellow of
the American Association for the Advancement of Science and a member of the Franklin
Institute, the U.S. Naval Institute, and the International Oceanographic Foundation.

She maintained her close connection with the Naval Reserve and was successively
promoted to Lieutenant, Lieutenant Commander and Commander. At the end of 1966,
she was retired with the rank of Commander in the Retired Reserve. She was recalled
to active duty on 1 August 1967. On 2 August 1973, she was promoted to the rank
of Captain on the retired list of the Naval Reserve. She is presently serving, on
active duty, with the Naval Data Automation Command, as NAVDAC-OOH.
GOAL SETTING/ACTION PLANNING
Fourth General Session
Captain Michael D. Meyer, USAF

Why are we caught in activity traps of doing tasks but not knowing where we are going? Why is there no delineation of goals? The Organizational Assessment Package (OAP) for your group shows that most leaders and supervisors know the goals of their organization, but it shows that subordinates did not know the goals. In fact, 550 people never or only occasionally set goals within the organization.

If we set goals for fun times, why not for the things that are really important in our jobs--our professions? As D.H. Lawrence said: "Work should be fun." It will be more fun if you know what you're doing.

I am going to talk about how you can organize goals and link them to the goals of the organization and to the goals of your subordinates so that they will know what is expected of them. Paul Meyer put it well: "If you're not making the progress toward your goal that you would like to make, it is simply because your goals are not clearly defined."

You have to sit down and write out those goals. You must be aware of what each means. Goal setting is where you are headed, boom or bust. Action plans are your ways of organizing the goal so you can set and communicate expectations. Interpersonal skills are your ways of relating to your subordinates and telling them of your expectations.

Why don't we set goals? We procrastinate doing daily tasks. We give priority to paperwork, meetings, and fulfilling the supervisor's expectations. So how do you have the time to set your own goals? You have to sit down and do it. As leaders and managers that's your job. What is your role perception? Where do you fit in with the organizational scheme?

When people get around to setting goals having worked beyond the question of "am I doing it right?" they do encounter problems. What we must do is benefit from the experience of those who have identified their mistakes. Those mistakes include a failure to set objectives. There was a failure to prioritize; to know what is most important and when it is important. There was a failure to help; to be responsible for meeting the known and unknown needs of subordinates. There was a failure to provide them the expertise needed to reach expectations. They ignored feedback which is so vital in carrying out any goal. There was a failure in recognition. Is there a balance between communicating to people the good they do and the bad that they do? There was a failure to develop relationships, without which, you don't bring all of your people into the organization.
Where do you fit in? You fit in at the position of leader. You are the pivotal point in goal setting and in linking the system to those goals. You must determine your goals. You must organize them so that they are consistent and support the overall organizational issues. For example: do you belong to a technical library? Do you need to develop a bigger reference center for specific areas in order to support the development of an engineering development center? Organize goals and prioritize them so that you know what needs to be done. Use interpersonal skills of talking with people, giving feedback, telling them when they are doing right and wrong. Telling people what you expect from them means sitting down, talking, and telling them what must be done to succeed.

Porter Lawler's motivational model shows role perception and ability as things which will determine effort and which is redefined here as motivation. Your job, through the use of interpersonal skills, is to motivate people. People are more motivated if they know where they're going. Surveys show that when people set goals, they change things. It will work for you too! You also have to analyze tasks by reviewing functions, policies, and regulations. In fact, review why you are in existence.

One library out there supports a training center. They survey all students who use their library; they ask, "did you get things you needed? Were we timely? Did we have the resources?" Then they ballot the survey. You're going to have to develop those things. You must determine what is measurable to see if you're supporting your customers and if so, how you are supporting them.

How that you have clear, specific goals, you must figure out a way to implement them. You must get support from your boss, make sure these goals are consistent with the goals of the organization, and make sure they're consistent with its regulations and policies. Once you have upper management's support, approval, and a way to measure, then you must construct your action plan. It is a lot of work.

Planning is essential. It's work, but it's your job as a leader and manager. Your action plan is a way of organizing your goal. It's a matter of strategy. What are strategies? They are policies--the way we're going to do something. For example, who is best involved in this project to attain the goal? You must also look at the allocation of resources, figure out how much money your goal will cost, what kind of manpower you'll need, and how much training will be required. Only you will know.

Dr. Galvin brought up the constraints that you will have to work with, i.e., unions, grievance boards, etc., constraints built into the system, which must be considered.

You must establish evaluation/review times. When will review be necessary? Establish a review plan and keep it current; it is a visual tool which can be seen and, by which, progress can be measured.

Now that you have an action plan, support from above, and a good goal statement you need to get support and commitment from people who will be doing the tasks. You, as managers and leaders, don't do everything. If you do, you're not delegating enough.

It's dangerous business to delegate because you have to understand people, develop a relationship with them, and understand their skills and abilities. When we delegate something, and we have to delegate in order to get commitment for our projects, we have to understand our people in order to set performance expectations. Once we understand that and have their commitment then we are off! The project's started.
Now, look at the factors to be measured when we established our goal. We must review to determine if we are really making it, we must determine where and when to feedback into the system, and we must analyze to find out if our needs are being met. It may be that our action plan must be refined. Action plans must be refined in accordance with feedback. Murphy's corollary applies: "You must do something else before you can do that which you want to do." You may have to go back to look at the goal statement to determine if it is really realistic.

Once again, your role is to use your analytical skills to identify problems and tasks that support the organization. You also have another role; to get commitment from subordinates to create or stimulate their motivation. How is this done? There are ways to approach it but you must develop effective interpersonal skills, make sure you are creating the right picture and hit the right button to turn people on. How is it done? There will be a workshop following this lecture in which you will undertake the tasks of establishing goals and creating action plans. It will give you a background so that you will be more at ease when it comes to the actual experience of trying it in the field.

Obviously, to get predictable outcomes, planning is required. Determine what you really want from particular persons, what help they will need, and what aid you can give them. Why must you do this? It's necessary to get a relationship developed with the people who will be working with you to implement your goals. You must establish two-way communications. You must get their commitment and you can't know that you have it until you get their feedback.

How do you get commitment? You describe the situation, explore differences of opinion, look at the agreement and disagreement areas, explore alternatives, then close in and get commitment. But remember to employ situational behavior; be specific and don't attack the individual. You must tell individuals what you want to do, what you expect of them, and what performance level is expected. You must tell them and note the impact of this plan.

Conversation, normally, has been one-way up to now. You must now turn it into a two-way dialogue. First, you can't be an adversary. If you meet negativism and then get into the "yes, but..." game, you're being inflexible and you will close the conversation by causing the other person to clam up. Focus on areas of disagreement. Find what areas a person can't support and find out why he or she can't support them. Objections will occur because the whole concept of setting goals and expectations is strange and new to most people. It's threatening so people will object. If you have built a rapport then resistance can be changed.

The first objection, that of resisting the new, is the only real objection twenty-five percent of the time. That means that seventy-five percent of the time, people hide their real objections. You're going to have to work out what the real objections are; why people can't give real support and commitment to a plan. You're going to have to work through them with good communication skills. When looking at the areas of agreement and disagreement find the positive things. Identify areas agreed upon. However, if ninety percent of the questions you ask can be answered "yes" or "no", you won't get the information you need. Ask open-ended questions, i.e., how would you do it? Or even, "why can't you support this?" Watch the "why" question because it tends to call for justification of a position in a threatening way.

Use non-verbal active listening skills. When a person is finished with a statement, ask a lead-on question. If you're understanding what they're saying, let them
know it. Use restatement, not paraphrasing. When somebody has said something, throw it back to them to clarify what they're saying--same statement, just rearranged and made into a question.

Use silence. If you've asked an important question do not expect an immediate answer or indicate that you want an immediate answer. Give the person time to formulate a response. Also, when the person has finished with a statement, sit back and be silent. He or she will explain more and give you more information.

You may need a close-ended question to get commitment, i.e., "If I understand you right, then you can support this new data system?" "Yes." "I understand that you do not want to go to the computer training session?" "No." The close-ended question is to be used for clarifying areas on which you agree or disagree.

Once you find that you have areas on which you agree or disagree, take those areas and work with them. Your goals will have the merit of being advantageous to your organization and your subordinates will recognize it. So, if disagreements exist, they will be valid. In areas of disagreement have alternatives which can be presented. You can always find support for at least one of them.

Finally, you have to close; to nail down a commitment. I suggest that you write down the resolution so they will have a copy of what is expected of them and what they're responsible for. For example, "Do you understand that this report I want is to be letter-perfect?" "Yes, I understand that." Or, "Do you understand that I want all information on this computer system in 60 days?" "Yes I understand that." Make sure people understand what you want. Nail it down!

Timing is important too and will improve with practice. When a person is ready to give a commitment, whether five minutes or five hours later, nail them down immediately and follow up. Make them feel, not crowded, but important. Don't crowd them and don't over-control them.

Subordinates will expect you, after you've given them a task, to be a buffer. They want advance warnings of changes, they want feedback and they want to know if they're on target.

If goals are clear and specific people will have pride in their work, be motivated, and they will like their job. They will be satisfied and get the feeling of getting things done. Clear goals put the onus of action on each person. They improve morale, personal relationships, communications, and can be used to measure performance. Finally, clear goals enable you to avoid the trap of taking up tasks when you don't know what's ahead.
CAPTAIN MICHAEL D. MEYER

Captain Michael D. Meyer is a regular officer who received his commission thru ROTC in 1971. After attending the Aircraft Maintenance Officer Course at Chanute AFB, he was stationed at Grand Forks AFB ND. He remained in the maintenance officer career field for eight years serving in Thailand, Guam, Arkansas and the Netherlands. He has a Bachelor of Science in Agriculture and a Master of Science in Physiology from the University of Arizona. He also has a Master of Science in Operations Management from the University of Arkansas. Captain Meyer has completed Squadron Officer School in residence and Air Command and Staff College by correspondence. He has three years experience as an instructor for Troy State University and the City Colleges of Chicago. His decorations include the Meritorious Service Medal. Captain Meyer is an instructor for the Air Force Officer Orientation School which teaches newly commissioned officers the basics of good officerhip, group dynamics, Air Force doctrine, Military strategies, drill and ceremonies, employment of forces, wing/base organizations, career planning and introduction to the Uniform Code of Military Justice. He is instrumental in creating a motivational environment for new chaplains, JAGs, engineers and reserve direct commissionees.
LEADERSHIP AND MANAGEMENT DEVELOPMENT CENTER FACILITATORS

for the

GOAL SETTING SEMINARS

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Master Sergeant Alfred J. Kopec
Technical Sergeant Steven C. Burleson
RESOLVING PERFORMANCE PROBLEMS
Fifth General Session
Lieutenant Colonel James L. Saddler, USAF

In this session let's do a review and then have a look forward to the rest of the workshop.

The facilitators and I noted that there was some frustration with the goals exercise. I trust that these exercises have caused you to focus on goals. Hopefully, the exercises have helped you to understand that needs do exist within the system and they should be addressed. You are the ones to address them and here is the opportunity to learn how to recognize the methods of addressing those needs. Let me call your attention to the system and needs. There are two needs: first, the need to be able to organize, to go through the task of problem analysis, write a goal, and engage in master planning and second, the ability to structure interpersonal communications with both subordinates and the boss, if applicable. However, first you must have a plan!

I sensed tension in the triads, but noticed that you all became more relaxed as the work went on. We play games like we live our lives whether you realize it or not. Once you became a part of the triad in goal setting, it was you playing yourself in those roles. It is better to learn about yourself in games rather than in the hard life of being a supervisor or leader. I hope you will take that with you.

The commitment model is a general model to think through. You have to adapt it to your situation. These are the kinds of things you need to talk about if you want to get a commitment. There must be a planned, well thought out way to get a commitment. Think this through and adapt it to your own style of leadership and personality.

We talked about communication in the seminar; about asking the right kinds of questions resulting in accurate and helpful feedback. As the workshop went on, the leader who had done most of the talking became more of a listener and more open-ended questions came from the participants! In tomorrow's exercises when you are dealing with a performance problem, one of the things you must remember is the use of the question. Communication becomes a critical asset to leaders and to supervisors.

Captain Hopper said it as well as I have ever heard it put. She had to stop and personally see that her youngsters could communicate both orally and in written form. It was so vital to her job as a leader in the Navy's effort to bring systems on line, that she chose to take care of it herself. We spend literally millions of dollars sending people away to communications seminars and it still remains one of our biggest problems. The reason we stress these interaction and interpersonal skills in our business is because it is one of the best ways for you to find out about communication and to learn what you are doing wrong. You cannot be an effective leader or manager unless you have the ability to communicate. The key to this is the ability to listen. Some of the people in the workshop told me that they got so involved in the role that they weren't listening to the other person. Active listening involves not only hearing the words but in seeing non-verbal communications and having some empathy with the person as well. We have to learn how to actively listen as well as talk to people.
The last thing I want to remind you of is that when dealing with performance problems the focus should be on the performance and not on the individual. That is very difficult to do. Once you can accomplish this you will find it much easier to resolve the performance problems of your subordinates.

Let's go back and reflect. Remember, I told you that there was a lot of interdependence in the leader-management mosaic. I hope that some of this comes across now that you have worked a few of the problems. The planning exercise you went through and the goal setting should help you establish guidelines in setting your individual style for resolving performance problems. It is an art form. You are responsible for the resolution of your problems.

There should be communication between supervisors and workers. Employees should be fully aware of the expectations and performance level expected of them. Supervisors should be certain subordinates can handle assignments and, lastly, supervisors should reward good performance or at least recognize it and be aware of human beings' needs for recognition as well as advancement.
MANAGEMENT CAN'T BE TAUGHT
Lieutenant General Raymond B. Furlong, USAF (Ret)

My duties in Air University have long since terminated, but my pride in it remains. It is most appropriate that the 25th Military Librarians Workshop chose to meet under the auspices of Air University Library which is without peer in the Department of Defense. It is equally appropriate that you should turn to the Leadership and Management Development Center for the substance of your program; an organization without peer in this field.

At the same time, the only important people here are the librarians. You have favored Air University with the confidence represented by your presence. What can Air University do to help you with your responsibilities? Air University can't provide answers, it can provide ideas. Air University can't provide solutions, it can provide understanding. The really important issue is not what you learn here, but rather what you do when you leave here.

I am here, ostensibly, because there is the vain hope that I can offer views which might be of some help to you in deciding what to do. My role is one well described by a quotation from Balzac, "So he had grown rich at last and thought to transmit to his only son all the cut-and-dried experience which he himself had purchased at the price of his lost illusions. A last noble illusion of age." I draw that particular quotation from a book published by the Harvard Business School. A quotation used to introduce a chapter entitled "Management Can't Be Taught," and, indeed, I think that's my message.

It is the premise of the Harvard Business School that they can't teach you anything but that you can learn and that one learns only by doing. Harvard Business School gives its students two years of experience in making decisions. There are no lectures and no textbooks. No one ever tells you how to do anything. There are no orders. You have to do it yourself. Management cannot be taught but it can be learned.

I had the opportunity to observe management as this task was performed by some very competent people. For some five years, I served as a water boy on the varsity team of the Department of Defense. I was a military assistant to the Deputy Secretary of Defense and worked for Mr. Paul Nitze, Mr. David Packard, Mr. Kenneth Rush, and Mr. William Clements. One of the important things I learned from this experience is that management is idiosyncratic. It varies very much with the individual that fills the position. That's something we can take as a source of satisfaction when we manage in a way different from someone else and when we have a boss who is different from the one that preceded him. It is characteristic of management that it is idiosyncratic. There is not a single way to manage. Everyone manages in a different way. There is some reason to believe that not only are managers different but also that each manager should vary in the way he manages. An article from the Harvard Business Review reported that "Managers who consistently accomplish a lot are notably inconsistent in their manner of attacking problems. They continually change their focus, their priorities, their behavior patterns with superiors
and subordinates, and, indeed, their own executive styles. In contrast, managers who consistently accomplish little are usually predictably constant in what they concentrate on and how they go at their work. Consistency, if our findings are correct, is indeed the hobgoblin of small and inconsequential accomplishments."

The authors also looked at a series of managers who had failed. They found that..."When the failure patterns are examined as a group, they are so numerous and contradictory that they may seem frightening. Managers get involved in too much detail or too little, they are too cautious or too bold, they are too critical or too accepting, they are too tough or too supportive, they delegate too much or too infrequently. They plan, they analyze, and they procrastinate - or they blindly plunge ahead day after day without arithmetic, homework, analysis or plans. They are excessively aware of their weaknesses and damaging compulsive tendencies or they have blind spots. It is a curious yet reasonable fact that nearly all managers tend to settle into a fairly rigid or limited executive style. In contrast, the high accomplishers seem to tune into the fact that the demands upon a manager vary enormously from one situation and one period of time to another."

If that is true, and I believe it to be true, then what is your role and function as a manager? What on earth are you doing? What objectives should you seek? It seems to me that perhaps there are three.

The first of these is a knowledge of the tools of management. These include the normal financial tools, the normal tools of quantitative analysis and so on. You never know when those tools will be useful to you but you need to understand what they are.

Secondly, you need an understanding of human behavior. If you are to get anything done as a manager, you have to get it done through people. So you need to understand them, their motivations, and how you can bring them to work with you. I believe that the case can be made that the central function of society is influencing human behavior.

Finally, I think that you need to understand something about management theory. It is useful to understand concepts of organization; it is useful to understand concepts and ideas like planning, organizing and counseling. I would caution you that should you excel in acquiring the types of knowledge I have just described, there is no assurance you will be a good manager. Another article concluded "how effectively the manager will perform the job cannot be predicted by the number of degrees he holds, the grades he received in school or the formal management education programs he attends. Academic achievement is not a valid yardstick to use in measuring management potential," and I believe that.

Dr. Edgar F. Puryear has written a book on the early Air Force Chiefs of Staff (Stars in Flight: A Study in Air Force Character and Leadership). He examined the cadet days of Generals Arnold, Spaatz, Vandenberg, and White with the thought that perhaps one could identify characteristics which would help understand why they ended up as Chiefs of Staff. The history is terribly unrewarding for this purpose.

Neither Arnold, Spaatz, nor Vandenberg ever held a cadet rank at the military academy. They were median or below in academic achievement. I think Arnold and Spaatz were somewhat toward the bottom quarter when it came to disciplinary records in the academy. The sole exception, the only individual who demonstrated any significant degree of greatness and promise, was General White. Perhaps an exception proved the rule. My conclusion from this is that while one needs to
recognize tools of management, he needs to understand that tools are not answers and the mastery of tools is no assurance of mastery of management.

Let me offer a simplistic way to think about the process of management. The greatest compliment one could get at the Harvard Business School was the comment, "That makes sense." I think that is not an over-simplification. Excellence in management is indeed based on common sense, but then, that requires some sort of understanding of what one means by common sense and what are its characteristics.

I think the first thing that you have to do is to know or find what factors bear on a problem or on an issue. That's a reasonably straight forward process but not terribly exact. The next step is to weigh the factors. I think perhaps this is the heart of good management. When you hear a decision discussed, one of which you are a part of, one which you have observed, a routine comment is "Well, that makes sense," or conversely, "That doesn't make sense at all." It is the criteria that we rather routinely apply to a decision. It is common sense to know the factors, but the skill of management lies in weighing them. Once you have applied the weights to the factors, you have essentially described the solution.

How do you proceed when placed in a management position? I try to do three kinds of things. First, I try to figure out what we are trying to do. That is a question that I have asked so many times that people are tired of hearing it. I would stop asking it if it did not remain the best question. Because when we understand what we are trying to do, we can establish values and priorities and weigh the factors that bear.

Secondly, I try to understand the characteristics of the situation within which I find myself. There are external and internal factors that bear and anyone in a management position must understand what they are. What are the needs of and the burdens placed on your organization.

Finally, I make a personal judgment on what I bring to the situation. What are my strengths and what are my weaknesses. How can I bring these to bear on the needs of the organization. I believe you can think about that. I don't think one need walk into any sort of management position or leadership position unprepared. I believe that preparation can be a product of a logical thought process. What is the situation within which you find yourself and what do you bring to it?

A final factor, and one that I have not yet mentioned but may be the most critical of all, is that of leadership. I think many here may be familiar with the Air Force definition of leadership which I believe to be the best. It is the art of influencing people in a way to earn their obedience, confidence, respect and loyal cooperation in the pursuit of a common objective. I accept that leadership is an art; I do not accept that it is God-given. I do believe that it is the art of influencing people in a way to earn their obedience, confidence, and respect. That definition makes clear that leadership comes from the bottom, not from the top. I can appoint an individual to a leadership position but I can not make him a leader. A leader is appointed, not by me but by those whom the individual would wish to lead.

I believe strongly that leadership and management are different. A simplistic example can be found in the actions of two of our Secretaries of Defense. You may have heard that a leader satisfies the needs of the group. Like many management principles, this may or may not be true. Secretary McNamara gave the uniformed services the most combat-ready force that we had ever had in our peacetime history. He gave them larger force levels, larger budgets, and larger procurement. Obviously, he must have been a leader - he gave the group what it wanted. Wrong.
They hated him because he was not a leader. He conveyed the view that he did not hold his subordinates in high regard and would not turn to them for their assistance or for their cooperation - a splendid manager.

Secretary Laird, on the other hand, what did he give the military? - declining force size every year, declining budgets every year and restrictions on the employment of combat power. Obviously no leader. Wrong again. They liked him. Why? Because he formed a team and he did so within 30 days from the time he came on board. He sought and valued the views of his subordinates, and they knew it. He did not follow all their views, as no manager will, but he was a leader. It's my rather contentious premise that a manager is not necessarily a good leader but that a good leader will almost inevitably be a good manager. The reason for the latter statement is that if a man is a good leader, I believe his people will give him their all to make him look good. It's much easier to be a good leader and a good manager because your people will help you reach that latter objective if you don't know how to do it yourself.

I think that leadership, rather than management, is our greatest need and we fail in leadership in all of the standard ways. The solutions are largely self-evident. We all know what they are; we just don't follow them.

There is a crucially important characteristic of leadership and management which has been ignored in the material presented to you here. This characteristic is that it is fun; it is one enormous source of personal satisfaction and enjoyment. I found this thought captured by General Russell E. Dougherty when he spoke to a Strategic Air Command Commanders' Conference as the recently retired commander of SAC. He said that the conventional wisdom refers to retirement as the golden years. It was his view, and mine, that the golden years were those being experienced by the commanders. The responsibilities of command, the opportunity to get things done with and for people and the production of work well done are the greatest satisfactions. Seize the opportunity to manage, do it well and savor the joys and satisfactions it produces. There is nothing like it. It is better to be number one of anything than number two of anything else.

I wish that I could have provided you ten rules for successful management. First of all, because it would have been a service and perhaps would have made this a worthwhile experience. The second reason I'd like to do that is because I wish I knew what they were. I think I may actually have sought to do something that would be of greater value than the ten rules. I sought to help you understand.
LIEUTENANT GENERAL RAYMOND B. FURLONG (USAF, Retired)

Lieutenant General Raymond B. Furlong is a graduate of Ursinas College with a bachelor of science degree in chemistry. He holds a master's degree in business administration from the Harvard Business School and is a graduate of the Army Command and General Staff College and the National War College. General Furlong began his Air Force career as an aviation cadet, receiving his pilot wings and commission as a second lieutenant in September 1949. During the Korean War, he flew F-80s with the 8th Fighter Bomber Group and completed 74 combat missions with 154 flying hours. In January 1952, General Furlong became Personnel Officer for the 63rd Fighter Interceptor Group, Wurtsmith Air Force Base, MI. He was subsequently assigned as an exchange pilot with the U.S. Navy at Jacksonville FL, undergoing fighter-bomber, all weather interceptor reconnaissance, and carrier qualification training. In September 1955 he entered Harvard Business School, Cambridge, MA, graduating in 1957.

General Furlong was assigned in July 1957 to Headquarters United States Air Forces in Europe (USAFE) where he served in various positions in the Directorate of Military Personnel, Office of the Deputy Chief of Staff for Personnel. In July 1961 he entered the U.S. Army Command and General Staff College, Fort Leavenworth, KA. After graduation in July 1962, General Furlong held C-130 pilot and operations assignments with the 772nd Troop Carrier Squadron at Sewart Air Force Base, TN, which included the support of Army Airborne and Continental U.S. Mobility Operations. In February 1963 he became Operations Officer for the 772nd Troop Carrier Squadron at Langley Air Force Base, VA. While at Langley, he also served as Chief, Rated Assignment Branch, Deputy for Personnel, Headquarters Tactical Air Command (TAC).

In November 1965 General Furlong was assigned to Headquarters United States Air Force, in the Office of the Assistant Chief of Staff for Studies and Analysis, where he was an operations staff officer concerned with the studies and analysis of U.S. Air Force airlift in support of Army tactical and logistic operations inter- and intra-theater. From August 1967 to July 1968, he attended the National War College, Fort McNair, Washington, D.C.

General Furlong was assigned as Military Assistant to the Deputy Secretary of Defense in Washington, D.C., from July 1968 to May 1973 assuming duties as Deputy Assistant Secretary of Defense (Legislative Affairs). In March 1975 General Furlong was assigned as Commander of Sheppard Technical Training Center, Sheppard Air Force Base, TX.

General Furlong was appointed Commander of Air University, Maxwell AFB, AL in August 1975. He served in this position until his retirement in July 1979. Subsequent to his retirement, General Furlong served as the Assistant Director for Financial Affairs, Alabama Commission on Higher Education.
DINING
AND
SOCIALIZING
It's time for stocktaking. The first thing we wanted was for you to understand the feedback data; we wanted you to see the results of the survey and how it affected your work group and your library, and we wanted you to understand how librarians think about leadership and management issues. Another thing we've done, as a result of the Leadership and Management Development Center effort, was to get you involved in leadership and management practices. We found out what Lt Gen Furlong knew intuitively and spoke about last night. People can learn to be better leaders and managers and, most times, they become better as they do it. It's not only a matter of embracing concepts and themes; it's a matter of getting in the gym, of throwing the ball, of taking the first bath.

I hope that has been the result of these exercises - to show you that you can do it. I've heard you say that you have more confidence now that you've tried it. You can take that a step further. Dr. Galvin said one of the jobs you have in library science is to let your staff develop and reach their full capacity. That's your job, that is any leader's and manager's job; to develop the people who have to continue to do the job, maybe after you go, or to do the job you can't do totally by yourself.

These are the things we've tried to convey. We've tried to practice with you interpersonal skills, so that you can understand the data and take it back and share it. We wanted to share with you how you can use this information. You will face more than just one or two interpersonal situations. Adapt your skills to apply them to the various situations you will face as leader and manager.

Leadership and management is an art form. You get to be the artist and that's where the fun is. I want you to think through this concept right here. It's like cooking, you take the theory of the recipe, apply your hand to measuring and stirring, add temperature and then you have the opportunity to sample the result.

Take away from here the things which you've learned, even the small things. You've probably come up with 10-15 ideas generated by the seminars, workshops, and conversations among yourselves and with our staff. Unfortunately, some of you won't do it. The ideas will just sort of fade away, like that idea that you had awhile back for a new kind of spice cake. If you want to spice up your leadership and management, you're going to have to get into the game and try to do the thing or it all goes for naught.

When people come together in large or small groups, not everybody sees the same thing alike. What do we call that? We call that a scotoma; it means a blind spot. Think with me, if you will, what's the most dangerous problem and most critical effect of having scotoma? You don't know what it is that you do not see. We don't know what it is we don't see and we, as managers and leaders, have to deal with that problem and it's complexity. Sometimes, only one person doesn't see what everybody else sees. It's our jobs, as leaders and managers, to help people see what we want them to see.

When you go back and use these skills, your job is to help people see what you see. They're not going to see it at first. You must be a clarifier. Many times, when
people don't see what we see it doesn't take us long to clarify it, but we have to actively listen and observe to make sure that the person who doesn't see what we want them to see feels comfortable enough to expose their blind spots.

As leaders and managers you must be prepared to accept the fact that not all people will be able to see what you want them to see. You'll have to compensate for that through patience and understanding. You'll have to deal with their frustrations. You'll have to try, no doubt at great length, to clarify what it is you want them to see.

I suggest that there are three critical issues for the 1980's that we'll all have to face as leaders and managers. As leaders and managers you have to deal with the diverse values that people bring to the workplace. As librarians you will not be spared this. Librarians who, in the past, may have come from rather narrow and traditional schools and held a rather narrow set of traditional values are no more. Some of you have seen already, with the advent of newer employees into your library, newer ideas, different belief systems - some that almost seem to be against the very thing you're trying to accomplish. Who has the scotoma? Is it you, the leader and manager, who doesn't see where they're at or they, the novice entering your craft, who can't understand where you've been.

Whatever the case may be, the responsibility must stay with the leadership to work through these issues; whether it be what they value in terms of rewards, how they want to use their leisure time, or how they see power and authority. You will not be able to avoid dealing with those differences in values and they will become more acute. I'm convinced, in the 80's.

The second area is that of new technology. Captain Grace Hopper and Dr. Galvin talked extensively about that. If you have a blind spot to new, innovative, creative technology that will take you into a more viable, service-oriented library system in the 80's, it will pass you by. The wave of that technology is here. If you've been reluctant to learn even the simple buzzwords that interface between your craft and computer technology, it will leave you behind.

The third, I suggest, is the stress that the first two will cause. You won't escape that either. We are not doing very much to deal with the amount of stress that our differences in cultural values and our springboard of technology is bringing into the manager's world. It was said once, and I don't know who said it, that probably up until 1910 medicine did more harm than it did good. I would suggest it hasn't been until the 1970's that management has broken even. To put it even more clearly, we are doing a little bit of good in addition to a lot of bad. We're still doing a lot of things, in terms of handling the stress of other people and ourselves, that is more harmful than it is productive.

I think those three issues should dominate some of your strategies, some of your thinking, and some of your inquiries. It's worthy of our time, and I can't sort out librarians as having a lesser degree of any of those three problems than any other profession. You are in the mainstream of a world that is changing rapidly and you'll be forced to respond to it as well, as successfully, as any other profession or service or industry. You can't exclude yourselves.

Let me leave you with my little bit of philosophy for you to go back and try as you will. I truly hope that as a leader I can get people to do things because they want to do them, but in the last analysis if I'm the leader I still have the responsibility. That's why I say my job and yours, if you aspire to and accept the leadership roles in your libraries, is to hold the baton and get the job done. It's a heavy calling; you can't cop out. I'd like to see you play it so people want to
do what it is you want them to do and that's possible. But if they don't, you still have the option and you still have the responsibility to see that the job gets done.
FINAL SESSION

Left: Bob Lane officially closes MLW 25

Right: Egon Weiss, host for MLW 26 to be held at the U.S. Military Academy, West Point, New York

Left: Harry Cook, first Director of Air Force Libraries, receives a copy of the first regulation he wrote from Tony Dakan, current Air Force Librarian.
Don Peterson
MLW 25 Project Chairman

Martha Blake
Chairman, Military Librarians Division, SLA

Kim Beitzel giving directions
HISTORICAL

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