Minutes of the eighteenth meeting, held on September 5, 1983


The Chairman welcomed Mazerand who was representing the Staff Association at this meeting. He noted the presence of Frisk who on leave of absence from a Swedish university for one year, is working with the Fellows and Associates Service in PE Department.

1. Adoption of agenda

The draft agenda was approved.

2. Apologies for absence

These were as given above.

3. Minutes of the previous meeting (CERN/ACCU/17)

The minutes of the previous meeting, held on May 3, 1983, were approved, with the following change in the 9th line of the 4th paragraph of 4.b) on page 2 - "While no decision ... taken" replaced by "While no decision had yet been taken."

4. Matters arising from the minutes

a) CERN computing policy

The Chairman informed the meeting that he had communicated the recommendation made at the previous meeting concerning computers brought into the Computer Centre by Non-Member State LEP groups to the responsible Directorate member, who had indicated that he agreed in principle. Klapisch confirmed that indeed it was the intention of the Directorate to follow a policy as recommended by ACCU. ACCU took note.

Thompson asked whether the CERN contact person for communication links with the outside had been nominated. Klapisch answered that there had been no new developments since the previous meeting. Thompson reiterated that the nomination of a senior person to this task was an important issue as seen by the British user community. ACCU took note.
The Chairman reminded the meeting that the report "Computing at CERN in the LEP Era" had been circulated in May (the recommendations of the report are summarized in Annex A). As its authors (the LEP Computing Planning Group) came from inside CERN, he considered the report essentially to give CERN's opinion, and proposed a discussion to record the opinions from the users. This first round could then be followed up by inviting the responsible Directorate member to a following meeting for more detailed discussions, if necessary.

Klapisch commented that he welcomed such a discussion on this document which proposed to spend 25 MSF over 5 years. It was already clear by now, he said, that a 100% implementation would not be possible, but that there was hope that this could be done with a sizeable part, as the importance of being able to analyse quickly large amounts of data had already been demonstrated by the UA experiments.

There followed a series of remarks and comments from the users, which can be summarized as follows.

Leder remarked that, after the statement by Gabathuler at the ACCU meeting of February 21, he had expected an explicit recommendation in the report to standardize on DEC VAX equipment for on-line use, which seems to be absent. Klapisch answered that the computer manufacturers concerned had very well understood the report to be in favour of DEC VAX equipment.

Thompson said that he supported the rigid "one third/two thirds" rule to be maintained. He observed that in this context networks and communication systems became items of outstanding importance. He regretted that some of the recommendations (e.g. concerning the Backbone Network) on this subject were somewhat vague although he recognized that it is not an easy task to make clear recommendations.

Leder pointed out that there was a contradiction between recommendation 5 (stating that CERNET improvements should be kept to the essential minimum) and recommendation 9 (which asks to strengthen the CERNET support).

The Chairman queried the necessity for extensive use of FASTBUS as many functions still can be done with CAMAC in which large investments have been made. He would prefer CAMAC-FASTBUS interfacing being explicitly mentioned. Klovning added that a policy should be adopted which enables experiments to run CAMAC in a FASTBUS environment. Blaising expected that the choice of CAMAC versus FASTBUS would be made in future in each case separately within the budgetary constraints, judging the necessity of fast processing. Taureg observed that the same problem must have existed at the time CAMAC was in competition with NIM. Dalpiaz confirmed that this had been the case and that choices had been made as described by Blaising. He added that one should be careful in introducing FASTBUS on a large scale in view of the cost involved and the investments in money and technicians in CAMAC. Klovning welcomed recommendation 8, as it explicitly encourages involvement of European industry.

Recommendation 11 asks CERN at least to double its central batch capacity by 1987. Leder, supported by Klovning, estimated doubling the capacity to be insufficient unless substantial further increases after
1987 were foreseen. The Chairman remarked that it was not clear from
the report whether the recommended doubling implied that the computing
needs of LEP experiments were to be satisfied within that capacity.

As to interactive systems, Leder queried the necessity to wait as
proposed in recommendation 16, as the institutes will need to decide in
a year or two. Thompson observed that recommendation 17 on personal
work stations was very weak (maybe on purpose), the British user
community considering them to be important. Klapisch said that several
makes had been tested at CERN (among them Apollo and PERQ), but that it
is too early to take a firm stand, as technical solutions may change
significantly before 1989.

Thompson said that a possible replacement of WYLBUR by VM/CMS was
supported by the British user community which could make a contribution
because of experience in the home institutes with VM/CMS.

The Chairman said that he was reluctant to believe that it was the right
use of CERN resources for CERN itself to build emulators instead of
using commercially available products. Thompson agreed and considered
this a possible task of the home institutes.

Blaising asked to whom the report had been distributed. He was informed
that the distribution list covered ACCU, SPC, ECFA, CERN staff involved,
representatives of the four approved LEP experiments and directors of
external laboratories. Klovning proposed to send the report to all
particle physics groups. Klapisch emphasized that, although not being
opposed to Klovning's proposal, the present report was a working
document and should be considered as such. The Chairman recommended to
limit distribution to specialists (copies available from DD
Secretariat).

Klapisch emphasized that it would certainly not be possible to spend
some 6 MSF each year as recommended, but that 2-3 MSF seemed to be
within the possibilities. He continued by saying that priorities cannot
be listed now also because several places in the report were necessarily
vague. He pointed out that CERN's DD Division would need interaction
with the outside institutes to come to choices of priorities.

The Chairman closed the discussion by proposing to take the item up
again in presence of the Director responsible for computing after more
extensive feedback from the user community had been obtained. This was
agreed.

b) Visiting team accounts at CERN

Blair recalled that the subject had been discussed at the last two
meetings and that Naudi of Finance Department in the meantime had sent
an explanatory letter to all account holders as requested by ACCU. He
had been informed that payments continued to be prompt in general, but
that a few problem cases were coming up. As a gesture of good will,
CERN had waived the charge in the only case which had occurred so far,
but had informed the institute concerned of the amount which they should
have paid, indicating that the new procedure would be applied in future.
To his knowledge, Blair said, there had been no formal comments received
by CERN from the institutes. The Chairman commented that he was aware
of at least one case of formal response. ACCU took note.
c) The CERN economies programme - Office and laboratory space for visiting teams at CERN

Klapisch informed the meeting that a proposal was being discussed to construct two new buildings on the Meyrin site, but that the Directorate had not yet made a formal decision on the project. The project consists of one 5 story Z-shaped building on the premises of the Wilson barrack and other neighbouring barracks, which would increase the net available surface by 3000 m²; and of a reception building next to building 5, which would serve as an interface between CERN and the outside world. Various administrative services would be regrouped in this building liberating some 500 m² in building 4 which could be used by physicists in EP and TH Divisions. The construction would provide office space for some 400-500 users, available in spring or summer of 1985, if started in spring 1984. The cost was estimated at 9 MSF; a possible loan from FIPOI (Fondation des Immeubles pour les Organisations Internationales) was being discussed. The CERN Finance Committee would be informed of the project at its September meeting, Klapisch concluded. Replying to a question by Feltesse, Klapisch confirmed that both office and minilab space would become available.

The Chairman queried the necessity of a new reception building. Klapisch answered that such a building would permit to regroup existing services enhancing their efficiency. He added that in this context a CERN working group was looking into the possibility of a computerised access system. Some ACCU members questioned the necessity and desirability of such a computerised access system.

Blair commented on space questions in EP Division, stating that there will be an obvious problem in the next two years mainly but not exclusively because of LEP experiments until the Z building becomes available. He reminded the meeting that all groups in EP Division had been asked to release 10% of their existing space; as a result 900 m² had been gained which were redistributed for two-thirds to LEP-groups and for one-third to non-LEP groups. At the same time it had been possible to relocate LEAR groups around the PS. An additional 250 m² of office space will be available through buying or renting additional barracks; this capacity will be doubled towards the end of next year. Blair indicated the location of the office and hall space which had been allocated to the four LEP groups; whereas it had been possible to find office space and hall space near to each other for the DELPHI and the ALEPH collaborations on the Swiss part of the Meyrin site, the distance between office and halls was somewhat bigger for the OPAL collaboration (on the French territory of the Meyrin site). The L3 collaboration would have its offices on the Meyrin site and its hall space on the Prévessin site. In answer to questions Blair said that during the construction of the Z building, there will be additional barracks available to compensate the loss of the existing barracks on the premises of the new building; and that it was intended that most of the present ISR counting rooms would be transformed in EP office and laboratory space as soon as possible.

Bradamante said that he had the impression that since some time workshops were somewhat underemployed; in particular the activity in the mechanical workshops seems to decrease. He wondered whether it would be possible to recuperate some office space by diminishing the number and
size of these workshops.

Klapisch answered that in the context of a personnel survey, the question of number and staffing of mechanical workshops was raised. The intention is to close a good part of these workshops as the existence of all of them is not justified. The tendency is to conglomerate into a more rational setup. Blair said that some of the machines are expensive items, necessary for specialized work, but not used all the time, partly because of shortage of technicians at CERN. He added that it is certainly not foreseen to cut down on free workshops. Klapisch suggested to ask Brianti to inform ACCU about the reorganisation of workshops.

ACCU welcomed the construction of the two new buildings.

d) Health insurance arrangements for users

Milligan recalled that all ACCU members had received in August a copy of a letter which he had received from AUSTRIA, proposing a scheme for short-term health insurance (see Annex B). This would make insurance available for periods shorter than the present minimum of one month and could be complementary to existing insurances in the home country. Since this proposal had been received, he had met again with AUSTRIA representatives, in presence of Bradamante. As a consequence AUSTRIA is now studying the possibility of yet another scheme, i.e. a general complementary insurance to existing insurances in the home country also valid during absence from CERN. He hoped to be able to give more detailed information on this last option at the next ACCU meeting.

Bradamante said that the proposal as set out in the letter circulated in August, would solve the problem of cover during short stays at CERN.

On proposition of the Chairman, ACCU agreed that the proposal for short-term health insurance (adding the various Appendices mentioned) should be circulated in the user community for comments.

There was a short discussion on the necessity of complementary insurance schemes. Blaising mentioned that the French Social Security experts did not want to commit themselves generally concerning reimbursement of medical cost incurred in Switzerland, but preferred to deal with such expenses on a case by case basis. Leder said that Austria and Switzerland had signed a treaty under which professional accidents in the other country were covered. Milligan remarked that CERN is aware of this and similar agreements; however, as the procedures are often very slow and complicated, he invited ACCU members to take the options offered by AUSTRIA seriously.

e) User representation to CERN Staff Council

The Chairman regretted to have to report that he had been able to find only one candidate willing to stand, but after the deadline. This means that this year there will be no user representation to the CERN Staff Council. Both Klapisch and Mazérand stated that they judge it very important that there is such user representation and urged ACCU representatives to take action to ensure the availability of candidates next time.
ACCU took note.

5. LEP experiments

The Chairman referred to the document "Preliminary information on the organization of experiments performed around LEP by joint research bodies" which was sent in June by the responsible CERN director, Gabathuler, to institutes participating in LEP experiments and in which a formal scheme for agreements between these institutes and CERN is proposed (see Annex C). He recalled that ACCU members had received a copy of this document in July. The Chairman said that the proposal had found mixed reception with the users because it changes significantly CERN's policy towards its users. For this reason he judged a discussion in ACCU necessary, although not all users are involved in LEP experiments. The Chairman said that in his opinion the document should be written in the spirit of the CERN convention (Art. II,7) and in view of the 25 years of successful work of European user teams at their high energy laboratory CERN.

Taureg recalled that a similar proposal had been made by CERN when SPS experiments started up. At that time the proposal had been withdrawn after users had refused to accept that their freedom of action would be heavily restricted.

Klapisch said that the CERN Directorate had discussed the principles involved in the document and that indeed there is a change of policy towards users, but only out of necessity. In fact, up to now experiments were generally funded half by CERN and half by the outside institutes, and CERN had in that situation always had the possibility to cover unforeseen extra expenditure. However, for LEP experiments CERN can only contribute some 12-15 MSF, i.e. one fifth of the cost of 75 MSF the rest being funded by 30-40 outside institutes. This creates a completely new situation which makes a convention necessary. Klapisch added that such a document had also been requested by some outside institutions. He asked users to realise that the four LEP collaborations are legally non-existing bodies, and that hence agreements have to be signed by the institutes which do exist as legal entities.

There followed a long discussion which can be summarized as follows. Klapisch had to leave during this discussion due to another commitment.

Various ACCU members expressed doubt whether their national laws would allow institutes to sign the document proposed by the CERN management. In particular experience had shown that Italian institutes cannot sign such documents, Dalpiaz said. The Chairman added that he could not imagine a German lawyer to put his signature either. He thought that the present arrangements for Member State visiting teams were sufficient also for LEP experiments; as to teams from Non-Member States, he did not want to judge whether conventions might be necessary. Bamberger commented that the document should at least contain a statement under Article 6 (General provisions) that laws and regulations of the Member States take priority over this convention.

Bamberger said that in his opinion the proposed document lacked the neutral mutual basis required. He was supported by Feltesse and Leder; the latter commented that upon careful reading the CERN obligations seemed to be restricted to computer time only, whereas all other articles do not commit CERN. Bamberger quoted as an example articles 2.1 and 3.1, where CERN's
obligations are explicitly subject to "the limits of its resources", but such a restriction is not foreseen for the institutes' obligations. Feltesse pointed out that a similar situation exists as to scheduling, comparing articles 2.8 and 3.10.

The Chairman said that he understood the need for contracts in the case of specific big items, like magnets, which no institute alone can pay. Dalpiaz and Thompson agreed with the Chairman. Dalpiaz considered the present proposal however to be a blank cheque he opposed. Bamberger expressed the opinion that the computer facilities should be handled through a separate agreement, as well, considering this to be a big item like a magnet; hence, there should be no reference to "two IBM 168s" as in article 2.8.

Feltesse and Favart said that the sense of some articles was not clear to them. They asked for clarification of the meaning of "sole responsibility" (article 3.4), as a lot of equipment will be built in a common effort by several institutes.

The Chairman wondered why the delay of thirty days was mentioned in article 5.3 for institutes to comply with payment requests from CERN. He reminded the meeting that after discussion in various ACCU meetings, it had just recently been agreed that as from the end of April 1983 any bill paid more than three months after the date of issue would be liable to interest. The Chairman continued by saying that he considered article 5.4 to be written without understanding of the administrative and financial procedures in the Member States.

Thompson expressed worries concerning article 4.1, which seems to imply that CERN's Director-General has to agree to the nomination of the spokesman of an experiment.

Klovning pointed out that there were two documents in circulation: the legal convention which was the subject of the present discussion, and a collaboration agreement which seemed to become an appendix to the first document. There was general agreement in the meeting that collaboration agreements were necessary and useful to codify the mutual understanding between the physicists participating in an experiment.

The necessity of the legal convention was questioned by Dalpiaz. A physicist is putting at stake his reputation, if he fails to deliver the goods according to the collaboration agreement. A legal convention would not change anything except that it risked to provoke new discussions within the funding institutions on the number of LEP experiments.

Klovning remarked that his institute had positive experience with a similar convention for experiments at DESY, as it had been used to convince the funding institution to keep the funds and manpower of the institute at the appropriate level. Dalpiaz said that Italian institutes could not participate in experiments at DESY due to the necessity to sign a legal document which was impossible under Italian legislation.

Klapisch repeated that some outside institutions were asking for a legal convention. He agreed that collaboration agreements are useful and necessary, but insisted that for the reasons which he had given at the beginning of the discussion, also agreements between legal bodies had to be implemented. He proposed to continue the discussion at a future meeting of ACCU in presence of Butterworth (who is Gabathuler's successor as
responsible Directorate member in these matters) and Trembley.

ACCU asked its Chairman to communicate the above discussion to Butterworth and decided to continue the discussion at its next meeting.

6. Membership of ACCU in 1984/85

The Chairman said that it was time to start thinking about user membership of ACCU in 1984/85. The Secretary reminded the meeting that ACCU had been set up on the basis of appointments for two years with the possibility of extension for another two years. He indicated the position for each member as given in Annex D. As far as the replacement procedure was concerned, in the past the Director-General had consulted senior physicists in each country and then selected names from those proposed. The Chairman asked members to start discussions in their countries, so that before the end of the year new members could be nominated by the Director-General. He added that it was preferable when more than one name per vacancy would be proposed.

Turning to those members who will have served for two years at the end of 1983, he asked them to indicate whether they were in principle willing to continue for another two years. Leder, Favart, Damgaard, Feltesse, Bradamente, Klovning and the Chairman himself answered all affirmatively. The Secretary added that Timmermans had written to him before the meeting also agreeing to serve for another two year period.

Thompson said that as far as he knew, Websdale would also be willing to continue. He reminded the meeting that he himself is the user representative on the Library Committee, and that a replacement should be sought at the time he will be leaving ACCU.

ACCU decided that its members start discussions in their Member States in order to provide the Director-General in due course with proposals for nomination of new ACCU members.

7. Any other business

Dalpiaz said that over the last 3 to 4 months a certain number of items of common use had not been available from the general store. Leder commented that this was in disagreement with his own experience. The Chairman asked to make note of the missing items, being prepared to raise the question with the head of stores, Reitz, if the resulting list would justify it.

Hallgren pointed out that only one washing machine was insufficient for the users of the CERN hostels and barracks. ACCU decided to request one more washing machine; the Secretary was asked to enquire who should be the addressee of this request after the reorganisation in PE Department.

Blaising asked whether the safety of pedestrians between the CERN main entrance and the St. Genis Hostel could be increased. It was decided to follow this up.

Mazerand mentioned that she had received complaints on the quality of the food in Restaurant No 1 on Sunday evenings. Milligan said that he would transmit the information to the Restaurant Liaison Committee.
8. **Items for the agenda of the next meeting**

The Secretary said that through the Staff Association, individual users had asked ACCU to consider action to improve on the availability of (French) language courses at CERN. He proposed to have a short presentation on the organisation of the CERN language courses at the next meeting. It was agreed so.

9. **Date of next meeting**

After a short discussion, it was decided to reserve the afternoon of Monday, December 12, 1983 as the date of a possible meeting. Whether or not to hold a meeting on that day, will be at the discretion of the Chairman.

The first meeting in 1984 was scheduled for Monday, February 13 (afternoon).

G.J. Bossen
Computing at CERN in the LEP Era

Summary of recommendations

Recommendation 1

We recommend that the architectural model that CERN should adopt for its telecommunications planning for the next decade should have a high-speed general-purpose backbone network covering the whole of the extended CERN site, with gateway connections to certain special-purpose networks.

The special-purpose networks will include the future LEP control network, the PS and SPS control networks, Local Area Networks installed at LEP experiments or to serve CERN buildings, and the external networks. When a new CERN digital telephone exchange is installed then it will (logically speaking) become another of these special-purpose networks. If it becomes desirable to install a special high performance network inside the computer centre then that would be yet another such network.

Requirements for very high speed (8 Megabits per second and greater), large volume (several Gigabytes) point to point transmission should be satisfied by providing dedicated links, using the same technology and standards, but independent of the backbone.

Recommendation 2

We recommend that, where appropriate, transmission and multiplexing of the network connections and communications links over long distances should follow the CCITT G-700 Series specifications for PTT systems.

Recommendation 3

We recommend that CERN, in collaboration with the European particle physics community, should adopt and support a set of higher level network protocols.

Recommendation 4

We recommend that the present limited effort to provide basic access across public packet-switched networks should be expanded in order to provide reliable terminal access, file, mail and message transfer for all particle physics institutes collaborating in the CERN program. Technical collaboration in this area should follow the guidelines established in the report ECFA/82/60. If it is to be successful this proposal will require the active support of a number of external laboratories.

Recommendation 5

We recommend that the future backbone network should, wherever possible, incorporate standard commercial products, and efforts should begin immediately to identify such products, with a view to having the network partially operational from the end of 1985. The integration of this backbone with the LEP
controls network and with the other communications facilities on the CERN site, including Index, the present CERNET, and a possible future CERN digital telephone exchange, is of crucial importance. Until this new backbone can be installed the capabilities of CERNET should be monitored and any improvements kept to the essential minimum.

**Recommendation 6**

We recommend that CERN should choose and support a standard local Area Network both for use in LEP experiments and for general purpose applications. There is one obvious candidate at present, namely Ethernet.

Any connections to the CERN networks of other Local Area Networks, which might be introduced onto the site as part of special systems, should be required to conform to CERN interface specifications. Such networks will not normally be supported by CERN, and their connection should be subject to approval by the leader of the Data Handling Division on a case by case basis.

**Recommendation 7**

We recommend that staff working on the General Network Architecture and CERN Backbone Network must aim for good integration of terminal connections whether they are made through circuit switched or packet switched techniques.

**Recommendation 8**

We recommend that development and maintenance of general purpose Fastbus hardware and software should be provided by CERN. Furthermore, we recommend that CERN should encourage involvement of European industry in Fastbus, in order to ensure that Fastbus components are available from a range of suppliers.

**Recommendation 9**

We recommend that CERN should continue to make adequate assistance available to experiments by suitably strengthening the CERNET support, Electronics Pool and Online Computer Pool teams, in order to handle the new load from LEP experiments.

**Recommendation 10**

We believe that the installation of very large "private" computers at CERN are likely to consume significant CERN resources. Such requests should be closely analysed at Directorate level, in the light of an overall CERN policy.

**Recommendation 11**

We recommend that CERN should plan at least to double its central batch capacity by 1987.

**Recommendation 12**

We recommend that the existing Remote Input Output Stations (RIOS) should be replaced as soon as possible by modern low-cost print stations.

**Recommendation 13**

We recommend that, in order to allow for the efficient exploitation of the
presently installed processors, the mass storage system should be upgraded, and
extra peripherals, including magnetic tapes and disks, should be acquired for
the computer centre systems.

Recommendation 14

We recommend that the present mass storage system should be converted into a
generalised file server.

Recommendation 15

We recommend that CERN should purchase a modern computer system for electronics
design as soon as possible. This system should be capable of supporting design
tools for VLSI (Very Large Scale Integration) chip design and manufacture.

Recommendation 16

It is now too early to decide on a long term strategy for interactive computing
at CERN. We recommend that CERN remains flexible and makes trials of various
solutions, so that it can continue to meet the needs of the physics programme as
the market and the user needs evolve.

Recommendation 17

We recommend that CERN should not make any immediate heavy investment in
"personal" workstations, but that the present evaluation project in the Data
Handling Division should be supported, since we believe that "personal"
workstations are the best medium term solution for the provision of many
interactive computing services.

Recommendation 18

In order to provide an interactive service for those who need it most urgently,
we recommend that CERN should provide a program development service for the LEP
collaborations based on VAX computers in the computer centre, running the VMS
operating system. Resource allocation should be managed by the LEP
collaborations themselves.

Recommendation 19

We recommend that the Data Handling Division should undertake during this year a
full technical evaluation of the VM/CMS operating system in order to be able to
make detailed proposals as to how it should be used at CERN.

Recommendation 20

We recommend that the Director responsible for Computing should appoint a Deputy
for Computing and Communications. We envisage this person being responsible for
ensuring inter-divisional cooperation on a range of computing topics, including,
for example, office automation, various special purpose computing projects, and
networks. In addition he would be the natural person to organise the
inter-laboratory collaboration required for a successful European particle
physics network.

Recommendation 21

We recommend that the CERN Directorate should approach the managements of the
institutes concerned to discover whether they would be prepared to become responsible for the coordinated development and subsequent general support of certain common elements of the LEP computing and electronics program.

**Recommendation 22**

We recommend that close contact should be maintained at all times among the CERN support teams and the LEP groups in order to continue to identify areas of common interest and to foster joint developments.

Implementation of the recommendations on Data Acquisition, including the definition and execution of the detailed work plans, would, under the existing CERN structure, be the joint responsibility of the Heads of the DD/Online and EP/Electronics Groups. We recognise that this division of responsibility is not an ideal situation, and we suggest that it should be carefully reviewed in the longer term.
Dear Sirs,

Referring to various enquiries for short term health insurance received from visiting scientists, short-term collaborators such as interpreters or experts working at CERN for periods of less than a month and other persons connected with CERN for very short periods, we are pleased to offer you the following extension to the existing cover:

A. Protected Persons

Any person connected with CERN the category of whom is not mentioned in Appendix I to the existing Health Insurance Agreement No. 605/ADM and their accompanying family members.

B. Benefits

According to Appendix II subject to the limitations specified in Appendix III (same as for summer students and persons recruited by CERN for periods of less than 3 months e.g.); for persons taking this insurance complementary to an existing health insurance cover (the latter proving to be not adequate for Switzerland), the limitations of Appendix III will not apply.
C. Premium

125% of Ref. II per week per person, i.e. in 1983: SFr. 43.25 as a minimum.

D. Payment

in case of payment by CERN: quarterly and/or
in case of payment by the persons insured: at least within
2 days after the beginning of the insurance according to the
enrolment form.

E. Periods Covered

the period for which CERN requires the person's attendance
at CERN, including 2 days for travelling (arrival + departure)
for persons not living in the Geneva area.

F. Enrolment Procedure

by means of a monthly or weekly list enumerating for each
person and the accompanying family member(s):
- name, first name, date of birth
- dates of arrival and departure from CERN
- as well as, if necessary, 2 additional days for
  travelling to and from CERN by specifying the
  place(s) of arrival and departure and the means
  of transportation;

this list should be at AUSTRIA's Office at CERN at least
1 day prior to the beginning of the insurance period.

We trust this offer will cover most of the existing demands for
short term health insurance. Its structure would permit integration
to the existing Agreement No. 605/ADM without difficulty.
Needless to say, should you prefer modifications, we are at your
disposal for further negotiations.

With our best wishes,

Yours sincerely,

[Signature]

Dr. G. Kocher
ANNEXE I
à la Convention No 605/ADM

La présente Annexe est considérée comme partie intégrante de la Convention No 605/ADM.

Les personnes couvertes par la présente Convention sont:

A - à titre obligatoire:

Les membres du personnel titulaires, surnuméraires et les boursiers, pour autant qu’ils aient un contrat à plein temps et d’une durée égale ou supérieure à trois mois, ainsi que les étudiants stagiaires pour lesquels une couverture réduite est prévue (voir Annexe III).

<table>
<thead>
<tr>
<th>Traitement de référence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Réf. I</td>
</tr>
</tbody>
</table>

B - à titre facultatif:

L’assurance facultative ne peut être prise que pour une durée minimum d’une année ou pour la durée du contrat de l’intéressé avec le CERN si celle-ci est inférieure à un an. Des dérogations seront accordées par les Assureurs si l’intéressé apporte la preuve d’une double assurance. En tout état de cause, les demandes d’assurance doivent être introduites dans les 60 (soixante) jours suivant celui où la possibilité d’assurance a pris naissance, pour la première fois, selon les stipulations de la présente Convention.

<table>
<thead>
<tr>
<th>Traitement de référence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Réf. I</td>
</tr>
<tr>
<td>Réf. II</td>
</tr>
<tr>
<td>50% Réf. II</td>
</tr>
</tbody>
</table>

a. Les attachés totalement rémunérés pour autant qu’ils aient un contrat d’une durée égale ou supérieure à trois mois;

| Réf. I                  |

b. Les attachés partiellement rémunérés ou non rémunérés pour autant qu’ils aient un contrat d’une durée égale ou supérieure à trois mois;

| Réf. II                 |

| 50% Réf. II             |

c. Les attachés partiellement rémunérés ou non rémunérés, âgés de moins de 40 ans, peuvent bénéficier d’une couverture réduite (voir Annexe III) pour autant qu’ils aient un contrat d’une durée égale ou supérieure à trois mois. Les membres de leur famille ne sont pas assurés gratuitement;

| Réf. I                  |

d. Les membres du personnel titulaires, surnuméraires et les boursiers ayant un contrat à temps partiel d’une durée égale ou supérieure à trois mois;

| Réf. I                  |

e. Les consultants, professeurs invités, boursiers correspondants et boursiers itinérants, sont traités comme attachés totalement rémunérés (a. ci-dessus) s’ils consacrent 100% de leur temps à l’Organisation, et comme des attachés non rémunérés (b. ci-dessus) dans le cas contraire;

| Réf. II                 |

f. Les pensionné(e)s (membres du personnel, veuves ou orphelins) du CERN, quel que soit le pays d’Europe où ils se retirent, pour lesquels la possibilité d’assurance prendra naissance à partir du moment où ils touchent la première pension, s’il y avait eu une interruption d’assurance.

| Réf. III                |

| Aucune cotisation       |

g. Les membres de la famille d’un assuré (au sens de la Réglementation du CERN), à moins qu’ils ne soient classés sous les paragraphes A ou B(c) de la présente Annexe;

| Réf. II                 |
h. Les enfants non à charge selon la Réglementation du CERN, pour lesquels la prime est fixée à 2% du traitement de Réf. IX;

| Réf. II                 |
i. Les ascendants à charge de l’assuré;

| Réf. II                 |
j. Les apprentis;

| Réf. II                 |
k. Les personnes autres que les étudiants stagiaires et engagées pour moins de 3 mois seront affiliées au régime "étudiants stagiaires" (voir A ci-dessus), pour autant qu’elles ne soient pas déjà titulaires d’une assurance les couvrant en cas de maladie ou d’accident survenant en France ou en Suisse.
Article 22. Continuation de l'assurance pour les membres du personnel sortants et les bénéficiaires survivants

22.1 Au cas où une personne visée au paragraphe A de l'Annexe I à la présente Convention quitte le service du CERN pour quelle que cause que ce soit et sans disposer du droit de devenir bénéficiaire à titre facultatif en vertu du paragraphe B de ladite Annexe, les Assureurs continuent à assurer cette personne et/ou les membres de sa famille pour une période de douze mois et aux conditions de primes et de prestations de la présente Convention pour autant que l'assuré et/ou les bénéficiaires en fassent la demande.

En cas de décès, les Assureurs continuent à assurer les membres de la famille du décédé dans les mêmes conditions qu'il est dit ci-dessus.

Après cette période de douze mois, les Assureurs s'engagent à garantir aux personnes visées aux deux alinéas précédents, qui en font la demande, le passage dans un organisme d'assurances leur conférant des droits analogues à ceux dont ils auraient bénéficié s'ils étaient entrés dans ledit organisme d'assurances à la date de leur entrée au bénéfice de la présente Convention.

Pour l'application du présent article, on entend par membres de la famille survivants, l'épouse non remariée et les enfants à charge, suivant la Réglementation du CERN.

22.2 Les ayants-droit disposent d'un délai de 60 jours civils à compter du jour de la cessation des liens avec le CERN pour présenter leur demande.

TITRE III - INVALIDITE PERMANENTE

Article 23. Indemnité garantie aux assurés

23.1 L'assuré ou le bénéficiaire atteint d'une invalidité permanente à la suite de poliomyélite ou d'une lésion du système nerveux central reçoit une indemnité forfaitaire, pour autant que l'incapacité afférente à l'affection ait débuté après l'entrée en risque.

Lorsque l'incapacité est la suite d'un accident, l'intervention des Assureurs n'est acquise que si l'accident s'est produit après l'entrée en risque.

Toutefois, si l'invalidité consécutive à un accident survenu avant l'entrée en risque n'a pu être établie qu'après cette date et n'a pas pu, pour cette raison, être prise en charge par les assureurs précédents, les Assureurs, partie à la présente Convention, s'engagent à payer les indemnités telles qu'elles sont prévues dans la police souscrite par les assureurs précédents.

23.2 Dans le cas d'une telle invalidité permanente totale, l'indemnité est égale à 99'450 francs suisses.

Lorsque l'invalidité permanente n'est que partielle, l'indemnité ci-dessus définie est réduite proportionnellement au degré d'invalidité reconnue.

23.3 Pour l'exécution et l'interprétation des dispositions du présent titre, les parties se réfèrent aux dispositions du règlement de la Caisse Suisse de réassurances relatives aux affections visées dans ledit titre, sous réserve des dispositions de l'Article 12 de la présente Convention. L'indemnité pourra être payée après la date de résiliation éventuelle de la présente Convention pour autant que l'incapacité ait été médicalement constatée au plus tard la veille de la résiliation.

Pour les Assureurs

La Compagnie apéritrice
AUSTRIA VERSICHERUNGSVEREIN a.G.

La Compagnie
LES ASSURANCES GENERALES DE FRANCE

Pour l'Organisation Européenne pour la Recherche Nucléaire

G. H. HAMPTON
Directeur, Département de l'Administration

C. TIECHE
Chef de la Division des Finances

Contresigné par le Comptoir d'Assurances
J. VAN BREDA & Cie pour acceptation des obligations qui lui incombent en propre
**BENEFITS in 1983**

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate of reimbursement</th>
<th>Maximum reimbursement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Accidents and illnesses incurred in the course of duty:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Medical practitioners' and chiropractors' fees:</td>
<td>100%</td>
<td>with neither restriction nor ceiling</td>
</tr>
<tr>
<td>2. Pharmaceutical expenses:</td>
<td>90% up to an amount</td>
<td></td>
</tr>
<tr>
<td>3. X-rays:</td>
<td>100% over</td>
<td></td>
</tr>
<tr>
<td>4. Analyse and laboratory work:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Medical treatment and miscellaneous examinations (including hospital</td>
<td>90% up to S.Fr. 1560,-</td>
<td></td>
</tr>
<tr>
<td>treatment for out-patients):</td>
<td>up to S.Fr. 6222,-</td>
<td>per calendar year</td>
</tr>
<tr>
<td>6. Treatment given by:</td>
<td>up to S.Fr. 11643,-</td>
<td>per calendar year</td>
</tr>
<tr>
<td>a) medical auxiliaries:</td>
<td>up to S.Fr. 31,- per</td>
<td></td>
</tr>
<tr>
<td>and in particular</td>
<td>day</td>
<td></td>
</tr>
<tr>
<td>b) speech therapists:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) child psychotherapists:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and d) home nurses*:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N.B. The ceilings given under point 6 may be exceeded with the previous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>consent of the Insurers, especially in the case of children whose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>condition requires prolonged treatment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Treatment in hospital (in-patients)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of stay and treatment:</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>- in a public ward (or stay at the approved standard charge):</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>- for all other cases:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) where a mother's presence is required in hospital during the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>treatment of a young child:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) if the medical practitioner in charge of the case issues a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>prescription and provided the prior consent of the Insurers is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>obtained, a lump-sum reimbursement may exceptionally be granted for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the cost of a stay in hospital of a member of the family other than</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the mother accompanying a child undergoing hospital treatment who, in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>view of his age (under 7 years in any event), needs the presence of a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>member of his family.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Maternity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As for illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Cures and convalescence*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) cost of stay at an establishment:</td>
<td>100%</td>
<td>up to S.Fr. 41,- per day</td>
</tr>
<tr>
<td>b) medical and pharmaceutical expenses:</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>10. Costs of a stay at a specialised rehabilitation centre with a view to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>improving considerably and permanently the patient's working capacity or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>preventing it from deteriorating considerably:</td>
<td>100%</td>
<td>up to S.Fr. 62,- per day</td>
</tr>
<tr>
<td>11. Spectacles:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) lenses, contact lenses*:</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>b) frames</td>
<td>90%</td>
<td></td>
</tr>
</tbody>
</table>

*Note: The original document of the benefits.*
12. Orthopaedic appliances, prostheses (other than dental), hearing aids and bandages:

13. Hire of appliances

14. Dental treatment, prostheses and orthodontics:

15. Transport expenses
   by ambulance (or in exceptional cases by taxi)
   - from home or the scene of the accident to the nearest suitable medical establishment, or any other emergency transport;
   - from one hospital to another*;
   - to a reeducation centre*;
   - any other essential transport*;

16. Preventive medical treatment:

C. Compensation in the case of death
   a) of a member of the staff:
   b) of a member of the family:

   * with the prior consent of the Insurers

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate of reimbursement</th>
<th>Maximum reimbursement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopaedic appliances, prostheses (other than dental), hearing aids and bandages</td>
<td>90%</td>
<td>up to S.Fr. 10370.- per period of 2 calendar years</td>
</tr>
<tr>
<td>Hire of appliances</td>
<td>100%</td>
<td>up to S.Fr. 73.- per type of appliance</td>
</tr>
<tr>
<td>Dental treatment, prostheses and orthodontics</td>
<td>90%</td>
<td>up to S.Fr. 1524.- per period of one calendar year</td>
</tr>
<tr>
<td>Transport expenses</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Preventive medical treatment</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Compensation in the case of death</td>
<td>three times the reference salary to a maximum of S.Fr. 7259.- S.Fr. 830.-</td>
<td></td>
</tr>
</tbody>
</table>

Text of Annex III of the Agreement No 605/ADM (original: French)

Benefits for vacation students and persons grouped with them:

Vacation students and persons grouped with them (see Appendix 1 of Agreement) shall be entitled to the benefits listed above except for:

a) benefits in respect of health conditions already existing before the date of their period at CERN;
b) benefits in respect of treatment by an auxiliary of the medical profession;
c) benefits in respect of prosthetic or orthopaedic appliances or hearing-aids;
d) benefits in respect of cures and convalescence;
e) benefits in respect of the cost of spectacles and items in that group;
f) compensation in the event of death;

These exceptions shall not apply in case of illness or accident incurred in the course of duty, save for benefits specified under a) above.
Preliminary Information on the Organization of Experiments Performed Around LEP by Joint Research Bodies

The purpose of this document is to put forward an initial approach to the problems of organizing the inter-university and multinational groups intending to perform experiments and install their equipment at LEP after bringing it to the CERN site.

Thus the "Draft Basic Agreement between CERN and a Participant in a Joint Research Body" is an attempt to solve the problems which could arise between CERN and each of the participants in a collaboration. It in no way affects the relations which may exist between the various members of a joint research body, but is aimed purely at setting the limits of the mutual obligations of CERN and each participating institution. This draft should be considered only as a frame and could be adapted to the special circumstances of individual institutions.
DRAFT BASIC AGREEMENT BETWEEN CERN AND A PARTICIPANT IN A JOINT RESEARCH BODY

BETWEEN

The European Organization for Nuclear Research, hereinafter referred to as "CERN", the seat of which is in MEYRIN/GENEVA, Switzerland, represented by Professor H. Schopper, Director-General, of the one part,

AND

........................................, a research institute, the seat of which is in ................................., hereinafter referred to as "the INSTITUTE", participating in the joint research body known as the ".................. Collaboration", abbreviated to the Collaboration, represented by ................................., who is duly authorized to act for and on behalf of

of the other part,

WHEREAS

- a joint research body known as the ............. Collaboration has been set up by a number of Institutes, a list of which is given in Appendix I with the names of the duly authorized liaison personnel;

- the aim of the research to be undertaken, the facilities placed at this collaboration's disposal and the amount of the financial contributions in cash or kind of each of the members of the Collaboration are set out in Appendix II hereto, and described in greater detail in the CERN/LEP Technical Proposal;

- the INSTITUTE is a party to the said Collaboration;

- the INSTITUTE's official representative has presented to the competent CERN personnel the duly established credentials authorizing him to act for and on behalf of the INSTITUTE and to commit its financial resources up to the amount of said Institute's share in the project;

- the Collaboration has asked CERN, which has available the necessary basic scientific equipment, for permission to install the ............. detector on CERN's site for the purpose of performing
experiments;
- the Collaboration has defined the distribution of responsibilities between the various Institutes with respect to the construction of the detector intended for these experiments, as set out in Appendix III hereto and in greater detail in its Technical Proposal.
- CERN is prepared to accept the presence of the equipment and research workers concerned on its site for the purpose of performing experiments;
- CERN states that it is prepared to accept the presence of the INSTITUTE on its site as a member of the said Collaboration;
- the Collaboration will have the "common items" described or to be described in a special agreement (see Appendix IV hereto) built, transported and assembled at the joint expense of its participants.

IT IS HEREBY AGREED AS FOLLOWS:

Article 1: Purpose of the agreement

1.1 The purpose of this agreement is to define the distribution of charges and responsibilities between CERN and the INSTITUTE during the completion of the part of the programme established by the Collaboration to be conducted on the CERN site, in accordance with the plan drawn up.

1.2 This agreement will come into force as soon as each of the Institutes concerned has signed an agreement relating to its own part.

Article 2: CERN's obligations

2.1 Within the limits of its resources, CERN shall place at the INSTITUTE's disposal the installation, the space needed for the experimental equipment, the premises required for research and the logistic support necessary for the research workers, as described in greater detail in Appendix IV, which shall state whether said support is provided free of charge, paid for cash down or paid for by a lump sum included in the running expenses.

2.2 Once it has approved the experimental equipment and its installation, CERN shall undertake to keep it on its site at least until the programme has been completed in the form in which it was submitted to and approved by CERN.
2.3 CERN shall agree to take care of the common items belonging jointly to the Collaboration, once they have been officially accepted, as though they were its own property, but without incurring any responsibility over and above the sums which it may be paid by its insurers. CERN shall accept no other responsibility for property or equipment not belonging to it.

2.4 CERN has its own insurance system for its own property and staff. It is also covered for third-party liability incurred in its activities.

2.5 Although the INSTITUTE and the Collaboration, each for its own share, shall be responsible for the installation of the computers needed for the operation of their equipment and the performance of their experiments, CERN shall agree to allow this equipment to be connected to its Computer Centre. It shall nonetheless be the responsibility of the INSTITUTE (and also of the Collaboration) to ensure that their computers, including both hardware and software, are compatible with CERN's installations. CERN shall agree to connect only equipment which conforms to its compatibility standards.

2.6 The computer time made available to the Collaboration by CERN shall be in proportion to the number of physicists from the Member States and may in no circumstances exceed the equivalent of two IBM 168s.

2.7 The computer time allocated by CERN from its Computer Centre shall be distributed by CERN's ad hoc Committee (Cocotime Committee) according to its own rules.

2.8 CERN shall decide upon the schedules for the use of all installations on its site after consulting the various users, including at least the representative(s) of the Collaboration. They shall be consulted before every decision, within the existing consultative structure.

Article 3: The INSTITUTE's obligations

3.1 The INSTITUTE shall undertake to make available to the Collaboration on the CERN site, in working order for the proper performance of the physics experiments, the part(s) of the detector which it has undertaken to supply, and which are set out in Appendix III or, in greater detail, in the Technical Proposal.

3.2 The INSTITUTE shall provide CERN with a list of the property which it intends to install on the CERN site. It shall keep the said list up to date and, where necessary, inform CERN of any modifications which are made to it.
3.3 Using any suitable means, and at its own risk, the INSTITUTE shall be responsible for the transport of its equipment from its point of origin to the CERN premises where it is to be used and for its installation there, on the understanding that, at the INSTITUTE's request, the appropriate services of CERN may provide material aid on the INSTITUTE's responsibility.

3.4 The INSTITUTE shall assume sole responsibility for installing and testing its equipment and connecting it to CERN's facilities. The same shall apply to the safe keeping, the running and the technical operation of the said equipment.

3.5 The INSTITUTE shall, in accordance with the Financial and Administrative Provisions for Visiting Teams, currently Finance Division document AV/ab dated 20 November 1972, to be replaced by a revised version, take all the necessary steps to insure its property against the risks to which it may be exposed or those which it may create either through its use or operation.

3.6 As a member of the Collaboration, the INSTITUTE shall recognise its obligation to provide financial support for the supply of the common items of the detector (magnet, cooling system, computer, etc.) as defined by the Collaboration and forming the subject of a special agreement attached to this agreement, see Appendix V.

3.7 The INSTITUTE or the Collaboration shall assume sole responsibility for the computers and microprocessors directly connected to the experimental apparatus. They shall, therefore, each in its own province, conclude any maintenance/service contracts necessary to ensure the regular operation of the apparatus throughout the experiments.

3.8 If CERN so requests, the INSTITUTE shall undertake to leave on the CERN site for at least three years the equipment which it has installed in CERN's laboratories, in order not to disrupt CERN's schedules for the use of its experimental installations.

3.9 All equipment and installations brought to CERN's site shall comply with CERN's safety regulations. The INSTITUTE shall therefore obey all instructions issued by the competent CERN personnel.
3.10 The INSTITUTE shall agree to CERN's schedules and shall inform CERN of any delay.

**Article 4: Co-ordination**

4.1 The INSTITUTE and CERN shall agree to the appointment by the Collaboration, for a given period, of a spokesman to represent it for all purposes and a person to ensure liaison if the spokesman should be absent from CERN.

4.2 By mutual agreement the parties shall appoint a technical co-ordinator responsible for the day-to-day co-ordination of technical problems and for dealing with the whole of the installation of the experiment.

4.3 By mutual agreement the parties shall appoint a group leader in matters of safety (GLIMOS) to co-ordinate all matters concerning the safety of the Collaboration. He shall be responsible to CERN on behalf of the Collaboration for all safety matters concerning the experiment and its staff.

4.4 The names of the persons mentioned in paragraphs 4.1, 4.2 and 4.3 shall be shown in Appendix VI.

4.5 The progress of the work shall be periodically reviewed by a Co-ordination Committee chaired by the CERN Director of Research responsible for LEP experiments and consisting of members of the Collaboration and of the CERN personnel.

4.6 If there are any delays or unexpected problems concerning the completion or financing of the project, CERN's Director of Research responsible for LEP experiments shall call a meeting of those in charge, both in CERN and in the Collaboration, in order to solve the problems and appropriately amend this agreement.

**Article 5: Administrative and financial provisions**

5.1 All purchases made by CERN on behalf of the INSTITUTE shall comply with CERN's own regulations.

5.2 If the INSTITUTE asks CERN to make purchases on its behalf, it shall cover CERN beforehand for the necessary sums on the understanding that, if the said sums are very large, the cover may be provided according to a previously agreed schedule of payment.
5.3 The INSTITUTE shall, within thirty days, comply with any request for payment issued by CERN.

5.4 As soon as it is installed on the CERN site, the INSTITUTE shall credit CERN with the amount intended to cover, for the current calendar year, its costs incurred during its stay at CERN. The same shall apply at the beginning of every calendar year until the experiments have been completed.

5.5 If the INSTITUTE should withdraw from the Collaboration for any reason whatsoever, the payments which it has made shall remain blocked at CERN to serve as a possible indemnity to allow for the continuation of the experiments.

5.6 Any balance in favour of the INSTITUTE remaining after the dissolution of the Collaboration shall be reimbursed.

Article 6: General provisions

6.1 This agreement shall be interpreted in the light of CERN's own regulations, as drawn up by its Council under the terms of the Convention dated 1st July 1953.

6.2 Under the provisions of the Convention dated 1st July 1953, the INSTITUTE's staff and property shall, like those of CERN, be subject to the authority of the Organization's Director-General and shall comply with the Organization's regulations (including its safety rules).

Article 7: Disputes

Any dispute which cannot be amicably settled by the parties shall be submitted to the assessment of the President of the CERN Council, who shall give his opinion accordingly.

Done in Geneva on 1983

The INSTITUTE

THE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH
<table>
<thead>
<tr>
<th>Country</th>
<th>Member</th>
<th>Number of years of membership (to 31.12.83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>G. Leder</td>
<td>2</td>
</tr>
<tr>
<td>Belgium</td>
<td>D. Favart</td>
<td>2</td>
</tr>
<tr>
<td>Denmark</td>
<td>G. Damgaard</td>
<td>2</td>
</tr>
<tr>
<td>Germany</td>
<td>A. Bamberger</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>K. Kleinknecht</td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>J.J. Blaising</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>J. Feltesse</td>
<td>2</td>
</tr>
<tr>
<td>Greece</td>
<td>T.A. Filippas</td>
<td>4</td>
</tr>
<tr>
<td>Italy</td>
<td>F. Bradamante</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>P. Dalpiaz</td>
<td>4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>J. Timmermans</td>
<td>2</td>
</tr>
<tr>
<td>Norway</td>
<td>A. Klovning</td>
<td>2</td>
</tr>
<tr>
<td>Sweden</td>
<td>A. Hallgren</td>
<td>1</td>
</tr>
<tr>
<td>Switzerland</td>
<td>H. Suter</td>
<td>4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>J.C. Thompson</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>D. Websdale</td>
<td>2</td>
</tr>
<tr>
<td>CERN</td>
<td>J. Panman</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>H. Taureg</td>
<td>2</td>
</tr>
</tbody>
</table>