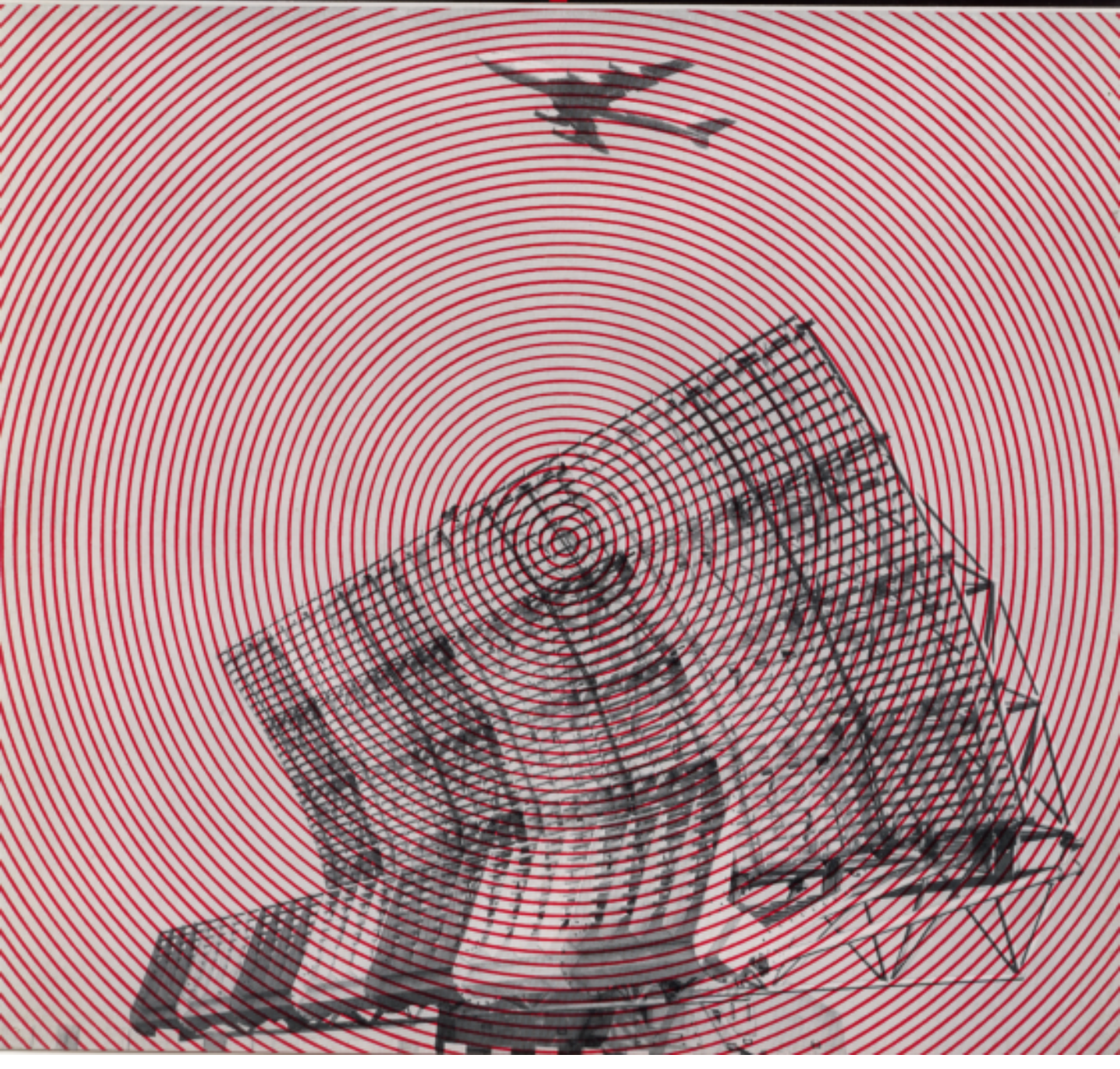
MARCONI RADAR TECHNIQUE

NUMBER 7



S264 50cm RADARS

MARK II SERIES

Cover: There are two S264 Radars at London Airport giving complete cover at this busy centre and along the airways leading to it.

The S264 Radar at Hong Kong Airport gives complete cover in difficult terrain.

THE LONG CLEAR VIEW

Radar has become recognized as the pivot of Air Traffic Control Systems.
Only a radar that gives uninterrupted performance in all conditions can fully justify its place in such systems.
The Marconi S264 50cm Radars were designed specifically to fulfil these conditions.

50cm—THE PROOF OF SUCCESS

The foresight that prompted Marconi's to choose the 50cm band has been amply vindicated in practice. Over 40 installations throughout the world are giving clear and unambiguous radar cover on the world's important air routes.

50cm—THE LOGICAL CHOICE

Only radars working in the 50cm band can guarantee to give
True All Weather Performance
Effective Elimination of Clutter
Greater Reliability
Solid Cover
Instant Operation
Economical Running

True All Weather Performance

By using the 50cm band reflections from rain and snow are minimized to the extent that only storm centres are seen on the display and aircraft echoes are not obscured.

Effective Elimination of Clutter

M.T.I. is undoubtedly the most effective method of removing permanent echoes, and the effectiveness of this system is greatly improved if the radar is crystal controlled. The use of 50cm enables this to be done simply and effectively. Blind speed problems are removed by the use of a sophisticated P.R.F. stagger system.

Greater Reliability

The use of the 50cm band means that a low transmitter power is needed to obtain a relatively high performance. This, and the use of conservatively rated components, leads to a high degree of reliability throughout the equipment.

Solid Cover

All S264 Mark II Series radars employ solid state parametric receivers, which provide 30-40% more range and high cover than the earlier series.

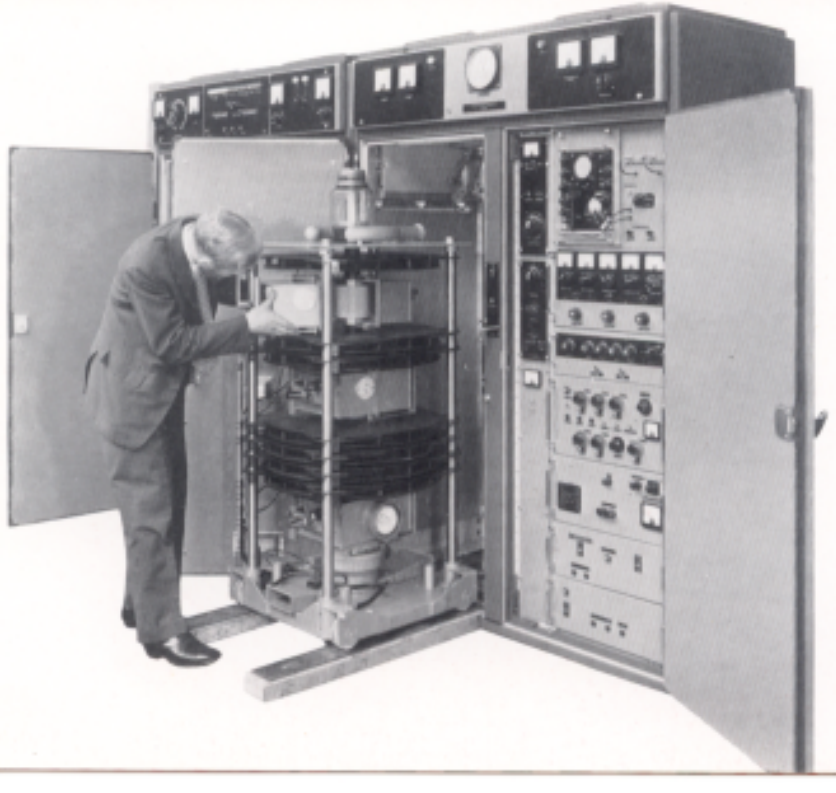
Instant Operation

Crystal control of frequency enables the S264 radars to be brought into instant operation, even after long periods of inactivity.

A comprehensive display Console used with the S264 Radar

Economical Running

Since greater ranges can be achieved with less power, running costs are kept lower and the attendant economics of smaller components and auxiliaries also keep cost down.



The SR100 500 kW transmitter/receiver used in the Marconi S264A Radar, showing the klystron withdrawn.

S264 RADARS MARK II SERIES

Technical Information

S264

A 50–60 kW Terminal Area Radar capable of bringing in all types of aircraft from distances of 110 miles or more right down to the runway, and similarly tracking outgoing aircraft from take-off to 110 miles out.

S264/H

The same as S264 but with a modified aerial which provides a smaller "cone of silence" at the expense of a small loss of range.

S264A

A high-power version employing a multi-cavity power klystron in the transmitter, and with all the characteristics of the S264 but whose high power enables it to be used for long-range airways surveillance as well. Ranges of over 200 miles can be achieved with no degradation of the very short range performance.

S264A/H

Basically a S264A radar with a modified aerial to give a smaller "cone of silence".

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