Amsterdam Pulse Stretcher on its Way

While the bicentennial of the French Revolution was being commemorated in Paris, on 14 July, physicists in Amsterdam were celebrating the formal start of construction of the new Amsterdam Pulse Stretcher (AmPS) at NIKHEF. The ground-breaking ceremony, conducted by B. Velthuis, member of the board of the Netherlands’ organization for Scientific Research (NWO), involved driving a concrete pile 18 m long into the ground.

AmPS is essentially a storage ring 212 m round which will be used in conjunction with the existing medium energy accelerator (MEA) at NIKHEF to provide the experimenters with “continuous wave” electron beams at energies up to 900 MeV. The duty factor will be 90% compared with 1% at present and a maximum energy of 550 MeV.

The electron beam can either be extracted from the ring and used in the existing experimental hall for high-resolution coincidence studies or it can be stored in the ring for use with an internal target. In such experiments the electrons interact with target nuclei in a rarefied (possibly polarized) gas stream. A new dedicated experimental hall is being built for this type of experiment. The new facility will be used to study the properties of nucleons in atomic nuclei, and especially the interaction between nucleons at short distances and the role of the first excited state of the nucleon, the delta.

The civil construction of AmPS will be finished next year, the installation of the ring first tests are scheduled for 1991, with commissioning in 1992.

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ATMOSPHERICS

In all sorts of communities, the state of the upper atmosphere is becoming the number one worry. At a meeting of the European Ecumenical Council held in Basel in May on the theme “Peace with Justice” a group of 17 physicists led by the Energy Working Group of the German Physical Society and including eastern European colleagues went so far as to present a manifesto in which they recommended inter alia reducing the consumption of fossil fuels in Europe by a factor of 3 1/2 over the next 25 years. The full text of the manifesto is published in Physikalische Blätter 45 (1989) 8, p. 340 and an English translation in available from Prof. K. Schultz at RWTH, Aachen. The CNRS in the latest issue of Nouvelles des Fresses du CNRS announces publication of a book at 150 FF by Marcel Nicolat on Ozone, and a bibliography of recent relevant literature. This is available from the Society on request.

Meanwhile governments at the highest level are studying the data and possible scenarios. The Intergovernmental Panel on Climatic Change set up about a year ago held its second session in Nairobi in June and the report of this was to be out by the end of September. The full assessment report is scheduled for 1990. The Executive Council of the World Meteorological Office meeting also in June was particularly concerned with possible climatic changes, but then so too was the UN Governing Council of the Environmental Programme and most international bodies like FAO have their specialist groups.

Finland to Join CERN

Finland has opened negotiations with CERN with a view to its becoming a full member after a transitional period of a few years. Based on its net national income Finland will be required to pay some 1.9% of the overall annual budget presently running at about 825 MSF. Finnish physicists have for a number of years participated in experiments at CERN and have lately taken part in the design of Delphi, one of the four LEP experiments.