

The Stromberg-Carlson Charactron synthetic display presenting aircraft traces as letter-number-symbol groups.



Left, the P.P.I. of the Corsor CR.21 surveillance radar with M.T.I. and circular polarization switched on.

traffic control, and the Board received 13 proposals from 31 companies for experimental projects in their planned research programme. The eventual £1.5m award for the design, development and manufacture of the *en route* phase of the AMB semi-automatic traffic control data and processing system has gone to General Precision Laboratories.

The first model of the new G.P.L. system should be installed in the New York air route traffic control centre in early 1960, where it is intended to assume eventually the complete air traffic load of that very high density traffic area. The data processing equipment is "designed to function with existing procedures and facilities as well as future changes, and . . . provides for the reception, correlation, computation, display and exchange of air traffic control information." It is, in fact, designed to perform routine tasks for the controller and present information which requires his decision. The computer is capable of processing 400 flight plans an hour (1,000 can be stored) and preparing flight progress strips at the rate of 1,600 an hour, but if conflicts are discovered while

comparing input data, they are presented to the controller for corrective action.

There is strong support for the decision to limit the computer's function in this way, at least until the infallibility of decision-performing electronics is very thoroughly proved. In any case, the final say—such as re-routing to avoid bad weather, or exceptional action when an airfield is partly unserviceable—must always be kept under human control.

An almost complete automatic computer is Volscan, engineered by the Crosley division of Avco. It is "an analogue computer which has stored into it every possible landing approach problem that may arise. Since the computer has the answer before the problem is submitted it takes a fraction of a second to advise the operator of correct approach instructions." As the pilot follows relayed instructions an automatic tracker follows the aircraft, feeding positional information to the computer. Automatic adjustments are made in later instructions if a pilot does not follow earlier orders implicitly. Two units are being delivered to the

Kelvin Hughes rapid processing projector system in use in the C.A.A. control centre at Indianapolis. The surveillance radar scope is photographed and the film processed in a matter of seconds to allow visual projection on to the plotting table.

