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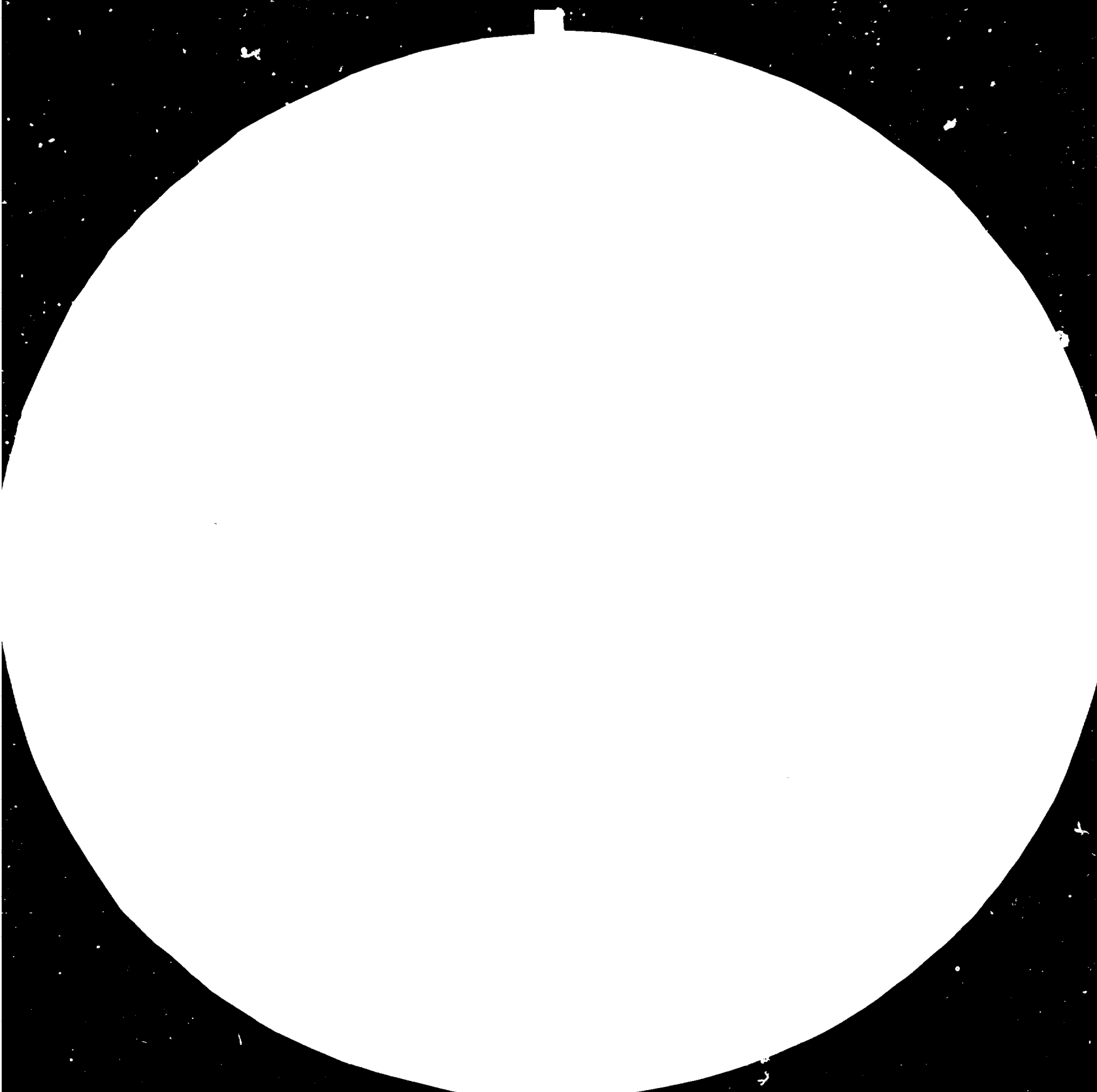
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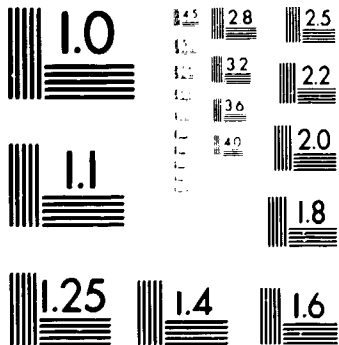
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COMMONWEALTH SECRETARIAT - COMMONWEALTH SCIENCE COUNCIL:

AIMS AND ACTIVITIES*

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The Commonwealth is an association of independent nations pledged to consult together and to cooperate in the service of human development, international understanding and peace.

The 49 member states, with a total population of over 1000 million people represent a complete microcosm of the world community, including, as it does, some of the largest, smallest, richest and poorest countries and has members in all parts of the globe.

The Commonwealth Secretariat, set up by Commonwealth Governments in 1965 is a central body whose function is to organise the consultations of the Governments and to carry out agreed programmes. The Secretariat, headquartered in London, is staffed by international civil servants from the member countries. The Commonwealth Fund for Technical Cooperation, (CFTC) is the main, but not the only, agency for multilateral development cooperation, with an annual budget of about £20 million (US\$30m). Prominent among the aims of CFTC is technical cooperation among developing countries (TCDC).

The Commonwealth Science Council (CSC) is an Intergovernmental Organisation, open to member countries of the Commonwealth. Although the Council, which consists of Scientists and Civil Servants from the member countries, is independent of the Commonwealth Secretariat, the Secretariat of the Science Council has close functional links with the Commonwealth Secretariat. The Secretary of the Commonwealth Science Council is also Scientific Adviser to the Commonwealth Secretary-General.

Three divisions within the Commonwealth Secretariat/CSC have interests in the Application of Information Technology for Development. Simply stated, the CSC is responsible for the scientific aspects of Information Technology, the Economic Affairs Division (EAD) of the Secretariat for the economic aspects, and the Industrial Development Unit (IDU) for the industrial applications. These represent the core interests of the three divisions in the field of Information Technology but continuous cooperation between the divisions take place to ensure an integrated approach to development.

The Commonwealth Science Council

The CSC has had interests in information dissemination for and about science for some years but it is only since the change in emphasis in the Council's activities to "Science for Technology for Development" in 1982, that Information Technologies, as such, has become of direct interest.

Under the present aim of "Science for Technology for Development", the Council has six programme areas, of which one, "Industrial Support" has, as one of three activity nodes, "Information Technology". Given the limited funding available to the Council (less than £1 million to cover all activities) it is inevitable that activities within Information Technology are limited. The Council's normal operational mode for its scientific activities are through scientific 'Networks', usually by Region, and including meetings, workshops, fellowships, information transfer and other activities.

The first activity under the present aim will be a workshop in Kuala Lumpur in 1984 for Industrial Microprocessor Applications, and this will be followed in the year 1984/85 by an Australian Workshop on CAD and a study on the Applications of Software Development.

However, the possible future activities of the Commonwealth Science Council are now being examined by an Expert Group, consisting of senior Commonwealth scientists. The Group are considering possible activities in 14 areas, including microelectronics, industrial processes and information technology, but these will be reduced to a manageable number before the final report is presented to Council in September 1984. Future activities beyond 1985 will thus not be known for some months, but it seems highly likely that Information Technology will be among them.

The Economic Affairs Division

"The meetings of Commonwealth Employment/Labour Ministers in both 1982 and 1983 noted the fundamental reorganisation of production of many goods and services which would result from the introduction of new technologies, such as microelectronics, and the implications this would have on industrial structures and patterns of international trade, as well as on employment and productivity and the need for training and retraining.

In the short run information technologies may bring certain dangers, especially for developing countries, in terms of labour displacement by increased industrial efficiency and robotics, but in the longer term the adverse effects of these developments may be outweighed by realising the potential benefits from the replacement of labour skills not currently existing in some countries and from the increased abilities to communicate throughout the world.

To assist Commonwealth countries to benefit from the experience of those members which have already gained valuable insights from the introduction and development of new technologies, Commonwealth Employment/Labour Ministers agreed to establish a Working Group on the Management of Technological Change. The Group consists of Commonwealth experts and its terms of reference cover the examination of the existing and potential impact of the adoption of new technologies on the economies of Commonwealth countries, the identification of policies to facilitate the adjustment to the new technologies, and suggestions for the sharing of Commonwealth experience to derive maximum benefits from the use of the new technologies.

The Working Group is now in the process of being formed and will report to Commonwealth Employment/Labour Ministers in 1985"

The Industrial Development Unit

The Industrial Development Unit of the CFTC was set up in 1980 on the recommendation of the Commonwealth Industry Ministers. It has, as its guiding aim to assist governments to advance actual industrial projects towards establishment and production. The IDU achieves this by linking governments with public and private sources of finance, equipment and technology. It uses both in-house capabilities and contracted experts and consultants.

Activities cover the full range of technological development, from the manufacture of cooking stoves, through cotton fabric weaving, to high technology industries.

Although Information Technology thus covers only a proportion of its total effort, recent projects by the IDU have included a Computer Aided Engineering (CAD and CAM) project for the Automobile Research Association of India (ARAI), a study on the manufacture of consumer electronics for Malaysia, and a consultancy on the establishment of an electronics industry in the Caribbean area.

It should however be noted that microelectronics affects every sphere of industrial activity. The technology is increasingly being used in the sphere of product development and marketing, where its flexibility allows substantial gains in speed with which new and improved products may be introduced. The Microprocessor controlled machine tools have an impact on the productivity of workers. Once the machine has been set the output goes up considerably. The skill required to operate microprocessor controlled units are also lower than those required for traditional machinery.

Microprocessors are also being used in increasing numbers to monitor and control industrial processes. Their use improves quality, and eliminates waste of time involved in manual procedures. With respect to the choice of technique, it is clear that many LDCs may be able to do without the latest electronics technologies - older technologies are not necessarily economically inefficient, but if the LDCs are to maintain their presence in developed country markets it is imperative that they use this seemingly inappropriate technology (as it is capital intensive and labour saving; LDCs lack the former factor of production while having a superabundance of the latter); for this technology by virtue of its performance renders manual techniques suboptimal. IDU is increasingly being asked for semi-automated and fully automated production processes by some countries for only then can they keep their share of the developed country markets.

Conclusion

The Commonwealth Secretariat and the Commonwealth Science Council have become aware of the dangers and possible benefits of the application of Information Technology, in its widest sense, and, during the decade of the 80's will seek to minimise the danger and maximise the benefits to the developing Commonwealth countries by a three pronged approach of Science, Industrial Development, and Economic management.

