

# MICRO-FIX

**...a totally new microwave positioning system from the world leaders in precise positioning equipment.**

5GHz Micro-Fix is wholly designed, developed and produced by Racal Positioning Systems. It offers  $\pm 1\text{m}$  accuracy over line-of-sight ranges to 80km. Technological advances, included in the standard equipment, put it ahead of any other comparable system.

## Check these key features:

- All solid-state transmitter – allows immediate ranging with fully-automatic calibration and is extremely rugged. Peak radiated power is only  $\frac{1}{2}\text{W}$ .
- Circular polarisation techniques ensure null-free operation and rejection of horizontal reflections using a single antenna.
- Automatic and continuous self-calibration ensures accuracy is maintained at all ranges and in all operating temperatures.
- Master and remote T/Rs interchangeable.
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- Mobile unit measures ranges from up to 8 remotes.
- Data transfer – in both directions – allows automatic monitoring of remotes and transfer of other information such as tidal data.
- Track guidance, plotter drive and real-time clock as standard.
- Full computer control offers tracker and multitracker facilities.
- All units are shockproof, waterproof and will float.
- Mobile unit needs 40W power; shore installation only 12W.

## MICRO-FIX

simply unequalled in the high-accuracy, line-of-sight position-fixing market.

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**RACAL**

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(J.-F. BONNOT & B. SIMON)

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# The Royal Institute of Navigation

Annual Subscriptions, year commencing 1 July 1984

The 1983 Annual General Meeting amended By-law 9 to give Council the authority to determine in March each year the annual subscriptions for the following year. The consequent deferral of decision date in Council for nearly a year enables Council to set rates of subscriptions with a better knowledge of the Institute's liabilities and therefore to manage the Institute's finances, which in recent years have been depleted, more smoothly.

As announced in the last Annual Report, an appeal for funds was launched last year. Over £22,000 has been raised in the current financial year and at least £10,000 is expected next year. The appeal was made in order to restore the financial stability of the Institute, and further donations might be inhibited if members were not seen to be bearing their share of the burden now. Council adheres to the original intent that the proceeds of the appeal should be invested to establish capital reserves and not normally be used to subsidize current operations.

It is anticipated that in the current year other income will approximately equal expenses and that next year there will be a small surplus. Nevertheless, Council has rejected the option of retaining the present rate for a third year in favour of the option of increasing the ordinary membership rate roughly in line with inflation over the two years during which the present rate has been in force. This decision will help the restoration of the Institute's badly depleted reserves and should avoid the risk of large and unwelcome increases in the future. Annual increases add to administrative costs and can be inconvenient to members. Council believes that by increasing the ordinary subscription now by 9.5 per cent against a rise in the retail price index of 10.3 per cent over the two-year period of the present subscription rate, it enhances both its opportunity to defer future increases in line with future inflation and to keep such increases within the bounds of inflation.

Corporate Membership subscription has only been increased by 7.1 per cent. Last time it was increased by 40 per cent. Council is most anxious to encourage corporate membership and believes that another significant increase might be counter-productive.

Student Membership subscription has actually been reduced. The effect on income is negligible and the enlargement of student membership is part of the pursuit of the long-term aims of the Institute.

**Council has set the following rates of subscription for the financial year commencing 1 July 1984:**

<b>Members and Fellows</b>	<b>£23</b>	<b>(1982-4 £21)</b>
<b>Student Members</b>	<b>£5</b>	<b>(1982-4 £7)</b>
<b>Corporate Members</b>	<b>£150</b>	<b>(1980-4 £140)</b>

**Members who pay by Direct Debit need take no action. Those who pay by Standing Order are requested to notify their banks.**

*It is most helpful if subscriptions are paid on 1 July or as soon after as possible. This greatly reduces administrative costs and helps to keep the subscription rates down.*

## THE ROYAL INSTITUTE OF NAVIGATION

THE OBJECT of the Institute is to unite in one body those who are concerned with or who are interested in the science and art of navigation. Membership is not restricted to those who hold professional qualifications, but is open to others who wish to further the aims of the Institute.

By coordinating the knowledge and achievements of marine and air navigators, scientists and those associated with the development and production of navigational equipment, the work of the Institute is directed towards raising the standard of navigation. In the field of education it is the aim of the Institute to bring practical navigators into contact with teachers and research workers to increase a common appreciation of the issues involved. It is an object of the Institute to encourage research in equipment and methods; through its publications it gives a wide circulation to original work on navigation so that new developments and suggestions can be appreciated by those most directly concerned with them.

The activities of the Institute include the holding of monthly meetings to discuss specific problems, the publication of a Journal and of other works concerned with different aspects of navigation, and such other activities as the Council may deem necessary to promote knowledge in navigation and its associated sciences.

*The Journal of Navigation* is issued free to all Members and contains a full account of the Institute's proceedings. It prints the papers which are presented at meetings, together with their ensuing discussion, and other original papers contributing to the science of navigation. It also contains a record of current navigational work, reviews of important books, and general papers of interest to navigators and those with similar interests.

The work of the Institute is coordinated with that of similar societies abroad, whose proceedings are available to members.

**Membership.** There are five classes of membership of the Institute:

(1) HONORARY MEMBERS, who shall be distinguished persons upon whom the Council may see fit to confer an honorary distinction.

(2) FELLOWS, who shall be members, of at least three years' standing who, in the opinion of the Council, have made a contribution of value to navigation.

(3) MEMBERS, who shall be persons over twenty-one years of age who can satisfy the Council of their interest in navigation.

(4) STUDENT MEMBERS, who shall be persons under twenty-five years of age studying with a view to making navigation, or an allied interest, their career.

(5) CORPORATE MEMBERS, who shall be companies, universities, navigation schools, government departments and other organizations, here and abroad, who are directly or indirectly interested in the science of navigation. Corporate Members are entitled to send representative to all Institute meetings and to receive six copies of the *Journal*, and other publications. They are encouraged to take an active part in the Institute's work. Applications should be sent by letter addressed to the Director.

**Subscriptions.** Annual subscriptions to the Institute are payable in advance as follows:

Members and Fellows . . . . .	£23.00
Student Members . . . . .	£5.00
Corporate Members . . . . .	£150.00

The Institute's financial year begins on 1 July. Members in any category who are elected after 1 January in any year are only due for one half of their subscription until 1 July, when the full subscription for the next year becomes due.

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