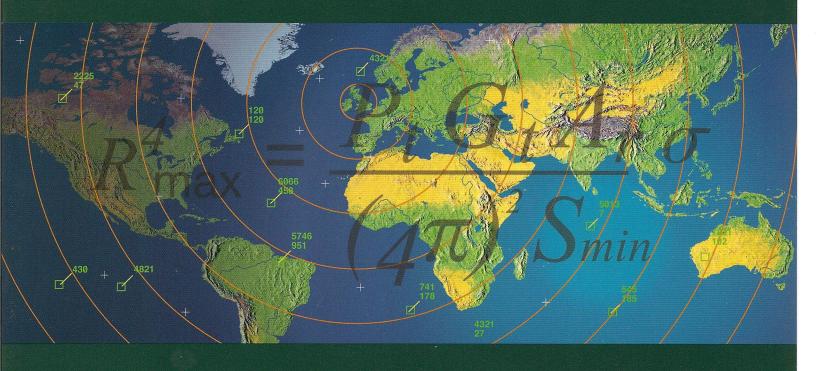
# Total systems solutions in radar technology



**GEC-Marconi** 

## Partners in applied radar technology

The Radar Systems Division of GEC-Marconi Radar and Defence Systems Limited is one of the world's leading suppliers of radar based surveillance and weapons control systems. Its application of leading edge technologies to land and sea based air defence, air traffic control and EEZ monitoring is second to none.

From feasibility studies, through product definition and implementation, to lifetime support, the Company's technical

and operational specialists

#### Thoroughbred pedigree

GEC-Marconi is the world's first and oldest electronics company, having been originally founded in 1897 by Guglielmo Marconi.

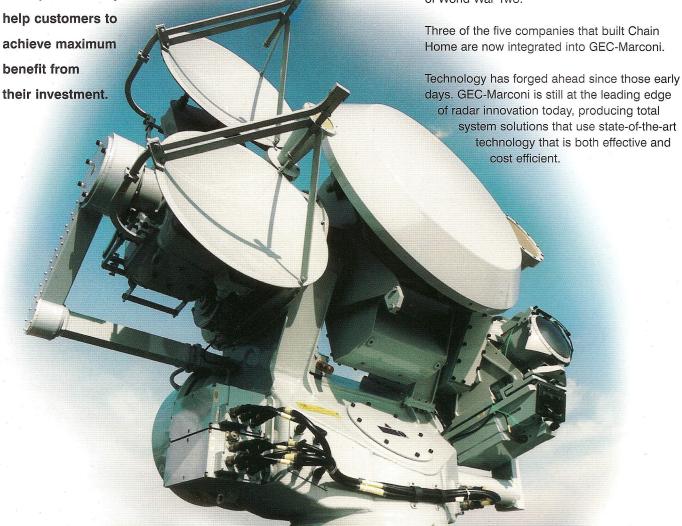
During its long history, the Company has been responsible for the introduction and development of many of the technologies taken for granted today, including that of radar.

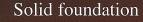
Guglielmo Marconi noted as early as 1916 that radio waves reflected by obstacles in their path could be the basis of detecting ships at sea.

The principles of radar were conclusively demonstrated in the famous Daventry Experiment of 1935 that culminated in Chain Home, the world's first operational radar network, which helped to change the course of World War Two.

Three of the five companies that built Chain Home are now integrated into GEC-Marconi.

days. GEC-Marconi is still at the leading edge of radar innovation today, producing total system solutions that use state-of-the-art technology that is both effective and cost efficient.





GEC-Marconi is a world ranking company. As part of the giant £Multi-billion GEC group, it has at its disposal a vast pool of resources, both human and financial.

The size and diversity of the group's activities give GEC-Marconi a broad and enquiring outlook, with the vision to produce innovative yet realistic solutions to its customers' problems.

#### Customer focus

GEC-Marconi is a customer focused organisation, taking the greatest care to understand fully the customer's needs before investigating the solution and applying it in the most effective way possible.

The Company's most valuable asset is its people. Over the years, GEC-Marconi has built a team of the most highly qualified system designers and engineers in the radar business. People who are true professionals and who are encouraged to distinguish themselves in the world of radar.

These people are backed by the finest facilities and resources. This has all contributed to the Company's reputation for high quality, reliability, and total commitment to its customers.

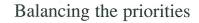




## Total systems solutions—world-wide

GEC-Marconi is involved in the design, development and manufacture of radar based systems for civil, military and joint use applications, covering the whole spectrum of long and short range applications.

The Company's engineers constantly strive to design the most effective radar system for the application, which can then be optimised to meet the particular needs of each operational requirement. The principal design aim is to produce the best possible benefit for every customer.



GEC-Marconi realises that every project is a delicate balance between performance and cost efficiency. The Company provides, for example, an air defence system with the extended range to give the earliest possible warning of hostile activity, while minimising running costs.

In air traffic control, the Company supplies the high performance, low cost systems that enable authorities to provide the safe passage of airliners through their airspace, maximising traffic and, therefore, the authority's income from navigational charges.

And in EEZ monitoring, GEC-Marconi provides the most effective solution to meet the UN 370km off-shore agreement with a system that has the ability to give valuable information to civil and military agencies, helping to protect both commercial

# and defence interests.

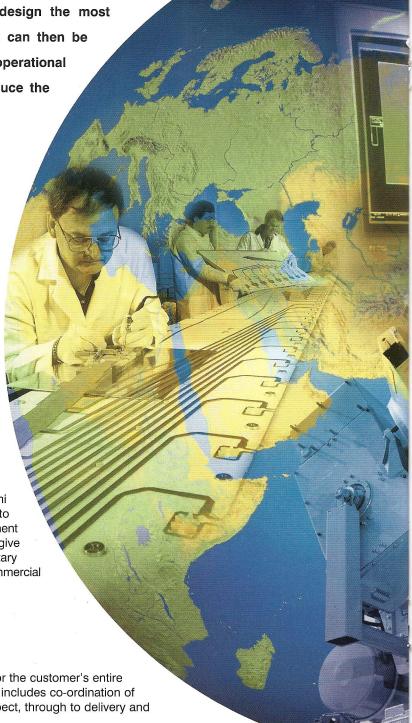
#### Total responsibility

The Company's project managers take total responsibility for the customer's entire problem, from concept to commissioning and beyond. This includes co-ordination of the project, appointing sub-contractors, and every other aspect, through to delivery and handover of the system to the customer.

GEC-Marconi has a wealth of knowledge and expertise in radar which can be applied to feasibility studies, helping customers to determine the most suitable system for their application. This valuable service can help the customer save a great deal of time and expense in the early stages of a project.







#### Building relationships

GEC-Marconi believes in working with its customers, not just for them. Totally focused on the needs of its customers, the Company aims to build lifetime relationships to evolve complete systems solutions. This philosophy extends to providing financial packages and commercial advice to help customers acquire solutions in the most cost effective way possible.



GEC-Marconi has always been at the cutting edge of technology, developing innovative concepts and techniques as diverse as carbon fibre antenna reflectors, the world's first liquid crystal display (LCD), smart card technology, Martello 3D solid state radars, and computer designed antenna systems.

Indeed, it would be true to say that, far from technology leading the company, GEC-Marconi is driving technology to provide the latest state of the art radar systems.





#### Surface wave radar

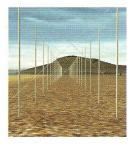
A particular area of innovation that the Company has pioneered is surface wave radar. Unlike conventional radar waves, which travel in straight lines, this system allows the radar waves to follow the natural curvature of the earth.

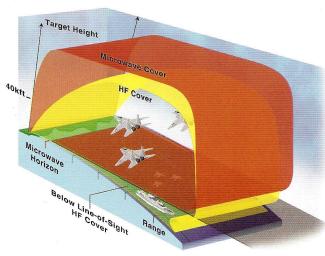
The result is that, even at distances as great as 370 km, the radar waves are still at sea level. This means that surface vessels and low flying aircraft are detected much earlier, over a greater area and much less expensively than by other means.

Although this system is highly effective in EEZ monitoring; to police

fishing activity; to restrict illegal immigration and to counter drug and other smuggling, it may also be widely used in a low level, air defence role.

The diverse range of data produced by this type of radar allows the information gathered to be used by a wide variety of civil and military authorities, making the system a highly cost effective solution to several problems.





# Lifetime support



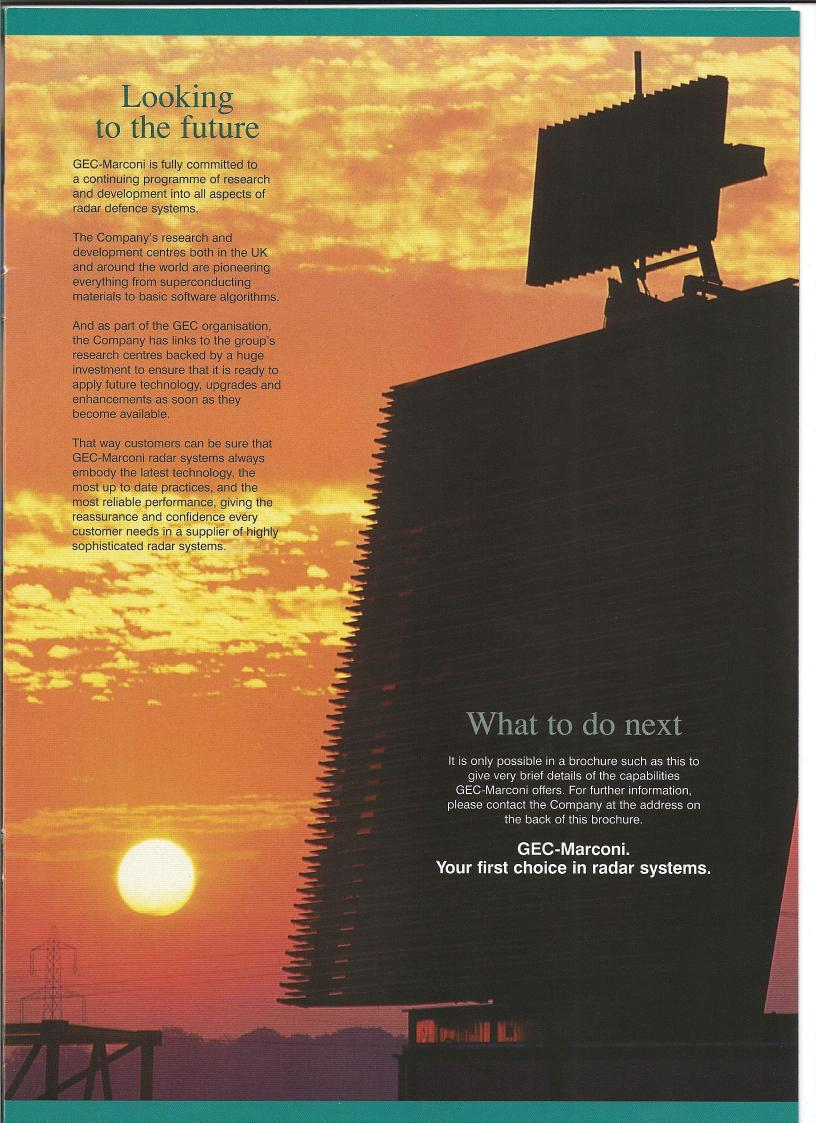
With their advanced technology, robust design and rugged construction, GEC-Marconi radar systems are among the most sophisticated available. The Company believes that comprehensive customer support is the only way to guarantee their continuing long term performance.

GEC-Marconi is, therefore, fully committed to providing lifetime support for radar systems, covering every aspect of support, from installation and commissioning, through repairs and in-territory maintenance, to specialist training, logistical support and enhancements.

The support package is tailored to meet the customer's individual needs, no matter however modest or extensive they may be.

Lifetime support also enables an existing system to evolve and grow in the most economical way possible as requirements change.





#### **GEC-Marconi** Radar and Defence Systems

Radar Systems Division Eastwood House, Glebe Road, Chelmsford, Essex CM1 1QW, Essex CM1 TQW, United Kingdom. Telephone: +44 (0) 1245 702702 Fax: +44 (0) 1245 702963 Telex: 99108 MARCON G Email: radar.sales@gecm.com

This document gives only a general description of the product(s) or services and except where expressly provided shall not form part of any contract. From time to time changes may be made in the products or in the conditions of supply.

© GEC-Marconi Limited 1997 Ref: GMRDS/029/0897