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# INFORMATION NEEDS AND USES AMONG R&D COMMUNITY

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## 1. Introduction

The research and development community of Space Applications Centre comprises of Scientists, Engineers, Technical and Scientific Assistants and other Supporting staff. The staff as cited above is engaged in the areas of activity such as

- (i) planning, co-ordination and management,
- (ii) design development,
- (iii) research,
- (iv) fabrication and
- (v) operations and maintenance to support the overall research and development programmes of the Centre.

The objective of SAC Library is to support the programmes of the Centre by making available the required literature in the areas of Satellite Communications, Remote Sensing and other allied topics and by developing and providing services necessary to achieve the objectives. A survey was conducted to know the user interest and also to know the use of literature and user satisfaction. From this survey we would try to derive the user needs, collection development and use of the material and also level of satisfaction.

## 2. User Needs of SAC Library

Information systems of a library must anticipate and meet the present and future demands of its clientele. SAC Library has to cater to the needs of scientists & engineers whose main subjects of research are applied science & engineering topics, particularly in satellite communications, remote sensing and other subjects related to these broader areas.

Ours is a special library and the user needs are different from that of users of academic or public libraries. From survey we found out that

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users are scientists and engineers and their library needs are mostly project oriented. They are engaged in designing and developing certain projects or designing equipments or apparatus and working in developing components. They need information for operational work also. For this generally they rely on informal communication including their mutual discussions, preprints of their unpublished papers, drafts, inhouse publications, reports of other similar projects and sometimes on conference proceedings. Of course they would like to use articles of their interest in the journals. Our users seldom need basic books. They need generally technical reports, data books and trade literature, standards and specifications and conference proceedings. They also need handbooks and manuals in specific disciplines.

User needs vary according to their research work and experience also. Scientists depend more on library whereas engineers depend less on library. Scientists/Engineers working in new areas of work need journals to know latest developments going on throughout the world. Most experienced users do not need much library information whereas least experienced or new entrants are found in heavy need of library literature. Scientists need all kinds of information from the library but engineers generally need specific information.

Scientists/Engineers who are responsible for managing projects need management information also in addition to information necessary to know projects. Users working on operation or maintenance need guide books or books on repairing for workshop purposes.

### **3. SAC Library Resources**

User need is the guiding factor for collection development. Presently there are about 28,500 books, 17,500 technical reports and 10500 back volumes of journals. In all 519 journals are subscribed. Acquisition policies for books and journals are followed to build up the collection. Systematic book selection is done keeping in view the user interests. For this user interest profile is very useful.

Also an index of about 60,000 articles from the in-house journals, according to user interest has been created. About 5,000 articles are added every year. Appreciable progress has been made in providing documents service in forms of books, technical reports, data books and trade literature, standards and specifications, Audio/Video cassettes, slides, floppies to meet the user needs.

#### **4. SAC Library Information Services**

Information is being considered as the key economic resources. The collected information has no value unless it is fully used by the people who need it. To make use of collected information by the users, it should be well organised in a more meaningful way in order to facilitate the retrieval of such information. To perform this main function more effectively and efficiently new technologies like computer technology is being increasingly used. SAC Library has established computer based information systems and provides following information services and facilities to keep abreast of the latest information and to increase the use of information by the users of the Library.

- Circulation Services
- Reference Services
- Current Awareness Services
- Display of New Documents
- Index of Articles
- SDI (Selective Dissemination of Information)
- Book Selection List
- Recent Additions of Books & Reports, etc.
- Current List of Periodicals
- Special Issues of Journals
- Compilation of Subject Bibliographies
- Compilation of Periodical Holdings
- On-Line Public Access Catalogue (OPAC)
- Translation Services
- Reprographic Services including Xeroxing, Printing and Binding.
- Audio Visual Facilities.

#### **5. Use of SAC Library Literature**

In SAC Library our attempt has always been to keep the user need in the process of collection development. This is the reason perhaps that our library resources are used heavily. There are several methods of ascertaining the use of the resources. For example indicators of Documents' use in circulation section is a reliable source. Statistical records are maintained for library use. Subjectwise user data is maintained. Data for the issue of data books, trade literature is also maintained. Trend of use can also be ascertained by observing books on shelves. Ofcourse surveying is also a very good technique. Appreciable trend of library use was also

found out in the survey conducted for the purpose. Inter Library Loan System has also added to our library use. Liberal xerox facility for providing xerox copies of articles and other data is also helpful in increasing library use. Computer based current awareness services, SDI, Specialized Subject Bibliographies play an important role to enhance the use of documents. Moreover, functional catalogue, OPAC also play a key role for documents use.

Users using the library resources within premises were found studying journals, conference proceedings, data books and trade literature and also handbooks, manuals, etc. New staff members were seen studying treatises and monographs also. During peak hours about 100 users use the library resources.

According to statistical records of our Library 37,810 books and other documents including loose issues of Journals were issued during the year 1993. The subjectwise break up of issue record for some subjects is as below:

1. Science including physical sciences, earth sciences, remote sensing, etc.	Annual Issue 7,500
2. Engineering including electronics, satellite communications, computer, management, etc.	16,260.
3. Social sciences, mass media, general books, etc.	800
4. Databooks, standards & Specifications, technical reports, etc.	13,250

Users get the **xerox prints** from library documents which increases the use of library resources. Statistical records of xerox print of last three years as given below shows the progressive use of library literature.

Year	Prints
1991	75,000
1992	95,000
1993	1,37,000

**User Survey** is also an important technique to know the utility of library resources and services. SAC Library conducted survey by circulating a detailed questionnaire among the library users and analysed the data of users response.

Data generated out of survey results show encouraging trends in the use of library resources. According to users survey of library some important points as below and findings are given in percentages. Total

users of the library are about 1800.

**(a) Areas of work :** Library users are engaged in various activities and can be grouped in main activities and type of information desired in response to their search in percentage as given below:

1. Design Development	39%
2. Planning/Coordination/Management	16%
3. Research	28%
4. Fabrication/Q.C./ R& QA	11%
5. Operation and Maintenance	6%

The highest response rate is from area of Design Developments and second from the area of Research.

**(b) Library users - Field of Specialization:**

1. Science Discipline	37%
2. Engineering Discipline	52%
3. Others - Social Sciences, Managements etc	11%

**(c) Use of Library by Users: How often ?**

1. Several times a day	10%
2. Once a day	28%
3. Several times a weeks	30%
4. Once a week	20%
5. Once in 2/3 weeks	6%
6. Once a month	2%
7. Less frequently	4%

**(d) Users visit library for the reasons/to use:**

1. Documents - Specified by users	26%
2. Documents - Unspecified by users	16%
3. Latest journals to keep up-to-date	29%
4. To browse	9%
5. To use library for xeroxing, printing, Audio Visual Facility, etc.	10%
6. Other reasons - newspapers, Light Magazines etc.	10%

The highest demand is 29% for the latest journals to keep themselves up-to-date in their subjects. The second choice goes to specified documents which is 26%.

**(e) Users consulted the types of documents:**

1. Abstracting journals & Indexing	8%
2. Conference proceedings	13%

3. Dictionaries and Encyclopedias	6%
4. Handbooks and Databooks	13%
5. Library Current Awareness Index	4%
6. Pamphlets and Monographs	2%
7. Journals	17%
8. Reports	11%
9. Standards & Specifications	6%
10. Books, Manuals, etc.	16%
11. Trade Catalogue, Guides, etc.	3%
12. Others	1%

From the above data it is obvious that the highest use of journals and second higher rate is for the use of books, manuals, etc.

**(f) Users consulted the type of documents for seeking the desired information and their response:**

1. Almost no information at all	
2. Simple facts for immediate use	10%
3. Description of an object, process and method	11%
4. Material for background reading or purposeful study	22%
5. New ideas and stimulation	17%
6. Up-to-date information on recent developments	21%
7. Guides to further readings	14%
8. Correct spellings, abbreviations etc.	3%

Highest response is for the use of material for background reading or purposeful study and second higher rate of use is for seeking up-to-date information on recent developments in their fields of interest. Further survey findings disclose the searching of required information by users as below:

1. Library Staff	4.5%
2. Self or Library Staff equally	41%
3. Self	51%
4. Some one else	3.5%

It shows 51% users can find themselves and 41% need the help of library staff also in finding their required information. Over 70% users expressed that they got information more or less as they expected from library resources.

Keeping in view the above factual statistical data and survey findings really library seems to be pulsating with the activity of information use.

## **Conclusion**

SAC Library established computer based database 'SACLIS' and made possible to access the catalogue in multi user environment and from remote terminal through dial up facility. Now programmes for developing library services are taking new strides. Collection development as per user requirements is being given higher priority. To increase the use of information and to make the retrieval system efficient and quick, computer applications including on-line services has been taken up. All these efforts are going to increase the user interest in the library, use of library resource and of course the level of user satisfaction is bound to go up.