

Merchant Navy Ratings Pension Fund

*Report on the Actuarial Valuation as at
31 March 2005*

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To the Trustee

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1 Introduction

- 1.1 As instructed by you under Rule 29 of the Trust Deed and Rules dated 31 May 2001, I have completed an actuarial valuation of the Merchant Navy Ratings Pension Fund (also referred to as "the Fund" and "MNRPF") as at 31 March 2005. This Report sets out the results of the valuation. It has been prepared in accordance with the current version of the Guidance Note (GN9 : Funding Defined Benefits – Actuarial Reports, version 7.0) published by the Institute and Faculty of Actuaries (except where stated).
- 1.2 The main purpose of this valuation is to review the financial position of the Fund and the expected future contribution requirements. The background to this is discussed in the next section.

I have written this report for the Trustee of the Merchant Navy Ratings Pension Fund as required under Rule 29 of the Trust Deed and Rules dated 31 May 2001 and, more generally, the Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996. I have prepared it to satisfy the requirements of the Deed and the various statutory requirements referred to in it. It has not been prepared for any other purpose. As such, it should not be used or relied upon by any other person for any other purpose, including, without limitation, by individual members of the Fund for individual investment or other financial decisions, and those persons should take their own professional advice on such investment or financial decisions. Neither I nor Watson Wyatt Limited accepts any responsibility for any consequences arising from any third party relying on the report.

This report was based on data available at the effective date of the valuation and takes no account of developments after that date except where explicitly stated otherwise.

2 Background

Benefits and closure of the Fund

- 2.1 The Fund was established in April 1978 and was closed to future accrual of benefits on 31 May 2001 ('the Closure Date'). Members' entitlements consist of pension rights calculated by reference to the contributions paid in each Fund year from 1978. In addition, benefits have been granted to some members in respect of service prior to 1978 ('pre-1978 credits'). Prior to 31 May 2001 these pension rights were revalued each year in line with Section 148 Orders (ie in line with national average earnings) so long as the member remained in Active Membership. With effect from 31 May 2001 no further members have been admitted to the Fund.
- 2.2 After the Closure Date, with the exception of members who elected otherwise, Active Members' benefits continue to be revalued in line with Section 148 Revaluation Orders. Members of the Merchant Navy Ratings Pension Plan (the MNRPP) were allowed to elect for an expected lower rate of revaluation (7% Revaluation) in return for payment of additional employers contributions to the MNRPP of 2% of MNRPP Pensionable Salary. Under the 7% Revaluation option, MNRPP benefits are revalued in line with retail price inflation subject to a maximum of 7% per annum over the whole period of Active Membership after 31 May 2001. Further information is given in Appendix A.
- 2.3 Prior to April 1997, the Fund did not provide any guaranteed increases to pensions in payment (except for statutory increases on Guaranteed Minimum Pensions (GMPs)). The Pensions Act 1995 introduced the requirement for occupational pension schemes to provide guaranteed increases at the rate of 5% each year, or the increase in the rate of price inflation if less (known as limited price indexation or LPI) for benefits accruing in respect of service from April 1997 onwards. From April 1997 the Trustees implemented this new requirement, temporarily retaining the then existing benefit structure on which pension accrued at a rate of 1/60 of Pensionable Salary (defined as salary less 1½ times the Lower Earnings Limit) for each year of pensionable service. With effect from 1 February 1998 the rate of pension accrual was changed to 1/80 of Pensionable Salary (redefined as salary less one times the Lower Earnings Limit). This rate of accrual applied only to service on and after 1 February 1998 and before the Closure Date. Further details of the benefit provisions are given in Appendix A.

Previous valuations

- 2.4 The valuation of the Fund carried out as at 31 March 1993 disclosed the Fund as being in a difficult financial position. Action was taken by the Trustees to restrict the ill-health benefits payable under the Fund, and it was agreed that the Fund's financial position should be monitored on an annual basis.

- 2.5 In the light of this decision, further valuations have been carried out on an annual basis since 1993. I carried out the previous formal valuation as at 31 March 2002, with interim valuations being made as at 31 March 2003 and 31 March 2004. The 2002 formal valuation revealed, assuming the Fund remained in ongoing operation and based on the actuarial assumptions adopted in that context, a shortfall of assets compared to past service liabilities of £94 million.

Contributions

- 2.6 Based on this shortfall, I advised that an annual rate of deficit contributions of £13 million, plus contributions to meet the Section 148 revaluations, remained a reasonable rate at which to fund the shortfall, and that if the assumptions were borne out in practice the shortfall would be eliminated by around 2012.
- 2.7 A Schedule of Contributions was put in place following the 2002 valuation. This showed the annual employers' deficit payments of £13 million due each 31 March from 2003 to 2007 (relating to the period covered by the Schedule), less an adjustment of about £0.9 million in respect of past overpayments, for 2003 only.
- 2.8 In addition to these amounts the Schedule showed, and employers have paid, contributions of 2% of MNRPP Pensionable Salaries for Active Members who have retained Section 148 revaluation.

Pension increases

- 2.9 No pension increases were granted over the intervaluation period to pensions in payment in respect of service prior to 1 April 1997 (other than those required on GMPs accrued since 6 April 1988). Pensions accruing from 1 April 1997 received increases as follows:

Effective date	Pension increase
1 April 2003	1.7%
1 April 2004	2.8%
1 April 2005	3.1%

Membership data

- 2.10 The membership data provided for the valuation is summarised in Appendix B together with the corresponding figures for 2002. It can be seen that the Active Membership has continued to decline.

Investments

- 2.11 Also shown in Appendix B is a summary of the Fund's investments by sector, based on audited accounts for the year to 31 March 2005. This shows the market value of the Fund (excluding money purchase AVCs) at the valuation date to be some £589.8 million, compared with £506.4 million as at 31 March 2002.

- 2.12 The Trustees review their strategic asset allocation for the Fund regularly and the following strategy was maintained in the year to 31 March 2005.

UK equities	20%
Overseas equities	5%
UK and Overseas fixed interest bonds	68%
Property	7%
	<hr/>
	100%

Economic conditions

- 2.13 Some of the most significant features of general economic conditions for the Fund over the three year period to 31 March 2005 are summarised below:
- The Section 148 Revaluation Orders for 2003, 2004 and 2005 were 3.6%, 3.8% and 4.1% respectively. This means that the increase in the accrued rights of Active Members has been slightly lower than the 4.0% pa assumed on the basis of the assumptions adopted for the 2002 valuation.
 - Long dated fixed interest UK Government stock (gilts) yields fell by around 0.6% over the three years, increasing somewhat the cost of securing benefits with these stocks. This is of relevance to the ongoing valuation and for certain calculations relating to the ability of the Fund to secure its liabilities, for example by buying out benefits on discontinuance, or in connection with the MFR. Over the same period the return achieved on the market value of the Fund's assets was about 7.7% pa.

Benefits valued

- 2.14 We have valued the benefits set out in the Trust Deed and Rules dated 31 May 2001, as subsequently amended. A summary of the main benefits and provisions of the Fund as at the valuation date is shown in Appendix A. We have made no allowance for any discretionary benefits.

Recent legislation – Pensions Act 2004

- 2.15 The Pensions Act 2004 includes a wide range of provisions affecting occupational pension schemes in the UK. The main provisions which may affect the future financial position of the Fund are those concerning the introduction of a new scheme-specific funding standard (which will replace the Minimum Funding Requirement), the establishment of a new Pension Protection Fund (PPF), the increase in the potential debt due on employers on the winding-up of the Fund and a change in the priority order for the securing of benefits on wind-up. This valuation of the Fund does not take into account the requirements of the new scheme-specific funding standard (the final details of which have yet to be published) or the payment from the Fund of any levies due to the new PPF.

3 Valuation method and assumptions

Funding objectives

- 3.1 The funding objective is that the accumulated fund should be sufficient to meet the accrued liabilities for past service, ie pensionable service completed prior to the Closure Date, making allowance for the revaluation of these benefits in line with Section 148 Orders, 7% Revaluation or statutory revaluation as appropriate.

Funding target

- 3.2 Under Rule 5.2 of the Trust Deed and Rules, the Current Employers must contribute such amounts as set out in the latest Schedule of Contributions. In the event that the Minimum Funding Requirement is, in the opinion of the Trustee on the advice of the Actuary, significantly weakened as a funding standard, “any new Schedule shall require the Current Employers to pay such contributions as may be decided by the Trustees on the advice of the Actuary and after consulting the Current Employers”. The funding target is therefore set by the Trustee, after consulting the Current Employers.

Valuation Method

- 3.3 For the purposes of the ongoing valuation (ie the valuation assuming that the Fund does not wind-up), we have made a comparison of the liabilities in respect of the past service of the existing membership with the value placed on the Fund's assets. This is carried out by projecting the Fund's future outgo on the basis of various assumptions. These estimated cash flows are then discounted to present capital values for inclusion in the valuation balance sheet. For the purpose of this valuation, assets have been valued at market value and the liabilities have been valued assuming future investment returns consistent with those that may be earned on the Fund's assets at market value.
- 3.4 Given that the Fund is closed to future benefit accrual, the rate of future contributions required will reflect any difference between the value placed on the assets and that placed on the accrued liabilities.
- 3.5 For the purpose of these calculations, the Fund is treated as a continuing entity and the value of the liabilities includes allowance for the effects of Section 148 Orders or 7% Revaluation to Active Members' benefits. This differs from the approach of the Minimum Funding Requirement (see later) which is based on lower levels of targeted benefits – for example prospective increases in Section 148 Orders are not taken into account in assessing any MFR deficit.

Financial assumptions

3.6 The principal financial assumptions adopted for the 2002 valuation were as follows:

	% pa
Valuation rate of interest	5.8
Rate of Section 148 increases	4.0
Rate of LPI revaluation in deferment	2.5
Rate of future pension increases:	
- pre 1 April 1997 pension in excess of GMP	nil
- pre 6 April 1988 GMP	nil
- post 5 April 1988 GMP	2.5
- post 31 March 1997 pension	2.5

3.7 At 31 March 2005 (2002) the available returns to redemption on long dated fixed interest gilts were approximately 4.7% (5.3%) pa in absolute terms and on index-linked gilts were about 1.6% (2.3%) pa in excess of price inflation. The net dividend yield available on the FTSE Actuaries All-Share Index was around 3.1% (2.7%) pa. Available yields on gilts were therefore slightly lower at this valuation date than three years earlier, and dividend yields on UK equities were slightly higher.

3.8 The assumed long term rate of retail price inflation has been taken as 2.7% pa for this valuation. This is broadly consistent with the Bank of England's current long-term target of 2% pa on the Consumer Prices Index and with current general economic expectations. The assumed real rate of Section 148 revaluation has been kept at 1.5% pa (4.2% pa nominal).

3.9 The basis used to assess the ongoing position takes assets at market value.

3.10 The 31 March 2002 valuation was carried out using a single assumed rate of investment return, which was taken as 75% of the assumed return on long dated UK fixed interest gilts and 25% of the assumed return on UK equities.

3.11 For the purposes of this valuation I have adopted an alternative method for valuing the liabilities referred to as the "dual discount rate" approach in which separate assumed investment returns ('valuation rates of interest') are adopted for the periods pre- and post-retirement. This approach makes more explicit allowance for the likelihood that the Fund's asset allocation will move gradually further away from 'equity-type' investments towards a heavier weighting in 'bond-type' investments as members' pensions come into payment, to the point that once all members have retired the assets are likely to be held entirely in bond-type investments. We derive for each asset class an assumed rate of return (reflecting market conditions on the valuation date), and then derive appropriate pre- and post-retirement rates of interest for assessing the Fund's

accrued liabilities. The appropriate rate for each of the main asset classes is discussed in the following paragraphs.

- ***Gilts/corporate bonds*** – long dated fixed interest gilt yields at the valuation date suggest a yield of around 4.7% pa. A portion of the Fund's current asset allocation is also invested in corporate bonds. In our view it is appropriate to make some allowance for the expected outperformance from investment in corporate bonds as compared with gilts. At the valuation date AA-rated corporate bonds were typically showing yields some 0.7% pa higher than those on corresponding fixed interest gilts. Part of this yield differential reflects the fact that corporate bonds are less marketable than gilts (which need not be a concern for the Fund) and part reflects the default risk. For the purposes of this valuation we have assumed that it is appropriate to reduce the yields available on corporate bonds by 0.2% pa on account of this default risk. This results in an assumed rate of return from corporate bonds of about 5.2% pa. Allowing for the split of the Fund's bond portfolio at the valuation date (roughly one-third gilts, two-thirds corporate bonds), this results in a bond return assumption of 5.0% pa.
- ***Equities*** - as for the previous valuation, we have valued UK and overseas equities in the same way. Our starting point is to take the net dividend yield on the FTSE Actuaries All-Share Index as at 31 March 2005 (around 3.1% pa). We have then assumed a real rate of future dividend growth of 2.0% pa. These assumptions when compounded together result in a derived rate of return from equity-type investments as at 31 March 2005 of some 8.0% pa (allowing for retail price inflation of 2.7% pa).

3.12 For the purposes of this valuation, we have assumed that the post-retirement discount rate should be based upon the assumed return on bonds of 5.0% pa. For the period pre-retirement, we have used an investment return assumption which is based on the remainder of the Fund's assets, roughly 50% bonds and 50% equities, resulting in a pre-retirement discount rate of 6.5% pa.

3.13 The "dual discount rate" approach set out above implicitly assumes that over time the Fund's asset allocation changes to match the profile of the Fund's liabilities. On this basis, the proportion of the Fund's assets invested in equities would be expected to reduce as the Fund matures.

- 3.14 In summary, the financial assumptions adopted for the ongoing 2005 valuation basis are as follows:

Financial Assumptions	% pa
Valuation rate of interest	
- pre-retirement	6.5
- post-retirement	5.0
Rate of Section 148 increases	4.2
Rate of LPI revaluation in deferment	2.7
Rate of future pension increases:	
- pre 1 April 1997 pension in excess of GMP	nil
- pre 6 April 1988 GMP	nil
- post 5 April 1988 GMP	2.5
- post 31 March 1997 pension	2.7

Demographic assumptions

- 3.15 We have been provided with information relating to changes in the membership of the Fund over the intervaluation period, and have considered the demographic assumptions previously adopted. This analysis has shown that there were fewer deaths of pensioners than anticipated and that mortality appears to be improving more rapidly than previously assumed. Although there have been significant fluctuations in mortality rates from year to year, the overall experience appears to be that most of the previously anticipated future improvements may already have occurred. We have therefore changed the assumed rates of mortality to reflect this recent experience. Also, in the light of recent research carried out by Watson Wyatt and the actuarial profession, we have made an allowance for future improvements in mortality equivalent to a 0.25% pa reduction in ongoing valuation interest rates shown above. A summary of the demographic assumptions is set out in Appendix C.

Expenses

- 3.16 We have included a reserve of £14 million as an allowance for the future expenses of the Fund (which is the same as the allowance made at 31 March 2002). The future expenses of the Fund, in particular the PPF levy, are uncertain, and this allowance will be reviewed at the next valuation when more information regarding the magnitude of the PPF levy payable will be available.

Pre-78 Pension Benefits review

- 3.17 Following a recent review of the Pre-78 Pension Benefits, we have been provided with details of the revised Pre-78 Pension Benefit amounts payable to pensioners and widows, together with the redress payments made in October 2005. We have allowed for the revised pension amounts in our calculations. We understand that the redress payments of around £3 million have been allowed for in the net assets of the Fund used for this valuation.
- 3.18 We have not allowed for accurate revised deferred Pre-78 Pension Benefit amounts promised to active members and deferred pensioners. We have therefore included an approximate allowance of £4 million for the effect of the revised benefits on the Fund's liabilities for the purposes of this valuation.

Other data issues

- 3.19 Based on correspondence with the Fund's administrator, we understand that the Guaranteed Minimum Pension (GMP) data provided was unreliable for deferred pensioners who ceased to contract-out before 6 April 1985 or for whom only GMP liability remains in the Fund. We have therefore valued approximate amounts in respect of the GMP for these members which we have calculated using a similar method to previous valuations based on the earnings history data provided.
- 3.20 In addition, we understand that the spouse's pension data provided in respect of the current pensioners was unreliable. We have therefore valued spouse's pension amounts which we have calculated approximately based on the pensions in payment.
- 3.21 We consider these approximations (and that in 3.18 above) to be adequate for the purposes of this valuation.

4 Valuation results – ongoing Fund

Ongoing position

- 4.1 I have considered the ongoing position of the Fund (ie assuming that it does not wind up in the foreseeable future), by reference to the method and set of assumptions described in Section 3. The results of my calculations are set out in the following balance sheet. Both the assets and liabilities exclude money purchase AVCs.

	£m
Present capital value of accrued liabilities in respect of:	
Pensioners and dependants	269
Active members	124
Deferred members	277
Expenses	14
Value of accrued liabilities	684
Assets (market value)	590
Excess/(shortfall) of assets compared to accrued liabilities	(94)
Funding level	86%

- 4.2 In view of the shortfall disclosed above, the current rate of annual deficit contributions of £13 million, plus contributions to meet the Section 148 revaluations, remains a reasonable rate at which to fund the shortfall. If the ongoing assumptions are borne out in practice the shortfall would be fully funded in about 9 years from the valuation date (ie in 2014).

Analysis

- 4.3 The table above shows that on an ongoing basis the value of assets amounted to some 86% of the value of past service liabilities. The shortfall, which was £94 million as at 31 March 2002, has remained at £94 million as at 31 March 2005. The main factors contributing to this are quantified below:

Approximate analysis of change in financial position between 31 March 2002 and 31 March 2005	£m
(Shortfall) as at 31 March 2002	(94)
Interest on deficit	(17)
Contributions with interest	43
Investment returns in excess of assumed rate at 31 March 2002	32
Change in financial assumptions to reflect financial conditions on 31 March 2005	(18)
Change in mortality assumptions including allowance for future improvements	(32)
Effect of revision to Pre-78 pension data for pensions in payment including allowance in the net assets for the past underpayments	(5)
Approximate allowance for revision to Pre-78 Pension Benefits for non-pensioners	(4)
Miscellaneous experience and other revisions to membership data	1
(Shortfall) as at 31 March 2005	(94)

Variations in the assumptions

- 4.4 The results shown above are based on a single set of financial assumptions, summarised in 3.14. The results are particularly sensitive to the assumed investment return, which is merely an assumption, albeit a prudent one. In practice, however, something else will happen. The possible variation in outcomes is considerable, and the Trustee should be aware of the sensitivity of the results to this assumption. To illustrate this, I show below the approximate impact on the shortfall and the number of years over which the annual contributions set out in 4.2 would fund this shortfall (based on these assumptions) of a change of 0.25% pa in the assumed rate of future investment returns.

	Impact on shortfall	Change in period needed to fund shortfall with current annual contributions
Investment return +0.25% pa	-£27 million	-3 years
Investment return -0.25% pa	+£29 million	+4 years

Actuarial Statement – Security of prospective rights

- 4.5 The actuarial statement required under Regulation 30 of The Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996 forms Appendix D to this report.

5 Valuations for other purposes

Income and Corporation Taxes Act 1988

- 5.1 The 1986 Finance Act (now superseded by the above Act) introduced legislation limiting the build up of the surplus within approved occupational pension schemes. The Regulations require additional calculations to be carried out in conjunction with each actuarial valuation to establish whether the Fund has an excessive surplus for the purposes of the Regulations using certain prescribed actuarial assumptions. It is clear that the Fund had no excessive surplus at 31 March 2005, and a certificate to this effect is appended to this Report as Appendix F.

Winding-up

- 5.2 In the event of the winding-up of the Fund, the Trust Deed and Rules provide for benefits to be secured by the purchase of appropriate annuity policies (although the Trustee may continue to run the Fund as a closed scheme for a period). To estimate this position, I have calculated the value of the Fund's liabilities based on our general knowledge of the assumptions used by insurance companies when pricing immediate or deferred annuities.
- 5.3 Note that the rates of premium which would be available in practice for the purchase of such annuities are uncertain given the large size of the Fund and the present capacity of the UK insurance market. In particular, the annuity rates assumed in our calculations are based on standard terms for mortality and proportions married currently used by insurance companies. These terms allow for lighter mortality and higher proportions married than have been the experience of the Fund's members. It may be possible in practice to negotiate better terms on the evidence of that experience, reducing the cost of purchasing annuities.
- 5.4 On this basis (and making a provision for the expenses associated with the winding-up of £14 million – a provision, not an estimate or quotation), I estimate that the assets of the Fund would have fallen short of the amount required to secure members' accrued benefits and to meet the expenses of winding-up by about £470 million as at 31 March 2005 (compared with £340 million as at 31 March 2002).
- 5.5 In such circumstances, the assets would have been applied in accordance with the order of priorities set out in the Occupational Pension Schemes (Winding-up) Regulations 1996 as amended by subsequent regulations. The Pensions Act 2004 and its regulations came into effect on 5 April 2005 and from this date override the priority order set out in the Rules of the Fund. Although this came into effect after the valuation date, any future wind-up would occur after this date, and so I have made calculations as if the Act had been in force on 31 March 2005 (this does not comply with professional guidance, which provides for the rules in force at the valuation date to be used, which is of no practical concern to the Trustee).

- 5.6 In outline, at the date of signing this report, these Regulations require assets to be applied to meet liabilities in the following order:
- Expenses.
 - Benefits that members would be entitled to under the PPF (see below).
 - AVCs (other than those covered above).
 - Liabilities for other benefits.
- 5.7 For members over Normal Pension Age, ill-health pensioners and current dependants, the benefits payable under the PPF are broadly the benefits promised under the Fund with no increases in payment except for RPI (up to a maximum of 2.5% pa) on pension in respect of post-April 1997 service. For other members, benefits will be 90% of those promised under the Fund, subject to a cap (initially £23,000 pa at age 62) with RPI (up to a maximum of 5% pa) revaluation in deferment and increases in payment as above. Future dependants are entitled to half the members' PPF benefits.
- 5.8 We estimate that, on the basis set out in 5.2, the assets would have been sufficient to secure liabilities for the first class above and around 80% of members' benefit entitlements under the PPF but none of the lower priority liabilities. Note that this is an approximate valuation (calculated based on benefits broadly in line with a "S143 valuation" as defined by the PPF Board), based upon technical details which have been set out by the PPF Board but some of which have not been finalised at the date of signing this report.
- 5.9 In the absence of any other changes, if contributions are paid as set out in Appendix D and investment returns are as set out in 3.14, the wind-up shortfall should gradually reduce over time.

Minimum Funding Requirement (MFR) and Schedule of Contributions

- 5.10 MFR calculations have been carried out on the normal basis as to the notional asset portfolio under which all membership categories are regarded as backed by a mixture of gilts and UK equities. In practice, the MFR funding level will vary from time to time. This may arise because of a mismatch between the Fund's assets and those theoretically required to back its MFR liabilities, and also because general experience (for example, growth in UK equity dividends) may differ from the assumptions underlying the MFR calculations. In recognition of this, when certifying a schedule of contributions, the actuary has to assume that where market conditions at the date of certification are favourable, they will revert to the MFR assumed long-term norm over the period covered by the schedule.

- 5.11 The results of our calculations, on the two main bases, of the MFR position of the Fund are set out in the table below.

As at 31 March 2005	A	B
	£m	£m
Accrued liabilities	512	470
Assets	590	501
Surplus/(shortfall)	78	31
Funding level	115%	107%

A MFR (equity/gilt mix) - Prescribed MFR calculation based on conditions at 31 March 2005 and the maximum equity backing permitted.

B MFR (equity/gilt mix) - Prescribed MFR calculation based on long-term norm conditions and the maximum equity backing permitted.

- 5.12 My actuarial statement, which formally certifies the MFR position on the actual equity/gilt basis (ie result A above) is at Appendix E to the report.
- 5.13 The MFR is to be replaced with a scheme-specific funding standard for actuarial valuations with effective dates on or after 22 September 2005. This is, therefore, expected to be the final MFR valuation carried out for the Fund.

6 Conclusions

- 6.1 The ongoing financial position of the Fund is similar to that of three years earlier, the shortfall which was £94 million at 31 March 2002 having remained at £94 million at 31 March 2005. This is on assumptions that represent a broadly similar degree of caution/optimism once allowance is made for the latest evidence on current mortality rates and trends. Contributions of £13 million per annum plus Section 148 contributions remain a reasonable rate at which to fund the Fund. If the long term assumptions are borne out in practice the shortfall would be eliminated by around 2014.
- 6.2 As regards the MFR position, the MFR surplus of £20 million at 31 March 2002 has increased significantly to £78 million at 31 March 2005. On long-term norm conditions the position has also improved. The position will need to be reviewed immediately prior to the schedule of contributions being certified following this valuation, although it is unlikely that the proposed schedule will be constrained by the MFR on this occasion.
- 6.3 A further formal actuarial valuation should be carried out no later than as at 31 March 2008, although we would propose to continue to conduct annual interim reviews. The next formal valuation will take place under the new scheme-specific funding regime introduced by the Pensions Act 2004.



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A Summary of benefits

Normal Pension Age	62
Pensionable Salary	
- benefits for service before 1 February 1998	The salary received by a member in a Fund Year less 1½ times the Lower Earnings Limit applicable to that Fund Year.
- benefits for service after 31 January 1998	The salary received by a member in a Fund Year less 1 times the Lower Earnings Limit applicable to that year. Only post 31 January 1998 salaries and service are used to determine Average Revalued Pensionable Salary ('ARPS') for this service.
Retirement at Normal Pension Age	A pension equal to the total of one-sixtieth of ARPS for each year of service prior to 1 February 1998 and one-eightieth of ARPS for each year of service between 31 January 1998 and 31 May 2001, where ARPS is calculated by adding each year's Pensionable Salary on or before 31 May 2001 revalued in line with Section 148 Orders up to 31 May 2001 and thereafter by '7% Revaluation' (for an Active Member who has exercised this option) or by Section 148 orders (otherwise) and dividing by the number of years of service.
7% Revaluation	Revaluation for the period of active membership after 31 May 2001 in line with retail price inflation subject to a maximum of 7% per annum over the whole period.
Retirement before Normal Pension Age	A pension calculated as above, payable immediately but actuarially reduced for early payment.

Death after Retirement

A spouse's pension of 50% of the member's pension (calculated as if no commutation for lump sum had taken place at retirement) together with a cash sum if death occurs within 5 years of retirement.

Death of an Active Member

A spouse's pension of 50% of the member's pension earned to the date of death.

Leaving Service

A deferred pension, a transfer to another approved pension arrangement or, if the member has less than two years' service, a refund of contributions

Pre-1978 Pension Benefits

Additional pension benefits granted to Members in respect of service prior to 6 April 1978, subject to certain qualifying conditions being satisfied.

Pension Increases

No guaranteed increases on pensions in respect of service prior to 1 April 1997 in excess of the GMP. Guaranteed increases of 5% each year, or price inflation if less, on pensions in respect of service after 31 March 1997. GMPs accrued from 6 April 1988 receive statutory increases.

B Summary of data

The information supplied for the valuation is summarised below. The primary responsibility for this information lies with the Trustee and I have relied on its accuracy in my calculations. The Trustee will, in turn, have relied on others for the maintenance of accurate data. Nevertheless, it is the Trustee's responsibility to ensure the adequacy of these arrangements.

Membership data

Membership data was provided by an extract from the computerised record keeping system operated by the Fund's administrator. We carried out checks on the consistency of the data with the information provided for the previous valuation, and its overall reasonableness, and these checks resulted in some queries concerning the accuracy of the data initially provided. These queries were resolved satisfactorily, except for the following (of which the Fund's administrator is aware):

- the Guaranteed Minimum Pension data provided for some of the deferred pensioners was unreliable
- the spouse's pension data provided in respect of current pensioners was unreliable
- we have not allowed for accurate revised Pre-78 Pension Benefit amounts promised to active members and deferred pensioners which allow for the recent review

We have allowed for these exceptions by making approximations as described in Section 3 of this report.

It is not possible, however, for me to confirm that the detailed information provided in respect of individual members is correct.

Summary of membership

	2002 Valuation	2005 Valuation
Pensioners		
Number	7,278	7,165
Annual pension in payment	£16.5m	£18.6m
Widow(er)s		
Number	1,549	1,743
Annual pension	£1.7m	£2.1m
Actives (including EPS/MNOPF†)		
Number	2,524	2,203
Annual accrued pension rights*	£12.6m	£11.7m
Deferred members		
Number	19,274	18,553
Annual accrued pension rights*	£22.1m	£22.6m

*after allowance for revaluation to the valuation date where appropriate

† this refers to EPS (Employer's Private Scheme) and MNOPF members who retain Active Member status at the valuation date

Summary of assets

According to the audited accounts supplied, the total assets of the Fund (excluding money purchase AVCs) as at 31 March 2005 amounted to £589.8 million (£506.4 million as at 31 March 2002), and these assets were invested as follows:

	Market value at 31.3.2002		Market value at 31.3.2005	
	£m	%	£m	%
Fixed interest bonds				
- UK public sector	69.3	13.7	123.1	20.9
- Other	262.5	51.8	245.8	41.7
UK equities	94.1	18.6	130.9	22.2
Overseas equities	21.9	4.3	30.2	5.1
Property	32.2	6.4	40.2	6.8
Cash and net current assets	26.4	5.2	19.6	3.3
Total	506.4	100.0	589.8	100.0

C Summary of demographic assumptions

Rates are per 1000 members at each age.

1. In service – specimen rates – men and women

Age	Withdrawal rates	Rates of mortality in service
25	99	0.9
30	79	0.9
35	67	1.3
40	60	1.9
45	59	2.9
50	64	4.4
55	77	6.7
60	95	10.0

Withdrawals over age 50 include early retirements with reduced immediate pensions.

All members still in service at age 62 are assumed to retire at that age.

2. In retirement – specimen mortality rates

Age	All members other than pensioners who retired on ill-health PA80C05+1*	
	Men	Women
50	2.8	1.7
55	4.9	2.9
60	8.7	4.8
65	16.0	8.4
70	28.9	15.0
75	50.3	29.0
80	83.1	54.4
85	129.8	93.0
90	191.0	141.2

* mortality rates for pensioners who retired on ill-health are assumed to be as shown above but rated up by two years

Future improvements in mortality have been allowed for by reducing the rates used to discount the liabilities (stated elsewhere in this report) by 0.25% pa.

3. Age difference and proportion married

The age difference (husband – wife) ranges from 0 – 3 years, depending on age.

The proportion of members assumed to be married is 45% for males and females.

4. Options and discretions

I have, as stated elsewhere, made no allowance for discretionary pension increases. Members have the option to exchange benefits at retirement for a lump sum; I have made no allowance for this in the future. On current terms, such exchange gives a modest financial benefit to the Fund.

D Actuarial Statement (regarding the security of prospective rights)

Actuarial statement made for the purposes of Regulation 30 of the Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996

Merchant Navy Ratings Pension Fund

Effective date of valuation **31 March 2005**

1 Security of prospective rights

In my opinion, the resources of the Fund are likely in the normal course of events to meet in full the liabilities of the Fund as they fall due. In giving this opinion, I have assumed that the following amounts will be paid to the Fund:

By Members

Nil

By Employers (in aggregate)

2% of MNRPP Pensionable Salaries of those members who continue to be entitled to revaluation of benefits in line with Section 148 orders, plus £13 million on each 31 March from 2006 to 2014 inclusive.

2 Summary of methods and assumptions used

For the purposes of Section 1 I have assumed that the Fund will continue. The liabilities referred to in Section 1 relate to the benefits which are expected to become payable under the normal operation of the Fund. They include appropriate allowance for future increases in accrued benefits. Their value has been calculated using the projected unit method and the following main financial assumptions:

Financial assumptions	% pa
Valuation rate of interest:	
- pre-retirement	6.5
- post-retirement	5.0
Rate of Section 148 increases	4.2
Rate of LPI revaluation in deferment	2.7
Rate of future pension increases:	
- pre 1 April 1997 pension in excess of GMP	nil
- pre 6 April 1988 GMP	nil
- post 5 April 1988 GMP	2.5
- post 31 March 1997 pension	2.7

Further details of the methods and assumptions used are set out in my actuarial valuation addressed to the Trustee dated 16 December 2005.

P.M. Stouling

P M Stouling
Fellow of the Faculty of Actuaries
Watson Wyatt Limited

16 December 2005

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London Road
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Surrey
RH2 9PQ

E Actuarial Statement (regarding the MFR position)

Actuarial statement made for the purposes of Regulation 14 of the Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996

Name of Scheme: **Merchant Navy Ratings Pension Fund**

Effective date of valuation: **31 March 2005**

1 Compliance with Minimum Funding Requirement

In my opinion, on the effective date the value of the assets of the Fund is 115 per cent of the amount of the liabilities of the Fund.

2 Valuation principles

The Fund's assets and liabilities are valued in accordance with section 56(3) of the Pensions Act 1995, the Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996 and the mandatory guidelines on Minimum Funding Requirement (GN 27), prepared and published by the Institute of Actuaries and the Faculty of Actuaries.



P M Stouling
Fellow of the Faculty of Actuaries
Watson Wyatt Limited

16 December 2005

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Note:

The valuation of the amount of the liabilities of the Fund does not reflect the cost of securing those liabilities by the purchase of annuities, if the Fund were to have been wound up on the effective date of the valuation.

F Surplus certificate (for the Inland Revenue)

CERTIFICATE

This certificate is given to the Commissioners of Inland Revenue for the purposes of paragraph 2(3) of Schedule 22 to the Income and Corporation Taxes Act 1988

Merchant Navy Ratings Pension Fund

Inland Revenue Reference No **SF 13/24043**

A I hereby certify that:

- (1) in my opinion as at 31 March 2005 the value of the assets of the Fund did not exceed 105 per cent of the value of the liabilities of the Fund;
- (2) the assets and liabilities to which paragraph (1) refers have been determined in accordance with principles and requirements prescribed by the Pension Scheme Surpluses (Valuation) Regulations 1987.

P. M. Stoealing

P M Stoealing
Fellow of the Faculty of Actuaries
Watson Wyatt Limited

16 December 2005

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G The limitations of the valuation

There are three important limitations to the work that underlies this report. Although they are referred to or described elsewhere in the report, this section brings them together.

The first is that I have provided this report for the Trustee and others should not rely on it or take action based on it without seeking their own independent advice. The second is that I have relied on the Trustee to provide accurate information. The third is that the assumptions made about future economic conditions are precisely that – assumptions, and not predictions or guarantees. They provide, I believe, a reasonable basis on which the Trustee can formulate its policy, but the Trustee must be aware that there are uncertainties and risks involved in any course of action.

Third parties

I have written this report for the Trustee of the Merchant Navy Ratings Pension Fund (which is referred to in this report as the Fund), as provided under Rule 29 of the Trust Deed and Rules. I have prepared it to satisfy both the requirements of the Deed and the various statutory requirements referred to in it. It has not been prepared for any other purpose. As such, it should not be used or relied upon by any other person for any other purpose, including, without limitation, by individual members of the Fund for individual investment or other financial decisions, and those persons should take their own professional advice on such investment or financial decisions. Neither I nor Watson Wyatt Limited accept any responsibility for any consequences arising from any third party relying on the report.

This report was based on data available to me at, or prior to, the date on which it was signed, and takes no account of developments after that date. Except with the written consent of Watson Wyatt Limited, the recipient may not reproduce, distribute or communicate (in whole or in part) this report to any other person.

Data supplied

The Trustee bears the primary responsibility for the accuracy of the information provided and will have relied on others for the maintenance of accurate data. Nevertheless, it is the Trustee's responsibility to ensure the adequacy of these arrangements. I have taken reasonable steps to satisfy myself that the data provided is of adequate quality for the purposes of the valuation, including carrying out basic tests to detect obvious inconsistencies with that supplied on the previous occasion. These checks have given me no reason to doubt the correctness of the information supplied except where stated in Appendix B. It is not possible for me to confirm that the detailed information provided in respect of individual members is correct.

Investment assumptions

The investment and economic assumptions have been derived by Watson Wyatt through a combination of economic theory, historical analysis and the views of investment managers. They inevitably contain an element of subjective judgement. The assumptions and the analysis in this report are intended to be reflective of the likely behaviour of the finances of the Fund over the long-term.

There is no guarantee that the assumptions made will be borne out in practice, and the expectation is that in actuality the Fund's experience will, from time to time, be better or worse than that assumed.