

ADVISORY COMMITTEE OF CERN USERS (ACCU)

Minutes of the seventh meeting, held on March 3, 1980

- Present : A. Bamberger, F. Binon, W. Blair, J.J. Blaising,
K. Böckmann (part-time), P. Borgeaud, A. Filippas,
P. Grafström, D. Imrie, E. Lillestøl (Chairman),
P. Rancoita, M. Regler, L. Rosselet, D. Schotanus,
H. Suter, J. Thompson, G. Ullmann, L. Van Hove (Part-time).
- Invited : R.N. Milligan (Item 4e), G.R. Stevenson (Item 3),
J.M. Thomas (Item 5).
- Apologies for absence : M. Buhler-Broglin, A. Gunther (Item 4d),
J.D. Hansen, W. Tejessy, A. Vitale.

1. Membership of ACCU

Van Hove welcomed those present to the seventh meeting of ACCU, a special meeting in that approximately half the members had been replaced, and the others extended. He gave an updated list of user members of ACCU (see Annex I), and added that CERN management was represented by himself and Ullmann, with Buhler-Broglin representing EP Division, and Blair as secretary. The CERN Staff Association was represented by W. Tejessy. Additional CERN staff members participated on specialised topics, as necessary. Lillestøl would be Chairman for a further two year period.

Van Hove reminded members of the terms of reference of ACCU (see Annex II) and summarised its first two years as follows. The Committee was useful in bringing the relevant CERN staff and user representatives into direct contact inside and outside the meeting, which led to better understanding on both sides. Many points had been discussed, often minor, but improvements had been made whenever possible within the limitations of available staff and budgets. It was important that ACCU dealt with problems which were common to more than 1 or 2 individuals, and he encouraged each member, as representative of his country, to consult and discuss with his colleagues and to feed information both ways. This was an important part of the ACCU procedure, since ACCU tended to work by successive approximations, topics being raised at one meeting, and then being studied at CERN and among users before being discussed in more detail at the following meeting. He closed by advising members to study the Chairman's report on ACCU activities (see Annex I of the minutes of the previous meeting).

2. Adoption of agenda

The Chairman observed that due to the unforeseen absence of Buhler-Broglin, the presentation on Item 5. on the draft agenda (Secretarial support for users) would have to be delayed to the following meeting. With this modification, the draft agenda was approved.

3. Minutes of the previous meeting (CERN/ACCU/6)

The minutes of the previous meeting, held on November 26, 1979, were approved.

4. Matters arising from the minutes

a) Car-hiring arrangements

The Chairman said that it had been agreed to review the situation at this meeting, and asked for comments from users, to be noted in the absence of Buhler-Broglin. Binon observed that there was a very useful facility at the Preveessin site (Building 892) whereby a car could be borrowed for one hour. Imrie said that a similar arrangement existed at Building 28 and confirmed its usefulness. He added that in practice an institute could make a car available to its short-term users by hiring the car from CERN in the name of the institute, and then allowing different individuals to use it on a daily basis, paying the institute for their use of the car. Borgeaud said that Saclay had also rented two cars on this basis, to the advantage of all concerned. Borgeaud and Imrie asked if the number of cars available could be increased. The Chairmain suggested that the demand for car-hire should be assessed, and it was agreed to discuss the matter again at the next meeting, in the presence of Buhler-Broglin.

b) Employment in the Geneva area for spouses

Ullmann said that during the discussions on the employment and social conditions of all members of the personnel (RESCO) in France and Switzerland the question of the conditions for families had been raised, including permission to be here, and, if possible, to work. CERN can bring anyone as member of the personnel, there being no restriction on entry by Switzerland or France; however there can be difficulties for members of the family to reside or work, and for former staff to reside in Switzerland after retirement. Agreement had now been reached on non-Swiss staff residing in Switzerland after retirement, and there had also been some agreement on non-Swiss children remaining in Switzerland after completing their education. Negotiations continued on the question of employment for spouses of members of the personnel (of all categories). On this subject, in Switzerland in theory all that the spouse had to do was first to find a job, and permission should then be granted, however in practice employers knew that there were procedural difficulties, and refrained from starting the procedure, thus making it very difficult for CERN spouses to get a job. The matter was still being negotiated. He pointed out that the difficulties concerned spouses of staff and associates equally, and asked to be informed personally of documented cases (not rumours) of the refusal of work or residence permits in Switzerland or France.

c) Working procedure of ACCU

The Chairman said that he wished again to stress the importance of members acting as an effective communications link to and from their own community, and cited the system in use in the U.K. and in Sweden as a model.

d) Library facilities at CERN

In the absence of Gunther, who had reviewed the CERN library facilities at the previous meeting, Binon, the users' representative on the Library Committee, reported on subsequent developments (see Annex III). The basic problem raised by users had been lack of up-to-date textbooks etc. and delay in access to books which were on loan, leading to the request for a much increased reference section, which the Library Committee had accepted, subject to space limitations. A list of the present reference collection had been prepared, and users were asked to send specific suggestions for books to replace or add, to himself. On the question of photo copying, it was not foreseen to instal a high-speed copier, but once the safety problem had been solved a normal copier would be available at all times.

Binon added that the Library Committee was aware of another problem, namely theft, which was noticeably worse in summer and at weekends. The replacement of a book on the shelves by a block of wood and the message "ask at desk" meant that that book had been stolen and replaced at least six times. Discipline on the part of all users of the library was desirable. In answer to questions Binon added that once a book disappeared a replacement was ordered after 2 - 4 weeks, and also that bearing in mind that the library was open always it was cheaper to replace books which went missing than to employ more staff. Blaising remarked that at his institute there had been the same experience - user pressure to open the library at weekends, followed by the theft problem as above, and the decision to stay open and buy replacement books.

The Chairman closed the discussion by asking members to encourage users to consult the list in the library and to make suggestions to Binon.

e) Short-term accommodation for users at CERN

Milligan referred to the discussion at the previous meeting, and said that it was hoped that members were now in a position to express the views of the users they represent, thus leading to a consensus of opinion as a basis for firm proposals to CERN management. He added that while CERN management had still to consider the matter, preliminary feasibility studies had shown that it was likely that a new building could be built on the Meyrin site.

Lillestøl, Regler, Binon, Imrie and Filippas all said that there was strong support from the users in their countries for a new hostel building on the Meyrin site to the general standard of the present Building 5, and it became clear that this was the unanimous view of the meeting. Imrie's written report is attached as Annex IV.

Regler indicated that in one respect the standard should be improved as compared to Building 5, namely noise in all aspects - internal sound insulation, doors, toilets, lifts, cleaning arrangements etc. - this being particularly important for physicists on night shift who have to sleep during the day. Many members supported this point.

Ullmann answered questions on financial arrangements as follows. Operation of the CERN Hostel and CERN furnished flats was funded by the CERN Housing fund, which was intended to be non-profit making but self-supporting on a long-term basis, and was not part of the CERN Budget. Construction of a new Hostel building could be funded by a commercial loan to the Housing

Fund, which required Finance Committee approval and guarantees but no Finance Committee money as such. Parameters still to be finalised included the size of the Hostel and number of beds, the quality of construction (e.g. sound insulation), and the time to amortise the loan. Milligan added that present thinking was based on a building with 120 - 150 rooms (the present barracks had 80 beds) and with two standards of room - some as at present in Building 5, at approximately the present price, plus some with showers, at a higher price. He noted that the attention of the architect should be drawn to the noise problem for people sleeping during the day.

The Chairman said that it was evident that the views of users and of the representatives of CERN management converged, and concluded that the meeting gave strong support for construction as discussed to be started as soon as possible. This was the unanimous recommendation of the meeting.

Related points raised during the discussion included:-

- i) Filippas said that transport arrangements for short-term users who did not have access to a car (personal or hired) were not very satisfactory. Imrie remarked that the forthcoming SPS long shutdown would mean less demand on the present navette system (and also on the hostel) at that time. The Chairman indicated that this question had been discussed at several meetings of ACCU, and suggested that unless there was an urgent problem further discussion be deferred for a year or so.
- ii) Binon commented that restaurant facilities on the Preveessin site were inadequate. Milligan said that work would shortly start on enlarging the kitchen and restaurant, leading to better facilities in the long-term, after some short-term disturbance.
- iii) Filippas asked if it was possible when the CERN Hostel was full to negotiate with hotels in Geneva for a special rate for a stay of say ten days or more. Milligan suggested that the Wagons Lits/Cook agency be approached on an individual basis for such assistance.

The Chairman expressed his thanks to all who had participated in the discussion, and in particular to Milligan and Ullmann, and looked forward to there being a new Hostel after the long shutdown.

f) Lockers

Milligan said that the possibility of providing lockers to enable users who commuted to CERN to leave personal possessions while returning briefly to the home country had been investigated, and in a few weeks' time it was hoped to instal ten lockers on a trial basis, keys available from the Hostel receptionist.

g) Information on formalities for removals into France

Milligan remarked that as indicated in the note in the minutes of the previous meeting, this had been looked into and a revised information leaflet was now available from the Installation Service.

5. CERN Nursery School

Thomas presented a report on the CERN Nursery School giving details of the history, organisation, and management of the School (see Annex V). Concerning financial matters he indicated that the school fees are currently 250 Swiss francs per child per month, 75% of this being reimbursed by CERN to members of the personnel who are entitled to reimbursement according to the CERN Staff Regulations. In the case of Unpaid Associates who could not obtain any assistance with the fees from their home country, the Management Board of the Nursery School was prepared to consider special terms, on an individual basis. He indicated that the Management Board had to face increasing budget problems, and in this context had to reconsider whether to continue the facility of special terms for Unpaid Associates who had financial problems. The Management Board of the Nursery School thus wished to request ACCU to approach CERN management for financial help to permit the Nursery School to continue to provide reduced rates for Unpaid Associates who have no other means of reimbursement.

Members then asked Thomas a number of questions on the financing of the Nursery School and related topics, and also commented on different aspects of the request from the Management Board. A summary of the questions and of Thomas' replies follows:-

- i) How much financial assistance is given to an individual Unpaid Associate? (Lillestøl). The amount is based on the gross income (husband and wife), and leads to fees actually paid being between 125 Swiss francs (minimum) and 250 Swiss francs per month.
- ii) How many children at school at present belong to Unpaid Associates? (Böckmann). 25 of the present total of 130 children.
- iii) How is the Staff Association financed? (Lillestøl). The Staff Association has an annual income of the order of 100,000 Swiss francs from subscriptions, whereas the annual budget of the Nursery School is of the order of 300,000 Swiss francs.
- iv) Can Unpaid Associates join the Staff Association? (Böckmann). Unpaid Associates are members of the Staff Association.

During the subsequent general discussion, a variety of comments were made, as follows:-

- a) One way of solving the financial problem would be to increase the fees, thus increasing CERN's contribution via the 75% reimbursement (Böckmann). The fees being decided by the Management Board, the CERN administration is not involved in setting the fees, and would reimburse as foreseen in the Staff Regulations. However not all Unpaid Associate are in financial difficulty, since some countries reimburse school fees (Ullmann).
- b) It is reasonable for "permanent visitors" to pay to the Staff Association, but those not here full-time, or here for only a short period, do not expect anything from the Staff Association. The question of schooling arrangements for the children of Unpaid Associates is in any case rather complex, however the present kindergarten facilities seem reasonable and worth supporting (Regler).
- c) The general policy of CERN management for many years has been that families should integrate and use the local Swiss/French facilities. For example the development of the lycée at Ferney-Voltaire has had the strongest possible support from CERN. As far as nursery schooling is concerned, there are many local alternatives to the CERN Nursery School. It should be clearly understood that the CERN administration will not get involved in the management of the CERN Nursery School (Ullmann).

- d) There was a lack of alternative facilities locally many years ago, and the CERN Nursery School was set up for that reason. With the much increased number of Associates, the school seems now to fit visitors' needs, and also to have a large number of non-French-speaking children, but this was not the purpose of this school (Thomas).
- e) From personal experience, local nursery school facilities are good and also free or cheaper than the CERN Nursery School (Blair, Imrie).
- f) Users should ask their authorities in their home countries to reimburse the fees (Lillestøl). Even if no explicit reimbursement is made, tax rebates and child allowances etc. can be intended to contribute to educational costs, and it is very complex to try to compare specific points of what is an overall financial and social package for the individual (Ullmann).
- g) The total rebate given by the Management Board of the Nursery School to Unpaid Associates in 1978/79 amounted to approximately 10,000 Swiss francs (Thomas).

The Chairman proposed that, in view of the many different factors involved, members should reflect on the issues raised and discuss with their colleagues and in the home countries, with a view to discussing the matter again at the next meeting; in the mean time ACCU could not comment on the request by the Management Board of the Nursery School. This proposal was accepted unanimously.

6. Other business

a) Software support for counter experiments

Regler said that this question had been discussed in detail in ACCU one year ago (see CERN/ACCU/3 and 4), and one of the recommendations had been that minimum standards for software should be formulated in writing. This had now been done by Metcalf in consultation with himself, and should be useful particularly but not only for new groups and small collaborations. (see Annex VI). (Note - another recommendation was that a lecture course on programme optimisation should be proposed in the CERN Academic Training series, and this has now been arranged. Metcalf will lecture on "Programme optimisation in a FORTRAN environment" on June 10 and 13, 1980. W.B.)

7. Items for the agenda of the next meeting

- a) Rancoita said that he was considering proposing a discussion on two points concerning workshop facilities at CERN, i) the possibility of CERN training technicians from home institutes e.g. in repairing MWPC's and other detectors), ii) the possibility of CERN building special detectors to order for outside groups. However he wished to discuss this further with other members before making a formal proposal for the agenda. There was a brief discussion during which Regler remarked that on the one hand standardisation was to be encouraged but on the other hand as much technical work as possible should be done in the home institute, and other members asked about CERN workshop facilities in general and were referred to previous discussions in ACCU (see CERN/ACCU/4). Rancoita said that subject to further consultations he would probably propose an agenda item along the lines indicated.

8. Next meetings

The next meetings of ACCU will be held on Monday June 2, 1980 and on Monday October 6, 1980, in both cases at 14.30 and in Salle A and C, (near the Council Chamber).

CERN

<u>AUSTRIA</u>	M. Regler	(no change)
<u>BELGIUM</u>	F. Binon	(no change)
<u>DENMARK</u>	J.D. Hansen	(no change)
<u>GERMANY</u>	K. Böckmann A. Bamberger	(no change) (replaces U. Meyer-Berkhout)
<u>FRANCE</u>	P. Borgeaud J.J. Blaising	(no change) (replaces M. Crozon)
<u>GREECE</u>	T.A. Filippas	(replaces A. Apostolakis)
<u>ITALY</u>	A. Vitale P. Dálpiaz	(no change) (replaces M. Baldo-Ceolin)
<u>NETHERLANDS</u>	D.J. Schotanus	(no change)
<u>NORWAY</u>	E. Lillestøl	(no change)
<u>SWEDEN</u>	P. Grafström	(replaces T. Ekelöf)
<u>SWITZERLAND</u>	H. Suter	(replaces L. Tauscher)
<u>UNITED KINGDOM</u>	D.C. Imrie J.C. Thompson	(no change) (replaces I.P. Duerdoth)
<u>CERN</u>	P.G. Rancoita L. Rosselet	(these two replace W.G. Scott and W.M. Geist)

CERN

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.

CERN

15 February, 1980

M E M O R A N D U M

To : All members of ACCU c.c. A. Günther
From : F. Binon, representative of CERN users to the Library Committee
Subject : Revision of the reference collection

At its last meeting held on 12 December, 1979, the Library Committee has accepted the proposal made by ACCU members to extend the reference collection by adding books proposed by the users insofar as the space restrictions allow it.

Moreover, the Library Staff has prepared, at the request of ACCU members, a catalogue of all books in the field of physics and mathematics which are at the present time in the reference section. This catalogue is over 100 pages long! In order to save time and paper, I have agreed with Dr. A. Günther not to distribute this list to individual members of ACCU but rather to put one copy of this catalogue at the desk of the Central Library where it can be consulted.

Please send me at your earliest convenience a list of books you would like to see replaced or added to the reference collection, keeping in mind that the available space is limited.

Future Short-Term Accommodation on the CERN Site

Introduction

The results of the recent survey of CERN users regarding the provision of further short-term accommodation at CERN appear to reflect faithfully the views of the majority of UK users.

There is a strong demand for more on-site accommodation similar to that provided at present by the CERN hostel. Single study-bedrooms, with individual washing facilities, are universally favoured.

Location

The new hostel should be located within easy walking distance of the main building in order to provide relatively convenient access to the Co-op restaurant, Post-Office, Bank, Travel Agent, Library, Auditorium, computer terminals, Bureau des Pompiers (for out-of-hours key collection), and buses to Meyrin, Geneva and the Airport. This situation is not ideal for users of the SPS North Area and will be just as inconvenient for users of the majority of the proposed LEP experimental areas, but alternative sites for the new hostel appear to have far greater disadvantages. Continuing improvements in on-site and between-site transport facilities seem to be the only satisfactory means of overcoming the problems produced by distant working locations.

Type of Construction, Size and Room Charges

It is strongly felt that a temporary or prefabricated structure is unlikely to provide either the level of facilities required, or adequate visual appeal, and some form of permanent construction is highly favoured.

The number of rooms to be provided in the hostel is one of the most important questions to be resolved. Users would obviously wish to be able to obtain a room in the hostel at short notice, even at periods of peak demand. This is, of course, almost certain to be incompatible with the desire to keep the load factor high in order to maximise income per room. An attempt

will have to be made to estimate the maximum number of users that will need to be accommodated on site at peak periods. The size of the new hostel might then be chosen with a view to ensuring that 90%, say, of the peak demand could be accommodated.

The user survey indicated that some increase in price above the present hostel rates could be afforded by the majority of users. However, an increase would only be tolerated if the new hostel were clearly to provide superior facilities. It would be rather tactless to close some of the present accommodation and replace it by a hostel providing similar facilities at greater cost. It is also necessary to consider the needs of users for whom the present hostel charges are excessive. Given adequate transport, the St. Genis Foyer could, presumably, serve their needs. In view of the economic climate in some member states it would also be unwise to assume that all users will continue to be supported at the same level as at present.

Facilities

The rooms in the present hostel are generally considered to provide adequate accommodation and a similar standard would be acceptable in the new one. Some users complain that the beds are uncomfortable and others would prefer a second pillow to be made available, comments with which I personally have some sympathy.

A significant minority of users would like some communal cooking facilities. The system in use at DESY, communal kitchens with small individual lockable refrigerators and a lockable cupboard containing a standard set of cooking utensils, cutlery and crockery for each user, is said to work well and could be copied. It might only be necessary to provide a few kitchens, with enough cooking 'sets' to serve, say, 25% of rooms. These 'sets' could be rented out for a small additional charge. Although few users would wish to get involved with serious cooking, many would welcome a means of boiling water, so that hot drinks could be prepared at hours when the restaurants are closed.

A strongly-felt, and frequently strongly-expressed, need is the desire for greater facilities for relaxation. A resident user can spend 168 hours per week on site, over four times as long as the average CERN employee and, although experimental

particle physics demands an unusual degree of commitment and a willingness to work long, unsocial hours, hostel residents should not be expected to spend all their time working. Nor is it reasonable to expect short-term residents, without their own means of transport, to use many of the recreational facilities in the Geneva area that are accessible to CERN employees. A comfortable lounge, with a generous supply of newspapers and magazines, a small television room and a games room with, say table-tennis and snooker, does not seem to be an unreasonable level at which to aim, and might well be incorporated in a new hostel for a small additional cost.

D. C. Imrie

February 1980.

February 1980

THE STAFF ASSOCIATION NURSERY SCHOOL

The Nursery School was set up in 1961 by the Staff Association on the initiative of a group of parents. It is a private non-profit-making nursery school which currently numbers 130 children from 3 to 6 years old of different ages and nationalities.

A brief history

- From 1961 to 1964, the Nursery School was in Meyrin.
- In 1964, CERN provisionally made available a piece of land situated near the Satigny exit. A block consisting of four classrooms was built by the Association with a loan of 80,000 SF from the SBS, guaranteed by CERN and repaid out of the school fees.
- In 1966, a second block was erected, consisting of two classrooms and a rhythmic room, financed in the same way as the first one.
- Since 1967, a nursery ('garderie') has been open twice a week in the afternoon. It accepts children from the age of 2 years old. An attempt to open the nursery every day of the week (from December 74 to June 75) had to be stopped for financial reasons.
- Attempts were made in 1966 and 1974 to collaborate with the Commune of Meyrin in making joint arrangements, but these were unsuccessful. A plan to organize some classes on the French site did not materialise.
- In 1976, after CERN had installed a water chlorination plant opposite the Nursery School, the Service de Protection de la Jeunesse (Department for the Protection of Young People) of the State of Geneva took the view that the area was unhealthy and demanded that the Nursery School be moved.
- CERN then proposed to the Management Committee and the Association, both of which accepted, that it should buy the blocks and repair building 562 known as 'the old Tortella canteen'. The repairs to the old building were very successfully carried out.
- In September 1977, the Nursery School moved into its new premises consisting of six large classrooms, a woodwork and pottery workroom, a rhythmic room, a kitchen, an office and, of course, sanitary facilities. The building is surrounded by a large green area.

Plans for all-day classes and a crèche have been studied, but it has so far been impossible to implement them owing to the considerable financial risks.

CERN provides the Nursery School with the building and land for a rent of 3000 SF per year. CERN also pays for the water, electricity, heating, cleaning and maintenance.

What is the CERN Staff Association Nursery School ?

The Nursery School is attended by 130 children from 3 to 6 years of age, who are divided into 6 classes.

Hours

It is open every morning from 8 a.m. to 12 a.m. in the summer and 8.30 a.m. to 12.30 p.m. in the winter. Holidays are the same as those in the Genevese schools.

The children speak different languages and are of different nationalities. The official language of the Nursery School is French. Children with a different mother tongue learn French through games and very dynamic group activity, and this helps them integrate into the communities where they live, both socially and from a language point of view.

The Nursery School is designed for the children of the members of the CERN personnel. Children whose parents are not employed by CERN can also be accepted.

The Nursery School is religiously and politically neutral. The staff carry out their work in a spirit of co-operation and fellowship. Great stress is laid on the exchange of ideas and communication between staff and parents. Indeed, it is essential to look for common ground concerning the social values which are to be taught to the children, since both the family and the nursery school contribute to their education.

Pedagogical plan

The main emphasis is laid on the ability to adapt to society, on mutual respect between children and between adults and children, and respect for animals and nature. The activities which take place in the Nursery School are not "thought out" by the adults, but are based on the child's immediate interest, thus allowing him to build up his concept of reality.

In this way, without pointless restrictions, the child opens himself up to life while strengthening his personality. The children can express themselves by using wood, clay, paint, sand, water and other types of material. By using these freely, the children can be truly creative.

Music, singing and dancing provide other means of self-expression and sources of pleasure, and the children can themselves cook, feed and take care of the animals, garden, weave, etc...

Using these methods, the Nursery School provides the children with the best possible foundations to help them move on to compulsory schooling.

Afternoon nursery ('garderie')

The nursery accepts children from the age of 2 years old. It is open every Tuesday and Friday afternoon from 1.30 p.m. to 5 p.m. in the summer and 2 p.m. to 5.30 p.m. in the winter.

The children have the use of the equipment, games and premises belonging to the Nursery School, and various activities are organised by a nursery teacher and an assistant. No enrolment is required. A fee is charged per child and per afternoon.

Staff

The staff of the Nursery School and the afternoon nursery is currently made up of 6 nursery teachers and 7 assistants. A music teacher also gives classes once a week.

The nursery teachers hold diplomas from nursery teachers' colleges or have equivalent training. The assistants do not hold a special diploma, but have usually had nursery school experience.

The staff are required to have a good educational background, experience of various activities and the ability to speak several languages. An open mind, receptiveness and willingness to work as a team are essential qualities. The initial hierarchical structure has been changed, and the post of Headmistress has been altered to that of Superintendent elected yearly by rotation.

Regular staff meetings ensure that there is an exchange of useful experiences, and contribute to the continuity of the education.

Legal position and finance

The Nursery School, set up "within the framework of the Staff Association", is an institution under Swiss law subject to the regulations in force in the Canton of Geneva. The Association is the legal employer running a private Nursery School.

The staff, employed by the Association, are recruited with the approval of the Bureau du Contrôle de l'Habitant (Resident Supervision Office) and do not have the status of international civil servant. The Nursery School is supervised by the Service de Protection de la Jeunesse (Department for the Protection of Young People) which authorized its opening.

The Nursery School is self-financing. The staff salaries and school supplies are paid for by the school fees.

Management

The Staff Association has entrusted the running of the Nursery School to a Management Committee. The Committee runs the Nursery School with various aims:

- Well-being and harmonious development of the children.
- Proper social and financial conditions for the staff.
- Sound financial basis.
- Compliance with the applicable laws and regulations.

The Committee is currently made up of 15 members:

- 8 parent representatives elected by the parents for a period of 2 years.
- 3 representatives of the Staff Association.
- 1 representative of the nursery teachers.
- 1 representative of the assistants.
- 1 treasurer, designated by the CERN Management.
- 1 member of the CERN social services.

From the Committee members, 1 President, 1 Vice-President and 1 Secretary are elected for a period of 2 years.

Methods of enrolment, criteria for admission and fees

Members of the Management Committee are present once a week at the Nursery School Office (Tel. 83.58.88 - 83.36.04) to enrol children and provide details and information.

For details of the day and time, please contact the Staff Association section of the Weekly Bulletin or telephone the secretariat (Tel. 83.28.19).

Children may be enrolled at any time of the year but under no circumstances can children be admitted to the Nursery School if they are less than 3 years old. The children's date of birth is a determining factor for their admission, the oldest being accepted first.

Children may be accepted during the school year, depending on the places available. The Management Committee reserves the right to study any case which is particularly difficult and to grant priority in certain exceptional cases.

The child is admitted as soon as the parents have received a notice of admission bearing the expected date of entry. Admission is confirmed only after payment of the fees for the first month. Withdrawal of the child requires a month's notice, plus fees for that period, at the end of the preceding month.

The school fees are currently 250 SF per child per month, 75% of which is reimbursed by CERN in accordance with the Staff Rules and Regulations (Art. R.A.07, Annex A9) for staff to whom these rules apply. Special terms can be considered for unpaid associates who are users of CERN and not entitled to the reimbursement of school fees, according to their means. Information can be obtained from the Association Secretariat (Tel. 83.27.61 - 83.28.19).

NURSERY SCHOOL NUMBERS

School year	Total	reimbursed by CERN*	Visitors not paid by CERN	School fees* (Swiss francs per month)	French-Speaking	Non-French Speaking	Amount of reduction granted to visitors
1979 - 1980			25	250			
1978 - 1979	140	110	30	220	18	112	9726
1977 - 1978	140	113	27	220	37	103	
1976 - 1977	136	119	17	190/220	49	87	
1975 - 1976	125	109	16	170	29	96	
1974 - 1975	125	101	24	170	41	84	
1973 - 1974	120	97	23	140	29	93	
1972 - 1973			13	120	-	-	
1971 - 1972			11	120	-	-	
1970 - 1971			?	100	-	-	
1970 - 1969			?	100	-	-	

* 75% reimbursed by CERN.

NB Figures for the amount of reduction granted to visitors are not available because of lack of time.

- 3.3 It is additionally useful to adopt some mnemonic as part of the name of a block and its variables. For programs which are not too large one convention would be to give the blocks names of the type abcdXa, and the associated variables names of type variXa, thus making it clear when reading the code which variables are in COMMON blocks and to which block they belong, e.g. :

```
COMMON/TAPEXT/ITP1XT,ITP2XT,ITP3XT,ITP4XT...
```

for the variables associated with tape input/output.

- 3.4 The overall design of the program should follow the principle of having three basic "processors"-initialization, event processing and termination. On CDC computers these often correspond to overlays. Within each processor a similar scheme can be maintained. Each interface needs to be described.
- 3.5 Individual routines should be of reasonable length, i.e. not so short that repeated calling becomes a processing overhead, nor so long that they are difficult to understand. Very different functions should be separated, e.g. do not mix the messy logical control of tracking particles through a complicated magnet system with the actual mathematical code required for performing the individual integrations. Provide utility functions to give simple access to complicated data and detector storage structures - these form the base of a hierarchy below processing routines and control routines.
- 3.6 Use as often as possible existing routines and packages. Familiarize yourself with the contents of the CERN Program Library, including its extension - the algorithm library, and of the NAG Library. For handling tape I/O there exist standard packages (XREAD, IOPACK, EVENT/EVNTIN), for memory management there exist ZBOOK and HYDRA (which can perform many of the other functions set out in this note in a very standard way), and for Monte-Carlo simulation there is even a complete program available - GEANT. Ask if you cannot find quite what you need. Existing routines which do not conform to standards can be used via standard conforming interface routines.
- 3.7 Comment your routines so that their functions are clear without having to read the code itself. Include parameter definitions, definitions of input/output variables, a description of the method, references and units.
- 3.8 There are as many standards for data cards as there are programmers. The important thing is for a given program to use a single standard format. Many experiments use the simple format :

```
KEYword P1 P2.....P7
```

read by (A3,2A4,7F10.3) for all input data from cards where KEY has to be located in a directory, and the meanings of the parameters are pre-defined. More elaborate systems such as FFREAD and the HYDRA facilities exist. The contents of all data cards should be printed. A basic set of data cards might be designed to control :

- i) selection of files to be processed
- ii) selection of events to be processed (by off-line or on-line numbering)
- iii) control of detailed print output (events and level of detail)
- iv) control of output file writing
- v) single event selection for detailed development work
- vi) control of histograms
- vii) control of special program options (e.g. display or alignment).

The data cards should be read in by the initialization processor and checked for consistency before taking any action based on their contents.

- 3.9 A program should produce a run summary from whose contents the operation of the program in a particular run should be clearly understandable.
- 3.10 Avoid tricky programming - in the long term clarity is more important than a small gain in speed or memory space. Avoid also machine dependent code, and mark it clearly when it must be used. Do not override the FORTRAN typing of variables, or make complicated use of EQUIVALENCE statements. Subroutine arguments should be used only when this is clearly preferable to a COMMON variable.
- 3.11 A program should be designed with a suitable set of default operating conditions, which can be overridden by data cards. In particular, it should be possible for a user to switch off externally processors which he is not using for his immediate purpose.

4. Program maintenance

To maintain a program there are two products available : UPDATE, which is simple to use but which is available only on CDC machines, and PATCHY, which is more elaborate but available on all machines. A guide to the use of PATCHY for counter experiments is available. In general, UPDATE should be used only where a collaboration is sure to use only CDC machines through the whole life of an experiment and where UPDATE experience is already available. In all other cases PATCHY is to be preferred. The +SEQ/*COMDECK feature should always be used.

5. Tape handling

It saves a great deal of labour if the tape formats are based on one of the CERN standards, for which I/O routines are already available. In addition, it is a great advantage to use an internally identical format for all tapes in an experiment, whether they contain raw, compressed or simulated data or are DSTs. This helps particularly in re-reading tapes into the off-line analysis program.

6. References

HYDRA reference manual
FFREAD (DD/EE/78-2)
ZBOOK (DD/78/1)
GEANT (DD/78/2)
HBOOK (DD/77/9)

Computer-Independent Tape Format and Read/Write Package (EP/DHR/78-2)
PATCHY reference manual
UPDATE reference manual
CERN Program Library
Programming Convention Working Party : Reports 1-3 (CNL 106/107/112)
IOPACK (DD/US/45)
EVENT (DD/US/23)
A simplified guide to the use of PATCHY (DD/US/60)
NAG Program Library reference manuals

7. People to see

PEO
H. Grote /DD