

ADVISORY COMMITTEE OF CERN USERS (ACCU)Minutes of the first meeting, held on February 21, 1978

Present : A. Apostolakis, M. Baldo-Ceolin, F. Binon, W. Blair, P. Borgeaud, M. Buhler-Broglin, M. Crozon, I. Duerdoth, T. Ekelöf, G. Fidecaro, W. Geist, D. Imrie, H. Jensen, E. Lillestøl, U. Meyer-Berkhout, M. Regler, D. Schotanus, W. Scott, L. Tauscher, W. Tejessy, L. Van Hove.

Invited : E. Lohrmann (Item 4), M. Metcalf (Item 4), R.N. Milligan (Item 3)

Apologies for absence : K. Böckmann, A. Vitale

1. INTRODUCTION

Van Hove welcomed those present to the inaugural meeting of ACCU. He introduced each member of ACCU (see Annex I) and said that CERN management was represented by himself and Fidecaro, with Blair as secretary, and with Buhler-Broglin representing EP Division. The CERN Staff Association was represented by W. Tejessy. There would be participation of additional staff members on specialised topics, as necessary. He would act as Chairman of the first meeting, but the intention was that in future the meeting should be chaired by one of the user members. He asked members to reflect on this and to let him have nominations for Chairman, from among the members present, during the days following the meeting.

2. The background to ACCU

Van Hove explained that in 1975 unexpected problems in Swiss tax changes for users had led to the spontaneous creation of the Commission of Unpaid Associates. After the immediate problem had been attended to, this led to a general discussion on how users should be represented at CERN, and finally the matter had been discussed in Committee of Council in June 1977. Committee of Council had indicated that the only official channel of communication with the member states was through the Council delegates, but had accepted that an advisory committee of users could be set up on the same basis as the Experiments Committees, with members appointed by the Director-General. The terms of reference of ACCU had been debated during the following months, and were set out in memo DG-1124-77 of November 3, 1977 (Annex II). Van Hove had informed users of this via the open sessions of the Experiments Committees, and asked whether members would agree to his publicising the membership of ACCU in this way at future Experiments Committee meetings. This was agreed.

In answer to questions, and after discussion, the following points were clarified:-

- a) Frequency of meetings - minimum 1-2 per year, maximum 4-5 per year.
- b) Membership - users from member state institutes only - theorists on the CERN site, but not from outside, were considered as users.
- c) Channel of communication - for major issues, ACCU should make recommendations to the Executive Board of CERN; for relatively minor issues direct contact with the specialists in CERN would be appropriate.

- d) Terms of reference - these were wide, but excluded research and problems within the realm of the national authorities. Members were invited to reflect on questions worth discussing, and to make proposals in the meeting, or in writing afterwards.

3. Short-term accommodation of Users of CERN

Milligan presented facts on the facilities offered by CERN for the short-term accommodation of Users (Annex III), and answered a number of questions. Points raised included the following:-

- i) the standard of the barracks is inadequate (noise)
- ii) there is a noise problem also at St. Genis
- iii) cooking facilities in the CERN Hostel/Barracks would be much appreciated
- iv) the price difference between CERN and St. Genis is not understood
- v) the demand for rooms at CERN will grow, as collaborations grow and the number of short-term visits to CERN increases
- vi) experience shows that if one tries to book in to the CERN Hostel/Barracks only a few days in advance it is full, so one doesn't even try now
- vii) the Housing Service can help find studios for short periods

On the question of occupancy, Milligan agreed to provide for the next meeting a report on the situation of the CERN Hostel/Barracks and of the CERN furnished apartments. The short-term accommodation problems will then be rediscussed.

4. Utilisation of CERN computers

Metcalfe presented a report on the central computing facilities at CERN (Annex IV), and answered a number of questions. Van Hove and Lohrmann explained that the aim was that only one third of the computing load generated by CERN experiments should be processed at CERN, the remaining two thirds being done in the home country, and that at present 40% was done at CERN. There was a general discussion on this and related points, which led to the conclusion that there was no major computing problem at CERN for users at the present time.

5. Items for the agenda of future meetings

- a) Clarification of accommodation problems listed under 3. above (Milligan to report back)
- b) Insurance (medical and accident) (Blair to collect information)
- c) Users services in EP Division (Buhler-Broglin) (including transport on site, and the electronics pool)
- d) Use of stores (FI Division)

6. Next meeting

The next meeting of ACCU will be held on Monday, May 8, 14.30, in the Conference Room, 6th floor, Main Building.

26 January, 1978

ADVISORY COMMITTEE OF CERN USERS
(ACCU)

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	GEIST, W.M.	

DGR/1124-77

3 November, 1977

ADVISORY COMMITTEE OF CERN USERS

1. The four accelerators of CERN and the auxiliary research facilities are now used by a very large number of physicists (about 1500). These physicists are usually referred to as the CERN Users. The vast majority of CERN Users are physicists coming from the scientific institutions of the Member States and are financially supported by those institutions. One may call them: Users not paid by CERN. The remaining CERN Users are the research physicists financially supported by CERN, as established research staff members, fellows, and scientific associates paid fully or largely by CERN. This category of Users will be called: Users paid by CERN. Their number is of the order of 320 (about 90 established staff members, about 130 fellows and about 100 scientific associates paid fully or largely by CERN for a period of one year or more).
2. In view of the large number and diversity of CERN Users, it has become apparent for some time that it would be useful to have an organized channel of consultation between the CERN Direction and a representative group of CERN Users, in order to review at regular intervals the practical measures and arrangements taken by the CERN Management at various levels for the work of the Users at the CERN Laboratory.
3. To that end, CERN is setting up an Advisory Committee of CERN Users (ACCU). The task of ACCU will be to advise the Directors-General on the practical measures and administrative internal arrangements to be taken by the CERN Management for the utilization of the CERN facilities for research. This concerns in particular the working conditions and the arrangements for technical support of the CERN Users for their work at the CERN Laboratory. Questions dealing with the scientific programme of CERN do not fall under these terms of reference.
4. The chairman and the members of ACCU will be appointed by the Directors-General of CERN for a period of two years, with the possibility of extension but with a reasonable rate of rotation. The members of ACCU should be active users of the CERN Laboratory. For the Users not paid by CERN a balance should be established in ACCU between users mostly residing in the universities or laboratories of their countries and users present at CERN for longer periods of time.
5. The membership of ACCU will be as follows:
 - i) two Users not paid by CERN coming from each larger Member State (France, Italy, Germany, United Kingdom),
 - ii) one User not paid by CERN coming from each smaller Member State,
 - iii) two Users paid by CERN.

Further members will be added if necessary. The meetings of ACCU will be attended by members or representatives of the CERN Management and by a representative of the CERN Staff Association.

Advisory Committee of CERN Users (ACCU)Short-term accommodation of Users at CERN

1. CERN Hostel, situated on 4th and 5th floors, Building 5, Meyrin site. 47 single rooms at 20.- Sw.Fr per night and 7 double rooms at 40.- Sw.Fr per night. Each room has a wash basin. Toilets and showers are available on each floor.
In principle, priority is given to scientists working at night and the maximum stay is limited to three weeks.

2. CERN Barracks, situated next to the Route Bohr entrance to CERN, just opposite the new Kindergarten building. 36 single rooms at 16.- Sw.Fr per night, 4 rooms with 2 beds at 9.- Sw.Fr per night per person and 14 rooms with 3 beds at 8.- Sw.Fr per night per person. There are communal wash basins, toilets and showers in each building.

No cooking facilities are available in the CERN Hostel or Barracks, but the Restaurants serve meals throughout the working week and at the weekend (Tortella's). A drinks machine is available on the ground floor, Building 5.

3. St. Genis Hostel for migrant workers, (run by the French local authorities), situated near the roundabout between CERN-Meyrin and St. Genis, France. 180 single rooms are available, of which 78 are being improved to prepare them for CERN. The rent of these rooms will be about 23.- Fr.fr. per night, which is reduced by 5.- francs for persons staying over two weeks. Each room has a wash basin. Toilets, showers and communal kitchen are available on each floor. There is no limit to the duration of stay.

The X bus service from Geneva to CERN goes on to St. Genis about ten times per day during the working week, and less frequently at weekends. At other times it is possible for Users to ask CERN to send a car for the journey between the Hostel, CERN-Meyrin and CERN-Prévessin to take people to and from work. An internal CERN telephone has been installed in the St. Genis Hostel so that transport can be requested, 24 hours per day.

4. CERN Furnished Apartments, situated mostly in Meyrin and Grand-Saconnex and elsewhere in Geneva. 104 are available, ranging from studios to apartments with 4 bedrooms at rents from 600.- to 1600.- Sw.Fr per month. The minimum rental period is 1 month and the maximum 1 year.

5. Reservations of the CERN Hostel and Barracks are handled by the CERN Hostel Receptionist, Tel. (83) 4481, Telex 27601, and she will shortly also accept reservations for the St. Genis Hostel. The CERN Furnished Apartments are managed by the Housing Service, Tel. (83) 3952.

DD-MM-jt

3.3.1978

M. Metcalf

UTILIZATION OF CERN COMPUTERS(Transcript of an oral presentation)1. Development over the past few years

What might be termed the modern era of computing at CERN began about six years ago with the installation of the CDC 7600 in the present purpose-built computer building, replacing the ageing and hopelessly saturated CDC 6600. After a rather difficult running-in period the machine's services were made available to users over the whole site by means of the Computer Technology Remote I/O Stations (RIOSs) which provide that means of submitting jobs via cards and receiving back printed output, which is still used for about three-quarters of all the jobs run on the 7600.

In the course of time, important extensions were made to this service, chiefly those based on the CDC time-sharing system INTERCOM, as well as the addition of various special-purpose devices.

Three years ago the future development of the computer facilities, and especially the way they could be harnessed to the needs of the experimentalists, became a heated topic of discussion, the final results of which were two decisions - firstly, to purchase an IBM 370/168, which was intended to open up to CERN the possibility of using the advanced technology available from IBM in the form of such devices as 6250 b.p.i. tapes and the Mass Storage System, to provide a more readily usable service to those groups who have equipment from this manufacturer in their home institutes, and to make use of the IBM's superior support for real-time applications. This machine has been installed and working successfully for a year. The second decision was to implement what has now become known as CERNET, a packet switching network designed in its first phase to enable experimental groups in the North Area to send sample data for analysis to the central computers. This project is now in the last stage of testing and should be giving a service to its first user in a few weeks.

At the moment, we can foresee two major hardware developments in the next few months; the first the arrival of the Mass Storage System in June and the second the arrival of the IBM 3032 in the New Year. This latter machine is essentially identical to the 168, and will therefore increase the total installed capacity by just under 30%, in phase with the new data to be expected from the North Area.

2. Machine configurations

The configuration we have at present, together with the acquisitions arriving shortly, and without old facilities whose life is now limited is shown in Fig. 1 (description not in text).

There is, of course, all the usual unit record equipment such as card readers, line printers (including those providing lower-case characters) and punches, plus plotters, three T 4014 high-resolution graphics terminals, a paper-tape reader and an off-line microfiche device.

The IBM configuration we anticipate in 10 months' time is shown in Figure 2 (description not in text).

The Mass Store will be used principally to keep intermediate and final results from analysis programs, avoiding further increases in tape mounting, as well as making possible better operational procedures.

The 168 and 3032 will be configured so that one is used for WYLBUR and the other mainly for long batch jobs.

The main language used in physics computing is naturally FORTRAN. There exist, however, SCHOONSCHIP and REDUCE for algebraic manipulation, and a watch is kept on moves in the outside world in the direction of such developments as MORTRAN and PASCAL. We look forward to receiving a FORTRAN-77 compiler in mid-1979. Nevertheless, compatibility with outside machines and program portability remain of primordial importance and an international enquiry conducted within the high-energy physics community by DD two years ago showed that FORTRAN will dominate for many years to come.

3. The users and the load

As shown in Fig. 3, 80% of all CP hours used on the central computers are accounted for by the experimental physics groups. The remainder divides between the data-handling division (DD), mainly for operations and for system development, and the other divisions. The total number of registered users is about 900-1000, and the number of jobs run each week is about 15,000 on the CDC and 5,000 on IEM. These numbers, and the CP hours used each week vary only moderately during the year. At present the CDC is clocking up over 100 hours and the IBM about 90 hours each week, leaving a small margin in hand for the expected build-up this summer.

4. The user interfaces (Fig. 4)

a) COCOTIME: An experimental physicist is always a member of a physics group. As part of their proposal to the experimental committees and hence to the Research Board, this group will have had accepted an estimate of computer time, including that fraction of it which they want to consume at CERN. The time estimate is checked by a body called COCOTIME, which meets under the chairmanship of the directorate member responsible for computing, presently Professor Lohrmann, and which allocates and schedules, if necessary, computer time to the groups. Its members are physicists, including a visitor, members of DD staff and the computer coordinator, together with a secretary, Mrs. Griffiths/EP. There is an increasing trend for this committee to referee all significant requests for computer time, and to offer guidance where this is considered useful. It is the policy of this committee to require groups to perform about one-third only of their computing at CERN.

b) CUAC: The more detailed allocation of other computer resources to the divisions, and suggestions for improving services generally, are handled by the Computer Users Advisory Committee, advising the DD division Leader, Dr. Zanella, which meets at present under the chairmanship of the computer coordinator and consists of representatives of most of the divisions together with two visitors (D. Linglin and R. Clifft) and a representative of DD, plus invited experts. The members are appointed by the director responsible, on the recommendation of the relevant division leaders. The resources they deal with are disk space allocations, job classes, print limits, scheduling, and overall policy for siting of terminals, RIOSs and other decentralized hardware. The allocation of resources within a division is under the management of the appropriate divisional representative, and in EP this is handled by G. Kellner. This interface is especially important for obtaining file space and magnetic tapes. The other EP representative is L. Camillieri.

c) ACCDHP: The Advisory Committee on Computing and Data-Handling Policy is a body, consisting mainly of representatives of laboratories in member states, which helps CERN to devise a long-term computing strategy which is in line with what is happening in those laboratories.

d) Computer Coordinator: Then there is the catch-all figure of the computer coordinator whose best defined role is to administer the disk space on the CDC 7600 and to take care of priority budgets which groups may need to ensure fast turnaround time during data taking. Normally his main task is, as the name implies, to be aware of what is happening day-by-day in the various areas of the centre and to ensure everything is functioning smoothly. It is up to him to propose to CUAC the allocation of new resources, such as extra disk space, and to make other proposals which he considers would extend or improve the services offered, or make better use of the resources.

e) US group: Fig. 5 shows part of the group structure of DD, including the CO and SW groups, charged with the hardware operation and operating system support. The US group has grown in recent years to become a real source of assistance to users of all levels of competence and experience. The new user will first meet this group when registering with the accounting section as a CDC, INTERCOM or IBM user on his group code. This gives him access to his group's computer budget and permanent file space. The US group contains a Programming Enquiry Office to provide solutions to the immediate difficulties encountered by users setting-up and running programs, and to help to find the answers to more abstruse problems in conjunction with specialists for the software and other groups.

This group also contains a Mathematics and Computing section which provides assistance with problems in numerical analysis, statistics and mathematics generally, maintaining an office too in the Theory division. Another section administers the CERN program library and attempts to improve its quality and also distributes it to other centres. This is vital for the many applications programs using the library and needing to run on outside machines. Users are encouraged to submit suitable programs to this library.

The US group additionally looks after the Computer Science Library which contains reference works and journals connected with that subject, plus self-service manuals to the various facilities and general purpose programs which the centre supports.

This group publishes a regular Newsletter containing details of new facilities, hardware and software, and of timetables and working methods. A popular feature is the Vox Populi where questions and criticisms are published and answered. The CDC and IBM users guides are also written by them.

f) EE group: I should mention too the programmers who assist physicists on a long-term basis with major programming problems in data handling, especially ones such as those associated with facilities like bubble-chambers, and the SFM and Omega detectors, and other large experiments. These programmers are located in EP division and the EE group of DD. These groups of programmers have also produced programs of a general nature, such as PATCHY, HYDRA and GEANT, which relieve the experimentalist of many of the common problems which were previously handled individually and inevitably, therefore, inefficiently. The combined experience of these groups makes them useful sources of advice of specific problems in data-analysis, and R. Böck has tried to collate some of their algorithms into an algorithm library which is now administered as part of the CERN program library.

g) On-line support: There are, of course, very many small computers at CERN, used principally for on-line experimental data-taking and support, ranging from small PDPs and Hewlett-Packards to NORD-50s. These systems too are supported by two groups in DD (MS and OL) and standard data acquisition systems for a number of machines are available from them, together with more direct help in some cases.

In summary, the physics user, either as an individual or as a member of his group, has offered to him a complete range of facilities, and an extensive measure of support with any problems which may arise in their utilisation, or in the choice of appropriate methods and practices.

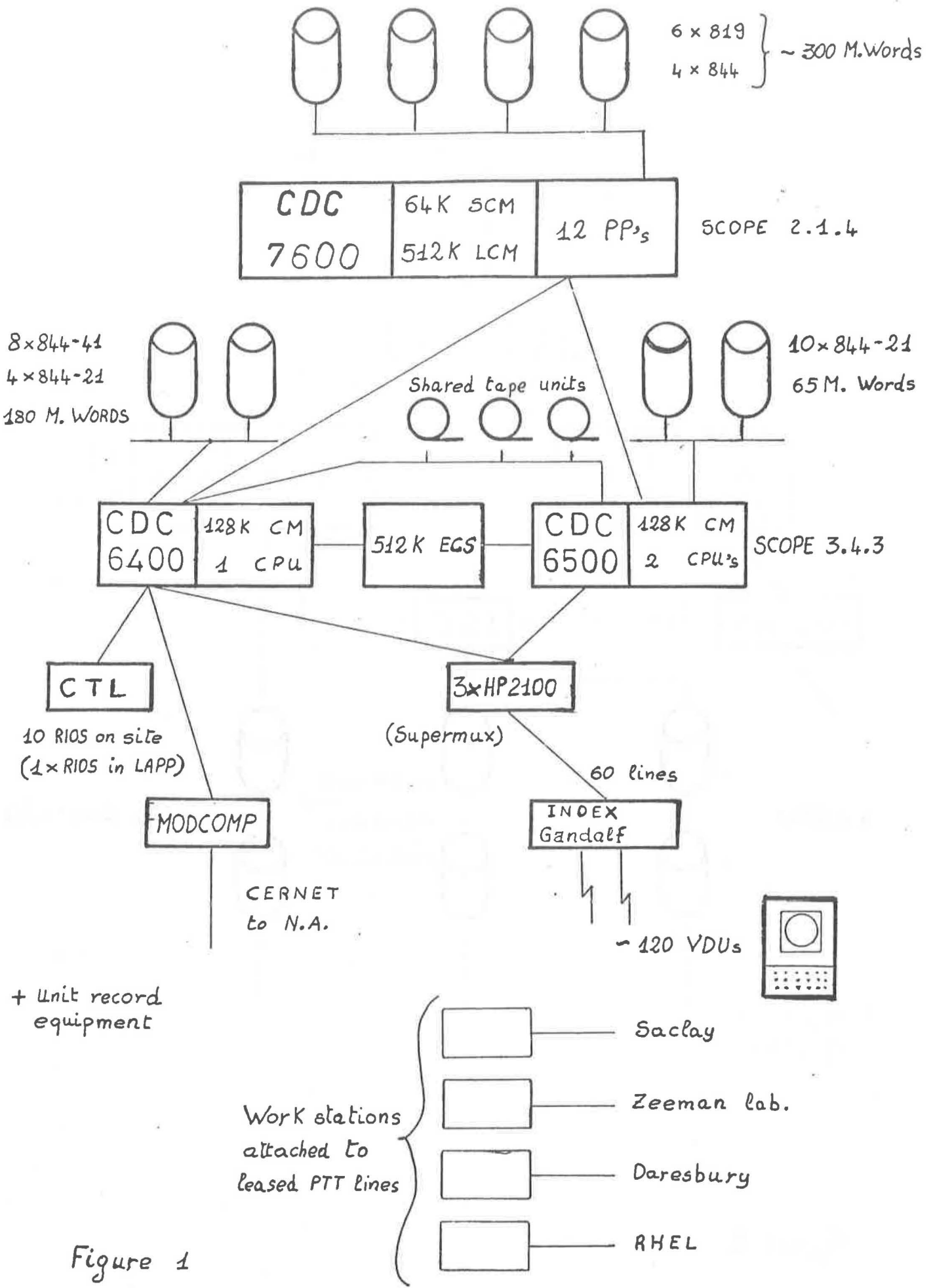


Figure 1

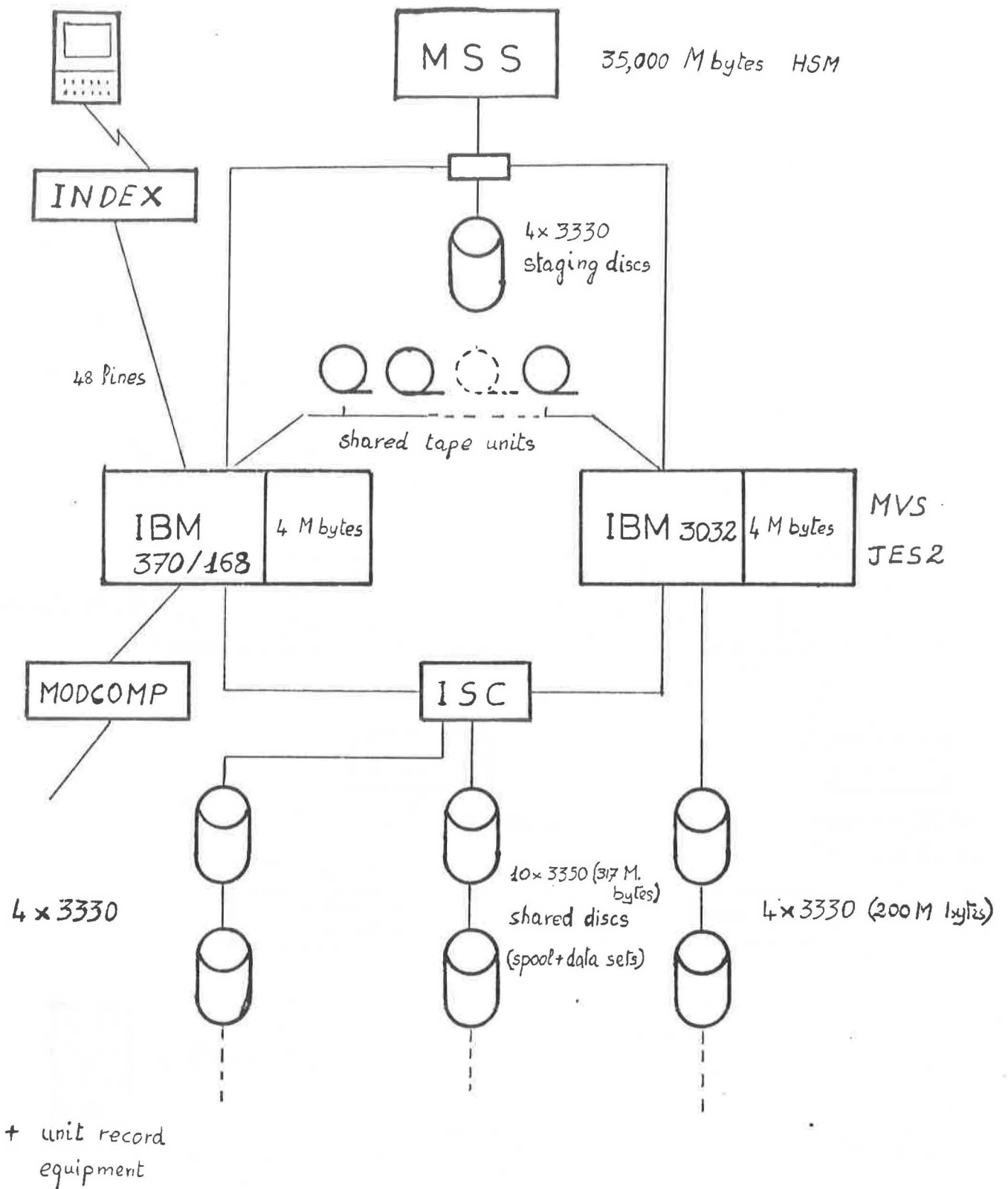


Figure 2

CERN/COCO/78/7
 COCO/M74
 6.1.1978/ug

CDC Computer Usage for 1977

Divisions

	<u>CPhour</u>	<u>%</u>	<u>KSF</u>	<u>%</u>
COM	276.9	5.6	1274.9	6.6
DEV	87.8	1.8	369.8	1.9
DG	~ 0	0.0	0.5	0.0
EF	137.9	2.8	517.3	2.7
EP	4013.8	81.4	15740.1	81.0
ESO	21.2	0.5	65.9	0.3
FIN	1.9	0.1	15.4	0.1
HS	54.3	1.1	133.1	0.7
ISR	79.0	1.6	331.9	1.7
OWK	1.5	0.0	8.6	0.0
PE	4.5	0.1	39.5	0.2
PS	41.1	0.8	172.4	0.9
SB	1.7	0.0	18.1	0.1
SPS	149.2	3.0	583.2	3.0
TH	60.4	1.2	156.1	0.8
	<u>4931.2</u>	<u>100.0</u>	<u>19426.8</u>	<u>100.0</u>
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Source: DD Accounting Section

Figure 3

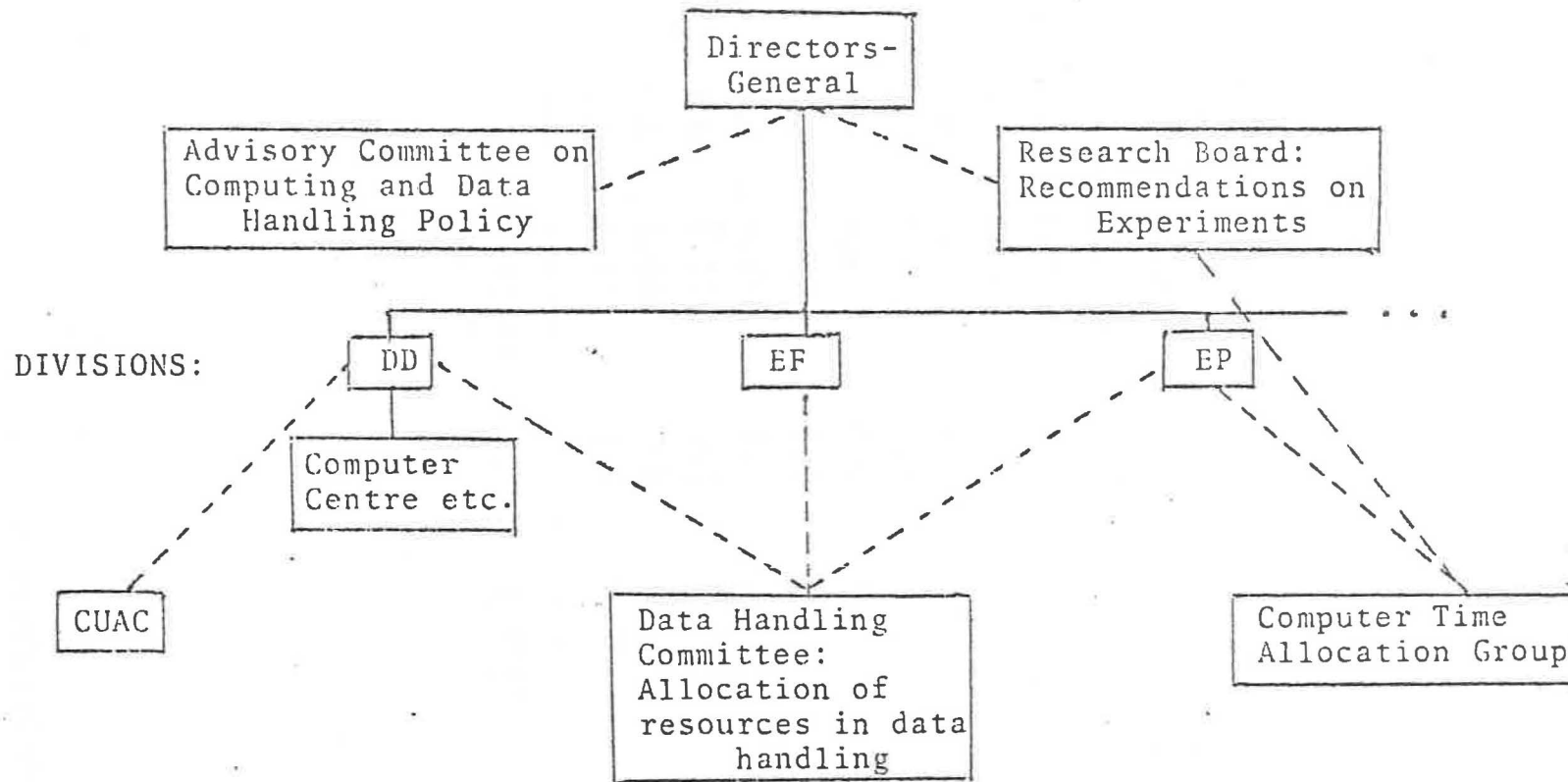


Figure 4

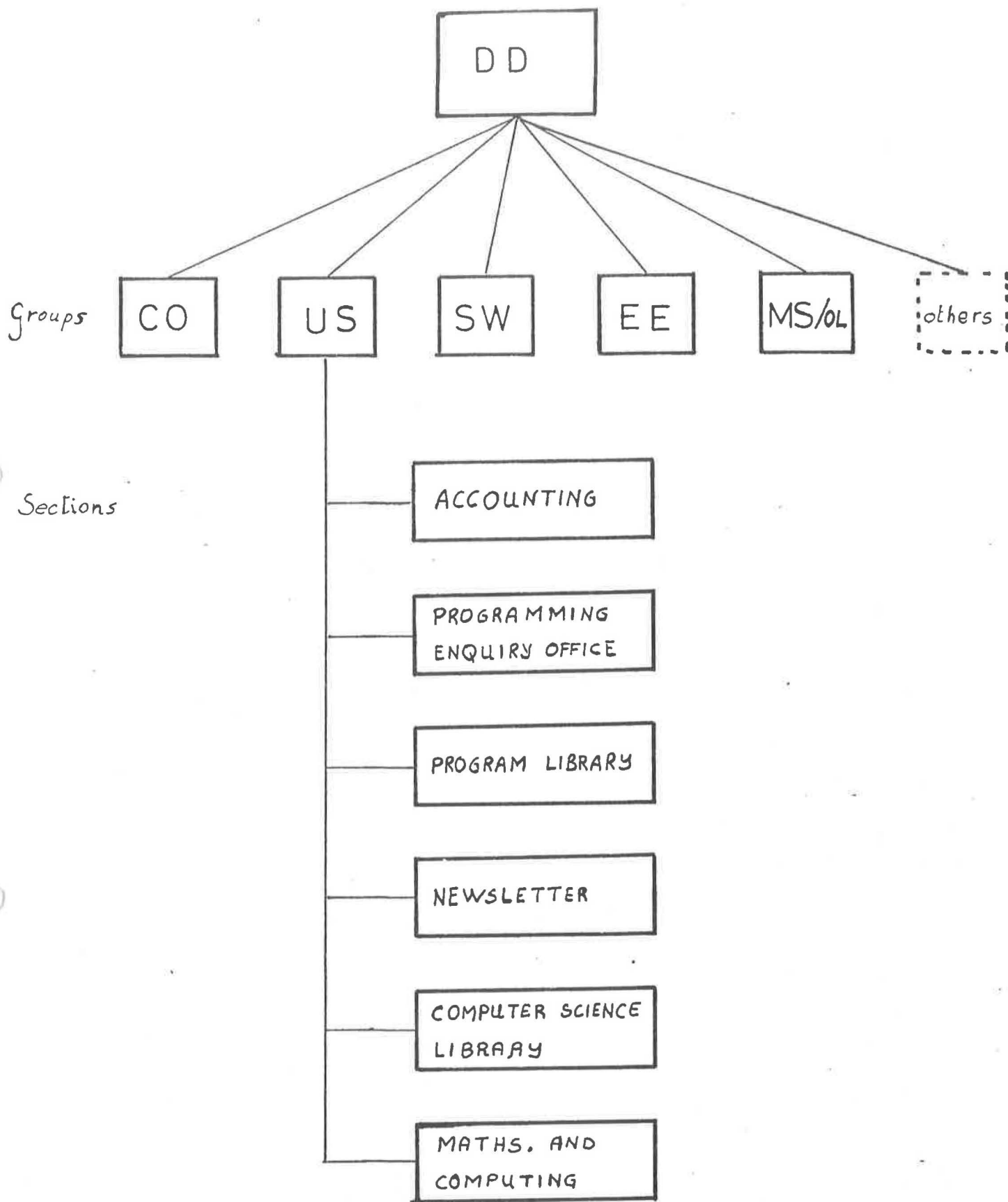


Figure 5

