

John Adams

Project Director

On 18 December, the agreed Council to offer John Bertram Adams the position of 300 GeV Project Director. The choice came as no surprise; J.B. Adams is one of the hero-figures in CERN's brief history - the man who brilliantly led the team which built the 28 GeV proton synchrotron. He then demonstrated both his great technical ability and qualities as a leader.

John Adams was born on 24 May 1920 in Kingston, Surrey, UK. He was educated at Eltham College but had to leave full-time education for financial reasons in 1937. It is therefore mandatory in telling his life-story to point out that, through to 1960 when honorary degrees began to shower on him, he had no qualifications in science. His career might therefore be sub-titled 'How to succeed in physics without officially knowing any'. He himself maintains that, if the essence of university training is to learn from capable men, then he gained this advantage in the places in which he worked in his early years. He was able to rub minds with some eminent scientists who recognized his inherent ability and gave him every encouragement.

From school, he went to work at Siemens Research Laboratory in Woolwich under J.R. Hughes who also taught him in his evening studies. The research was concerned with physical and physiological tests to improve the quality of telephone transmission. In 1940, he was accepted as a graduate member of the Institute of Electrical Engineers.

The same year he moved to the Telecommunications Research Establishment, initially at Swanage moving on to Malvern, which was the centre of so much brilliant work on radar and which produced many scientists subsequently to make their name as accelerator physicists. He worked under P.I. Dee, A.T. Starr and H.W.B. Skinner.

When Skinner moved to the newly established Atomic Energy Research Establishment at Harwell in 1946, he asked Adams to join him in the construction of the 180 MeV synchro-cyclotron — the first high energy proton accelerator to be built after the war. By the time the machine came into operation in 1949, the late Sir John Cockcroft, then Director of Harwell, was well aware of Adams' talent. In 1950, he



concentrated on the development of klystrons working with M.G.N. Hine, and, by 1952, they had produced 20 MW S-band klystrons for use in linear accelerators.

In 1953, Adams, Hine and F. Goward from Harwell (Goward died soon afterwards) became embroiled in the vision of the European Laboratory for particle research. The initial proposal was to build the Laboratory around a 10 GeV proton synchrotron but the idea of a strong focusing machine had just emerged from the USA, holding out the promise of much higher energy for the same money. Adams and Hine (then known as 'the Harwell twins') were prominent in the frantic effort to demonstrate the feasibility of this idea for the European machine, which finally resulted in the proposal for a 25 GeV strong focusing proton synchrotron.

John Adams, then aged 34, was given the responsibility for building this machine and became Head of the Proton Synchrotron Division at CERN.

The story of the intense, exciting years of construction has been told before and will not be repeated here, other than to recall that the synchrotron came triumphantly into operation in November 1959.

To call Adams 'the man who built the PS' is obviously a simplification. The achievement was based on the ingenuity and skill of a large number of people including many first-class machine scientists and engineers. But it was Adams who pulled their efforts together and sustained their enthusiasm. He gained the affection and respect of the whole staff, from the mechanics in the workshop to the beam-dynamics specialists. With his varied background he had insight into what all of them were doing.

He had worked at CERN on loan from the UK Atomic Energy Authority and, when the construction of the PS was complete, he was called back to direct the Culham Laboratory which was to be built up as the main UK research centre on the problems of controlled thermo-nuclear fusion. But before he could move to his new Laboratory, C.J. Bakker, then Director General of CERN, was killed in an air accident and Adams was asked to stay on as Director General for a short time. For a while, he acted in a dual capacity until 1961, when he returned to England to take up his new appointment.

Whilst continuing as Director of the Culham Laboratory, he also walked the corridors of power where science policy was formed in the UK. In 1965, he was appointed 'Controller' in the Ministry of Technology which earned him the nickname of 'Lord High Research' in the press. In this position he had influence over a wide range of research effort in industrial and government research centres.

In October 1966, he was appointed a full-time Member of the UK Atomic Energy Authority as Member for Research. He served on the Advisory Council on Technology and acted as special adviser to the Minister on the deployment of research and development resources.

The news of the election of John Adams as 300 GeV Project Director has been greeted with a wave of enthusiasm throughout CERN. To a great number of people he is inextricably linked with the memories of the adventure of constructing the PS and of those exciting days when CERN first began to take shape. The 300 GeV Laboratory is a sterner proposition worthy of his talents.