

1 of 1

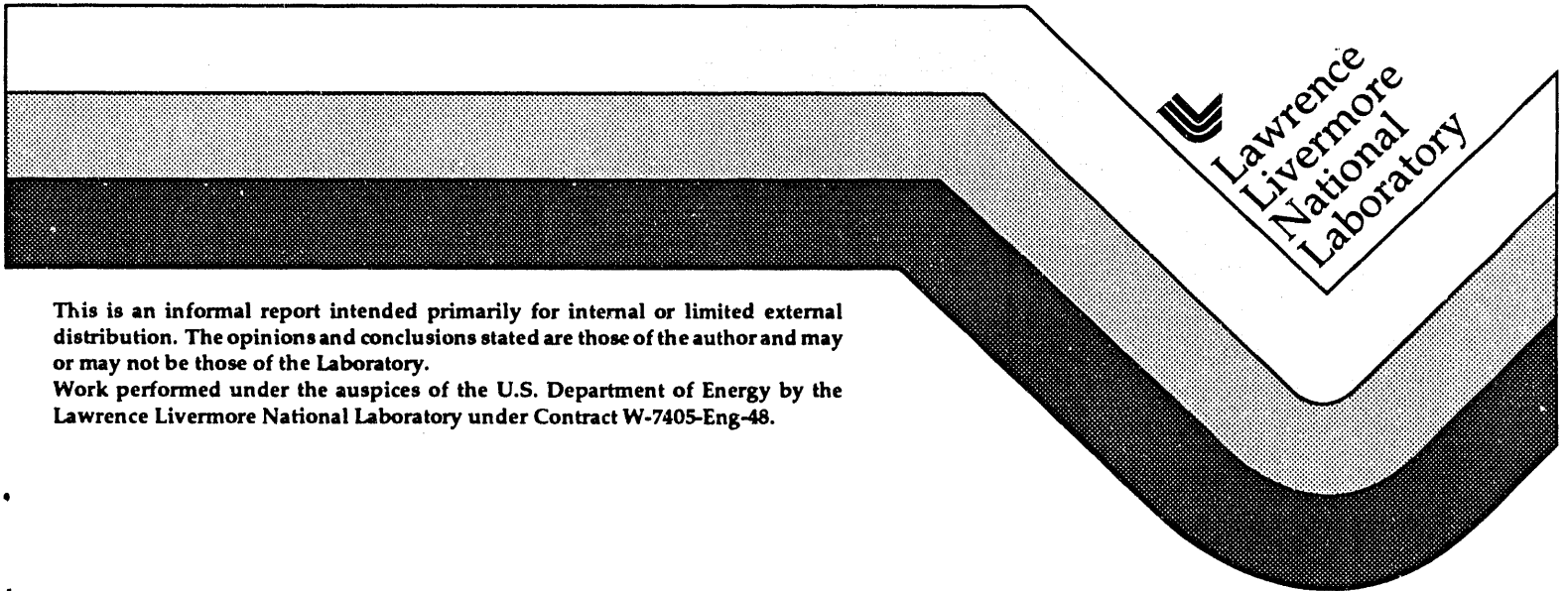
12
9-20-93 JSD (1)

UCRL-ID-114069

Assessment of the Organizational Structure and Services of DOE National Laboratory Libraries

Kathy Dieden
San Jose State University

May 18, 1993



This is an informal report intended primarily for internal or limited external distribution. The opinions and conclusions stated are those of the author and may or may not be those of the Laboratory.

Work performed under the auspices of the U.S. Department of Energy by the Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

DISCLAIMER

This document was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or the University of California, and shall not be used for advertising or product endorsement purposes.

This report has been reproduced
directly from the best available copy.

Available to DOE and DOE contractors from the
Office of Scientific and Technical Information
P.O. Box 62, Oak Ridge, TN 37831
Prices available from (615) 576-8401, FTS 626-8401

Available to the public from the
National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Rd.,
Springfield, VA 22161

**Assessment of the Organizational Structure and Services
of DOE National Laboratory Libraries**

Kathy Dieden
San Jose State University
May 18, 1993

This work was done in partial fulfillment of the requirements for the Special Libraries course (LIBR 231) at San Jose State University.



MASTER

yp

Executive Summary

The national laboratories, under the aegis of the Department of Energy, have been the institutional heart of research and development in the nuclear age. Their mission, in its broadest sense, has been the development and creation of nuclear weapons. The surety of that mission is in doubt. The reconfiguration of Eastern Europe, a result, in part, of the break-up of the Soviet Union and the collapse of Communism, the unrealized promise of a peace dividend, and a Democratic President in the White House, leaves the national laboratories, at least temporarily, rudderless, like ships afloat in uncharted waters.

The daily newspaper is rife with stories of what the new mission or missions of the laboratories might be; environmental and biomedical research being cited most often, followed by joint ventures between the laboratories and private industry for a number of peacetime applications. The new missions are, as yet, unformulated and unclear. What is clear is that research and development in the nuclear industry is in flux. In this work/study project, I looked at the role of libraries and information in the national laboratories and how librarians are serving the needs of the scientific community.

The work/study project is limited to the collection, and some discursive analysis, of the information. The observations are based upon telephone interviews with librarians in nine national laboratories and several in-person interviews with two librarians at Lawrence Livermore. The work/study project attempts to evaluate library services and examines the organization charts of each facility and the organization structure. Studying the role information services plays in the organization is one indication of how the institution might value information - its services and management.

Introduction

This fieldwork assignment was created to assess the library and information services at the National Laboratories and to understand their organizational structures and the role of the library within those structures. My goal was to collect the data and, if time permits, to evaluate the data and make appropriate recommendations for improving the quality of service at Lawrence Livermore National Laboratory Library. The objectives are outlined below.

Objectives

- To develop a questionnaire which will be used in the reference interview.
- To contact a knowledgeable staff person at each facility and collect the information services data from that person.
- To identify innovative and unique services.
- To identify non-traditional methods of delivering information services to the scientific clientele.
- To obtain any user feedback on the services provided.
- To identify the organization structure of each of the National laboratories and to determine the role of the library within those structures.

Library Services

Hours of Operation

Many libraries are open twenty-four hours a day. However, the library is staffed only during regular working hours five days a week. One library requires that after-hours access be arranged by consulting the librarian (Lawrence Berkeley).

Services

At a minimum the national laboratories' libraries provide the following services: reference verification and literature searches, online and print; preprints and technical reports; acquisitions; current awareness; standards and specifications; CD-ROM products; ordering of publications; translation brokering; interlibrary loan; photocopying; document delivery; and end-user training.

Many of the libraries provide other services such as: networking of CD-ROMs over the LAN; public access to the library's unclassified collection through

an online catalog like the University of California's Melvyl; creation of in-house databases; evaluation of software products; and records management.

Several of the libraries provide their services in a unique way. Some Lawrence Livermore librarians are "matrixed" to a particular scientific project. This means that the librarian works with the research team for the life of the project. The librarian is an integral part of the team - its information specialist. The librarian attends project meetings and provides the information necessary to the success of the project. Because the information specialist is a valued member of the research team, the librarian is able to provide not only what is requested but is able to anticipate the scientists' needs. The collaboration between scientists and librarians led to widespread agreement in the Biomedical Sciences Division that "the librarian should not only act as a resource providing information services to the research staff but should also contribute knowledge and expertise to long-term information management." ¹ (Moulik, Lai). Matrixed library specialists evaluate software and create databases essential to the projects research. The Golden Colorado facility provides a similar service to its scientists but the information specialists are contract librarians.

As a cost-saving measure the librarians at Los Alamos met with a research team composed of eighty-five scientists to reduce the number of journal subscriptions in their field. Earlier this year when the librarians wanted to introduce a trial twenty-four hour a day EMail reference service, they decided to limit the service to the group of scientists who were part of the collection development team. Scientists will be able to EMail a reference request any time of the day or night and the staff reference librarian will answer the query as soon as possible on the next working day.

Lawrence Berkeley librarians provide high energy physics preprints daily or weekly via EMail.

National Renewal Energy Laboratory is considering publishing an alternative energy newsletter in conjunction with a private company.

Librarians at Sandia National Laboratory act as intermediaries between scientists and vendors to facilitate contract agreements for the utilization of specialized databases.

Nearly all the laboratories are attempting to network CD-ROMs. This requires standardization and is a slow, ongoing process. Most facilities are beginning to utilize the Internet as a resource. The national laboratories continue to liaison with business communities in hopes of creating joint research and development projects.

Some libraries and reading rooms are open to the public.

Fees

While a number of laboratories recharge for online searches, rush orders, photocopying, and translation services, LLNL has the greatest number of recharges. In addition to those mentioned, LLNL charges for book, journal, and report acquisitions, interlibrary loans, branch library staffing, current awareness searches, and matrix information specialist services. Recharging for the matrix services enables the librarians to work with the scientists as a member of the scientific team. Without the ability to recharge the scientific project, LLNL would be unable to provide their clients with this valuable user service.

Organizational Structure

"For the Japanese, the statement that knowledge is power is not just a pious truism, it is a basic operating principle." ² (Prusak and Matarazzo). In their study of eight major Japanese firms and how they value information and information management, Prusak and Matarazzo reached the following conclusions:

1. Japanese firms perceive their corporate libraries and information centers as an increasingly important resource.
2. Japanese executives place a tremendous value on information and view it as an essential cost of doing business.
3. The library information function operations are well designed to support the firm's objectives.
4. While information technology applications are highly valued in Japan, information management is not a subset of a technological function.
5. The management of the information function is rotated among all company managers; treating information functions equally with other key functions further demonstrates senior management's commitment to information management.
6. Japanese managers read. Many senior executives were seen reading in their corporate information centers and libraries.

Contrast this portrait of an information value laden business environment fostered by Japanese firms with Thomas Davenport's analysis of information management in American business firms. "Many of the efforts to create information-based organizations or even to implement significant information management have failed or are on a path to failure. Today, in fact, the information-based organization is largely a fantasy," ³ (Davenport). He concludes that companies fail to become information-based because their executives do not manage information politics.

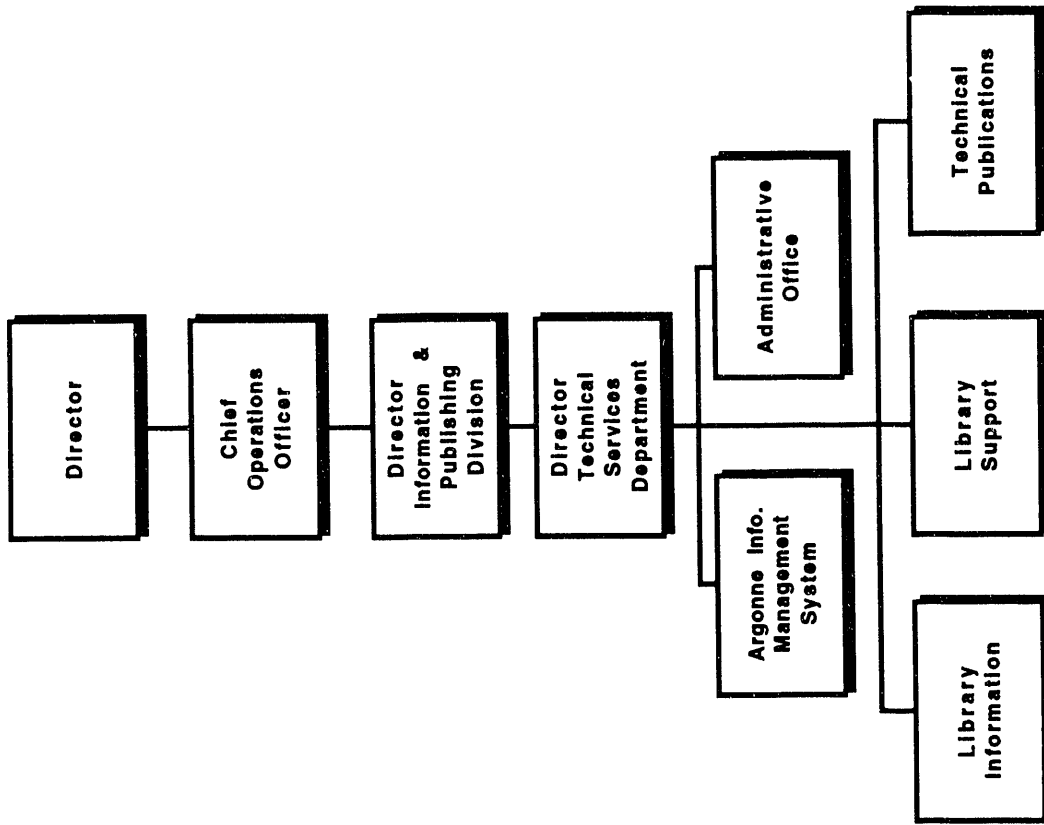
The national laboratories are information-intensive environments. We might expect that these research and development organizations would value information highly. We might also expect to find that the library and information managers exercise a considerable political influence within the organization. One method of assessing the importance of the information function within the laboratories is to review their organization charts and the role of their libraries within the organization structure. While the time constraints of this study do not allow for an in-depth analysis, I believe my preliminary conclusions reflect, in part, the value each organization places on its information function and to what extent the library and information services is politically powerful.

My preliminary analysis of the organizational structure of each national laboratory reviewed is described on the following pages. In a research driven organization, the most desirable reporting system for the library would be to report directly to its clients - the scientists. Only one national laboratory follows this model. It is the Superconducting Super Collider Laboratory, SSC.

Argonne National Laboratory

At this facility the information and publishing division reports to the chief operations officer and library information, library support, and technical publications reports to information and publishing. This reporting system gives the library the opportunity to exercise political influence and indicates an organization structure which places considerable value on information. In this organization the library managers report to the chief operations officer whom, I assume, functions like a president of a corporation while the director functions like the chairman. The library's reporting mechanism is clear and direct. If the managers are politically astute, they can have input at the highest level of decision-making.

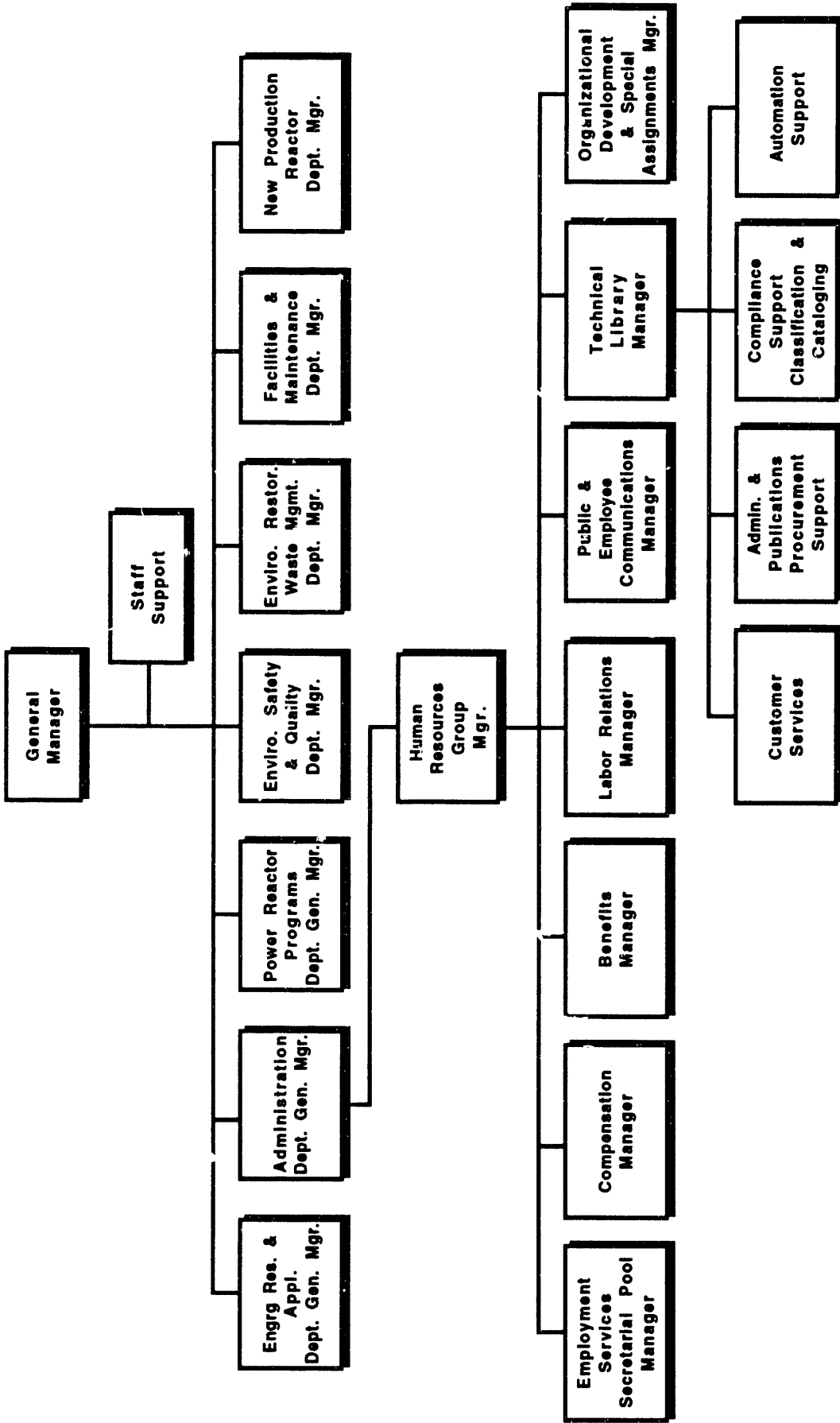
Argonne National Laboratory Organization Chart



Idaho National Laboratory

The reporting system of this library and information system appears to be the biggest anomaly among the national laboratories. However this organization chart most closely corresponds to the organization structure of the Department of Energy. INL's library and information systems is one of seven departments which reports to human resources which, in turn, reports to administration. The head of human resources has responsibility for everything from benefits and labor relations to organizational development and the technical library. With such a panoply of functions, there is a danger that the library function will be lost in this structure. It is likely that the human resources manager knows little or nothing about the creation, organization, and dissemination of information in the research and development environment. There is also the potential danger that the human resources manager is unconcerned about the management of information.

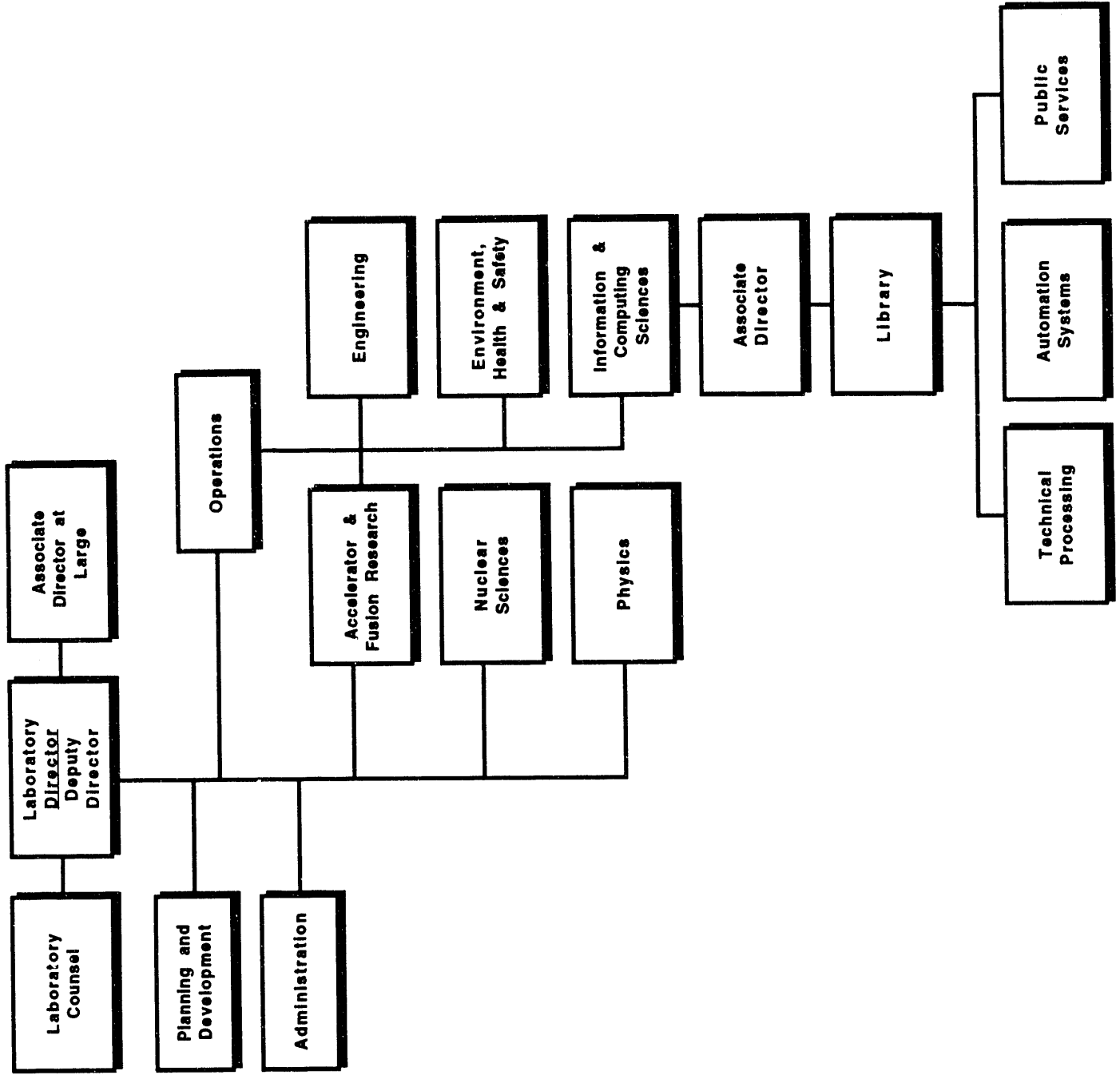
**Idaho National Engineering Laboratory
Organization Chart**



Lawrence Berkeley Laboratory

The library services reports to the information and computing sciences which in turn reports to operations. Operations also has the responsibility for engineering, environmental health and safety. The disadvantage to this reporting system is that the head of operations is likely to be unfamiliar with the information needs of the organization. The operations officer may lack the expertise needed to oversee an information function. In this structure the library would probably exercise little political influence. As has been suggested earlier, ideally, library services would report to its clients - the scientists. Unfortunately, it appears that the academic community does not value this reporting method.

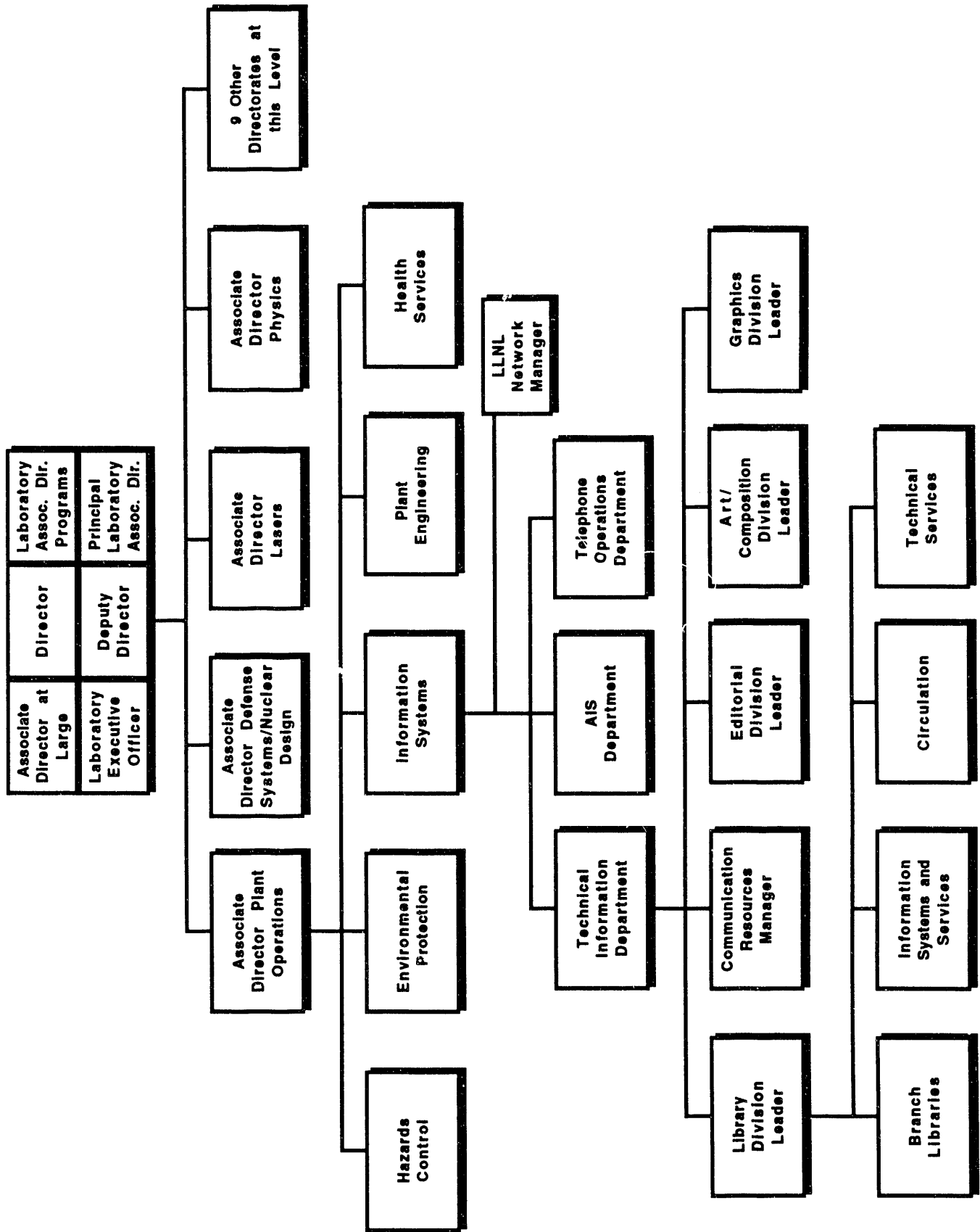
Lawrence Berkeley Laboratory Organization Chart



Lawrence Livermore National Laboratory

At LLNL the library, technical services, and publications report to information systems. However, IS reports to the associate director of plant operations. This person is responsible for the daily operations of the plant. Everything from hazards control, and health services to the library and telephone system is the responsibility of the plant operations associate director. This reporting system does not put the library in a powerful position. The organization chart reflects an institution which may not value its information function. It is unlikely that the expertise required for plant operations is the kind necessary for the creation, storage, retrieval, and dissemination of information. The library would be better positioned politically if it were part of the computing function or even better, if it reported to one or several technical directors responsible for research. LLNL might consider a reorganization which would consolidate the telephone and publications departments under the communications department. The network should not be a staff function but should be a part of the telecommunications line department.

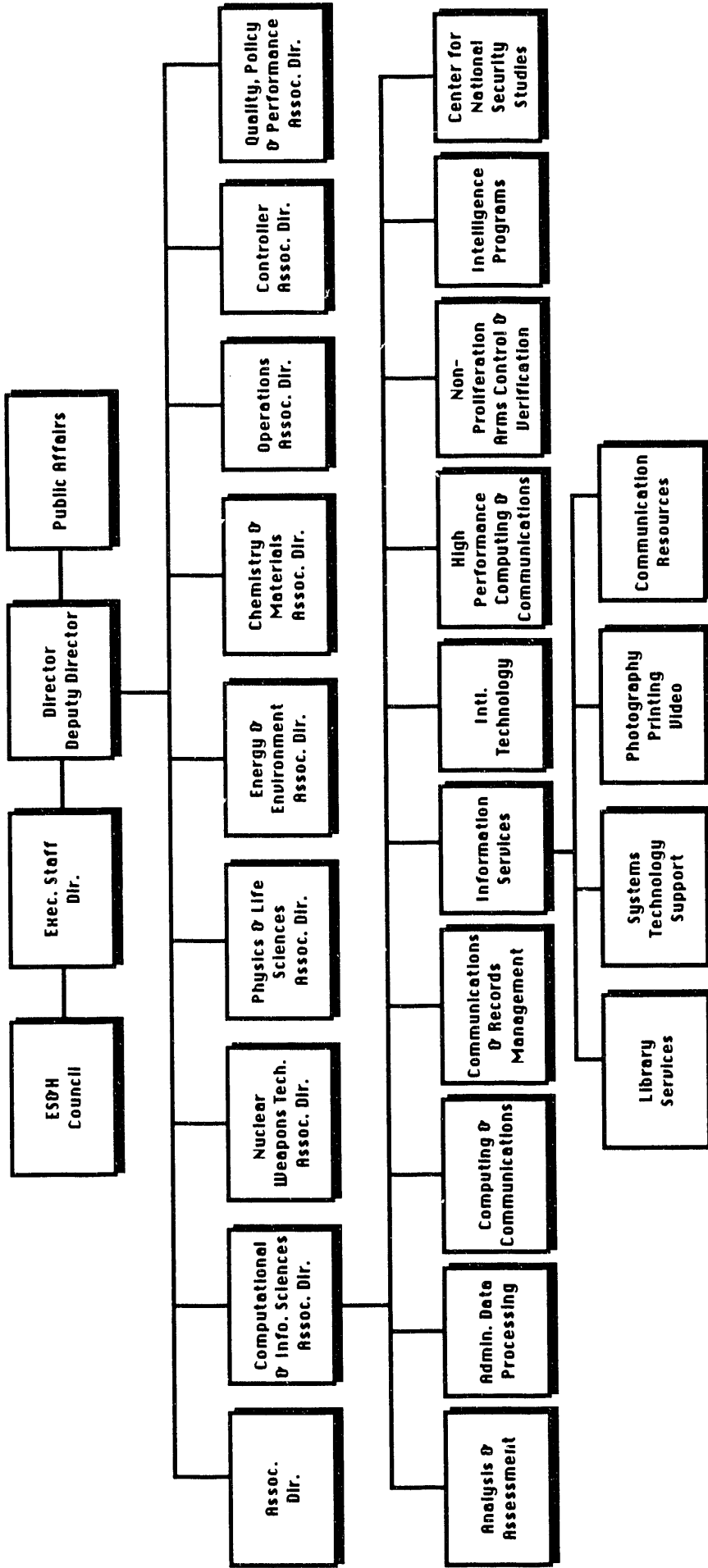
Lawrence Livermore National Laboratory Organizational Chart



Los Alamos National Laboratory

In this organization chart library services appear to be far from the political decision-making powers. However, the library reports to ISD which is a subset of the computational and information sciences department. This reporting system indicates that the organization values its information component on a par with its computational function, and that is usually favorable to library services. The potential danger here is that the computational and information sciences director has so many responsibilities that library services will be lost in the shuffle of nine competing departments. If the ISD manager is politically savvy, library services, printing, video and publications may be able to successfully compete for their units. The function of the at-large associate director is unclear and perhaps this person could be responsible for a portion of the computational and information sciences department.

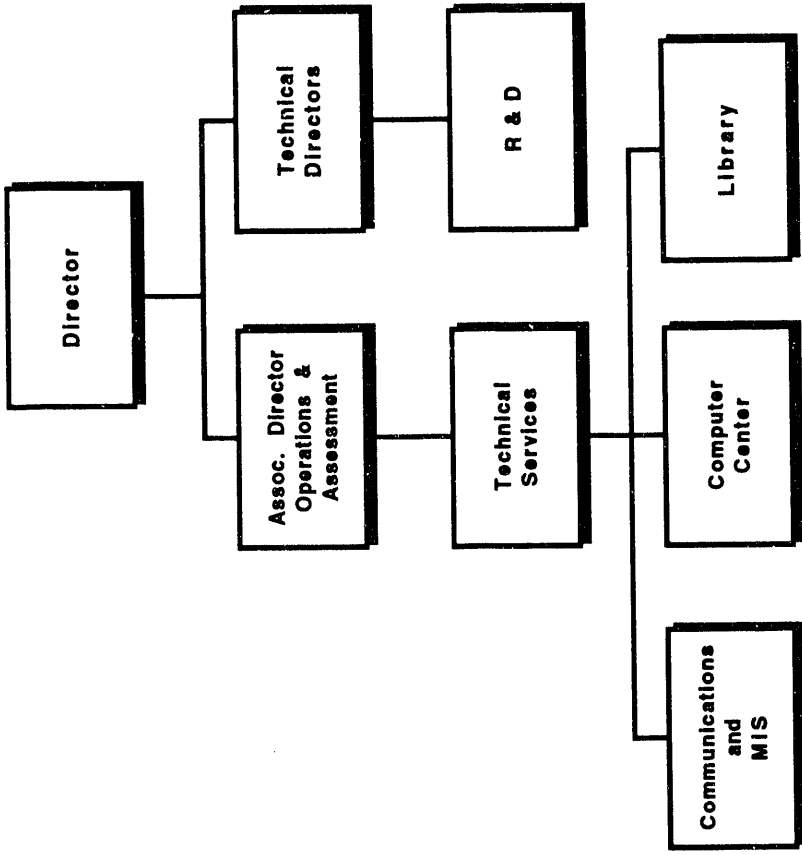
Los Alamos National Laboratory Organizational Chart



National Renewable Energy Laboratory

Several of the national laboratories are organized like NREL. The library, communications and MIS, and computer functions report to technical services which reports to the associate director of operations and assessment. In this organization it would appear information is less valued than in the SSC model which reports to research. However, if the operations and assessment director functions like a chief of operations, the technical services reports to the associate director who reports to the director. The library in this organization is in a good political position to exercise its power. It would be more desirable to have the technical services department report to the research and development department but certainly the reporting mechanism is favorable to the library and information services

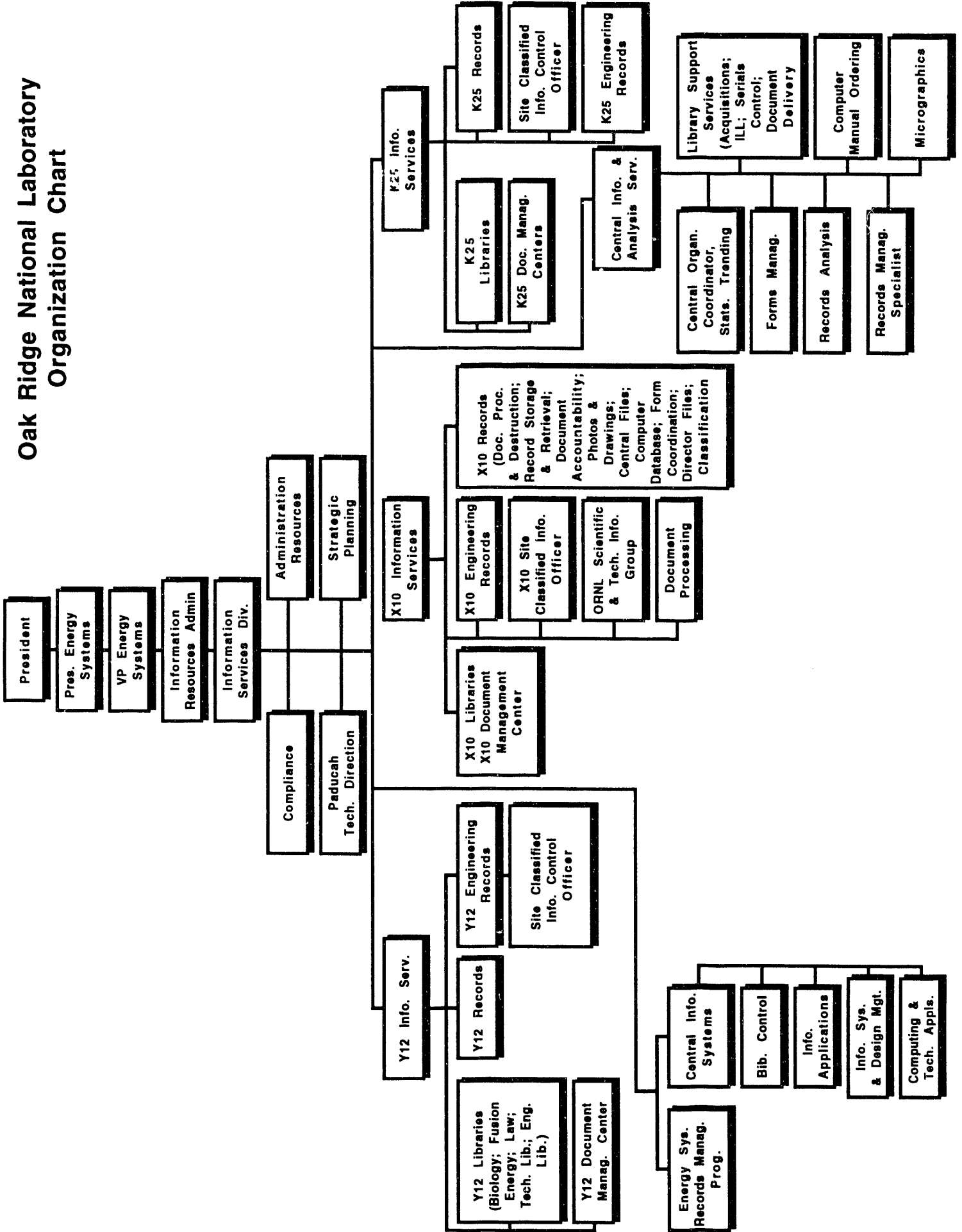
National Renewable Energy Lab, Golden Colorado
Organizational Chart



Oak Ridge National Laboratory

This organization is unique because each of its information services is site-specific. It appears that this structure corresponds to the feudal model of an information-based organization. Each information service has its own fiefdom, (Davenport) composed of libraries, records management and document delivery. Some functions are peculiar to one of the information services. For example, X10 information services is responsible for photos and drawings. There appears to be some duplication of effort in the way these information services are structured. Without additional investigation it would be difficult to assess how these fiefdoms operate and how beneficial a consolidation of functions would be. Deciphering the functions within this structure was a challenge. Library services reports to ISD, by now a familiar pattern, and from here the library reports up the line to the president of energy systems. The organization values information but it appears not to have an overarching information management system.

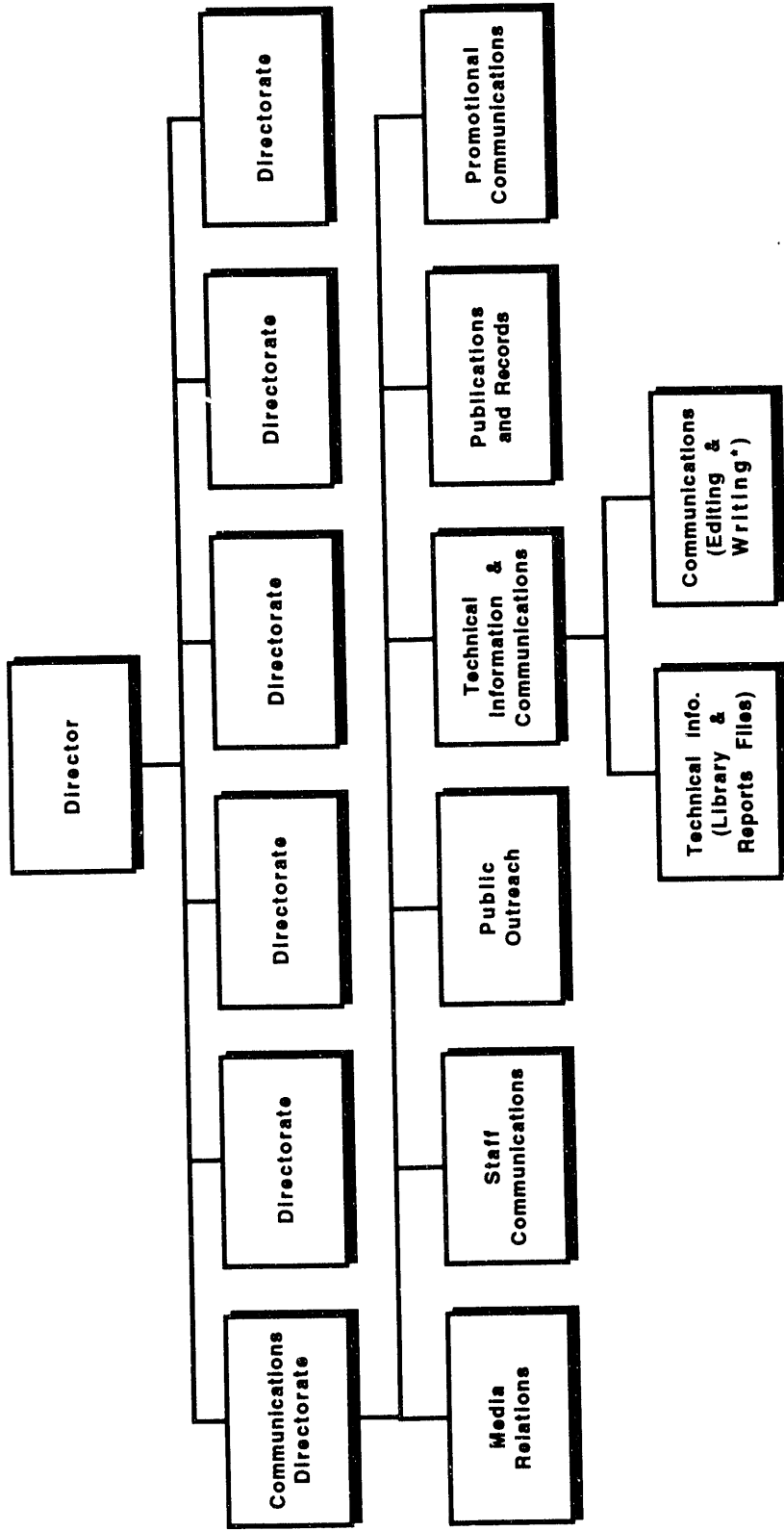
Oak Ridge National Laboratory Organization Chart



Pacific Northwest National Laboratory

The library and information systems reports to the communications directorate. There are six additional directorates on a par with communications. This reporting system appears to be one which values the information function by coupling it with communications, a practice in some private aerospace and computing firms. However, if the head of communications organizes the department around a classical communications group, there is a danger that the director's expertise will reflect a public relations approach to the department and the director may not understand information and the support it needs. The organization might consider streamlining the communications department by consolidating the technical information and publications and records.

Pacific Northwest Laboratory
Organization Chart

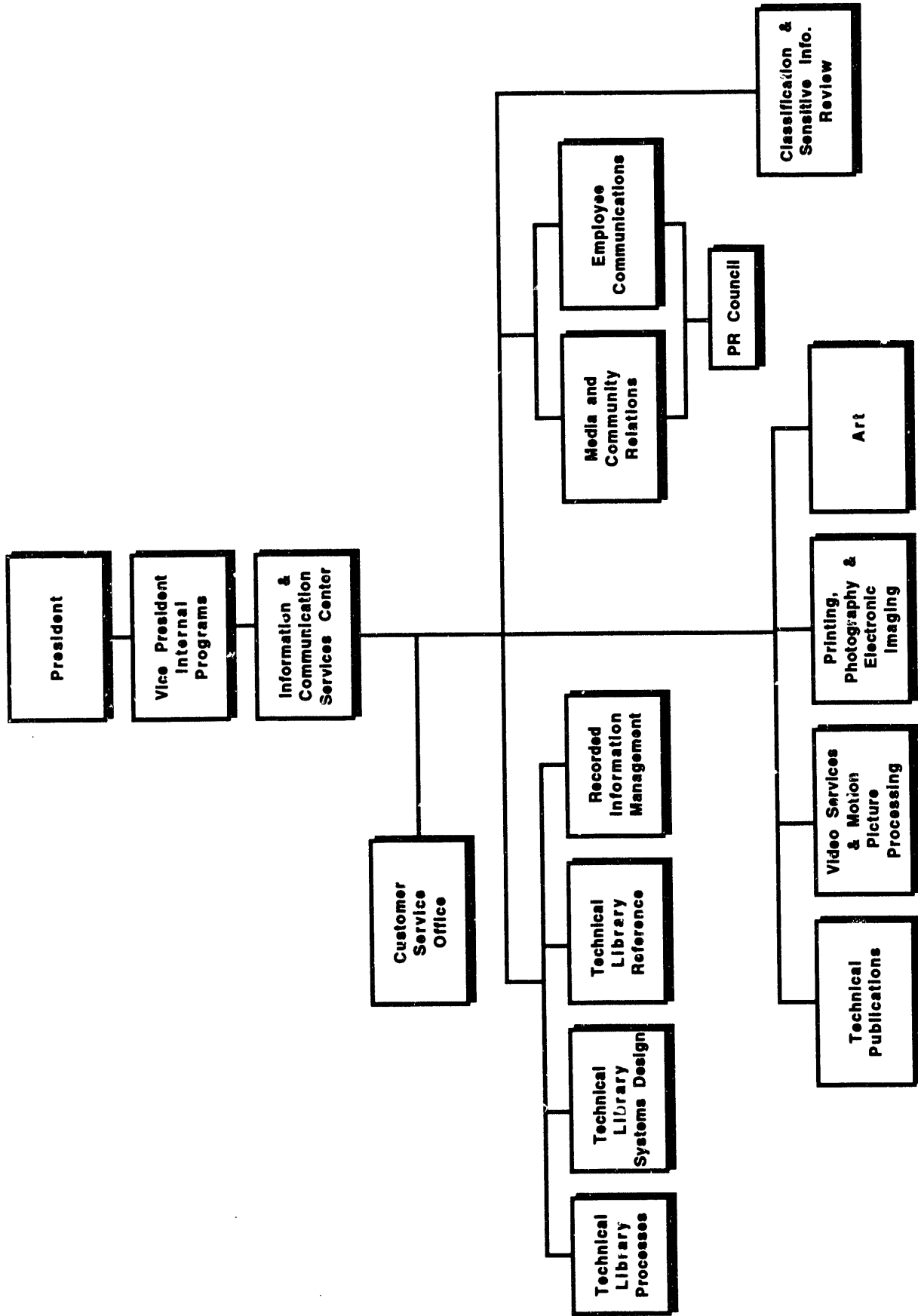


* Editing, Writing split from one to five with functional emphasis e.g. editors who work with pure science researchers versus editors who work with environmental researchers.

Sandia National Laboratory

In this organization library services and publications reports to the information and communication services center. Like the Pacific Northwest structure the head of the information and communications center is likely to be from the classical communications background. This office is responsible for the information and public relations and publications functions. The information and communications department may be in a position to influence policy because it reports up the chain of command to the president. It is unclear, from this chart, what power the vice president of internal programs has. Again, political know how can determine how effectively the library staff is able to lobby for its interests. The library and publications groups do not have a manager. Each unit is responsible for its operations. There is a potential drawback to this model - indecisiveness. Without a manager responsible for decisions which effect all the groups, there is a danger that no decision will be made.

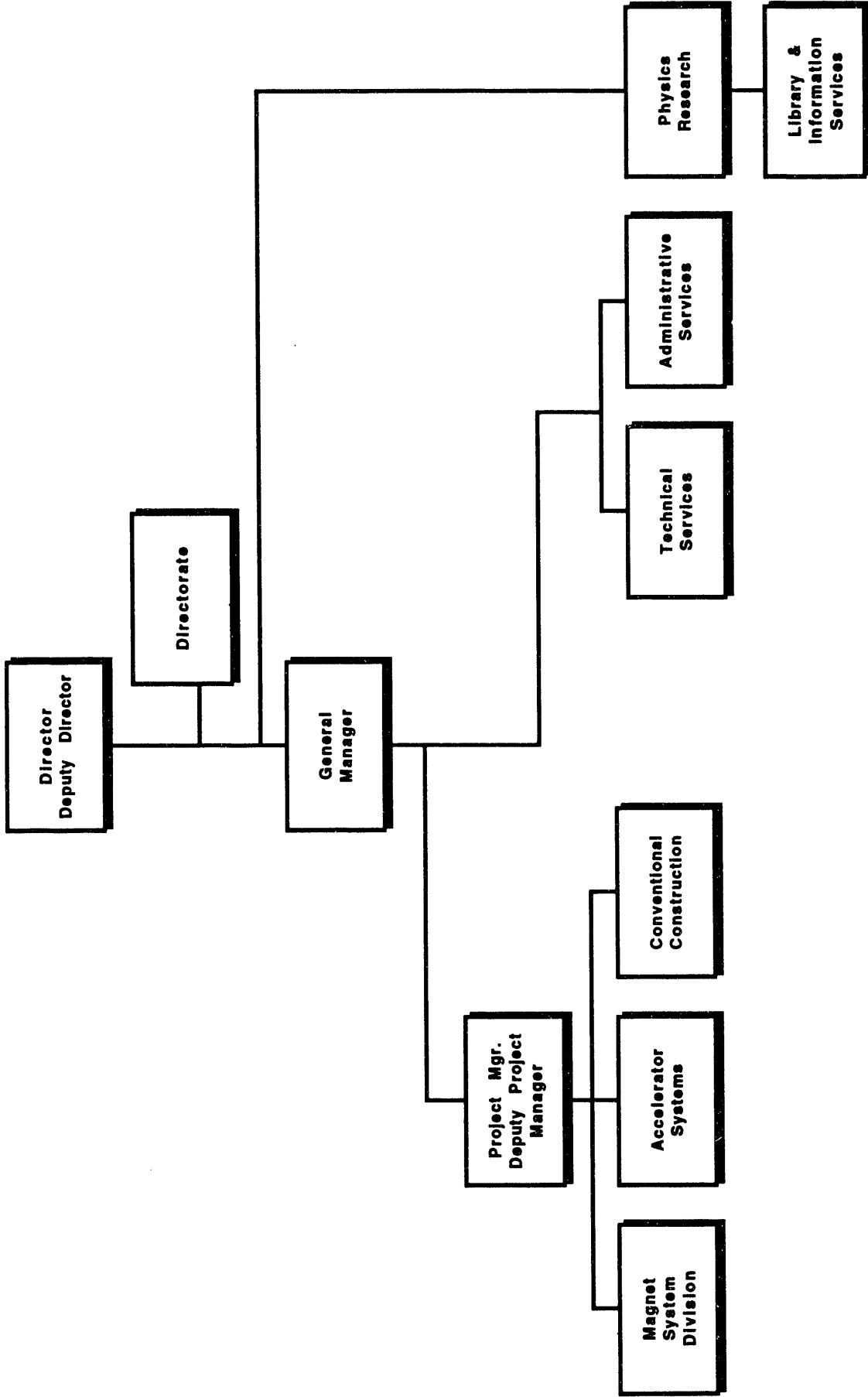
**Sandia National Laboratory
Organizational Chart**



Superconducting Super Collider Laboratory

SSC's organizational chart clearly demonstrates a library and information system which supports the mission of the laboratory in the most effective manner. The library reports directly to the people it serves - the scientists. This reporting mechanism indicates that the library and information services enjoys a unique political position. The library is able to exercise some power and control when it is in the enviable position of directly serving its clients - the researchers in physics. They, in turn, report directly to the deputy director bypassing the general manager. The management of this facility, like the management of the Japanese firms, clearly values information and considers library and information services necessary to the success of its operations.

**SSC Laboratory
Organization Chart**



Endnotes

1. Moulik, Amal and Dennis Lai.
"Rebels in Search of Champions - Envisioning the Library of the Future."
Electronic Library, vol. 10, n.2, (1992 Apr): 97-102.
2. Prusak, Laurence and James Matarazzo.
"Information Management and Japanese Success."
Ernst & Young Center for Information Technology and Strategy.
3. Davenport, Thomas, Robert G. Eccles, and Laurence Prusak.
"Information Politics."
Sloan Management Review, vol. 34, n.1, (1992): 53-65.

Special thanks to Janice Butler for her work in replicating the organization charts.

Special thanks to Rich Hunt for his assistance in overseeing the project.

DATE

FILMED

11 / 5 / 93

END

