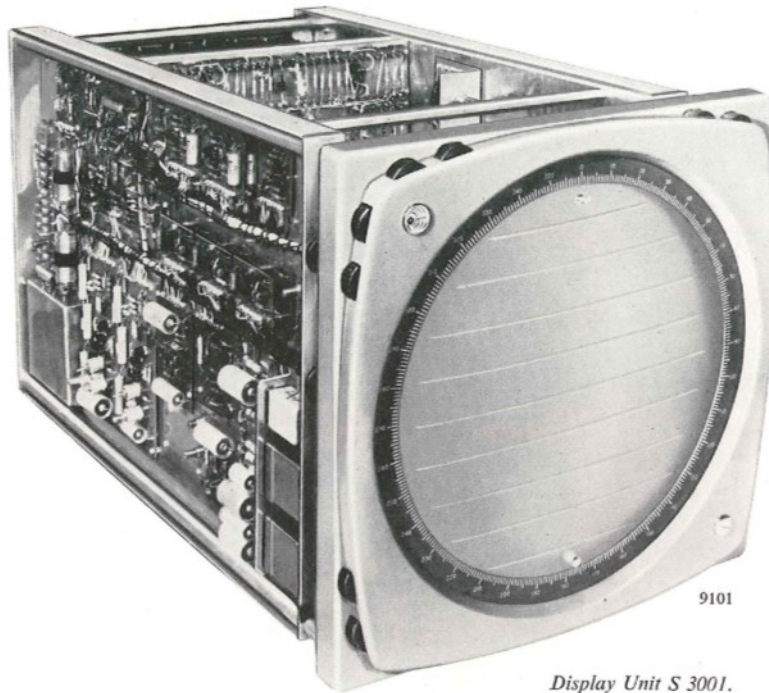




Fixed-coil Radar Displays S 3000 Series



9101

Display Unit S 3001.

THE S 3000 SERIES is a complete range of radar displays and ancillary equipments using transistors throughout. The S 3001 display unit incorporates the most advanced semi-conductor and deflection coil techniques and meets the need for increased speed and efficiency in data presentation. The advantages gained by using transistors in place of valves are four-fold:

- (a) lower power consumption
- (b) less heat dissipation
- (c) smaller bulk
- (d) greater reliability

These benefits are particularly marked in the rack-mounted equipment which is normally located in a radar office; this is especially so in ships, where problems of space and heat dissipation have grown in recent years due to the increasing complexity of the equipment carried. A main feature of the S 3000 series is that it can operate in a wide range of ambient temperatures. It is

suitable for forming part of large data handling systems such as are used in defence and in naval and air traffic control.

To this end, the system is very flexible and is suitable for all applications, from a simple raw radar display to the most complex computer-controlled system. Marked improvements in accuracy and stability have also been achieved.

All the features of the earlier SD 1000 valve equipments are incorporated, including intertrace markers, ADF superimposition and auto track correction. Additionally, a high-speed character generator is available which enables alpha-numeric characters to be displayed in association with aircraft tracks.

The characters are inserted in the 'dead' time between radar traces, each one taking $20 \mu\text{s}$ to write, including the shift to the next character. This facility can be used, in the more comprehensive military and ATC

data processing systems, to display track identities, height, and secondary radar codes.

A simplified character generator is also available for use where only inter-console marking is required. This enables a ring strobe and one figure (0 to 9) to be generated and displayed in one intertrace period. By this means, for example, a controller can mark out an aircraft track to another control position using the figure to indicate the originator.

SYSTEM FEATURES

Transistors used throughout for low heat dissipation and small size.

No special cooling required.

Multi-purpose display, raw radar or synthetic PPI.

Compatible displays for height, 'A' and 'B' scope application.