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ABSTRACT

The Virgin Islands Demonstration Library Network Study (VIDLNS) seeks to determine whether the development of either local or regional library networks would be the key to optimal organization of small library collections in isolated areas. This report describes the research and demonstration components of the exploratory phase of the project: (1) a survey of local library needs and resources; (2) a national survey of library network activity in remote, disadvantaged areas; (3) feasibility studies of linkage to national library networks, and the formation of regional or local library networks; (4) development of local union lists of films, periodicals, and books; and (5) the development of local interlibrary loan services. The report recommends local, multi-type library networks as the goal for small libraries in remote, disadvantaged areas, and a model plan for the formation of such networks is proposed. Some problems are identified: local resource sharing networks seem to be more feasible than online bibliographic data bases because of cost and the failure of OCLC to offer Sears Subject Headings; and problems in document delivery and local data processing limitations in isolated areas present obstacles to effective interlibrary cooperation. The questionnaire used to survey local library needs, tabulation of data obtained from the national survey, and press releases and news articles on the VIDLNS project are appended. (Author/JPF)

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Final Report

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EXPLORING LIBRARY NETWORKING IN REMOTE, DISADVANTAGED AREAS

January 31, 1978

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ABSTRACT

The Virgin Islands Demonstration Library Network Study seeks to determine whether the development of either local or regional library networks would be the key to optimal organization of small library collections in isolated areas. This report describes the research and demonstration components of the exploratory phase of the project. Components reviewed are:

- (1) a survey of local library needs and resources;
- (2) a national survey of library network activity in remote, disadvantaged areas;
- (3) feasibility studies of linkage to national library networks and the formation of regional or local library networks;
- (4) the development of local union lists of films, periodicals and books;
- (5) the development of local interlibrary loan.

The report recommends local, multi-type library networks as the goal for small libraries in remote, disadvantaged areas, and a model plan for the formation of such networks is proposed.

FOREWORD

This research and demonstration project has been a successful first step in bringing better library service to the people of the U. S. Virgin Islands. Through its final report and other publications, the project's staff hope to contribute to the improvement of library service in other remote, disadvantaged areas as well. Dissemination of these reports will bring the special needs of small, isolated libraries to the attention of library network managers and planners of national library networks whose help is urgently needed by libraries in isolated regions.

The staff would like to acknowledge the assistance of the hundreds of librarians in remote, disadvantaged areas who cooperated in surveys and provided information on their experiences in library networks. Without the enthusiasm and encouragement of Virgin Islands librarians, educators and others, this project would not have been possible. Special thanks go to Mr. James Kennedy, Executive Director of AMIGOS, and Dr. Ed Brownrigg of New York University, for supporting the project with their expert advice and for their patience. Mr. Lawrence Papier, USOE Program Officer, has been extremely helpful in his assistance with grant administration and his professional knowledge.

The opinions expressed in this report are those of the authors and not necessarily those of the territorial library agency or the Virgin Islands Demonstration Library Network.

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I. INTRODUCTION

Background

The Bureau of Libraries, Museums and Archaeological Services acts as the territorial library agency for the U. S. Virgin Islands. It assumes responsibility for meeting the needs for information, independent education, recreation, and preservation of local cultural heritage of the territory's 100,000 + population and its seasonal visitors. The public library system, made up of five facilities on the three largest of fifty islands and cays, is administered by this agency as well as a photo-duplication laboratory, the territorial government publications depository program, the planning board for local archives and records management, three museums, and the USVI archaeological service.

In January 1976, Bureau Director and Territorial Librarian Dr. Henry Chang initiated a request to the U. S. Office of Education for funding the Virgin Islands Demonstration Library Network Study. The proposed research and demonstration project was designed in response to the critical need for improved library services in the territory, and was submitted in the hope that the islands' limited library resources could be used more efficiently and effectively through interlibrary cooperation.

Notification of the grant award was received in July 1976; however, payment of the first installment of federal funding was delayed until October 1976. Key members of the project had already been recruited to the territory from the mainland, namely Adele Zenchoff as Systems Librarian, and Bonnie Isman as Research Librarian, and the project was well underway.

Coordinated by Dr. Chang, the project staff jointly addressed the objectives of the study. In this they were assisted by an Advisory Board of librarians, educators and computer scientists from the territory and Puerto Rico. Participants on the Advisory Board were: Ms. Mary Bleecker, Librarian, College of the Virgin Islands (CVI), St. Croix campus library; Sra. M. E. de Cardona, Director, Caribbean Regional Library, San Juan; Dr. William Cooper, Visiting Professor of Education, CVI; Mr. Hulbert Lewis, Director, Data Processing Center, V. I. Department of Finance; Mrs. Fiolina Mills, Director, Bureau of Library Services and Instructional Materials, V. I. Department of Education; Dr. Frank Mills, Institutional Research Officer, CVI; Mr. James Oliver, Director of Federal Programs, V. I. Department of Education; Dr. John Veenstra, Director, Libraries of Inter-American University, San Juan; Dr. Earl Mortenson, Assistant Professor of Education, CVI; and Dr. Donald Lehnus, Professor, Graduate School of Librarianship, University of Puerto Rico.

After examining the preliminary results of the research and demonstration projects the value of testing the findings of the remote, disadvantaged libraries study became evident. In order to thoroughly document and evaluate the recommendations of the 1976-1977 period, a second year or "test phase" of the project was proposed to USOE. Continuation funding of \$31,100 was awarded in July 1977, and the test phase of the project is now in progress.

Problems Under Consideration

The central concern of the Virgin Islands Demonstration Library Network Study (VIDLNS) is the impact of library networks on small libraries in remote and/or disadvantaged areas. During its first year, exploratory studies were conducted to determine whether the development of either local or regional library networks or membership in national networks would be the key to optimal organization of library collections in isolated areas. Concurrently, several Virgin Islands libraries participated in small scale experimental cooperative activities in order to demonstrate the utility of local networking.

The Network Study considered problems not only of local origin, but also those growing out of the relationship of remote, disadvantaged libraries to the envisioned national library network being planned by the National Commission on Libraries and Information Science (NCLIS), the Library of Congress (LC), and others. Primary issues have been the feasibility of telecommunications linkage to national centers from remote areas and the costs of present communications technology. The staff weighed the extra effort demanded from isolated libraries by regional network membership against the usefulness of the services to be received. The benefits of services available through regional networks, such as the Ohio College Library Center (OCLC) and the AMIGOS bibliographic Council, to small library service needs were also studied.

In conducting this study the term which has caused the most confusion among participating librarians and staff is "network" itself. This word has been used by the profession in a great variety of situations with a number of meanings. With this library science confusion added to its multiple commercial usages, "network" no longer has, if it ever did, a precise, commonly recognized definition.

Because the study has been exploratory in nature, the staff elected to use a broad definition. All organizational structures which make it possible for independent libraries to act cooperatively for a specified purpose have been considered under the term network. In doing so, the staff studied many types of library cooperation for their applicability to remote, disadvantaged areas. Regional public library systems, academic consortia, automated library networks and simple informal arrangements have been examined. This inclusive survey revealed a variety of network administrative and financing patterns as impressive as the variety of library services being offered.

The intent of the project has been to apply research findings by demonstrating network feasibility and by formulating a model plan for networking to be used in any remote,

disadvantaged area. With this purpose in mind, staff sought to identify typical problems facing small libraries in isolated locations and to outline successful solutions to these problems. The model plan bridges the gap between local needs and solutions of general applicability.

Research Environment

The U. S. Virgin Islands, like other remote, disadvantaged areas suffers from underdeveloped, fragmented library services. This is an unincorporated territory of the United States, made up of some fifty islands and cays in the Caribbean Sea. Only the three largest islands are inhabited with a sizeable permanent population totalling about 100,000 persons. Approximately forty per cent are Spanish-speaking or bilingual in Spanish-English. An additional one million tourists pass through the islands each year.

Separated from Florida by 1,150 miles and from New York by 1,550 miles, island residents feel the effects of severe isolation from cultural and educational centers. Such a remote location results in high transportation costs for supplies and materials and extraordinary telecommunications fees, which exacerbates the growth of library operating expenses. Partly because of these high operating costs and partly because of limited local tax revenues, library services in the territory are less adequate than those of mainland libraries, regardless of the standard used. For example, present indications are that the largest collection serving the islands has just 55,000 monograph titles and is adding 5,000 titles annually.

Before the start of the VIDIMS, few cooperative programs linked the local libraries. In their struggle to build self-sufficient collections, librarians had emphasized individual library needs. Inter-island rivalry surfaced frequently in competition over limited funds and control of historical resource materials. Participation in the region's multi-national library association, the Association of Caribbean University and Research Libraries (ACUURL), was not widespread, nor were the two island professional library associations united in their efforts. Thus, no framework for networking had been built, even though most librarians did agree informally on the need for cooperative action.

Each socio-economic setting has unique characteristics, but similar problems confront all remote, disadvantaged libraries. Assuring that the network experiences of other isolated libraries would be relevant to this study, project staff surveyed the literature for information.

Conducting a major literature search from a remote, disadvantaged location required a good deal of improvisation. Many tools taken for granted by the university-based researcher, such as library literature indexes, cannot be found in the territory. With a great deal of help from the participating local librarians and friends at mainland institutions, a broad range of current research was examined. Studies found particularly valuable

are cited throughout this report. A brief description of a few selected articles and research in progress follows to place the VIDLNS in context with other work in this field.

In an article on general administrative strategy, Jaime Robredo,¹ a Brazilian librarian, discusses setting up and operating information networks in the developing countries. He agrees with Israeli Uri Bloch² and network authority Brett Butler³ that the human factors of leadership ability, staff morale and the development of teamwork will be decisive in the success or failure of an information network. His solution calls for administrative creativity and patience in coping with the problems of an inadequate social infrastructure, negative human attitudes and transfer of technology. The Virgin Islands experience confirms his argument.

Charles Bourne⁴ found that computer-based reference services, while extremely effective in improving dissemination of information, are commonly frustrated in developing countries by delays in document delivery. In an unpublished report on bringing on-line computer-based cataloging services to small libraries in Indiana, Barbara Markuson concluded that while a centralized cataloging service for all types of small libraries using OCLC was successful, the high cost of on-line computer services prevented individual small libraries from participating in computer-based networks without generous financial subsidies.⁵ The V. I. Network Study Staff agrees with both authors that use of computer-based services has yielded only partial success in small isolated libraries.

Research papers describing or proposing cooperative programs among Caribbean libraries have been presented to the annual meetings of ACURIL and to the Seminars on the Acquisitions of Latin American Library Materials (SALAM)^{6,7} Dr. Alma Jordan of the University of the West Indies has published a regional study on library service organization and ways to develop cooperative library services among all Caribbean countries.⁸ Plans for Pan American library networks have been given in reports and conferences sponsored by the Organization of American States (OAS). The project director of the Network Study continues to work with ACURIL, OAS, and Caribbean libraries in planning for increased interlibrary cooperation in this region.

One need felt by remote, disadvantaged libraries, and their more fortunate counterparts as well, is the need for measuring and planning tools which can produce data for decision making. Particularly in the small library where every penny must count, decisions affecting funding must be based on information. The Network Study discovered several research projects now in progress which aim to provide such management aids.

Cost analyses and other studies done by the Western Interstate Library Coordinating Organization (WILCO), which became the Western Council of State Libraries in 1977, deserve special mention for their thoroughness and attention to the complexity of library operations. WILCO's Statistical Data Base Project, being carried out by the National Center for Higher Education Management Systems and others, is expected to provide a statistical data structure and standardized definitions of inter-library cooperation functions.¹⁰ UNESCO's NATIS series gives standard guidelines on how to set up a national information system.¹¹ The American Library Association (ALA) through the Public Libraries Association has received a grant to conduct research on a five stage process of needs assessment and performance measurement for use in planning community services in public libraries.¹² Once these tools have been proven effective, administrators in small, isolated libraries will be able to invest staff resources in data collection, knowing that valuable information will result.

Two general surveys of interlibrary cooperation are scheduled for the end of 1977. The Association of State Library Agencies will update and modify its 1975 survey of interlibrary cooperation through questionnaires to state library agencies.¹³ The National Center for Education Statistics is planning a comprehensive nationwide census of all known library networks, cooperatives and consortia. As a result of these national efforts, a clearer picture of the extent of interlibrary cooperation and its general characteristics should be available to future research projects.

As this brief discussion of related research indicates, the VIDLNS has had an extremely limited body of professional literature on which to base plans for library networks in remote, disadvantaged areas. Neither was a firm foundation for networking available in the local library community. Without this ready framework, VIDLNS staff was forced to explore the feasibility of networking in remote disadvantaged areas, instead of immediately initiating full program of network services.

Objectives

The proposed objectives for the VIDLNS outlined two centers of activity. As research projects, an inter-island library network would be designed, first through feasibility and cost studies, to be followed by a detailed plan for network activities, management and funding. The feasibility study and network plan were to consider all local, regional and national options for interlibrary cooperation. As demonstration activities, the territorial library system was to undergo extensive reorganization. Also, machine readable, on-line union lists of serials and book catalogs, a comprehensive interlibrary loan program, centralization of all local libraries' technical services, staff training in the use of advanced technology, and expansion of Spanish language library services were to be instituted during the twelve months of the grant period.

The proposed objectives were first modified by the Systems Librarian when she began work on the project in August 1976. Major adjustments later in the scope although not the goals of the study reflected the staff's growing awareness of the limitations of the local research environment. Problems with incompatible and outdated procedures in use by local libraries had been identified, blocking all but the most basic cooperative efforts during the rest of the project's first year. The reassessment of the original objectives also stimulated the decision to submit a continuation proposal to the US Office of Education for a second year or "test phase" to follow the first, exploratory studies.

The study's research objectives in their final form emphasized questions of feasibility. They can be listed as follows:

1. To conduct a survey of local libraries in order to assess resources, cataloging procedures, cost of processing and to solicit librarians' opinions on priorities for union listings.
2. To conduct a study of library networks in remote, disadvantaged areas in order to ascertain the level of network activity and common characteristics of networks in isolated areas.
3. To study the feasibility of joining mainland library networks, especially concerning telecommunications costs.
4. To study the feasibility of creating a local or regional library network, especially concerning locally available data processing facilities and communications systems between islands.

5. To construct a model plan for cooperative organization among remote, disadvantaged libraries.

Demonstration activities emphasized increased resource sharing. Demonstration objectives are listed below.

1. To design production methods for a Virgin Islands Union Catalog using machine readable formats.
2. To produce a union list of 16mm films from a machine readable data base.
3. To produce union list of serials from a machine readable data base.
4. To create a formal interlibrary loan network among public libraries.

For the most part, the VIDLNS was successful in meeting its objectives. The greatest difficulty was encountered because of the low priority for library data processing on the part of another government agency, as the staff had anticipated. In all other objectives, work was completed within the estimated time schedules.

II. LIBRARY SURVEYS AND FEASIBILITY STUDIES

This section describes local and national library surveys and also feasibility studies in the formation of local, regional and national networks. As a result of these studies, the project's network planning turned from technical processing utilizing national bibliographic data bases to an emphasis on local resource sharing. Here are some of the findings that contributed to this change.

The territorial library survey revealed a strong local interest in expanding access to library materials through union catalogs. Obstacles to centralized cataloging and processing were also identified. A selective national survey discovered extensive network activity among other small remote libraries. These networks emphasized resource sharing. Interlibrary loan and union list production were most commonly reported by public, academic and special libraries alike.

Feasibility studies found many difficulties in establishing linkage with mainland networks from outlying areas, especially resulting from the high costs of telecommunications and the lack of funding sources for regional network development. The formation of a local network was determined to be a precondition for effective regional or national network membership, in any case. The concept of library networking was introduced to key institutions in the territory and enjoyed a wide acceptance.

Local Library Survey

At the start of the VIDLMS, no descriptive data was available which would assist in a general analysis of local library needs. Project staff undertook a census of academic, public, school and special libraries in order to gather basic data on library resources and practices in the territory. A questionnaire was designed to assess the nature and extent of collections, cataloging practices and costs, library usage, reference collections and referral practices, and to solicit librarians' opinions on union list projects. Seventy Virgin Islands institutions presumed to have libraries received this questionnaire in October 1976. By May 1977, thirty-nine libraries answered, and twenty-one other locations responded that they had closed or had no library. Over seventy-nine per cent of Virgin Islands libraries contributed data to this survey. To the best of our knowledge, this was the first time a comprehensive, written survey had been made of local libraries.

Because of a lack of adequate records for many categories of library services, the survey failed to provide all of the information sought. No library reported reference statistics, and only a few estimated cataloging costs other than the flat charge assessed by the supplier for preprocessed books (an average of \$.774 for full preprocessing). Budget information was generally unreported because (a) the librarians did not know from year to year how much they would be budgeted, and (b) money which had been encumbered from library budgets for unfilled orders was not returned to library accounts. Most libraries gave only rough estimates of the number of titles in their collections. The public libraries, for example, were in the middle of conducting inventories.

Results of the local library survey indicated a widespread interest in expanding access to library materials through the development of union catalogs, especially of Caribbeana. However, major obstacles to developing combined catalogs using MARC standards were also uncovered. Most public and school library materials were reported as cataloged by a book jobber using Dewey Decimal Classification and Sears subject headings. Project staff found that the use of Sears subject headings made conversion of catalog records to machine readable form both expensive and time consuming, as MARC records and most of OCLC's files retained only LC subject headings. A significant amount of modification (adding Sears subject headings) would have to be done on all entries for production of machine readable union catalog which would accurately list local holdings.

A union catalog of materials held by the two college libraries, the Caribbean collections of the public libraries and a special library's collection on Caribbean subjects was found to be more easily prepared since all these collections used LC subject headings. In addition, this limited union listing would emphasize local Caribbean materials.

The possibility of centralized technical services was also studied, with reference in particular to using OCLC as an on-line bibliographic tool. Differences in unit costs were significant, however, and given the need for Sears subject headings, OCLC data would have required constant modification. Most respondents received at least 50% of their books preprocessed. All other cataloging was done at the individual libraries from CIP information, standard cataloging tools, or original cataloging which was assigned by the librarian. Catalog cards for original cataloging were produced in-house. Typically, professional librarians performed all aspects of cataloging and processing with little or no support staff. The average pre-processing cost came out at \$.774 compared to \$1.80 for first time use charges alone through AMICUS/OCLC. No comparative data was available on the full cost of cataloging library materials.

The project staff concluded that a centralized cataloging service would be unable to charge libraries the full cost of on-line OCLC cataloging and processing and still be competitive with current expenditures. Similar findings had been reported in Markuson's Indiana study of small libraries.¹⁴ In that study "acceptable" cataloging costs in small libraries were judged to be about \$1 per title as opposed to \$5 to \$10 per title in larger libraries.

The development of standardized statistical report forms and centralized gathering of detailed data on library use had since been designated a priority project of the territorial library agency under the supervision of the Systems Librarian. Special studies on performance of library services as well as continuing collection of library activity data, such as circulation and borrowers registration, are planned for the coming year. The Head of Technical Services for the public library system has been asked to draw up a plan for centralized technical processing facility open to all territorial libraries. This center would be a potential node in the national bibliographic network and would support a regional bibliographic data base, using manual or automated methods, as feasible.

Copies of the 20 page report on the survey of Virgin Island libraries were distributed to interested respondents and discussions of its findings and recommendations influenced the formulation of the model plan for networks in remote, disadvantaged areas. A full text of the Virgin Islands survey questionnaire is attached in Appendix A.

National Library Survey

Lacking substantial professional literature on inter-library cooperation in other remote, disadvantaged areas, it was necessary to go directly to selected librarians in other parts of the United States via mailed questionnaires for data on the operations of their libraries in networks. By compiling their answers, a picture of network activity in isolated locations would develop.

Selection of the survey population was made in terms of limited (under 100,000 volumes) holdings: public, special or academic library service and isolation from large research libraries. All libraries were located within the jurisdiction of the United States, since the future development of territorial libraries depends on action within the greater U. S. library community. Priority was given to surveying the non-contiguous states and outlying territories because of their similar problems in communicating with library networks on the mainland.

The survey population was located in eight states, all five outlying territories and the commonwealth of Puerto Rico.

Thirty-one questions were asked, twelve of which described the library's resources, personnel, budget and procedures. Librarians were asked to name any local network, regional systems, consortium or other cooperative group made up of independent libraries in their area. A description was requested of their participation (or non-participation) in these cooperative programs and of characteristics of the programs themselves. The final question asked for the name of any regional or multi-state network in which they participated. Distributed in December 1976, a total of 185 usable responses were received by April 1977 (68 per cent).

The VIDLNS survey reached a group of small, isolated libraries holding an average of under 30,000 volumes, spending under \$10,000 per year and staffed by an average of two or less professional librarians. So like the territorial libraries in some ways, these libraries were already deeply involved in library networking. Approximately half (93 of 185) of the respondents participated in local library networks, and thirty-nine libraries (about 21 per cent) replied that they belonged to multi-state networks. These findings demonstrated that large networks, such as the Bibliographic Center for Research in Denver, MINITEX from the University of Minnesota and OCLC, can reach the small, isolated library. Public libraries were more active in local library networks than small academic or special libraries. Academic libraries reported membership in multi-state networks slightly more often than other libraries.

Library network activities emphasized resource-sharing, with interlibrary loan the most popular activity reported. Local networks performed multi-service functions, reporting an average of six activities and a mode of three. Each type of library reported different activities in the second and third highest rankings. For public libraries, reference referral and communications functions ranked second and third, respectively. Among academic libraries production of union lists of serials rose to second place, followed by centralized catalog card production. The six special library respondents named interlibrary loan, reference referral and production of union lists of serials in a tie for the three top ranks.

Traditional means of communications, such as telephone and postal service, were commonly reported, rather than advanced technology. Computer systems, in fact, were named least often in this regard, and also "cooperative development of library automation" was named least often as a network activity. Most respondents didn't know in which areas their local network used computers.

Librarians rated the performance of networks highly. A majority of those responding chose "excellent", and all others marked "good" or "satisfactory". As further evidence of the librarians' satisfaction, the number of benefits of network membership marked by respondents outweighed problems 329 to 49, a ratio of over 6 to 1. "Increased access to information for users" was the benefit most often indicated.

Over a third of respondents, however, answered that there was no network or cooperative program in their area (69/185 or 36.7 per cent). Over two thirds replied that they did not belong to multi-state cooperative programs. Unfortunately, only five of sixty-eight librarians responded to the question on why their library did not participate in existing local networks. A number of respondents, about 12 per cent, were unsure either about the existence of networks in their area or their library's role as an inactive participant in regional or national cooperative programs. A full tabulation of survey findings is given in Appendix B.

The subject of library networks, their impact on services and their future developments, presents a vast and troublesome area for research by library scientists. Lacking basic definitions and information, each study must start essentially from scratch. The national survey of interlibrary cooperation presently underway by the National Center for Education Statistics will be of great benefit in establishing guideposts for future research projects. The resources and needs of remote school libraries as well as academic, public and special libraries must be taken into account. It was regrettable that school libraries had to be excluded from this survey; however, adequate directory information was unavailable for school libraries in other parts of the country.

The VIDLMS surveys have examined network experiences of small, isolated libraries. While the tools are lacking to determine "optimal organization" of remote library collections, this study has concluded that networks have been found to be beneficial, feasible form of library service organization in remote, disadvantaged areas.

Both the local and national surveys of libraries in remote, disadvantaged areas were reported to the Library Research Roundtable of the American Library Association at the annual convention in June 1977. Their findings have been reported in local news releases and to the national library press.

Feasibility of a National or Regional Network

From the beginning of the VIDLNS, there has been substantial interest in the OCLC network and linkage with it from the Virgin Islands. The cataloging services of OCLC were of first consideration, while all other potential uses of reference, interlibrary loan, and so forth were also of interest.

Professional library literature was not found to give adequate evidence on the effectiveness of OCLC in remote, disadvantaged areas: nor did it seem to document OCLC's ability to "lower the rate of rise of per-unit library costs while increasing availability of library resources", an objective stated by OCLC.¹⁵ Lacking performance data or published evaluations of OCLC's service capabilities in isolated regions, the VIDLNS engaged in a series of conferences, consultations, and on-site inspection to investigate the costs and benefits of OCLC membership.

It was first presumed that the cheapest, most efficient way to go about linking the Virgin Islands to OCLC would be to participate in the formation of a regional Caribbean user group and service center. Several libraries would share the costs of telecommunications from Ohio to a central point in the Caribbean, thereby reducing the individual library financial burden for data transmission.

Early in December 1976, the VIDLNS Project Director along with the director of the Caribbean Regional Library, the directors of libraries for the University of Puerto Rico (UPR) and Inter-American University (IAU), representatives of the University of the West Indies in Trinidad, Jamaica and Barbados, and director of the Library Development Program for the OAS, visited OCLC to inquire into the feasibility of developing a linkage among the Caribbean libraries and the OCLC data files. The group then travelled to Washington, D. C. for consultation and discussion with representatives of the OAS, the Agency for International Development (AID), and the MARC Development Office at LC, and USOE. There Caribbean librarians explored ways to obtain federal funding for a regional network and the coordination of efforts needed in the development of such network.

In addition, efforts were made by the Project Director to investigate the possibility of regional networking at the eighth annual conference of ACUEIL. At this meeting he gave a presentation on the VIDLNS and completed workshops on planning national library and information systems using the UNESCO models.

In January, 1977 project staff travelled to San Juan, Puerto Rico to meet with librarians and tour library facilities at six institutions. Several interviews were held regarding cooperative programs in technical services, utilization of electronic data processing, development of bilingual library service and other potential areas of interlibrary cooperation. A joint review of plans to link the Caribbean with OCLC took place with Mrs. Marietta Daniels Shepherd, Chief of the Library Development Program of the OAS, and librarians from IAU, UPR and the USVI participating.

This exploratory research produced inconclusive results. Cost studies promised by OCLC were never sent to the Caribbean libraries which had requested them. Grant proposals to AID by the libraries of the University of the West Indies are still under negotiation. Another grant proposal sent to USOE by libraries in Puerto Rico was not funded. A change in key staff at UPR, the Caribbean Regional Library and IAU means future cooperative programs with Puerto Rican institutions must be renegotiated.

Seeking more detailed information on the possibility of a Caribbean connection to OCLC, VIDLMS staff invited two mainland experts in library network operation to consult with the project. Mr. James Kennedy, Executive Director of the AMIGOS Bibliographic Council, and Dr. Edwin Brownrigg, Director of Academic Programming at New York University, met with Virgin Islands librarians and government officials during February and March, 1977. After conferring with the project staff on local needs, Mr. Kennedy presented his estimate for operating costs of AMIGOS membership and an on-line computer link from Columbus, Ohio to St. Thomas, V. I. through Dallas, Texas and San Juan, Puerto Rico. Dr. Brownrigg discussed the use of alternative hardware for such linkage and explored the local resources of governmental and private commercial data processing centers.

Through the advice of these two experts several major problems for networking in remote locations were identified.

1. Telecommunications. The standard OCLC 100 terminal using a cathode ray tube (CRT) display unit places a heavy demand on telecommunications transmission to the USVI. The alternative use of more economic teletypewriter terminals was recommended because of their ability to handle lower grade data transmission signals over locally available equipment at no loss of information. Also, teletypewriters may be connected to commercial packet-switching networks, such as TMSHARP, which operate at a lower cost than dedicated telephone line service.

Unfortunately, to the best of our present knowledge, OCLC has been extremely reluctant to accept new users

with less than CRT terminals and dedicated line transmissions.

2. Expenses. Based on minimum estimates including two OCLC 100 terminals, dedicated telephone line transmission from Ohio to the Virgin Islands through Dallas and San Juan, first time use cataloging charges for public library acquisitions, production of catalog cards for the public libraries, and start up fees for membership in AMIGOS, the total for first year funding amounts to approximately \$85,000. This would represent an increase of about 10% in the Bureau's current operating budget for all library services. Because of the current fiscal crisis facing the USVI government, 100% local funding for OCLC membership is not considered a possibility. In August, 1977 the entire government suffered from an across the board budget cut of 20%. This event underscores the magnitude of the funding problem in remote, disadvantaged locations. The staff has concluded that, for the foreseeable future, the USVI will not be able to single-handedly support an OCLC link which would meet OCLC's current requirements to the Caribbean. Regional library cooperation seems essential.

3. Prepayment and contracts. Membership in AMIGOS as in OCLC requires contractual agreements and prepayments of yearly fees. The local regulations governing library agencies do not include a provision for prepayment for services, and any type of formal contract by a government agency can be expected to take an average of six months in negotiations. These obstacles can be overcome. However, for the sake of efficiency, local libraries willing to use OCLC must cooperate in setting up contracts for OCLC services.

4. Limitations on local data processing. In terms of producing a local, machine-readable data base of Virgin Islands library holdings, present governmental data processing facilities were judged to be inadequate for this task in both hardware and software. A major problem is the lack of remote terminal capability for entering and editing data. A proposed new installation at the government's data processing center of an IBM 370-138 will greatly improve their facilities; however, no assurances were possible as to when this might occur. The production of a retrospective union catalog therefore, must be undertaken by a commercial vendor if it is to be completed in the next few years. Funding for such project again poses a problem as commercial estimates are high.

5. Inappropriate workspace for automated library operations. The Baa Library in St. Thomas which houses the central processing and technical services unit for the territorial library agency, occupies an historic building which is 161 years old. As part of

a National Historic District, major structural changes in this facility are prohibited, and severe overcrowding limits both the quality and scope of present services. Plans have been made to move this unit to a modern building in the coming year as part of a comprehensive reorganization plan. This relocation would assist the staff in adapting to automation of library routines and provide proper housing for sophisticated electronic hardware.

In summary, preliminary findings of the VIDLNS research show major, but not unsurmountable problems in connecting these remote libraries with the OCLC network. In this isolated, disadvantaged location the linkage costs are high, and not enough evidence of OCLC's cost effectiveness in small, remote libraries exists to convince local funding sources that this would be the most effective use of the public's money.

While the project staff considers OCLC a tool for upgrading library services, exploratory studies have indicated that certain preconditions must be met before a local membership in this national network can become a reality. First, as originally presumed, cooperative action by several Caribbean libraries will be needed to lower telecommunications costs between Ohio and the Caribbean. OCLC must authorize adoption of teletypewriter terminals and use of a packet-switching computer network. Secondly, a structure for joint action by local libraries is needed to facilitate network membership contracts and fee payments.

Feasibility of a Local Network

The VIDLNS staff placed a high priority on exploring the feasibility of a strong local library network. The local network would act not only as a direct service provider, but also as a delivery system for services received from regional or national networks. Without an effective local network, many of the benefits of regional or national library cooperation would be lost to the widest possible user group.

During this first year, the idea of a local network was presented and explained to local librarians. Demonstration projects illustrated the potential for expansion of services through interlibrary cooperation. Actual services made networking a concrete experience and created a favorable climate for planning a solid network structure.

The VIDLNS considered four institutions as essential building blocks for a local library network: a) the public library system, b) the local agency for elementary and

secondary schools, c) the professional library association, and d) college library system. These agencies offered the wide variety of resources and professional expertise necessary for a local network. In the Virgin Islands, each of these institutions had developed occasional cooperative projects. For example, the school library agency had operated a territorial AV library for several years serving schools and the general public. The college had issued a machine readable union list of serials from four collections on two campuses. The demonstration network brought these institutions together for a continuous program for interlibrary cooperation.

An Advisory Board of librarians representing these four institutions, educators, and computer scientist was formed in October 1976. The Board met during the following year to advise project staff, receive reports on the progress of the study and explore future cooperative ventures. Discussions were general in nature. The Board's greatest value was in providing a rare opportunity for the interisland exchange of views on library development. The concept of networking was always the primary concern at its meetings.

Additional efforts to introduce the idea of networking among libraries produced a series of articles on library networks in the territorial library agency's newsletter, a general publicity campaign on the progress of the study in the local newsmedia, staff involvement in local professional library association meetings and a variety of staff development sessions for local librarians. The occasional published reports on VIDLMS research have also been distributed locally. Appendix C gives examples of these information releases on networking.

Union listings were undertaken by VIDLMS staff, as described in later sections. These union lists were developed by the project's Systems Librarian with a combined participation of thirteen college, public, school and special libraries. Resource-sharing among the public libraries encouraged with added professional staff to handle interlibrary loan and information and referral (I & R) services. Coordinated by the study's Research Librarian, one of the I & R products was a resource directory of secondary school, public, college and special libraries in the USVI. This informative guide has been distributed free of charge locally and throughout the region.

Throughout the year, the territorial library agency strengthened the public library system through reorganization and establishment of systemwide policy. The role of the Technical Services Department was clarified so that it now bears responsibility for systemwide cataloging standards and control. Depository legislation was enacted requiring that all local government documents be dis-

tributed to depository libraries through the territorial library agency. This created the opportunity for establishing uniform bibliographic control and central processing of government documents. A regional acquisitions program sponsored by ACURIL named the territorial library agency as the distribution agent for the Virgin Islands. Under this program, ACURIL libraries will be able to select and receive national publications from the English-speaking Caribbean through five distribution points. As one of these five outlets, the territorial library agency participates as a key node in the fledgling Caribbean acquisitions network.

A major innovation in the territorial library agency resulted in the establishment of an R & D Group which plays a major role in long range planning and development of territorial library services. Three full time professional positions, supported by clerical and para-professional assistants, report directly to the Territorial Librarian on matters of importance systemwide. The major function of the R & D Group is to implement the VIDLNS objectives, but it also works on such important projects as planning for a new territorial library headquarters facility, a complete revision of the public library system's personnel and salary structure, grants-raising, and planning for the territory's pre-White House Conference on libraries and information services.

During the exploratory phase, through the introduction of the network concept to key library institutions and organizations and a general awareness campaign so that the public might be familiar with library networks, the VIDLNS has begun work on local network formation. Exploration of local library resources and demonstration of cooperative activities have illustrated the potential for local network services. Reorganization of the territorial library agency has made its administrative support of a local network a possibility.

III. DEMONSTRATION PROJECTS

Demonstration components of the VIDLNS were designed to link local libraries in networking activities. These initial experiments with networking support the feasibility of local library networks in remote, disadvantaged areas.

Interlibrary loan among public libraries was encouraged by adding professional staff to field requests for materials. Dependable delivery service remained a problem, but the release of local union listings was expected to stimulate additional usage of the service.

Production of a union list of films exposed several weaknesses in local data processing facilities. Fourteen months were required from writing the computer program and solicitation of entries to distribution of the final publication. The second project, a union list of periodicals and newspapers, took ten months to complete, and was much less expensive to produce. Both lists were distributed at the end of the grant period, and feedback on their impact is anticipated in the project's Test Phase.

A Union Catalog of Books was also designed; however, no further action could be taken on this project without significant additional funding. Interim measures for a local union catalog of books have been proposed.

Design for a Union Catalog of Books

One of the demonstration activities of the study was to produce a design for an on-line union catalog of local holdings. Information gathered during this design phase was submitted to the study's Advisory Board for union catalog planning.

Production of a union book catalog in machine readable form would be a vital link among libraries in the implementation of local interlibrary loan and would also contribute to national resource sharing. Local acquisitions and retrospective collection building would become more efficient, as locations of costly, specialized materials would be readily identified. Conversion of cataloging to machine readable form was also seen as a means for coordinating local cataloging according to MARC II standards.

A number of alternative means of production were considered, including use of CCLC storage tapes; contracts with commercial firms; and contracts with the NUCOS network. In all cases, input costs for local entries were

high because local libraries used Sears rather than Library of Congress subject headings. Entries for public library special collections are non-standard, as they used the Universal Decimal Classification through 1976 and locally assigned Dewey Decimal numbers thereafter.

One of the first alternatives considered was the possibility of producing union catalogs as a by-product of OCLC membership. Storage tapes of local cataloging activity could be converted to union listings. The combined costs of membership, telecommunications, cataloging activity and union list production made this the most expensive alternative considered. OCLC's charges for adding retrospective collection information to the data base and first time use charges were estimated to be twice as expensive as the per entry fees of the commercial vendors, for example. Some OCLC costs could be reduced if all local libraries' holdings were input with one assigned location designator for the territory, assuming that they joined a regional network as one unit. However, nothing would indicate on the public OCLC record which of the local libraries held the title. This would defeat, in part, the record's ILL function.

Three commercial firms which convert data and produce book catalogs submitted detailed proposals. Estimated costs for conversion and editing of the public libraries' retrospective catalog ranged from approximately \$30,000 to \$56,000 for a turnkey effort. Other options, including one in which the library inputs and edits data, had lower prices but entailed increased local expenditures for additional staff. The range in price for the turnkey effort resulted from differences in the firm's data bases and authority work and may have also reflected differences in approach to preparing estimates.

A regional network service center, the AMICOS Bibliographic Council, estimated charges of \$20,000 for converting local holdings data and providing it on tape to the territory as a non-member. As with the estimates from commercial processors, costs varied depending upon the number of local titles found in their data base and the number of titles needing full conversion to machine readable format.

Since the public and school libraries acquire most of their materials preprocessed from the same jobber, it was hoped that local cataloging information would be available on the jobber's MARC storage tapes. The present vendor was unable to supply this service. Inquiries are being made to other jobbers which offer both hard copy and MARC tape records of cataloging supplied to their customers.

Once MARC records have been created, either hard copy

catalogs or computer output microfilm (COM) catalogs may be produced. In remote, disadvantaged locations, hard copy is still to be preferred since COM readers, which cost \$800 to \$850 apiece in quantity, have been difficult to maintain and service. Estimates for microfilm catalogs from firms offering the conversion and printing package ranged between \$2,000 and \$6,000 for 20 copies. Only one firm proposed book production, at a cost of approximately \$12,000 for a minimum of 100 copies.

Because the territorial library agency includes a photoduplication laboratory, the staff concluded that the best local alternative would be to request a master copy of the union catalog on COM. Equipment could be purchased to reproduce it in hard copy using in-house facilities.

Interim measures have been proposed for union cataloging while additional funding is being sought for conversion to machine readable data. The Advisory Board is presently considering a title entry card file of current cataloging including public, college and special libraries. A union shelf list presently exists for the public library system, and this would be a first attempt at expansion to a local union list for all types of libraries. Data conversion might begin from listings in this title entry catalog.

Interlibrary Loan

The utility of local resource-sharing was demonstrated during the first year of the VIDLUS by formalizing interlibrary loan among the branches of the public library system. It should be noted that since their establishment in the 1920's, the four public libraries have experienced a checkered administrative history. The current role of the territorial library agency was established less than ten years ago, and system-wide policies are still being set.

Resource-sharing is seen as the primary means of expanding access to library collections especially for residents served by smaller libraries. All of the public libraries have limited budgets for acquisitions and cannot hope to completely satisfy all requests without access to other collections. Resource sharing will allow librarians to concentrate their purchases in special subjects of local interest with the confidence that the general reader will not be deprived of service. The overall benefits of enlarged book budgets will be spread further by an effective ILL service. An accident of local geography has placed both of the largest local library collections on one island, while the majority of the territory's permanent residents currently live on another. Interisland delivery of library materials, therefore, is

considered essential to equalize access to local information sources.

After observing local procedures and staffing patterns in the public libraries, a number of problems could be identified. One of the most critical obstacles to ILL development was the limited staffing in reference and reader services. A proposal was submitted to ACTION to assign professional librarians as VISTA volunteers to the territory's public libraries. Four volunteers were placed under this program providing in-house and telephone reference service, assisting patrons in library use, and handling interlibrary loan of materials. ACTION has agreed to continue this program on an annual basis.

A variety of delivery systems have been tested, using existing messengers and library personnel. However, at present no dependable delivery system has been arranged. Special funding for library messenger service has been requested from CETA. The loss of control, confidence, and dependability of interlibrary loan delivery when handled through a second or third agency costs more than it saves. In order to build an interlibrary loan service for all local libraries, dependable delivery under the control of the libraries is essential.

Policies and forms for record keeping were designed, tested and modified. Meeting with public service and branch library heads uncovered wide support for sharing of library resources. Workshop presentations at staff meeting familiarized all agency personnel with ILL philosophy and service. Telefacsimile service will be installed between the two major islands on a trial basis for transmission of printed information. The distribution of the union list of periodicals is expected to increase interlibrary requests for journal articles, and statistics on that ILL activity will be closely watched.

Preliminary work has also been done on the potential for resource sharing between territorial and mainland libraries. Small libraries in remote, disadvantaged areas cannot afford to ignore the riches available to their patrons through national resource centers. The enormous federal investments represented by the Library of Congress, the National Library of Medicine and the National Agricultural Library, to name a few, are available to the nation's borrowers in varying degrees.

Results of the project's exploratory phase include a list of specific needs to present to the study's Advisory Board. Continued planning and expansion of local resource sharing is expected during the coming year. Tests will also be conducted on the availability of materials from special national resource centers.

Union Lists of Films

In response to a concern by the territory's school library agency for a listing of their films and other films available for classrooms use, the first machine readable union list prepared by the VIDLNS was of 16mm films. Information on these expensive library materials was not widely available, and a union listing was needed to increase access to various small local collections.

Seven libraries participated in listing their holdings, including a public library, college library, government agencies and public schools. The number of titles printed in the list totalled approximately 830. The Anglo-American Cataloging Rules for elements required in the description of motion pictures and filmstrips were followed. The format consisted of fixed fields and will accommodate other AV materials, such as filmstrips, 8mm film, film loops, and videotapes, if so desired in expanded editions. The printed catalog is composed of an alphabetic display of the full entries by title, subject index, index for authors and actors, and lists of French language, Spanish language and classic films.

Entries were solicited during September 1976 and continued to come in through part of December. Network staff edited all entries and assigned Sears subject headings for entries other than those from the school library agency. Key punching was begun in November, 1976. Because the staff of the data processing center had other tasks set as priorities, keying continued through March, 1977 with some corrections being made much later.

Long delays in receiving the main listing and the various indexes were experienced. Program and keypunch corrections were not completed until July. A final delay was experienced after copy preparation when VIDLNS staff was informed that the data processing center's print chain did not contain all punctuation required for the list. Only after the final printouts were approved did the center attempt, without success, to locate a facility with a full character print chain to print the list. Final printing and binding were done by the photo-duplication laboratory of the territorial library agency. Because preparation of the list has been so long delayed, it is already outdated in some respects. A limited printing of 175 copies and distribution took place in December with an update expected in March 1978. All school and public libraries received copies free of charge.

Cost for key punching, machine time, programming and supplies amounted to \$2,363.00. Staff time at participating libraries; VIDLNS staff work in cataloging, copy preparation, proofreading and consultation with programmers

are not included in this amount and must be considered part of the development costs. Rough estimates of per entry costs of the first edition exceed \$2.80. Final printing charges have not yet been determined.

In hindsight, this project not only produced a useful library tool, but also exposed a number of weaknesses in local data processing services. Preliminary assessment of local expertise had been unrealistic. Mistakes were made in arranging for keypunching staff and in timetables for program development. Improvements in these areas in later data processing projects lowered costs and promoted more efficient use of resources.

Union List of Periodicals and Newspapers

The VIDLNS created a machine readable union list of periodicals and newspapers as a second tool to support local resource sharing. Long back runs of periodicals are extremely rare among local libraries, as are periodical indexes. A union listing would assist both students and general readers in locating hard to find information.

An existing machine readable periodicals file of approximately 1,000 titles was made available by the local college libraries. It was decided to retain this original format and to develop a new edition along its lines. This created a rather informal finding list for local periodicals, instead of developing a precise serials catalog.

In March and April entries were actively solicited from public (branch) libraries. Because of incomplete records of holdings, inventories of branch collections had to be conducted over the summer months. All entries were submitted by August, and keypunching of new data was finished in September. The union list of periodicals contains about 1800 entries from the holdings of college, public and special libraries. Because of previous problems with the government data processing center, attempts were made to secure donated computer services from local business firms with no success. Faced with the need to pay commercial rates for data processing and assured that some of the problems with the government center had been solved, the VIDLNS staff continued to work with the local government's data processing staff for modifications of the college's programs and data entry. A keypuncher was hired by the library to increase control over the quality of input data and to make corrections in the existing data base. Minimum costs for the union list of serials, excluding VIDLNS staff time and staff time contributed by participating libraries, is estimated to be at least \$700.00

to \$800.00, making a per entry cost of approximately \$.45. Copies for distribution will be produced through the photoduplication laboratory. Selected local libraries will receive copies of this union listing free of charge.

Production of the periodicals list demonstrated the utility of machine readable data bases. Costs were dramatically lowered in this second union listing for several reasons, primarily because of the type of data collected and the program itself were less complex than those used in the film list. A major part of the data base already existed in machine readable form. Only minor modifications were needed in the computer program to run the data. Future editions of the periodicals list will be economical to produce also, because major development costs have already been absorbed.

IV. A MODEL PLAN FOR LIBRARY NETWORKS IN REMOTE, DISADVANTAGED LIBRARIES

Typical Characteristics

During this study several recurring or typical problems have been identified which faced administrators of remote, disadvantaged libraries. These characteristic problems influence a library's need for and ability to work with networks.

The limited budgets common to disadvantaged areas usually result in small library collections and reduced physical facilities. Generally, as documented by both the local and national VIDLNS surveys, only one or two professionally trained librarians make up a staff which is expected to provide public services as well as administer the library. The librarian becomes a generalist, responsible for all operations and lacking the time and tools to develop expertise in any particular area of professional skill. The program of library service also becomes generalized with little money available to commit to experimental or innovative projects. The isolated nature of the community creates barriers to interaction with other libraries, professional associations or continuing education in librarianship.

In such circumstances, interlibrary cooperation or networking can be seen to offer particular advantages, including direct user services and indirect staff support systems. Various needs of small, isolated libraries can be matched with the benefits resulting from jointly sponsored programs. If the library network offers access to specialized professional tools and experts, the library manager gains ways to make his or her library operations more efficient. Access to specialized bibliographic tools, for example, could affect library acquisitions, processing, cataloging of materials and guidance of users to pertinent source of information. Bibliographic networks could free professional staff from clerical tasks or release staff from technical services to public services operations. Central processing of library materials by the network can also relieve library staff of unnecessary "busywork".

If resource-sharing is a major network activity, the library's information and materials resource base will be greatly expanded, and, consequently, the quality of its loan service may be upgraded. This is a highly desirable service for remote libraries, as demonstrated in both local and national VIDLNS surveys. Interlibrary loan of materials enlarges each library's capacity to serve its users. Special methods for the transmission of ILL requests, compilation of union lists of materials, the designation of primary resource centers and document delivery

systems will all substantially facilitate resource-sharing programs.

Another preferred activity, the systematic referral of information requests along a reference network, can produce access to a skilled level of service without the expense of additional local professional staff or specialized collections. A reference network may also allow for searching of computer-based bibliographic data at a greatly reduced expense because many libraries would be able to send queries to a single terminal installation and reference specialist.

Networking by its very nature increases communications among its members and often makes special channels of communications available to libraries. Reference service as well as interlibrary loan may be handled through teletype, computer terminals, or other special hardware. Workshops and seminars sponsored by the local network can assist librarians in keeping current with developments in library science without taking essential staff members away from their posts for extended periods of time. The network organization itself provides a forum for communications on professional matters, and it commonly issues a newsletter or other publications with news of innovations. Isolation from professional issues can be reduced through these contacts with other network members.

Cooperation creates the possibility for more flexible programming through network sponsored projects. The collective authority of the network may help to justify innovations to local sponsors, and by sharing the financial burden of offering new programs among the network members, any one library will be relieved of excessive fiscal strain. Cooperative activities can also be organized to reduce, through economies of scale, the rising costs of the goods or services.

The benefits of networking cited above should be balanced with the costs of its administration and services. It would seem most logical to spread these costs among the greatest possible membership, and therefore, the VIDLIS staff recommends multi-type library cooperation. In this fashion, the greatest variety of library resources may be united in service to the greatest number of library users.

The superstructure of local, multi-type networks need not be an overwhelming burden to its members. A wide variety of structures now exists, and professional librarians agree that each locality requires its own variation according to its political realities.

In any case, the local network must have some form of legal identity to ensure that it may participate easily in

regional and national networks as they develop. Ideally, this would mean that the local network enjoy the tax status of a nonprofit incorporated body, whether in its own right or in association with a larger institution which fits those characteristics. This legal status will become a necessity when securing funding, signing contracts and otherwise acting for the membership as a whole.

In order to clearly differentiate the goals and services of the network from the goals and services of any of its members, a network structure should be established, separate from any other library organization. Personnel assigned to networking functions must have unambiguous guidelines for their operations, regarding hierarchies of authority, obligations to the host library, funding and job security. Traditionally, local networks have been heavily supported by in-kind contributions by their member institutions. These individual contributions must not be confused with the network or threaten its autonomy.

One requirement for any network should be clearly stated memberships obligations in terms of staff responsibilities, time and money. Any geographic limits of the network's services or membership must be clearly spelled out. The inclusion of academic, public, school and other types of libraries means that members will have widely varied backgrounds and expectations. Open membership and clearly defined membership duties and privileges will encourage full participation.

Funding for a local network, as for any other, may come from membership, contracts or service fees; direct or foundation grants; state or federal aid. LSCA Title III was specifically written to encourage interlibrary cooperation. Dependable, continuing funding is the goal, though a difficult one to attain. Networks are now being encouraged to plan for developmental funding as well as for operational funds. Special funding for initial program development must be complemented by guarantees of ongoing funds for the continuation of services.

With their limited resources, remote, disadvantaged libraries may find finances the hardest part of the network bargain. The high costs of telecommunications and data processing hardware in some cases will only be met through special federal or foundation assistance. A case must be made for special subsidies for the connection of small libraries in the formation of the proposed national library network. Otherwise, libraries in remote, disadvantaged areas will be effectively excluded from a national library resource.

In formulating plans for a local network, the leadership of one library or library agency can be very effective,

especially in locating and applying for outside financial assistance from state, federal or private sources. In fact, until a legal identity for the network has been achieved, outside funding for group programs must go through individual members. The identification of national library resources available for local use may best be done through individual members, as well. For example, in the case of territories, agreements for special access to federal libraries may only be possible through the territorial library agency. Special libraries may also have privileged access to national library resources through connections with businesses or the professions.

Excessive dependence on any one library for total network operation is an unhealthy development, and it should be discouraged from the beginning. Delegation of authority to a small planning group, therefore, is recommended. All potential members should be kept informed about network plans. Inclusion of all local libraries in the planning group, however, would not result in an efficient development process. The larger a planning body grows, the more opportunity arises for difference of opinion and delays in the planning process.

Plan for Network Development

The development of a local multi-type library network for remote disadvantaged libraries can be seen as a series of four stages: exploration, planning, testing, and operation.

The exploration phase covers preliminary identification of and contacts with potential members for a local network. Existing networks in the region should also be identified and participation in their network programs considered. Alternative communications systems and their costs should be studied in detail, as the type of access to electronic data processing equipment will significantly effect network planning. The valuation of alternatives will come at the conclusion of this stage of the process. At this point libraries must decide whether to join an existing network or to go on to the next phase.

Planning for a local, multi-type library network requires the statement of goals and objectives common to all members. Improving library service to users, reducing rising costs, making effective use of personnel and working effectively with statewide and regional networks should be considered for the goals statement. Decisions must be made on the organizational structure and on initial program plans. Membership qualifications, duties and privileges should be spelled out as soon as possible. Sources of funding must be located and money raised for beginning network functions.

Planning for network activities which are dependent upon sophisticated technology should be attempted only after detailed cost analysis of present methods of operation and a survey of community needs and resources. In particular, local electronic data processing and telecommunications capabilities must be examined thoroughly. The limited local labor pool may pose restraints for adequate staffing. Possible problems in servicing innovative hardware in remote locations should be considered. The advantages of joining a national or regional computer network, or, indeed, of developing computer dependent procedures at the local level, may be outweighed by any combinations of these problems.

A test phase is recommended, if at all possible, to demonstrate the network's effectiveness as soon as a demonstration program can be put into motion. A detailed plan of operation must be drawn up, personnel and committees assigned to its work, and the program implemented on a small scale. Reports on the program and an evaluation by management and the users will indicate any modifications which are needed.

The importance of the test phase lies in creating a

concrete service, a product rather than an idea of interlibrary cooperation. It has been suggested that successful network development is directly encouraged by speedily developed services. It could also be sabotaged by a program which suffered many delays before going into operation. Even with limited funding, tests of full service programs can be demonstrated without over-commitment of group resources.

The final phase is network development, an evolutionary process which must be continued throughout the life of the organization. This entails the implementation of all programs and services in full operation and modifications as needed. Policies should be established to direct the growth of the network and its relationships to other agencies. Secure sources of continuing funding must be located and maintained. This final framework of the network will be keyed to the goals and objectives as defined by the membership, changing with their needs.

The Virgin Islands Experience

The experience of the Bureau of Libraries and Museums in developing a Virgin Islands library network will illustrate some of the points mentioned above. The reader will notice, however, the extensive overlap of the "phases" when VIDLMS activities are outlined according to the proposed model development plan.

1. Exploratory Phase: January 1976-June 1977.

During this time the Territorial Librarian began an investigation of national, regional and local library network linkage for the Caribbean. Grant applications were submitted to the U. S. Office of Education for a network research and demonstration project. The study approved and official notification arrived in July 1976. The first installment of grant funding was received in October 1976. Project staff was hired to further network investigations.

The grant year's first quarter activity emphasized project planning and assessment of local needs and resources. The local survey was designed and distributed. Information was gathered on automated cataloging services and networks. In the second quarter, the national survey of other libraries in remote, disadvantaged areas was designed and distributed. On-site investigations of OCLC and federal libraries in Washington D. C. were conducted by the Project Director. Research on network development and methods of network organization was conducted. Studies were made for intra-and inter-island transportation for the circulation of books on inter-library loan. Staff continued to investigate data processing and conversion to machine readable cataloging. The VIDLMS Advisory Board was formed and had its first meeting. During the third quarter, consultation with experts in library networking yielded much valuable advice concerning local network development. A continuation grant proposal was submitted for the VIDLMS second year. Project staff examined academic library resources in Puerto Rico and discussed possible regional cooperation. The last quarter of the first grant year saw reports written and disseminated on both local and national surveys. Recommendations were issued on conversion to machine readable cataloging and union book catalog production. Standardization of library statistics was chosen for special attention.

At the end of the present grant period, the exploratory phase comes to a close. A decision has been made to concentrate on forming a multi-service, multi-type local library network. The immediate emphasis will be on resource sharing, reference networks and staff development. Expanded access to bibliographic information, coordinated acquisitions, central processing of library materials, and central AV services are also under discussion.

2. Planning Phase: May 1977-July 1978.

The VIDLNS Advisory Board has been reconstituted for the project's second year in order to stress participation of working librarians from local libraries. As potential members in a local library network, they represent a small planning group which will formulate a statement of network goals and objectives as well as advise on VIDLNS project objectives. Network membership requirements, services, and funding will also be explored by this body. By the end of the planning phase, an organizational structure for a local network will have been designed by project staff and potential network members.

The objectives of the VIDLNS' second year concentrate primarily on demonstration activities; however, some research will be conducted on topics which are related to network planning. The role of state and territorial library agencies will be studied in their relationship to library networks. Regional cooperative programs will be surveyed, and bilingual library service will be studied.

3. Test Phase: September 1976-December 1978.

An early commitment to testing and demonstrating the utility of interlibrary cooperation was made by the territorial library agency in its first grant application for federal funds. The union list of films was started in the project's first quarter. The union list of periodicals began with periodicals inventories and production design in the second quarter. Interlibrary loan among public libraries received special staff support through the ACTION program for information and referral service, beginning in the third quarter. These three programs are continuing and expanding in the second year of the VIDLNS project.

Additional tests of local interlibrary cooperation will soon be initiated. Acquisitions agreements will be proposed, delineating responsibilities for subject specialization among all types of local libraries. A local reference network among libraries will indicate each participant's subject strengths. In service training workshops will be conducted on automated data processing and network programs as continuing education for public library staff. A union card file of recently acquired titles will form the basis for later, more extensive union catalog projects.

In a related development, the territorial pre-White House Conference on Libraries and information services will be held in September 1978. It is hoped that many

resolutions and agreements supporting network programs will result from this unique public forum as well as from the deliberations of the national conference on libraries and information services.

4. Network Development: 1972-until?

The territorial library agency hopes to see the local library network in operation by late 1978. Its continued development is being treated as a high priority for territorial library service.

Hand in hand with the networking activities outlined above, the territorial library agency went through extensive reorganization during the grant period. Under the leadership of a new Territorial Librarian, innovation and reorganization touched every part of the territory's public library system.

New organizational charts illustrated changes in the administrative structure for the agency's library, museum and archaeological programs. The agency headquarters was defined as separate from the operation of any of its units, and branch libraries were placed on equal footing to receive headquarters' services. Plans for a much needed territorial library facility, one which could adequately house the agency's expanding central services, were formulated with input from the general public and institutional users.

A revised personnel structure and pay plan was proposed for the agency. The revised plan would allow for the continuing expansion and development of the territorial library system and complies with standards for library personnel organizations as set forth by the American Association of State Libraries of the ALA. In part, it formalizes current staffing patterns, and in part, it attempts to meet the projected personnel and program needs for the period of growth ahead. The plan revises the present career-ladder structure as it applies to professional and non-professional alike, so that employment within the territorial library system may constitute a career service which provides genuine opportunity for advancement. In particular, it provides for the recognition and appropriate compensation of librarians who assume administrative responsibilities.

Three new professional positions were created with systemwide responsibilities which report directly to the Territorial Librarian. Known as the R & D Group, these became key positions in the implementation of VIDLMS goals, as mentioned earlier. Committees were organized with representatives from various branches of the agency to handle systemwide publications policy

and to set acquisitions policy. Complete responsibility for ordering, cataloging and processing of library materials was granted to a central technical services unit for the public library system. Local public library bibliographic data from all islands now resides in one union shelf list and is under stricter controls regarding subject headings and name usage. A systemwide acquisitions policy details financial allotments to all branches and special programs. Given the geographic barriers between public libraries in the territory, the accelerated growth of systemwide activities is little short of amazing.

Mandated by a newly passed depository law, the territorial library agency became a distribution and processing center for territorial government publications. Documents are classified using a modified Superintendent of Documents system with LC subject headings. A quarterly checklist is being compiled, giving full bibliographic information, subject headings and classification for documents which are received. The agency disseminates these publications to five local depository libraries and through its gifts and exchange program.

ACURIL named the territorial library agency as one of five centers for acquisitions and distribution of English language Caribbean publications. ACURIL's Cooperative Acquisitions Programme of the Acquisitions Committee (English speaking areas) will promote the distribution of hard-to-get regional materials among association members.

Because of the active involvement of the Territorial Librarian, NCLIS agreed to the inclusion and participation of the outlying territories of the United States in the White House Conference on Libraries and Information Service. Preliminary plans have been made for a territorial Governor's Conference on Libraries, and joint planning with the commonwealth of Puerto Rico for strong Caribbean representation at the national conference has been initiated. Additionally, the territorial library system has been recognized with membership in the Association of State Library Agencies and the Chief Officers of State Library Agencies.

The territorial library agency can surely be described as an institution in the midst of radical change and expansion. Administrative structures have been substantially revised, and more changes are pending. The agency has shown new commitment to systemwide library development, supported by the R & D Group and new staff committee participation. The expansion of the centralized technical services unit made it possible for the agency to play a new active part in local and regional distribution of documents with full bibliographic control. The agency has accepted the challenge to participate, for the first time, as a fully recognized member of national

library councils where it can voice the needs of remote, disadvantaged areas for library services.

IV. SUMMARY OF PROJECT ACTIVITY

Project Evaluation

A non-librarian specialist in systems analysis and project evaluation acted as project evaluator for the VIDLNS's first year. Even though the evaluator lacked formal library science education, he contributed significantly to areas such as work scheduling, staff task assignments, measuring attainment of objectives, and providing community feedback, in addition to recommending methods of statistical analysis. The following information was supplied by the project evaluator.

Generally, the evaluator served to monitor and provide feedback on all aspects of network activities. His role would be described as consultative as much as evaluative. He provided information and advice suited to the on-going activities of the project, rather than a quantifiable system for measurement of project development and for effectiveness. It was determined that a more formalized procedure for project evaluation should become an integral part of future networking activities.

Methods used in the evaluation were strictly qualitative in nature. They consisted of informal meetings with project staff, participation in staff and Advisory Board meetings, and an examination of project files. Structured interviews were conducted with professional project staff in an effort to establish the degree of consistency among staff concerning project philosophy, short-and long-term goals, personnel organization, task assignments, research strategies, and so forth.

In general, it was judged that the original proposal was overly ambitious and required revision by present staff. It was suggested that the scope of the proposed work be reduced. Staff were advised to concentrate on those goals which could be accomplished within the given time period. The first year was later re-defined by staff as "exploratory" in nature, and a second year of expanded demonstration programs was planned.

A primary goal of the evaluation was to assess and provide feedback to staff concerning the quality of both individual performance and of general staff organization and procedures. Weaknesses were noted in several areas, and project staff made well reasoned attempts to correct them.

An initial lack of written staff communications and formalized, consistent procedures for creation and dissolution of staff projects led to several recommendations. Improved procedures were instituted near the end of the

grant period as were regular staff meetings. Closely related to the points mentioned above was the general lack of coordination of network activities. This was traced to the fact that the network offices were new, and that much reorganization of the entire, territorial library system was undertaken during this period.

Although staff competence and motivation was judged as very high, all three staff members comprising the administration of the network project were relatively new to the islands. The existing library system was found to be bereft of adequate records, making the process of familiarization more difficult. At least a portion of staff time had to be devoted to a consideration of means for adapting to local culture. It is difficult to judge if this had any significant (positive or negative) impact on networking activities.

Although there was a general agreement as to the eventual need for introduction of new technology, there was also concerned disagreement over the type of system needed, the resources required and whether or not the library system was capable of utilizing such services in the near future. A rudimentary interlibrary loan system was initiated, and union lists were developed, though not completed by the end of the initial grant period. Staff appeared reluctant to push most aspects of the program and remained at the planning stages of development.

The problems outlined above could be traced to the fact that staff was new to the existing system and to the considerable problems encountered in the already existing structure. The lack of cohesive public library system and the lack of substantial help from other territorial agencies also limited the staff effectiveness.

In general, the evaluation indicated that the network study was created in response to a real need in Virgin Islands libraries and that the questions as to its relevance for spearheading a reorganization of local library service should be answered in the affirmative. The staff was judged as aware of existing problems and well equipped to form alternative plans of action, when needed. Network staff made great efforts to communicate activities to the remainder of the library organization, and plans for increasing the quantity, scope and quality of those communications were constructed.

Objectives, 1977-78

The Virgin Islands Demonstration Library Network Study, Test Phase, has two main objectives, one relating to tests of the model network plan and the other relating to refinements of the network plan through further research. The objectives and the methods to be used to achieve them build on the work of the first year. The demonstration projects among public libraries are to be expanded to include all types of island libraries. Research findings carried over from the first year will be tested in 1977-78.

First Objective: Test the Model Network Plan

Include all types of local libraries in pilot network project. Involve all local librarians in some aspect of inter-type library cooperation. Document all tests and evaluate network plan.

1a. Propose cooperative acquisitions agreements among all types of libraries. Hold meetings of library directors and sign formal agreements relating to acquisition policies.

1b. Produce a Union Catalog of book holdings from machine readable data. Analyze costs of production and recommend update schedules.

1c. Solicit feedback on design and utility of the Union List of films and the Union List of periodicals. Gather current information on holdings, update lists, produce and distribute new editions.

1d. Develop reference network among local libraries identifying subject specialties for each member of the network. Evaluate ability to answer reference requests with local resources.

1e. Evaluate the Interlibrary Loan system designed for public libraries. Expand to include all local libraries. Identify research collections to fill requests which must be sent out of the territory.

1f. Conduct two workshops as in service training for library staff on network management and automated data processing in libraries.

Second Objective: Refine the Network Plan

Conduct research relating to the further development

of optimal organization of library services in remote, disadvantaged areas.

2a. Study the utility of mini-computers and other sophisticated small office machinery in remote library networks, both as independent systems and as remote access terminals linked to the central U.S.V.I. government computer center. Compare to commercially available services for automation. Recommend hardware purchases to support the continuing automation of technical processing and user services in network development.

2b. Study role of the state and territory library agency in relation to library networks operating in small states and territories. Report and disseminate findings.

2c. Examine the methods used by libraries serving bilingual communities. Measure the access which the local Spanish-speaking public has to Spanish language information and library materials. Formulate a long-range plan for developing Spanish language and bilingual library services.

2d. Survey the cooperative library programs in the Caribbean sponsored by the Association of Caribbean University and Research Libraries (ACURIL) and others. Publish a guide to these programs for local use. Investigate sources of future funding to support wider participation.

In summary, products relating to the tests of the model Network Plan will be of two types: The design and evaluation of a reference network, acquisition agreements, in-service training for staff, and interlibrary loan service; and the publication of a guide to cooperative programs in the Caribbean, a Union Catalog of books and updated Union Lists of periodicals and films.

Products of research related to the model Network Plan will include a report on the utility of mini-computers, a report on the role of state library agencies in interlibrary cooperation, a report on bilingual library service and cooperative programs, and the Final Report with a revised model Network Plan.

Conclusions and Findings

1. Networking appears beneficial to remote, disadvantaged libraries.

In so far as possible under the present circumstances, project staff have concluded that library networks are a feasible beneficial form of library organization in remote areas. This conclusion is supported by the findings of both local and national surveys which documented wide-spread enthusiasm for interlibrary cooperation, and more specifically for resource-sharing. Local demonstration projects confirmed the feasibility of local networks.

2. Local resource sharing networks seem to be more feasible than shared bibliographic data bases.

Among remote, disadvantaged libraries, local networks for resource sharing appear to be more generally feasible than connections to regional or multi-state networks for bibliographic information. While some activity was reported in networks for the sharing of bibliographic data, the costs of computer telecommunications and sophisticated electronic hardware were identified as major problems for disadvantaged areas with limited local funding. Hard data for cost comparisons were unavailable. However, it was estimated that charges for commercially preprocessed books would be more economical than local processing using an on-line link to the OCLC data base. The failure to offer Sears Subject Headings was seen as another deterrent to OCLC use by small libraries.

3. Tests discovered problems in document delivery and local data processing limitations in isolated areas.

In the local network tests initiated by the VIDLNS several obstacles to effective interlibrary cooperation were revealed. In establishing an interlibrary loan service, the low volume of demand did not justify full time library delivery service, and lack of full control over the delivery service provided by cooperating agencies made the deliveries undependable. In creating union lists of materials, the limited data processing facilities available to local government restricted the design of machine readable systems and delayed processing and publication of information. Because of a lack of local funds, a design for local union list of books was not implemented.

4. Use of computers in networking should be approached with skepticism.

The VIDLNS has concluded that planning for network activities should be attempted only after detailed cost

analyses of present operations and surveys of community resources. On-going as well as developmental costs for telecommunications and automatic data processing, the restraints imposed by a limited labor pool, and possible problems of hardware servicing in remote locations may outweigh the advantages to be gained by joining a national or regional network, or indeed by developing computer dependent procedures at the local level.

5. There is no such thing as an instant network.

Implementation of the four phase model plan has been recommended to establish a local library network in remote, disadvantaged locations. Its exploratory phase would gather information on local options and would be followed by active planning and testing of networking programs. A clear understanding of the objectives which are to be met, the analysis of present procedures and costs, and cooperative solutions using locally available material and human resources will be the keys to optimal organization of small, disadvantaged libraries in remote locations.

6. Inclusion of remote libraries in a national library network requires federal assistance.

It is of critical importance when discussing a viable national library network that the special needs of remote, disadvantaged libraries be considered. Problems of rapid dependable document delivery and the excessive costs of telecommunications to isolated areas must be addressed at the federal level. In order to equalize access to national library resources, some type of financial subsidy or federally financed communications system must be offered as a link for isolated libraries.

7. Additional research is needed so that librarians can evaluate the potential benefits of networking.

As noted throughout this report, extensive research remains to be done before the optimal organization of library collections can be ascertained. Librarians lack a means for measuring the potential of the networks which might serve them. Researchers are in the process of inventing new analytical tools and testing the appropriate methodology for decision-making. The tests being conducted by the VIDLNS during its second year will contribute to this effort.

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APPENDIX A:

QUESTIONNAIRE FOR VIRGIN ISLANDS LIBRARIES

OFFICE OF THE
DIRECTOR



GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES
DEPARTMENT OF CONSERVATION & CULTURAL AFFAIRS

BUREAU OF LIBRARIES & MUSEUMS

P.O. BOX 390, (809) 774 - 0630 CHARLOTTE AMALIE, ST. THOMAS, V.I. 00801

October 1, 1976

To All Virgin Islands Librarians:

In order to improve library service by making the limited collections and resources of individual Virgin Islands libraries more readily available to all our present and prospective patrons, the Bureau of Libraries and Museums has applied for and received a grant from the U. S. Office of Education to conduct a feasibility study on cooperation and for the creation of a demonstration library network.

The attached questionnaire is designed to assess the extent and nature of our resources and of present interlibrary cooperation, to determine present cataloging practices and costs, and to solicit librarians' views on the needs for cooperation and the priorities for the network.

No budget figures or other confidential information will be released for individual libraries.

We will report back to you on the results of the questionnaire and on progress with the network project. If you have any questions about the network or the questionnaire, please call Ms. Adele Zenchoff, Network Coordinator.

Please take the time now to fill in the questionnaire. We would appreciate your returning it to Ms. Zenchoff no later than October 15. Thank you in advance for your prompt response.

Sincerely,

A handwritten signature in cursive script, reading "Henry C. Chang".

Henry C. Chang, Ph.D.
Project Director

HCC:AZ:kt

QUESTIONNAIRE OR VIRGIN ISLANDS LIBRARIES

Library System _____ Branch _____

Name of person responding _____ Unit for which responding _____

I General

1. What target population does your library serve? Number _____ Age range _____
2. How many staff members do you presently have? (Please indicate by full-time equivalency in each category - i.e., 2 half-time clerks = 1FTE, 1 half-time clerk = 1/2 FTE.)
 Professional _____ Paraprofessional _____
 Clerical _____ Other _____

II Library Materials Budget

(Budget or spending figures will not be released for individual libraries)

3. Please answer either a or b:

- a. What is your present acquisitions budget for all types of library materials?
- b. If you are unable to give budget figures, please indicate the amount actually spent during school or fiscal year 1974/75 _____; 1975/76 _____.
- c. Please indicate the amounts budgeted or actually spent for each category of material:

books-adult _____
 books-juvenile _____
 periodicals _____

audiovisual materials _____
 special collections _____
 other _____

III Collections

4. For the following types of material, please indicate the number of titles held and the number of titles added each year:

	<u>Present holdings</u>	<u>Titles added per year</u>
Monographs	_____	_____
Periodicals and newspapers (including microforms)	_____	_____
Motion pictures	_____	_____
Phonograph records	_____	_____
Audio tapes or cassettes	_____	_____
Video tapes or cassettes	_____	_____
Film strips	_____	_____
Slide sets	_____	_____
Pamphlets	_____	_____
Other (specify)	_____	_____

5. Please indicate the subject matter and extent of all special collections in terms of numbers of volumes, reels of microfilm, periodical titles, vertical files, etc.
6. Does your library have particular strengths in other areas which do not form special collections? Please specify.

IV Other Resources

7. What photocopying facilities do you now have?
8. Does your library have a car or van and driver which might be available on a regular basis for the transportation of library materials?

V Cataloging Practices

9. What classification system(s) does your library use? (Explain if more than one)
10. What subject headings list(s) does your library use? (Explain if more than one)
11. What filing rules do you follow in your card catalog?
12. Please indicate whether your library catalogs or classifies the following types of material, and if material is cataloged, whether the cards are integrated in the catalog for books or maintained in a separate file.

	<u>Catalog</u>	<u>(Sep. file)</u>	<u>Classify</u>
Periodicals	_____	_____	_____
Newspapers	_____	_____	_____
Other serials	_____	_____	_____
Documents	_____	_____	_____
Motion pictures	_____	_____	_____
Phonograph records	_____	_____	_____
Other audiovisuals	_____	_____	_____

VI Processing

13. How are catalog cards acquired for your library: (Check more than one if necessary)
 - a. Purchased-added entries typed in-house _____ LC _____
 Wilson _____ Other (specify) _____
 - b. Photocopied from standard source in-house _____
 - c. Full card set typed in-house _____
 - d. Partial card set (e.g., shelf list card) typed in-house _____

14. a. Does your library acquire materials which are processed elsewhere - for example, by Baker and Taylor? _____. Please name the outside processing agency _____
- b. What percentage of all materials acquired is processed in this way? _____
- c. What services does the outside agency supply: Cards _____ Pockets _____
Spine Labels _____ Book Jacket Covers _____ Stamping _____
Bookplating _____
- d. What is the average unit charge for such processing? _____
- *e. What is the cost of additional processing required for such books? _____
15. a. What percentage of books acquired in your library is not processed elsewhere but has cataloging copy found within the publication (CIP) or in standard sources available to you? _____
- *b. What is the average unit cost to do such cataloging? _____
16. a. What percentage of books acquired in your library requires original cataloging (not processed by outside agency and cataloging copy not found in standard sources available to you)? _____
- *b. What is the average unit cost to do original cataloging? _____
17. For all books, please estimate the average unit cost of cataloging.

* Guidelines for calculating processing costs.

Include staff time for: Intellectual work of cataloging (determining entry, description, subject headings and classification number); searching for cataloging copy and/or card order number; revision; shelf list look-up.

Include staff time for: Typing, ordering or photocopying cards; accessioning; typing added entries; stamping, plating and labelling books; inserting material in jackets or covers; filing cards.

Include materials costs for: Printed cards or card stock; book jackets or album covers; labels; cost of running photocopier for producing cards.

Do not include: Overhead costs such as lighting, cost of typewriters, typewriter ribbons, pencils or pens, photocopying machine purchase or lease price.

VII Public Services

If statistics have not been kept, indicate 'NS' for no statistics. However, please do indicate the names of libraries with which you cooperate in providing material or reference services to your patrons.

18. How many users did you serve in 1974? _____ In 1975? _____ Jan-July, 1976 _____
19. How many reference questions were asked in 1975? _____ Jan-July, 1976? _____
20. a. How many reference questions were you unable to answer because of inadequate resources? _____
- b. Of these, how many did you refer to another library or agency? _____
- c. Please give names and locations of libraries to which you referred reference questions, naming the most frequently used first.
21. How many reference questions were referred from another library to you? _____
Please name referring libraries.
22. a. When a patron requests material not in your library, is an effort made to obtain the item elsewhere? _____
- b. Please list cooperating institutions by name and location, naming the most frequently used first.
- c. Do you call the cooperating library, or is the patron required to make the inquiry?
- d. Is material sent to your library by a cooperating institution, or must the patron use it at the other library?
- e. If material is sent to you for use by your patron, what means of transmittal is used: Messenger (library employee) _____; messenger service (commercial or government) _____; U.S. mail _____; other (specify) _____.

VIII Union List Priorities

In order to make the limited resources of each library available to a wider segment of the population, we will be working on the development of union catalogs for various types of materials. We are now preparing a union catalog of motion pictures and will continue with one for periodicals. Please indicate your further preferences and needs.

23. Of the following types of materials, what are your priorities for union lists? (indicate 1 for soonest, 2 for next, etc.)

New adult books - general
New children's books - general
New Caribbean materials

Phonorecords
Books on order
Other (specify)

24. For a union catalog of books, do you prefer a dictionary or a divided catalog?

If the concensus is for a divided catalog, please specify how you would like it divided:

- ☐ a. Authors (personal and corporate names, including others related to a work)
Titles
Subjects (names and topical and geographic headings)
- ☐ b. Authors (same as above) - Titles
Subjects (same as above)
- ☐ c. Names (including authors as defined above plus all names as subjects- i.e., works by and about Shakespeare would file together)
Titles
Topical and geographic subject headings
- ☐ d. Names - Titles
Topical and geographic subjects
- ☐ e. Other (please specify)

25. What types of special union lists of books do you most need (for example, Caribbean History in Spanish; large-print fiction, etc.)

IX Comments/Suggestions

Please use this space and the back of the page for your comments and for suggestions for future developments in cooperation. Careful attention will be paid to any comments or suggestions you might care to make.

Please return by October 15 to Enid M. Baa Library, Box 390, St. Thomas, VI 00801
Attention: Ms. A. Zenchoff

APPENDIX B:

TABULATION OF NATIONAL SURVEY TO SELECTED LIBRARIES

INTERLIBRARY COOPERATION IN REMOTE
OR ISOLATED AREAS: A QUESTIONNAIRE

1. Population served.
not tabulated

2. Book holdings in volumes.

10,001- 30,000	82
0- 10,000	37
30,001- 60,000	34
60,001-100,000	24
Blank/Not Available	<u>8</u>

Total Responses 185

3. Annual circulation.
not tabulated

4. Total annual budget.

\$ 0- 25,000	39
\$ 25,001- 50,000	34
Blank/Not Available	34
\$150,001+	26
\$ 50,001- 75,000	21
\$ 75,001-100,000	13
\$100,001-125,000	13
\$125,001-150,000	<u>5</u>

Total Responses 185

5. Annual acquisitions budget.

Blank/Not Available	42
\$ 0- 5,000	39
\$25,001+	35
\$ 5,001-10,000	31
\$15,001-20,000	20
\$10,001-15,000	11
\$20,001-25,000	<u>7</u>

Total Responses 185

6. Total grants received during 1976.
not tabulated

7. Total staff, full-time.

1	34
2	33
3	30
10+	27
Blank	15
5	14
0	8
4	8
6	7
7	5
8	3
9	<u>1</u>

Total Responses 185

8. Total staff, part-time.

1	41
2	32
0	24
10+	22
Blank	22
3	11
4	10
6	8
5	6
8	5
7	3
9	<u>1</u>

Total Responses 185

9. Professional staff, full-time.

1	57
2	34
Blank	31
0	21
3	16
4	8
5	4
6	4
7	4
10+	2
8	0
9	<u>0</u>

Total Responses 131

10. Professional staff, part-time. (Tabulated only if #9 = 0.)

Part-time only: 4

11. Classification system(s) used:

Dewey	121
LC	50
Blank	13
Other	<u>7</u>

Total Responses	191
-----------------	-----

12. Source of Most cataloging information. CHECK ONE.

a. Library staff original cataloging.	53
c. Standardized cataloging tools.	45
b. Commercial vendor.	42
e. Other	21
Two or More	13
Blank	8
d. On-line shared cataloging computer network.	<u>3</u>

Total Responses	185
-----------------	-----

13. Is there a library network, regional system, consortium, or other cooperative group made up of wholly independent libraries in your area?

Yes	93
No	68
Unsure	<u>24</u>

Total Responses	185
-----------------	-----

14. If no network exists, have plans for a library network been proposed?

No	44
Yes	<u>23</u>

Total Responses	67
-----------------	----

15. If no network exists, check the group(s) which would be likely to organize a network of libraries. CHECK AS MANY AS APPLY.

b. Academic libraries.	26
f. State or territorial library agency.	23
c. Public libraries.	22
a. Professional library association.	19
g. Don't know.	15
e. Special libraries	13
d. School libraries.	<u>6</u>

Total Responses	124
-----------------	-----

16. If there is a local network, please give the name of the network and the address of its central office so that we may contact its staff for more administrative information.

not tabulated

17. How many years has the network been in operation?

not tabulated

18. Approximately how many libraries are currently members?

not tabulated

19. What, if any, geographic restrictions limit network membership? CHECK ONLY ONE.

not tabulated

20. If there is a local network and your library does NOT participate, check which of the following reasons were important in making the decision not to join. CHECK AS MANY AS APPLY.

i. Don't know.	4
h. Other.	3
b. Not eligible for network membership.	1
c. Staff lacks training in network operations.	1
a. Cannot afford costs of network services.	0
d. Communications too difficult.	0
e. Network does not perform well.	0
f. Incompatible hardware or software.	0
g. Network has unacceptable standards of service.	0

Total Responses 9

21. How many years has your library been a member of the network?

not tabulated

22. Please check the methods of interlibrary communications used by members of the network. CHECK AS MANY AS APPLY.

a. Telephone.	77
d. U.S. Postal Service.	77
h. Personal visits.	54
c. Membership meetings.	42
b. Telex.	36
e. Network courier service.	10
f. Commercial postal service.	9
i. Other.	2
g. Computer system.	7

Total Responses 314

23. Check which of the following written documents form the basis for your library's membership in the network. CHECK AS MANY AS APPLY.

e. Membership agreement.	31
b. State legislation.	30
h. Don't know.	18
d. A contract between two or more parties.	11
c. A formal agreement between two or more parties.	9
g. Other.	8
f. Interstate library compact.	6
a. Federal legislation.	2

Total Responses 115

24. Please check which of the following are services or functions of the network. If the phrase used is unfamiliar to you, check the blank under "Don't know." CHECK AS MANY AS APPLY. Tabulated only those marked "Yes."

g. Interlibrary loan service.	83
k. Systematic referral of information requests.	62
m. Communications forum (meetings, newsletter).	50
i. Production of union list of serials.	39
n. Photographic reproduction of research materials.	39
o. Regional bibliographic center.	36
b. Centralized processing of library materials.	30
a. Centralized purchasing of library materials.	29
f. Patron has user privileges at all libraries.	28
h. Production of union list of books or monographs.	28
c. Centralized catalog card production.	27
d. Centralized cataloging.	26
l. Central audiovisual studio, staff, or resources.	23
r. Bookmobile service.	17
j. Production of union list of audiovisuals.	15
q. Coordinated storage program.	13
e. Standard borrower's registration.	11
p. Coordinated acquisitions program.	9
s. Cooperative development of library automation.	8
Please list other activities	7

Total Responses 580

25. Mark with a star (*) any of the above services or functions which you consider the most important activities of the network.

not tabulated

26. Check the areas in which the network utilizes electronic data processing (computers). CHECK AS MANY AS APPLY.

i. Don't know.	20
d. Interlibrary loan.	19
b. Serials or periodicals records.	13
g. Production of bibliographies or catalogs.	12
c. Cataloging.	7
f. Reference.	7
a. Acquisitions or purchasing.	6
e. Circulation records.	5
h. Other.	4

Total Responses 93

27. Check the method(s) of funding the services your library receives from the network. CHECK AS MANY AS APPLY.

e. State aid or grants.	49
f. Federal aid or grants.	40
h. Libraries subsidize network as part of their general operation.	17
a. Membership fees.	9
c. Library pays fees for specific services.	9
d. Patron pays fees for specific services.	7
i. Don't know.	7
b. Annual flat fee for services.	2
g. Foundation grants.	1

Total Responses 141

28. Check the benefit(s) your library receives from inter-library cooperation. CHECK AS MANY AS APPLY.

h. Increased access to information for users.	71
d. Expanded library services.	68
c. Improved existing services.	59
e. Increased circulation of materials.	52
g. Less duplication of effort and/or purchasing among local libraries.	28
a. Reduced costs of technical services.	20
b. Reduced staff necessary for services.	16
f. Higher quality cataloging.	10
i. Other.	5

Total Responses 329

29. Check the greatest problem(s) your library has experienced due to network membership. CHECK AS MANY AS APPLY.

h. Other.	12
b. Confusing communications system.	10
e. Inadequate financial reimbursement for services rendered.	7
f. Loss of authority over local decisions.	6
g. High costs of using new technology.	5
d. Network makes excessive demands on staff time.	4
c. Lower quality cataloging by network standards.	3
a. Increased competition for grants and other funds.	<u>2</u>

Total Responses 49

30. Rate your library's over-all experience in a library network. CHECK ONLY ONE.

a. Excellent	45
b. Good	22
c. Satisfactory	13
Two or More	3
d. Poor	0
e. Disastrous	<u>0</u>

Total Responses 83

31. Does your library currently participate in an inter-state or national library network or consortium?

No	124
Yes	39
Unsure	<u>22</u>

Total Responses 185

NETWORK ACTIVITY BY TYPE OF LIBRARY

LOCAL NETWORK?	PUBLIC LIBRARIES	ACADEMIC LIBRARIES	OTHER LIBRARIES	TOTAL
YES	65	22	6	93
NO	18	29	21	68
UNSURE	14	2	8	24
TOTAL RESPONSES	97	53	35	185

REGIONAL NETWORK?	PUBLIC LIBRARIES	ACADEMIC LIBRARIES	OTHER LIBRARIES	TOTAL
YES	21	12	6	39
NO	59	38	27	124
UNSURE	17	3	2	22
TOTAL RESPONSES	97	53	35	185

AVERAGE FIGURES FOR SELECTED
CHARACTERISTICS OF RESPONDING LIBRARIES

LIBRARY CHARACTERISTICS	LIBRARIES IN LOCAL NETWORKS	LIBRARIES WITH LOCAL NETWORKS	UNSURE LIBRARIES
Holdings	32,310 vols.	27,140 vols.	21,110 vols.
Total			
Budget	\$105,810.00	\$86,940.00	\$61,200.00
Acquisitions			
Budget	\$24,430.00	\$18,520.00	\$7,370.00
Professional			
Staff	1.9	2.3	1.4

APPENDIX C:

NEWS ARTICLES ON NETWORKING AND THE
VIRGIN ISLANDS DEMONSTRATION LIBRARY NETWORK STUDY

* INFORMATION

VOL. 1 NO. IV

SEPT. - OCT. 1976

DEMONSTRATION LIBRARY NETWORK INTRODUCED IN THE VIRGIN ISLANDS

Adele Zenchoff

The Bureau of Libraries and Museums has received a one-year grant from the U.S. Office of Education to conduct a feasibility study on library cooperation and to create a demonstration inter-island network in order to make the limited resources of each of the Virgin Islands libraries more readily accessible to our patrons.

Since at least the beginning of the 1970's, libraries have been caught between the pressures of increasing costs and stable or decreasing funding on the one hand, and of increasing levels of use and of rising expectations of service by library patrons on the other. Successful response to these pressures has included automation of repetitive library tasks, the use of computers for information storage and for retrieval in many ways not possible or too time consuming by manual methods, and the development of library networks for sharing human and material resources.

Cooperation has taken such forms as interlibrary loan networks, centralized processing, formation of depository centers for seldom used material, reference and referral centers, consortia for the production of special materials, and shared, on-line cataloging.

The libraries of the Virgin Islands have been confronted with the same problems and pressures encountered by educational institutions elsewhere, but these problems have been made more difficult by the libraries' remoteness from one another and from any large research institution which might serve as the nexus for cooperation.

The terms of the grant from the Office of Education specify that we are to study the needs of other remote or disadvantaged areas, to find out whether solution found for the Virgin Islands may be applicable elsewhere.

A questionnaire has been sent to all V.I. Librarians to solicit their opinions on priorities for the network and for the purpose of determining the extent and nature of our combined resources.

At the request of the Division of Library Services and Instructional Materials of the V.I. Department of Education, our first cooperative venture will be the development of an alphabetical list of motion pictures, with subject access, for the public, college and school libraries, to which we hope to add the collections of the Department of Health and the private schools. Mr. Hulbert U. Lewis, Jr. Director of the Data Processing Center at the Department of Finance has been writing the computer program for this list, and he and his staff are providing technical assistance for all aspects of our work requiring data processing.

The next project to be undertaken, the addition of periodicals records, including inventory of holdings by all participating libraries.

During the one-year term of the grant, we hope to accomplish the following:

1. assess the present resources and collections of all Virgin Islands public, academic, school and special libraries.
2. Study the costs and benefits of participating in a national, one-line shared cataloging system, which will provide additional services later compared to present costs and benefits.
3. Formalize interlibrary loan procedures for the sharing of material.
4. Create a machine-readable data base for motion pictures and for periodicals, and print and distribute union list for these materials.
5. Start the preparation of union book catalogs for other types of materials, based on the needs expressed by library staff and our present technical and staff resources. As new developments in other Caribbean territories may make it possible for us to contribute to and receive information from a national or international data base, our efforts in this area must conform to international standards for the coding and transmission of bibliographic information.

Dr. Henry C. Chang is Project Director, Ms. Adele Zenchoff is acting as network coordinator, and Mrs.

INFORMATION

Kharid Turnbull is temporary clerk typist. Additional temporary staff, including a research associate/editor and an editorial assistant will be added in the near future.

* INFORMATION

VOL. I NO. V

NOV. - DEC. 1976

Wishing you a Merry Christmas and a Happy New Year

LIBRARY NETWORKS EXPLAINED B. ISMAN

The first question facing the V.I. Demonstration Library Network Study was "What is a library network?" Due to the wide variety of library networks operating across the United States, this question has no simple answer. Some library networks are even hidden behind other names. The public libraries of the U.S. Virgin Islands might be called a network now according to certain definitions, but would not qualify for network status according to others.

A broad working definition of a library network might be "an organizational structure which makes it possible for independent libraries to act cooperatively for a specific purpose." The academic researcher's definition of a library network requires that the organization be based on formal contracts between participating libraries and that the purpose for the network involve the use of electronic data processing technology, such as computers.

For the purposes of the Network Study the broader definition has been chosen. This allows us to study many types of library cooperation for their applicability to the US Virgin Islands. Regional public library systems, academic consortia, automated, library networks and informal arrangements between wholly independent libraries all will be examined as types of library networks. Based on the information from the Network Study, V.I. librarians will be able to choose the type of network, if any which is right for the Virgin Islands.

When networks are organized, either (1) the existing libraries form an interlocking service chain, or (2) a new central agency is created. This new central agency is then responsible for contracting with individual libraries for services, financial support and other obligations.

An example of the first type of network is the statewide public library system of Hawaii. Over thirty libraries use uniform loan regulations, receive their materials through a centralized processing department and are coordinated by the State Library.

The Southeastern Library Network, or SOLINET, is an example of the second type. SOLINET was created in 1973 by the members of the Association of Southern Research Libraries in order to establish a cooperative computer facility and to develop automated processing for libraries in the region. Via SOLINET the research libraries of the southeast also have access to the extensive bibliographic resources of another major network, the Ohio College Library Center.

Some networks are the product of federal or state legislation, such as the Hawaii state library network. Interstate compacts for interstate library networks usually need enabling state legislation as well. At times a membership agreement is all that is used to create a library network. A recent development is the use of contracts as the basis for network operation. Contracts specify standard library practices to be used throughout the network, work to be performed or services to be provided during the time period, contract cancellation rights, penalties for non-compliance, costs and methods of payment and so on. SOLINET Operates through this type of contractual agreement between member.

Methods of financing library networks vary with each situation. Common means of funding are local taxation, state federal or foundation grants, membership or access fees for libraries, fees paid by individual users, and subsidies by member libraries who absorb some costs of the network into their general operating expenses. In the example of the Hawaii state library network, operations are financed through state taxation for statewide library service. In the example of SOLINET membership fees and investment income have been augmented by grants from the Mellon Foundation and the Council on Library Resources.

In future articles in Information, we will take a closer look at library services and functions. We will discuss over twenty of them in the next issue.



Dr. Chang represented the Virgin Islands at the eighth conference of the Association of Caribbean University and Research Libraries (ACURIL) held in Kingston, Jamaica, October 24 - 30, 1976. The theme of the conference was "The planning of university and research library and information systems and their integration with the educational and information systems in the countries of the Caribbean area."

As official delegate, Dr. Chang was invited to a reception at King's House by His Excellency, the Most Honourable Florizel Glasspole, Governor-General of Jamaica and Mrs. Glasspole. There, Dr. Chang met with His Excellency regarding the V.I. Library System and possible avenues of cooperation with Jamaica.

AFTER-SCHOOL INSPIRATION PROGRAM FOR CHILDREN AT WILLIAMS PUBLIC LIBRARY

H. LAURENCE

The Williams Public Library Juvenile Services Division has been awarded a grant from the V.I. Council on the Arts which, supplemented by a grant from the Bureau of Libraries and Museums, will be used to support the "After-School Inspiration" program. This free program will include a creative writing component consisting of "Creation Unlimited," guided by Mary King Wilson, "Seasons of Inspiration" with Iris Holiday, and "Caribbean Inspiration" by Angela Greene. Art classes ("Literary-Art Interpretations") will be taught by Diddie Mae Fadde, a well-known local artist. Creative movement-yoga classes will be given by Angela Greene and a Drama Workshop by Aisha Samad. Helen Laurence, Juvenile Services Librarian, will conduct a story hour series for preschool as well as school age youngsters. And finally, the Inspiration program is very fortunate to have the talents of a very dedicated volunteer, Carlos Alonso, who is conducting a free Math/Science Tutorial program for 7th through 12th graders three evenings a week.

The Inspiration program is open to approximately 150 children, ages 6-18. Workshops are scheduled to begin meeting during the week of November 29th and will continue through the school year.

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CHILDREN'S LIBRARY IN FRENCHTOWN

J. ALLIS

Now that the Regional Library for the Blind and Handicapped has moved into a new facility in Sugar Estate, its old headquarters in Frenchtown have been entirely given over to Children Services.

A Children's collection has always been maintained in Frenchtown although with no librarian. Now, this collection has been considerably expanded, and Mrs. Mary Hastings from the Children's Room at the Enid M. Baa Library is serving as librarian.

Due to staff limitations, this branch is only being kept open from 1 - 5 p.m. on weekends. However, even with this restriction, it seems to be getting a good response from the children in the Frenchtown community.

CHILDREN'S BOOK WEEK

Williams Public Library Juvenile Services Division celebrated Children's Book Week, November 14th - November 20th, by presenting an exhibit of children's book selected by the Childrens Book Council as part of the 1976 Children's Book Showcase. The Showcase books were selected on the basis of excellence in illustration and design. The Exhibit was well received and many patrons expressed the hope that these books will be acquired by the Library.

"GOINGS ON" AT THE FREDERIKSTED PUBLIC LIBRARY

Sarita K. Bynoe

The Frederiksted Public Library proudly announces the arrival of three library pages. The young ladies are working on a volunteer basis and have proved to be a definite asset to the library's staff. Hildreth Stevens, an 8th grade student at the Claude O. Marko School enjoys "reading, sleeping, and

P.R., V.I. Advisors Meet On Library Network

The Advisory Board of the V.I. Demonstration Library Network met at Galleon House recently to review the history and accom-

plishments to date of the network project, and to discuss planning priorities for future goals and activities.

The Virgin Islands Demonstration Library Network is a federally funded research and demonstration project, sponsored by the U.S. Office of Education, and administered through the Bureau of Libraries and Museums of the Department of Conservation and Cultural Affairs. Dr. Henry C. Chang, director of the bureau, is project director and Adele Zenchoff, bureau systems librarian is the project coordinator.

The purpose of the project is twofold: 1) To conduct a feasibility study on the practicability and application of a library network, characterized by interlibrary cooperation, centralized processing, computerized union catalogs of holidays, and telecommunications, to the library system; and 2) Based on the results of the feasibility

(See ADVISORS, Page 14)

Daily News

Tuesday, December 28, 1976.

p. 5.

Advisors Meet

(Continued from Page 5)

study research efforts, to establish a demonstration library network for the Virgin Islands.

A major theme of the meeting was the possibility of setting up a Caribbean regional library net-

work, which would link the library systems of the Virgin Islands, Puerto Rico, Jamaica, Barbados, Trinidad and Tobago, and other islands through the use of a computerized library network such as the Ohio College Library Center.

Library network looks back, ahead

On Friday, December 17, 1976, the Advisory Board of the V.I. Demonstration Library Network met at Galleon House in St. Thomas to review the history and accomplishments to date of the Network Project, and to discuss planning priorities for future goals and activities.

The Virgin Islands Demonstration Library Network is a federally funded Research and Demonstration Project, sponsored by the U.S. Office of Education, and administered through the V.I. Bureau of Libraries and Museums of the Department of Conservation and Cultural Affairs. Dr. Henry C. Chang, Director of the Bureau, is Project Director. Ms. Adele Zenchoff, Bureau Systems Librarian, is the Project Coordinator.

The purpose of the project is twofold: 1) To conduct a feasibility study on the practicability and application of a library network, characterized by interlibrary cooperation, centralized processing, computerized Union Catalogs and holdings and telecommunications; to the Virgin Islands Library system; and 2) Based on the results of the feasibility study research efforts, to establish a demonstration library network for the Virgin Islands.

A major theme of the meeting was the possibility of setting up a Caribbean regional library network, which would link the library systems of the U.S. Virgin Islands, Puerto Rico, Jamaica, Barba-

dos, Trinidad and Tobago, and other Caribbean states, through the use of a national computerized library network such as the Ohio College Library Center.

The following members of the V.I. demonstration Library Network Project Advisory Board, and selected resource persons, participated in Friday's meeting:

Ms. Mary Bleecker, Librarian, St. Croix Campus, C.V.I.; Dr. William Cooper, Visiting Professor of Education, C.V.I.; Mr. Hulbert Lewis, Director, Data Processing Center, Department of Finance; Ms. Fiolina Mills, director, Bureau of Library Services, Department of Education; Mr. James Oliver, Director, Federal Programs, Department of Education; Dr. John Veenstra, Director, of Libraries, Inter-American University, Puerto Rico; Dr. Frank Mills, Institutional Research Officer, C.V.I.; Sra. M.E. Arguello de Cardona, Director, Caribbean Regional Library; Dr. Henry C. Chang, Director Bureau of Libraries and Museums; Ms. Bonnie Isman, Research Associate, V.I. Demonstration Library Network; Ms. Helen Laurence, Research and Development Officer, Bureau of Libraries and Museums; Dr. Earl L. Mortensen, Assistant Professor of Education and Research Associate, C.V.I.; Dr. Donald Lehnus, Associate Professor, Graduate School of Librarianship, University of Puerto Rico; Ms. Adele Zenchoff, Project Coordinator, Library Network.

St. Croix Mirror
Friday, December 24,
1976.

NETWORK STUDY NEWS

Bonnie Isman

Travel dominated the calendar of the V.I. Demonstration Library Network Study during December and January. Due to the limited local resources for library research and to the isolated, remote location of these exotic isles, project staff must track down needed information in person. These fact finding trips create the staff's only opportunities to investigate possibilities for regional library cooperation.

Early December found Dr. Henry Chang attending a series of meetings in Columbus, Ohio at the Ohio College Library Center (OCLC) and in Washington, D.C. with various federal agency representatives. Dr. Chang was accompanied by librarians from the University of Puerto Rico, Inter-American University in San Juan, the Caribbean Regional Library and the three academic libraries of the University of the West Indies. The Organization of American States made arrangements for this Caribbean libraries "summit meeting".

Main topics of discussion were:

---feasibility of developing a communications link between library systems in Trinidad and Tobago, Jamaica, Barbados, Puerto Rico, USVI and the OCLC data based for transmission of catalog data.

---sources of funding a centralized or cooperative program of cataloging based in Puerto Rico and linked with the USVI and OCLC.

---coordination of efforts in the Caribbean so as to participate most effectively in the development of the structure, instruments and operations of the proposed Inter-American Network for the Transmission of Bibliographic Information.

In mid-December the first meeting of the Advisory Board of the Network Study took place in St. Thomas with several participants arriving from San Juan and St. Croix. School, college and public libraries, educational and research institutions and data processing centers were all represented for the discussion of accomplishments to date and planning priorities for future goals.

Members of the Advisory Board and selected advisor-specialists who attended are as follows:

Ms. Mary Blecker, Librarian, St. Croix, CVI; Dr. William Cooper, Visiting Professor of Education, CVI; Mr. Hulbert Lewis, Director, Data Processing Center, Department of Finance; Ms. Fiolina B. Mills, Director, Division of Library Services and other Instructional Materials, Department of Education; Mr. James Oliver, Director, Federal Programs, Department of Education; Dr. John Veenstra, Director of Libraries, Inter-American University, Puerto Rico; Dr. Frank Mills, Institutional

Research Officer, CVI; Ms. Maria Elena Arguello de Cardona, Director, Caribbean Regional Library; Puerto Rico; Dr. Earl Mortensen, Assistant Professor of Education and Research Associate, CVI; Dr. Lehnus, Associate Professor, Graduate School of Librarianship, University of Puerto Rico.

In January, Systems Librarian Adele Zenchoff, Research Associate, Bonnie Isman, and the Project Director, Henry Chang spent two days meeting with librarians from San Juan, Puerto Rico. Chief areas of research were cooperative programs in technical services, regional library cooperation, computer library applications, and developments in bilingual library service.

Network Study staff were the guests of the Inter-American University at Hato Rey and the Central Processing Center for all IAU campuses, the Colegio Universitario de Sagrado Corazon, the Caribbean Regional Library, the University of Puerto Rico at Rio Piedras, and the Graduate School of Librarianship at UPR. Plans are being made for a future visit in late spring to study potential areas of library cooperation with Puerto Rican school and public libraries.

By the first of January it was evident to the project director and the staff that the research in progress would have to be carefully tested and evaluated in order to be as complete as possible. Accordingly, a continuation grant proposal will be submitted to

the U.S. Office of Education on January 28, 1977 for the "Virgin Islands Demonstration Library Network Study, Test Phase." The approval of the continuation grant proposal would extend the life of the Network Study through June 1978.

An article appearing in

Information 2:1, 8-9 (January-February, 1977).

Libraries Expanding Info Services

People-oriented information and referral service will soon be available from the Virgin Islands public library system.

Commissioner Virdin C. Brown of the Department of Conservation and Cultural Affairs has announced the establishment of the Virgin Islands Information and Referral Program, an experimental cost-sharing program worked out between the federal ACTION agency and the Bureau of Libraries and Museums. The program will expand existing library reference service to all three islands by establishing fully-staffed information and referral centers. Four professional librarians will be placed in public libraries before June of this year, specifically to provide information to the general public on library and community resources.

Dr. Henry C. Chang, Director of the Bureau of Libraries and Museums, recently completed negotiations to begin the program and named Ms. Bonnie Isman as Coordinator of Information and Referral services under his direction. The first of the four proposed positions has already been filled. Ms. Martha Ammerman was placed with the Williams Public Library in Christiansted, St. Croix by the New York ACTION office. Ms. Ammerman received her B.S. degree in Library Science from the Clarion State College in California.

New information services provided by this program will include: telephone reference service; community information files; inter-library loan of materials between islands; access to U.S. and V.I. government publications and special collections of library materials. Accuracy and timeliness will characterize all information services of this new program, it was reported.



LIBRARIANS MAKE FRIENDS WITH AMIGOS

Bonnie Isman

Mr. Jim Kennedy, Executive Director of the AMIGOS Bibliographic Council from Dallas, Texas, met with librarians in St. Croix, St. Thomas, and St. John during the first week in March. Mr. Kennedy's visit in the Virgin Islands was made possible by a grant from the U.S. Office of Education to the Department of Conservation and Cultural Affairs for the V.I. Demonstration Library Network Study.

During his meetings with local librarians Mr. Kennedy was able to describe the services of the AMIGOS Bibliographic Council and its relationship to the Ohio College Library Center (OCLC). He explained that AMIGOS is a "service center" for more than 85 libraries in 7 southwestern states. He invited libraries from the Virgin Islands to join.

AMIGOS helps its members in effectively using the OCLC computer network and its bibliographic data base. Training of library staff, "best-selling" instructional manuals, development of computer-output-microform catalogs, and centralized access to specialized information and retrieval data bases are some of the extras AMIGOS members gain along with access to OCLC cataloging and other bibliographic services.

Special meetings were held on St. Croix, March 2, and on St. Thomas, March 4, to view video tapes of the OCLC network in action. A total of twenty-five librarians from elementary and secondary schools, the librarians of the College of the Virgin Islands and librarians from the public libraries were able to attend.

Mr. Kennedy first presented "Finding Information in the OCLC System", a description of how to search the data base using either the title or the author and title to construct a "search code." "The OCLC System" introduced the network concept, hardware, the format of the bibliographic data, and cataloging using records presently in the data base. The librarians were assured that this computer network could be extended to the Virgin Islands over local telephone lines and that transmission of cataloging data would take no more than 10 seconds between here and Columbus, Ohio.

Mr. Kennedy met extensively with the staff of the V.I. Demonstration Library Network Study, reviewed its accomplishments to date and its research in progress. Dr. Henry C. Chang, Project Director; Adele Zenchoff, Systems Librarian; and Bonnie Isman, Research Librarian and Mr. Kennedy discussed



Meeting to discuss library networks are (left to right)

Dr. Henry C. Chang, Director of the Bureau; Blanche Soufront, Asst. Director; Earnest Wagner, CVI Librarian; Bonnie Isman, Research Librarian for the Bureau; and James Kennedy, Exec. Director, AMIGOS.

Photo taken by Paul Bastian

local, regional and national library network developments and examined their implications for the Caribbean. Mr. Kennedy left the islands March 5 and planned to meet with several groups of university librarians in Puerto Rico to discuss AMIGOS and OCLC before returning to Texas.

Dr. Chang has expressed a special note of appreciation to Mr. Kennedy for sharing with local librarians his knowledge of library networks, their operations and their requirements. Mr. Kennedy donated a week of his time to the improvement of library services in the Virgin Islands without the usual consultant's fee.



An article appearing in

Information 2:2, 6 (March-

April, 1977).

WHAT DO NETWORKS DO?

Bonnie Isman

Part of the confusion over the definition of the word "network" among librarians results from the fact that library networks do a wide variety of things. Here's a list of their different services as identified by the Network Study:

- Centralized purchasing of library materials.
- Centralized processing of library materials.
- Centralized catalog card production.
- Centralized cataloging.
- Standard borrower's registration.
- Patron has user privileges at all libraries.
- Interlibrary loan service.
- Production of union list of books or monographs.
- Production of union list of serials.
- Production of union list of audiovisuals.
- Systematic referral of information requests.
- Central audiovisual studio, staff, or resources.
- Communications forum (meetings, newsletter).
- Photographic reproduction of research materials.
- Regional bibliographic center.
- Coordinated acquisitions program.
- Bookmobile service.
- Cooperative development of library automation.

The list contains three types of activities: Bibliographic services, user services, and administrative services. Generally speaking, networks are formed around only one type of activity. However, since the network structure in itself creates a mechanism for working out mutual problems, multi-service networks are developing.

Interlibrary loan (ILL) and delivery of documents are the cooperative programs of greatest value, according to a survey of remote, isolated libraries by the Network Study. A loose national "network" for ILL can be said to exist, operating in accordance with the "National Interlibrary Loan Code, 1968, Annotated" which was approved by the American Library Association. Any organized library staffed by an authorized person can participate as long as they follow the standards set by the code. Local networks employ a variety of devices to speed materials: teletypewriters; switching, referral and relay arrangements; printed catalogs and union lists; and automatic photocopy substitution for journal articles.

The Ohio College Library Center (OCLA) and the OCLA Network supplies bibliographic information over telephone lines to 1,433 computer terminals across the United States. Its central data file of cataloging information contains over two million records and is currently growing at an average daily rate of about 2,500 records. Only part of this bibliographic data is contributed by the Library of Congress in Washington, D.C. Most of it comes from the membership.

While OCLC stores and transmits a vast amount of cataloging information, this is not its only function. It also produces catalog cards to each member's specifications, is used in preorder searching, interlibrary loan, union catalog activities, collection analysis and reference work. What started out to be a cooperative means of sharing Cataloging data has grown into a national bibliographic resource used for a variety of purposes.

An article appearing in

Information 2:2, 6-7 (March-April, 1977).

Guide To Library Collections Issued

The Bureau of Libraries, Museums, and Archaeological Services has announced the publication of a guide entitled "Library Resources in the Virgin Islands of the United States, 1977."

A product of the Virgin Islands Information and Re-

ferral Services, the guide introduces the reader to over 30 academic, public, secondary school, and special collections of library materials, according to Director Dr. Henry Chang.

By scanning the descriptions of resources, services, and facilities of the territory's libraries, students and the general public can be assured of finding library assistance to fit their needs, Dr. Chang stated.

He noted that the services of each library are described, and that policies governing user eligibility and fees or fines are also listed.

Special mention is made of inter-library loan services, and ten libraries offer services in Spanish or other foreign languages.

Research for the guide was done by VISTA librarians during the spring and summer of 1977. Cooperation from the many individuals surveyed allows for what is hoped will be valuable

informational resources to libraries, Dr. Chang said.

The guide is available free of charge at each public library in the U.S. Virgin Islands. For additional information, contact Bonnie Isman, I & R Coordinator at the Williams Public Library in Christiansted, 773-5715.

An article appearing in
Library Journal March 1, 1977
p. 534.

Virgin Islands network trial

A Higher Education Act, Title II-B grant of \$29,500 will fuel a Virgin Islands Demonstration Library Network Study which aims to determine if networking "is the answer to optimal organization of library materials in the Virgin Islands and other remote areas." The study will try to determine whether linkage with national, online shared cataloging networks or the creation of a local network is the best alternative. A small-scale network of Virgin Islands public libraries will be created to try out interlibrary cooperation and develop such products as a union catalog of films and union list of serials.



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DEPARTMENT OF CONSERVATION & CULTURAL AFFAIRS

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VIRGIN ISLANDS DEMONSTRATION LIBRARY NETWORK STUDY ABSTRACT

The Virgin Islands Demonstration Library Network Study is conducting research to determine whether library networks are the key to optimal organization of small library collections in remote and/or disadvantaged areas. A literature search found very little published information on interlibrary cooperation as it concerns the needs of small, remote libraries. In order to lay a foundation for a model plan of network development, a survey, funded by the U.S. Office of Education, was undertaken to gather information on present network activity in remote, disadvantaged areas.

The objectives of the mailed questionnaire survey were: to create a profile of remote, disadvantaged libraries; to survey network activity in the 321 selected libraries; and to estimate the effectiveness of library networks in serving these libraries.

It was found that remote, disadvantaged libraries share similar characteristics in total book collection, number of professional staff members, operating budgets and classification practices. Approximately half of the libraries surveyed outside the Virgin Islands have access to a local library network, but only one in five participated in a regional or multi-state network. The libraries were connected to networks via traditional means of communication rather than advanced telecommunications technology. Network performance was rated as excellent to satisfactory in all cases.

For more information on the Virgin Islands Demonstration Library Network Study, contact Project Director and Territorial Librarian Dr. Henry C. Chang or Research Librarian Bonnie Isman at the Bureau of Libraries and Museums. The Bureau's newsletter Information carries news of the study and its related demonstration projects. The newsletter is available free of charge.

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