

INTRODUCTION

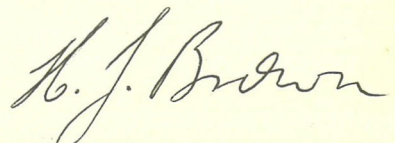
In this Scientific Age, major new developments are continually revolutionizing our way of life in the home, in business and in society. One can mention as examples electricity, the aeroplane, the telephone, radio, television, nuclear energy. Electronic Computers, in their own right, and as contributors to automation, are now producing just such a revolution in industry and in business offices, and will continue to do so for many years to come.

The Weapons Research Establishment was forced some time ago to introduce automatic data processing and computing machines on a large scale to cope with the tremendous data handling problems imposed by the testing of guided weapons. In so doing, it has given considerable thought to the philosophy of applying such machines both to scientific work and to normal business procedures. The Establishment has concerned itself not only with the programming and mathematical aspects necessary for operating such machines but also with the engineering aspects of the machines themselves, and, on a consulting basis, with their application to office procedures for banks, insurance companies and general administration of large undertakings.

This Conference was organized to serve three purposes:

- (a) to tell the many interested people and organisations of our experiences and to show them our system and equipment and demonstrate our operations;
- (b) to get intelligent and constructive criticism of our methods from those versed in the art with a view to improving our techniques and operations;
- (c) to provide sound expert advice from our own staff, and the many renowned visiting delegates and lecturers, to those business and technical delegates interested in the use of such machines in their own spheres of activity.

These three volumes contain a wealth of information prepared for and presented to the Conference by experts drawn from our own staff, from other Australian organizations and from other organizations in the United Kingdom and the United States of America. It is hoped that this record of the papers and proceedings will be a valuable addition to the literature on this subject.



(H. J. Brown)

Controller of the
Weapons Research Establishment