

ROYAL CANADIAN MOUNTED POLICE

SUPERANNUATION ACCOUNT

ACTUARIAL REPORT

AS AT DECEMBER 31, 1985

TABLED

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REPORT ON THE ACTUARIAL REVIEW  
OF THE PENSION PLAN ESTABLISHED UNDER THE  
ROYAL CANADIAN MOUNTED POLICE SUPERANNUATION ACT  
AS AT DECEMBER 31, 1985

I. Introduction

The date of this review precedes the coming into force on December 1, 1986 of the Public Pensions Reporting Act (PPRA). However, it was thought to be more meaningful to present the information herein, as if this were a report pursuant to the PPRA, particularly as respects the requirement for the plan to be deemed to include the related benefits (indexing) that are payable under the Supplementary Retirement Benefits Act (SRBA) and the related assets of the Supplementary Retirement Benefits Account.

The previous actuarial review was made as at December 31, 1982.

II. Cost Certificate

The normal actuarial cost each year is the cost of benefits earned in respect of service during that year. Assuming sufficient new entrants to maintain the Force at its 1985 level, the normal actuarial costs are estimated to be the following percentages of remuneration for the four years following the review date:

<u>Year</u>	<u>Payable by</u> <u>Contributors*</u> (%)	<u>Effective Cost</u> <u>to Government</u> (%)	<u>Total</u> <u>Normal</u> <u>Cost</u> (%)
1986	6.34	9.82	16.16
1987	6.25	10.29	16.54
1988	6.17	10.86	17.03
1989	6.10	11.72	17.82

The upward trend in the total normal cost can be ascribed primarily to the pattern of the interest rates assumed (relatively high rates in the early years and then declining gradually over the next two decades).

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\* Contributions payable by members consist of (a) 6.5 per cent of salary less Canada Pension Plan (CPP) contributions for those with less than 35 years of pensionable service plus (b) 1 per cent of salary regardless of length of pensionable service. These contribution rates were converted into an equivalent uniform percentage applicable to salaries during the year in question for members with less than 35 years of pensionable service, allowing for increases in the CPP contribution rate effective January 1, 1987 and each year thereafter.

The actuarial surplus as at December 31, 1985, is estimated to be \$163.2 million. This is considered to be a realistic assessment at the present time. However, it is important to recognize the nature of the underlying assumptions. The dynamic economic assumptions that have been used make allowance for the high rates of interest on existing notional investments and contain only a relatively small margin for increases in wage levels above those experienced in the last few years.

The recurrence of relatively higher levels of increases in salaries and prices could result in a return to more traditional levels of real interest rates which in turn would produce estimation adjustments (unfunded actuarial liabilities). Some protection against this is provided by the margin in the assumed interest rates; if it were removed, total liabilities would be reduced by 13 per cent and the total normal cost by 16 per cent.

The actuarial method and assumptions are described in Sections III and IV. The assumptions include rates of interest, increases in salary levels and increases in the Consumer Price Index which reach ultimate levels of 6 per cent, 5 per cent and 3.5 per cent, respectively. If these long-term rates were assumed to apply, beginning at the date of valuation, the normal costs would appear as follows:

<u>Year</u>	<u>Payable by</u> <u>Contributors</u> (%)	<u>Effective Cost</u> <u>to Government</u> (%)	<u>Total</u> <u>Normal</u> <u>Cost</u> (%)
1986	6.34	23.15	29.49
1987	6.25	23.10	29.35
1988	6.17	23.12	29.29
1989	6.10	23.14	29.24

The foregoing table assumes a long-term real interest rate of about 2.4 per cent which may be regarded as reasonably consistent with investment in long-term government bonds. If the notional investments were more in line with private sector pension funds, it would be reasonable to use an assumed interest rate one percentage point higher, in which case the normal costs would appear as follows:

<u>Year</u>	<u>Payable by</u> <u>Contributors</u> (%)	<u>Effective Cost</u> <u>to Government</u> (%)	<u>Total</u> <u>Normal</u> <u>Cost</u> (%)
1986	6.34	15.95	22.29
1987	6.25	16.01	22.26
1988	6.17	16.13	22.30
1989	6.10	16.24	22.34

### III. Actuarial Method

The actuarial method used is known as the unit credit actuarial cost method. It contemplates contributions in any year sufficient to fund all future benefits in respect of service during that year. This method is the one included in the "Accounting Recommendations - April 1986" in respect of "Pension Costs and Obligations" as well as "Public Sector Accounting Statement 5 - September 1988" issued by the Canadian Institute of Chartered Accountants.

The normal actuarial cost (current service contributions) may be affected by changes in the underlying economic and demographic assumptions as well as by changes in the distribution of contributors, for example, by age, sex and salary.

The actuarial liability is the actuarial present value of projected benefits assumed to have accrued in respect of service to the effective date of the valuation. The actuarial liability may be affected by net gains or losses from experience as well as by changes in assumptions.

IV. Actuarial Assumptions

A. Economic Assumptions

After consultation with the Department of Finance and the Treasury Board Secretariat, the Chief Actuary adopted the following assumptions which take into account recent developments.

Year	<u>Rates of Interest</u>			<u>Assumed Increases in CPI</u>	<u>Assumed General Salary Increases</u>	<u>Assumed Rate of Indexing</u>
	<u>Assumed on New Money</u>	<u>Projected** Fund Yield</u>	<u>Assumed Fund Yield</u>			
	%	%	%	%	%	%
1986*	Diverse	11.1	11.1	4.1	6.2	3.9
1987*	"	11.1	11.1	4.4	5.9	4.1
1988*	"	11.1	11.1	4.1	4.2	4.3
1989*	10.9	11.1	10.1	4.8	4.4	4.1
1990	10.2	11.0	10.0	4.4	3.3	4.6
1991	9.4	11.0	10.0	5.7	3.2	4.5
1992	8.5	10.9	9.9	3.0	3.0	5.4
1993	7.9	10.8	9.8	2.7	3.0	3.7
1994	7.3	10.6	9.6	2.5	3.0	2.8
1995	6.8	10.4	9.4	3.0	4.0	2.6
1996	6.4	10.1	9.1	3.5	5.0	2.9
1997	6.1	9.9	8.9	3.5	5.0	3.4
1998	6.0	9.6	8.6	3.5	5.0	3.5
1999	6.0	9.4	8.4	3.5	5.0	3.5
2000	6.0	9.1	8.1	3.5	5.0	3.5
2001	6.0	8.8	7.8	3.5	5.0	3.5
2002	6.0	8.4	7.4	3.5	5.0	3.5
2003	6.0	8.1	7.1	3.5	5.0	3.5
2004	6.0	7.9	6.9	3.5	5.0	3.5
2005	6.0	7.6	6.6	3.5	5.0	3.5
2006	6.0	7.4	6.4	3.5	5.0	3.5
2007	6.0	7.3	6.3	3.5	5.0	3.5
2008	6.0	7.1	6.1	3.5	5.0	3.5
2009	6.0	6.9	6.0	3.5	5.0	3.5
2010	6.0	6.5	6.0	3.5	5.0	3.5
2011	6.0	6.4	6.0	3.5	5.0	3.5
2012	6.0	6.3	6.0	3.5	5.0	3.5
2013	6.0	6.2	6.0	3.5	5.0	3.5
2014	6.0	6.1	6.0	3.5	5.0	3.5
2015	6.0	6.0	6.0	3.5	5.0	3.5
2016	6.0	6.0	6.0	3.5	5.0	3.5

\* See footnote\* on page 5.

\*\* See footnote\*\* on page 5.

As compared to the economic assumptions shown on page 24 of the actuarial report as at December 31, 1982, the most important change is that, on average, the assumed fund yield during the next 20 years is more than 1 per cent higher. The other economic assumptions in the current report (CPI, indexing and general salary increases) are similar in the early years following the valuation and ultimately the same as those shown on page 24 of the previous report. As a result of the changes in the economic assumptions, the total normal cost has declined by 4.56 per cent of salary and the actuarial liability by \$437.0 million (see Sections VI and VII).

#### B. Promotional Pay Increases

A study of the rates of pay for contributors from December 31, 1982 to December 31, 1985 indicated higher increases than assumed in the three preceding valuations for ages up to 26 and lower increases for higher ages. This resulted in an operational gain of \$46.0 million. A new set of pay increase rates giving 50 per cent credibility to the recent experience was developed. The new scales are shown in Appendix 3.

#### C. Retirement or Termination (for reasons other than death)

##### 1. Termination with Return of Contributions

The actual number of terminations among male and female contributors during the 1983-85 period was about 46 per cent lower than the number expected in accordance with the 1982 assumptions, thereby creating an operational loss of \$27.0 million. New rates were developed related to the 1980-85 experience which were about 28 per cent lower than those assumed in the preceding valuation and such that the actual 1983-85 terminations would be 24 per cent less than expected on the basis of the new rates. The new rates are shown in Appendix 4.

##### 2. Disability

The numbers of disabilities reported during the 1980-82 and 1983-85 periods (28 and 33, respectively) were substantially less than expected in accordance with the rates assumed in the two preceding valuations. New rates were developed, giving 50 per cent credibility to the 1980-85 experience. The rates are shown in Appendix 4.

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\* Assumptions for 1986 to 1988 and the rate of indexing for 1989 are based on actual experience. The interest rate on new money in 1986, 1987 and 1988 varied between 9.7 per cent and 10.7 per cent, between 9.4 per cent and 10.9 per cent and between 10.1 per cent and 10.5 per cent, respectively.

\*\* The projected fund yield is based on the assumption that any actuarial deficits projected to exist at December 31, 1989 under this plan or under the plans established pursuant to the Public Service Superannuation Act or the Canadian Forces Superannuation Act in conjunction with the provisions of the Supplementary Retirement Benefits Act, would be liquidated on January 1, 1990 and that no further contributions would be received after 1989 under any of the plans.

3. Retirement

The actual rates of retirement during the 1983-85 period were substantially lower than expected but above age 50 were higher than experienced during the 1980-82 period. New rates were constructed, giving 50 per cent credibility to the 1983-85 experience. These rates are shown in Appendix 4.

D. Mortality, Remarriage and Student Eligibility

1. Active Contributors

There were only 40 deaths during the 1983-85 period which was substantially less than expected in accordance with the rates assumed in the preceding valuation. The rates of the 1983 GAM Table projected 10 years according to Scale H and set back three years were found to be appropriate and were adopted for this valuation. They are shown in Appendix 4.

2. Former Contributors Entitled to Annuities or Annual Allowances

Different mortality rates generally apply to persons entitled to pensions because of disability as compared to persons entitled for other reasons. However, as the group of disability pensioners is relatively small, being 136 out of the 2,717 entitled to pensions at December 31, 1985, we have continued to assume the same rates of mortality for both groups. Although there were only 68 deaths during the 1983-85 period, the experience indicated that the mortality rates used in the preceding valuation no longer contained enough margin for future improvement in mortality. For this valuation it was assumed that the 1983 GAM Table was applicable to the year 1983 and that the rates for later years would be determined by means of projection factors. The mortality rates for 1986 and the projection factors are shown in Appendix 5. Sections VI and VII show that the adoption of the new mortality rates increased substantially both the total normal cost and actuarial liability.

3. Surviving Spouses (see footnote \*\*\* on page 8)

The mortality rates adopted for the valuation of benefits to former contributors were considered to be equally appropriate for the valuation of both present and prospective spouses' allowances. The remarriage rates used for purposes of actuarial reports No. 8 and 10 on the Canada Pension Plan were used again. Samples of the remarriage rates are shown in Appendix 6.

4. Children and Students (see footnote \*\*\* on page 8)

Allowances to children are payable up to age 18 in all circumstances and from age 18 up to age 25 if the child is unmarried and attending a school or university. As in preceding valuations, the effect of mortality among these annuitants was ignored.



For purposes of valuing allowances in payment for students, the probability of a student at any age remaining eligible for an allowance at the end of one year was derived from recent experience under the Canadian Forces Superannuation Act. The probabilities are shown in Appendix 6.

E. Proportions of Deceased Contributors (Including Annuitants) Married at Death, and Average Ages of Spouses Corresponding to Ages of Contributors at Death

The proportions leaving eligible spouses and the average ages of the surviving spouses used in the preceding valuation were deemed to remain appropriate, except that for the average ages of widowers corresponding to ages of female contributors and annuitants at death, the assumptions developed for the pension plan for the Public Service of Canada were used. Both these factors are shown for quinquennial ages in Appendix 7.

F. Integration with Canada Pension Plan

Reductions in benefits and contributions to provide for integration with the Canada Pension Plan apply only in respect of salary up to the Year's Maximum Pensionable Earnings (YMPE) as defined in the Canada Pension Plan.

For purposes of this valuation, it was assumed that the YMPE for 1986 (\$25,800) which is increasing in proportion to average wages would increase at the rates assumed for general pay increases.

G. Male Civilian and Female Members of the Force

It is reasonable to expect that such factors as rates of retirement, withdrawal, disability and mortality applicable to the male civilian members and to the female members would be different from those applicable to the regular male members of the Force. However, since the civilian and female members of the Force constitute only about 15 per cent of the total number of contributors, we have continued to make no distinction between these groups in the valuation, except as respects the mortality and remarriage rates of female versus male pension recipients and the relative ages of eligible spouses.

V. Data and Membership Statistics

The Royal Canadian Mounted Police provided the basic data tapes containing seriatim records. All records were examined for consistency, inter-relationships and general reasonableness both with regard to individual members or survivors and with regard to previous data submissions. In instances where necessary corrections could not be obtained, reasonable assumptions and/or substitutions were introduced.

The following tables derived from those tapes show pertinent statistics concerning contributors to the Account (members and former members of the Royal Canadian Mounted Police) and survivors eligible for allowances during the intervaluation period from December 31, 1982 to December 31, 1985.

A. Members of the Force

Class of Contributors	*Contributors on 83-01-01	New Contributors 1983-1985	<u>Terminations During the 1983-85 Period</u>				Contributors on 85-12-31	
			Type of Benefit	Type of Termination				
				Death	Disabled	Other**	Total	
Officers	720	-	Annuity	2	3	53	58	662
			Lump Sum	=	=	=	=	
				2	3	53	58	
Other Ranks	14,472	741	Annuity	27	20	406	453	14,346
			Lump Sum	3	-	411	414	
				30	20	817	867	
Civilians	1,805	331	Annuity	8	10	49	67	1,926
			Lump Sum	=	=	143	143	
				8	10	192	210	
Total	16,997	1,072	Annuity	37	33	508	578	16,934
			Lump Sum	3	-	554	557	
				40	33	1,062	1,135	

\* In this column, 179 contributors who had other rank status on January 1, 1983 and who attained officer status at some time during the 1983-85 period are shown as officers rather than other ranks.

\*\* Compulsory retirement because of age, promotion of economy or efficiency, misconduct, together with all retirements for other reasons.

\*\*\* The Statute Law (Superannuation) Amendment Act, assented to on June 29, 1989, removed the provisions in the RCMP SA under which (i) pensions to surviving spouses were suspended on remarriage, and (ii) a deceased contributor's child between the ages of 18 and 25 in full-time attendance at a school or university had to be unmarried in order to qualify for a children's allowance. This valuation, made as at December 31, 1985, is based on the provisions of the RCMP SA as they existed on that date. As required by the PPRA, an actuarial review of the cost implications of the amendment will be made when the data with respect to the reinstated pensions become available.

B. Persons Entitled to Annuities or Annual Allowances

Retired Contributors\*

	Entitled <u>1983-01-01</u>	New Entitlements <u>1983 to 1985</u>	Terminations <u>1983 to 1985</u>		Entitled <u>1985-12-31</u>
			Deaths	Other**	
<u>Other than disability</u>					
Male	2,103	486	63	11	2,515
Female	<u>44</u>	<u>22</u>	-	-	<u>66</u>
Total	2,147	508	63	11	2,581
<u>Disability</u>					
Male	100	28	5	-	123
Female	<u>8</u>	<u>5</u>	-	-	<u>13</u>
Total	108	33	5	-	136
<u>Grand total</u>	2,255	541	68	11	2,717

Surviving Spouses

	Entitled <u>1983-01-01</u>	New Entitlements <u>1983 to 1985</u>	Terminations <u>1983 to 1985</u>			Entitled <u>1985-12-31</u>
			Deaths	Remarriages	Other***	
Widows	281	64	9	3	3	330
Widowers	<u>2</u>	-	-	-	-	<u>2</u>
Total	283	64	9	3	3	332

Children and Students

	Entitled <u>1983-01-01</u>	Entitled <u>1985-12-31</u>
Children under 18	131	127
Students (18 to 25)****	<u>22</u>	<u>29</u>
Total	153	156

\* Includes former contributors entitled to deferred annuities (19 as at December 31, 1985).

\*\* Re-enrollments in the Force and transfers to other superannuation plans.

\*\*\* Ineligible spouse or lump sum payment.

\*\*\*\* Estimated.

VI. Normal Actuarial Cost

Normal actuarial costs, i.e., the total rates required from contributors and the Government to reflect the costs of benefits in respect of future service, are shown in Section II.

The total normal cost for 1986 on the basis of the assumptions described in Section IV is shown in Section II as 16.16 per cent of salary, while on the basis of the assumptions in Appendix 1C of the preceding report, the corresponding figure would be 19.90 per cent. The various factors accounting for the decrease of 3.74 per cent of remuneration are shown below:

	<u>Increase (Decrease)</u> (% of salary)
Economic assumptions	(4.56)
Promotional salary increases	(0.94)
Retirement rates	(0.31)
Termination rates	0.97
Mortality rates among pensioners and dependents	1.11
Miscellaneous	<u>(.01)</u>
	(3.74)

VII. Valuation Balance Sheet and Gain and Loss Analysis

The results of the valuation as at December 31, 1985, based on the actuarial method and assumptions described in Sections III and IV, respectively, are shown in the following balance sheet:

Assets

	(\$ millions)	
Balance of Accounts*		
RCMPSA	2,096.6	
SRBA	<u>144.7</u>	2,241.3
Actuarial present value of future instalments of past service contributions plus future credits from the Government (assumed equal to 1.84 times the amount from contributors)		<u>7.4</u>
Total assets		2,248.7

Liabilities

Actuarial present value of prospective benefits to and in respect of members of the Force		1,538.6
Actuarial present value of benefits to persons entitled to an annuity or annual allowance		
Disabled contributors	20.9	
Others, including deferred annuitants	502.2	
Spouses	23.3	
Children and students	<u>0.5</u>	<u>546.9</u>
Total actuarial liability		2,085.5
Surplus		<u>163.2</u>
		2,248.7

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\* The balances include outstanding government credits related to interest and to members' contributions up to December 31, 1985, amounting to \$73.4 million for the two accounts combined.

The foregoing balance sheet indicates a surplus of \$163.2 million. This represents an improvement of some \$268.3 million in the financial position of the plan in comparison to the unfunded liability of \$105.1 million shown on page 25 of the previous report. The major actuarial gains and losses which account for this improvement are as follows:

Actuarial Gains and Losses  
(in millions of dollars)

	<u>Gain</u>	<u>Loss</u>	<u>Net Gain (Loss)</u>
Operational gains and losses			
- Interest on 1982 unfunded liability		37.5	
- Retirements	13.5		
- Terminations		27.0	
- Mortality of contributors		0.4	
- Pensioner and survivor mortality		0.3	
- Family composition	3.4		
- Promotional pay increases	46.0		
- Interest*		49.9	
- Contribution rate deficiency		3.7	
- Indexing benefits charged directly to Consolidated Revenue Fund	17.9		
- Indexation	1.5		
- Prior service		2.2	
- Data corrections		2.5	
- Miscellaneous (net)	<u>          </u>	<u>17.9</u>	
	82.3	141.4	(59.1)
Changes in actuarial assumptions and methods			
- Economic assumptions	437.0		
- Promotional salary scale	64.3		
- Retirement (non-disability)	37.9		
- Termination		68.2	
- Pensioner and survivor mortality		124.7	
- Procedural changes		13.4	
- Other assumptions and methods (net)**	<u>          </u>	<u>5.5</u>	
	539.2	211.8	327.4
Total net gain			268.3

\* Had all interest earned been credited to the fund, there would have been a gain from interest of \$10.0 million. However, \$59.9 million of interest in excess of 6 per cent per annum was applied to reduce instalments being charged to the Consolidated Revenue Fund in respect of unfunded liabilities. For further information, see Item B3 of Appendix 2.

\*\* Includes \$2.6 million loss from assuming the government's prior service contributions equal to 1.84 times amounts from contributors rather than 2.84 times, as assumed in the preceding report.

VIII. Acknowledgements

In closing we wish to acknowledge the co-operation of the Departmental Services Office of the Royal Canadian Mounted Police which supplied us with the data on members and former members of the Force and their surviving spouses and children.

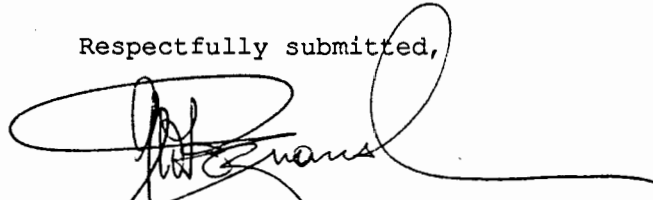
IX. Actuarial Opinion

In my opinion, for the purposes of this actuarial report

- (a) the data on which this report is based are sufficient and reliable;
- (b) the assumptions that have been used are adequate and appropriate;
- (c) the methods that have been employed are consistent with sound actuarial principles.

This report has been prepared and this opinion has been given in accordance with generally accepted actuarial principles and the recommendations of the Canadian Institute of Actuaries.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'G.W. Poznanski', with a long horizontal flourish extending to the right.

G.W. Poznanski, F.S.A., F.C.I.A.  
Chief Actuary

Ottawa, Canada  
December 5, 1989

APPENDIX 1

Estimates Relating to the Existing Financing Provisions of  
the Royal Canadian Mounted Police Superannuation Act

The existing financing provisions of the RCMPSPA contemplate the recognition of actuarial liabilities relating to basic RCMPSPA benefits, but not of those relating to indexing pursuant to the Supplementary Retirement Benefits Act.

The RCMPSPA provides for the liquidation of any unfunded actuarial liability and for special credits to the Royal Canadian Mounted Police Superannuation Account relating to pay increases in excess of the rates assumed in the preceding actuarial report.

On the basis of the assumptions described in Section IV of this report, but eliminating the provision for indexing, it was estimated that as at December 31, 1985, the assets relating to the RCMPSPA amounting to \$2,103 million exceeded the actuarial liabilities by about \$785 million.

With regard to pay increases, it was estimated on the basis of the same assumptions that additional liabilities arising out of general pay increases in excess of the assumed rate for a year are equivalent to 1.90 times the increase in the effective payroll in excess of the increase assumed for the year.



APPENDIX 2

Summary of the Pension Plan Established under the  
Royal Canadian Mounted Police Superannuation Act (RCMPSA)

A. Coverage

Persons covered by the RCMPSA comprise

- (a) all members of the Royal Canadian Mounted Police, referred to herein as the "Force",
- (b) former members of the Force who are entitled to annuities payable out of the RCMP Account, and
- (c) spouses and children of deceased contributors who are entitled to annual allowances payable out of the RCMP Account.

B. Credits and Charges to the Royal Canadian Mounted Police Superannuation Account (RCMPSA) and the Supplementary Retirement Benefits Account (SRBA)

1. Contributions from Contributors

The rate of contribution to the RCMPSA is 6.5 per cent of pay reduced by the amount that the contributor is required to contribute under the Canada Pension Plan in respect of pay received as a member of the Force. (For example, in 1988 the reduction was 2.0 per cent of pay between \$2,600 and \$26,500 per annum.) Contributions for current service cease when a contributor has credit for 35 years of pensionable service.

In addition, all contributors regardless of length of service are required to contribute 1 per cent of pay to the SRB Account.

A contributor may elect to contribute in respect of any period of prior pensionable service as described in Note 1 on page 24.

A member may elect to contribute for a period of prior pensionable service within a year of becoming a contributor. The amount required to be contributed is equal to the total contributions that the member would have had to make during that period of prior pensionable service if the contributions had been computed for any period of service described in Note 1. The contributions will be based on the rate of pay applicable to the contributor on the most recent occasion on which he or she became a contributor under the RCMPSA. The rates of contribution will be those applicable to the period, adjusted for integration with the Canada Pension Plan. All contributions are increased by simple interest at the rate of 4 per cent per annum from the middle of each fiscal year of prior service to the date of election.

If an election in respect of a period of prior pensionable service is not made within the prescribed time, a contributor may make an election at any later time while still a member of the Force, subject to evidence of good health at date of election. However, the rate of pay used in determining the contributions for such prior service will be the rate of pay authorized to be paid to the contributor at the time the election is made.

Contributions in respect of prior service may be paid in a lump sum, or by monthly instalments, payable for life, or for a period ceasing upon death or completion of a fixed number of years whichever is earlier. Monthly instalments are computed on the basis of the Canadian Life Table No. 2 (1941) Males or Females, as the case may be, and interest at 4 per cent per annum.

2. Contributions from Employer

The Government, as employer, credits the RCMPs and SRB Accounts with amounts related to the contributions from members or retired members of the Force in respect of current and past service. With respect to the SRB Account, the amount matches the contributions from members or retired members. For the RCMPs Account, the actual amount is specified by the Minister of Finance and since April 1, 1978 has been equal to twice the amount received from contributors in the preceding quarter.

In addition, the Government credits the RCMPs Account with such amounts as, in the opinion of the Minister of Finance, are required to provide for the increase in cost of the benefits payable under the RCMPSA as a result of any pay increase applicable to at least 1 per cent of the members of the Force or are required to meet the cost of benefits payable under the RCMPSA as shown by the most recent actuarial report.

The technique for financing the special employer contributions has been to credit to the RCMPs Account the full amount estimated to be required in the fiscal year that the pay increase is authorized or the actuarial report is laid before Parliament and to charge such amounts to the Consolidated Revenue Fund in five equal annual instalments beginning in such fiscal year.

3. Interest

In its role as custodian of the account, the Government credits the RCMPs Account with amounts representing interest on the balance in that Account from time to time calculated at the interest rate assumed in the preceding actuarial valuation and at such supplementary rate as may be provided by regulation. However, the Minister may apply such supplementary interest to reduce the instalments being charged to the Consolidated Revenue Fund in respect of increases in costs due to pay increases and in respect of unfunded actuarial liabilities indicated in actuarial reports.

Until the quarter ending June 30, 1969, interest was credited to the RCMPs Account on the last day of each quarter in the fiscal year at the rate of 1 per cent of the balance to the credit of that Account on the last day of the preceding quarter, i.e. approximately 4 per cent per annum. The total rate at which interest is now credited to the RCMPs Account changes every three months and is calculated as if the amounts not required for payment of benefits in each quarter pursuant to the RCMPSA and the Public Service and Canadian Forces Superannuation Acts had been invested on a basis similar to the one used for the Canada Pension Plan, i.e., in 20-year bonds having a yield equivalent to the average yield on Government of Canada bonds with 20 or more years to maturity outstanding at that time.

Interest is credited to the SRB Account at the end of each quarter. The amount of the interest is calculated monthly on the minimum balance at a rate of interest representative of the yield on outstanding Government of Canada bonds having a term to maturity of five years, less 0.125 per cent.

4. Payments of Benefits

All payments pursuant to the RCMPSA (i.e. excluding indexing) are charged to the RCMPA Account. Benefits resulting from indexing pursuant to the SRBA are charged to the SRB Account only until the accumulated total paid in respect of a former contributor equals the aggregate of all amounts credited to the SRB Account in respect of that person, including interest. SRBA benefits paid in excess of that aggregate are then charged directly to the Consolidated Revenue Fund.

C. Summary of Benefits

1. Contributors Who Hold a Rank in the Force

<u>Type of Termination</u>	<u>Benefit Depending On Service (Note 1)</u>	
	<u>Under 10 Years of Service in the Force*</u>	<u>10 or More years of Service in the Force</u>
Retirement because of age (Note 2)	Return of contributions (Note 3), or cash termination allowance (Note 4), whichever is the greater	Immediate annuity (Note 5)
Compulsory retirement to promote economy or efficiency in the Force	Return of contributions	a) With 10 to 20 years at option of contributor: return of contributions, deferred annuity (Note 6), or reduced immediate annuity (Note 7)  b) With 20 or more years: immediate annuity

\* A contributor who holds a rank in the Force must have 10 or more years of pensionable service to qualify for a benefit other than a return of contributions or a cash termination allowance.

<u>Type of Termination</u>	<u>Under 10 Years of Service in the Force</u>	<u>10 or More Years of Service in the Force</u>
Compulsory retirement because of misconduct	Return of contributions, or in the discretion of the Treasury Board (Note 8) cash termination allowance if the contributor has reached retirement age	Return of contributions, or in the discretion of Treasury Board (Note 8) a) if the contributor has reached retirement age: immediate annuity b) if the contributor has not reached retirement age: deferred annuity, reduced annuity (immediate), or immediate annuity
Voluntary retirement - officer contributors	Return of contributions	a) With 10 to 20 years: return of contributions b) With 20 to 35 years, unless qualified in (c) below, at option of contributor: return of contributions, deferred annuity or annual allowance (Note 10) c) With 30 or more years of pensionable service at age 55 or older: immediate annuity d) With 35 or more years: immediate annuity
Voluntary retirement - contributors other than officers	Return of contributions	a) With 10 to 20 years, at option of contributor: return of contributions, or deferred annuity b) With 20 to 25 years: annual allowance (Note 9) c) With 25 or more years: immediate annuity

<u>Type of Termination</u>	<u>Under 10 Years of Pensionable Service</u>	<u>10 or More Years of Pensionable Service</u>
Compulsory retirement because of disability	Return of contributions, or cash termination allowance, whichever is greater	Immediate annuity

2. Contributors Who Do Not Hold a Rank in the Force

<u>Type of Termination</u>	<u>Under 5 Years of Pensionable Service</u>	<u>5 or More Years of Pensionable Service (Note 1)</u>
Retirement because of age (Note 2)	Return of contributions	Immediate annuity
Compulsory retirement because of disability	Return of contributions or cash termination allowance, whichever is greater	Immediate annuity
Compulsory retirement because of misconduct	Return of contributions	Return of contributions or in the discretion of the Treasury Board (Note 8)
		a) if the contributor has reached retirement age: immediate annuity
		b) if the contributor has not reached retirement age: deferred annuity, annual allowance (Note 10) or immediate annuity

<u>Type of Termination</u>	<u>Under 5 Years of Pensionable Service</u>	<u>5 or More Years of Pensionable Service</u>
Retirement for any other reason	Return of contributions	a) With 35 or more years service in the Force: immediate annuity  b) With 30 or more years of pensionable service at age 55 or older: immediate annuity  c) In all other cases, at the option of the contributor, return of contributions, deferred annuity or one of the following benefits:  (i) with 25 or more years of pensionable service at age 50 or older: immediate annual allowance  (ii) if compulsorily retired at age 55 or older with 10 or more years of service in the Force: immediate annual allowance  (iii) in all other cases  if age 50 or over: immediate annual allowance  if under age 50: deferred annual allowance

3. All Active Contributors

<u>Type of Termination</u>	<u>Under 5 Years of Pensionable Service</u>	<u>5 or More Years of Pensionable Service</u>
Death leaving no spouse or eligible children under age 25 (Note 11)	Return of contributions to nominated beneficiary, otherwise to estate	Return of contributions or five times the annuity to which contributor would have been entitled, whichever is greater (Note 13)
Death leaving spouse and/or eligible children under age 25	Return of contributions, or an amount equal to one month's pay for each year of pensionable service, whichever is greater	Annual allowance to surviving spouse and/or children (Notes 12 and 13)

4. Former Contributors Entitled to Immediate Annuities, Annual Allowances or Deferred Annuities

<u>Type of Termination</u>	<u>Benefit</u>
Death leaving no spouse or eligible children under age 25	Minimum benefit (Note 13)
Death leaving spouse and/or eligible children under age 25	Annual allowance



5. Indexing

The Supplementary Retirement Benefits Act (SRBA) was enacted in 1970 to provide benefit adjustments related to increases in the cost of living for persons in receipt of pensions payable out of the Consolidated Revenue Fund. This Act applies to former contributors to the RCMP Account and their surviving spouses and children who are entitled to annuities or annual allowances.

The supplementary benefit is calculated by multiplying the amount of the annuity or annual allowance to which the person is entitled from the RCMP Account by the ratio of the Benefit Index for the year of payment to the Benefit Index for the year in which the person to whom or in respect of whose service the pension is payable ceased to be employed, and subtracting the amount of the annuity or annual allowance. The Benefit Index for the years prior to 1971 is shown in a Schedule in the Act. The Benefit Index for any year after 1970 is equal to the Benefit Index for the preceding year multiplied by the average of the Consumer Price Index for Canada for the twelve-month period ending on September 30 of that preceding year and divided by the average for a corresponding period one year earlier. Prior to 1973, the increase in the initial Benefit Index was limited to a maximum of 2 per cent in any year. An amendment to the Supplementary Retirement Benefits Act in 1973 removed that limit and provided that the increase payable in January 1974 would take into account increases in the Consumer Price Index above the 2 per cent ceiling since 1970. In January 1983, an amendment made as part of a general economic restraints program limited the increase for 1983 and 1984 to 6.5 per cent and 5.5 per cent, respectively. Since 1983 the initial increase in the Benefit Index is prorated in respect of annuitants who have been in receipt of benefits for less than the full preceding calendar year (i.e. for contributors who retired or in respect of contributors who died during the preceding year).

Under the terms of the original Act of 1970, the supplementary benefits were payable to all former contributors in receipt of annuities or annual allowances who had attained age 60 or, if less than that age, were disabled and to all spouses and children in receipt of annual allowances. The amendments effective January 1, 1973 provided for the payment of benefits to former contributors aged 55 to 59 in receipt of annuities or annual allowances in cases where the total of years of service plus age equals or exceeds 85 years.

D. Explanatory Notes

Note 1: Service

1. Service in the Force

For purposes of the plan, "service in the Force" includes any period of service as a special constable of the Force before the date on which the RCMPSA came into force and any period of service as a member of a provincial or municipal police force that has been taken over by the Force.

2. Pensionable Service

Pensionable service is described in detail in the RCMPSA. In general, the pensionable service of a contributor includes any period of "service in the Force" (see above) for which he or she has contributed or has elected to contribute. It may also include other periods of prior service not in the Force for which he or she has elected to contribute in accordance with the provisions of the RCMPSA, namely:

- (a) a period of service
  - (i) on active service in the armed forces during World War I or World War II,
  - (ii) in the Canadian Army Special Force established in 1950,
  - (iii) in the regular force,
  - (iv) in forces raised by Canada other than the regular force, provided that such service was full-time service lasting for six months or more,
  
- (b) a period of full-time paid employment in the Public Service,  
and
  
- (c) a period of service as a former member of the House of Commons or as a former Senator in respect of which he or she made contributions under the Members of Parliament Retiring Allowances Act.

Note 2: Retirement Because of Age

In this summary, "retirement because of age" means ceasing to be a member of the Force on or after reaching the prescribed retirement age applicable to the member's rank, or at age 60 or above in the case of a civilian member, provided the contributor is not being retired because of disability or misconduct. The retirement ages prescribed in the regulations are shown below:

	<u>Rank</u>	<u>Retirement Age</u>
(a)	Commissioner	62
(b)	Deputy Commissioner	61
(c)	All other officers and all members of the Force not holding a rank in the Force	60
(d)	Corps Sergeant Major, Staff Sergeant Major, Sergeant Major, Staff Sergeant	58
(e)	Sergeant	57
(f)	Corporal, Constable, Special Constable, Marine Constable	56

Note 3: Return of Contributions

"Return of contributions" means the payment of an amount equal to the total current and prior service contributions paid by the contributor into the RCMP and SRB Accounts or paid into any other superannuation account or pension fund and transferred to the RCMP and SRB Accounts plus interest on all amounts at the rate of 4 per cent per annum to December 31st of the year immediately preceding the year the contributor ceased to be a member of the Force. Interest is credited each December 31st (beginning in 1974) on the accumulated contributions with interest as at the prior December 31st.

Note 4: Cash Termination Allowance

"Cash termination allowance" means an amount equal to one month's pay at the rate authorized to be paid to the contributor at date of termination multiplied by the number of years of pensionable service to the credit of the contributor minus the total reduction in contributions to the RCMP Account as a result of integration of the Plan with the Canada Pension Plan.

Note 5: Immediate Annuity

"Immediate annuity" means an annuity that becomes payable immediately upon retirement. The annual amount of the annuity is equal to 2 per cent of the contributor's average annual pay in respect of any selected six-year period of pensionable service multiplied by the number of years of pensionable service not exceeding 35. For a contributor who has reached age 65 or is entitled to a disability pension under the Canada Pension Plan or the Quebec Pension Plan, the amount of the annuity which is payable under the RCMPSA is reduced by 0.7 per cent of the average annual pay, not exceeding the "Average Maximum Pensionable Earnings" used in determining the amount of the annuity, multiplied by the number of years of pensionable service after 1965 or after attaining age 18, whichever is later, but not exceeding 35 years. "Average Maximum Pensionable Earnings" is the average of the Year's Maximum Pensionable Earnings, as defined in the Canada Pension Plan, during the contributor's last three years of service.

All annuities are normally payable in equal monthly instalments in arrears until the end of the month in which the contributor dies.

Note 6: Deferred Annuity

"Deferred annuity" means an annuity that becomes payable upon attainment of age 60. The annual payment is determined on the same basis as for an immediate annuity.

If a former contributor under the age of 60 eligible for a deferred annuity under the RCMPSA becomes disabled, the annuity is converted to an immediate annuity. If the contributor later ceases to be entitled to a disability pension and has not reached age 60, the immediate annuity reverts to a deferred annuity.

Note 7: Reduced Immediate Annuity

"Reduced immediate annuity" means an immediate annuity where the annual amount of annuity determined in Note 5 is reduced until such time as the contributor reaches age 65 but not thereafter, by 5 per cent for each full year not exceeding six by which the period of his or her service in the Force is less than 20 years.

This type of annuity may be chosen by a contributor who holds a rank in the Force with 10 but less than 20 years of service in the Force:

- (a) if he or she is compulsorily retired prior to his or her normal retirement age due to a reduction in the Force, or
- (b) at the discretion of the Treasury Board, if he or she is compulsorily retired to promote economy or efficiency (Note 8).

Note 8: Retirement Because of Misconduct

In the case of compulsory retirement because of misconduct, the contributor is entitled to a return of contributions or, in the discretion of the Treasury Board, the whole or any part specified by the Treasury Board of any benefit to which he or she would have been entitled by reason of his or her age and length of service if he or she had been retired because of age, compulsorily retired to promote economy or efficiency or, in the case of a civilian member, retired for any other reason. In no case, however, shall the capitalized value of any reduced benefit (based by Regulation on the a(f) and a(m) ultimate mortality table and an interest rate of 4 per cent) be less than the return of contributions.

Note 9: Annual Allowance (Other than Officers or Civilian Members)

"Annual allowance", in the case of a contributor other than an officer or a civilian member, means an immediate annuity, reduced by 5% for each full year by which (a) the period of his or her service in the Force is less than 25 years, or (b) his or her age at time of retirement is less than the retirement age applicable to his or her rank, whichever is the lesser.

Note 10: Annual Allowance (Officers or Civilian Members)

"Annual allowance", in the case of an officer or a civilian member (i.e., a contributor who does not hold a rank), means an optional annuity payable immediately or when the contributor attains age 50, if later. The amount of the allowance is equal to the amount of the deferred annuity to which he or she is entitled reduced by 5 per cent of such annuity multiplied by (a) the greater of 55 minus his or her age and 30 minus the number of years of pensionable service, if the contributor had more than 25 years of pensionable service (and in the case of a civilian, attained age 50), (b) 30 minus the number of years of pensionable service, in the case of a civilian contributor compulsorily retired for any reason at age 55 or older with 10 years of service in the Force, or (c) 60 minus the age when the allowance becomes payable, in every other case. However, the reduction in (b) may be waived by the Treasury Board. Age and service are expressed in the nearest one-tenth of a year.

This type of annual allowance may be chosen by

- (a) an officer who retires voluntarily and has 20 or more years of service in the Force and is not entitled to a full immediate annuity by reason of having 35 years of service in the Force or having attained age 55 with 30 or more years of pensionable service;
- (b) a civilian member who retires for any reason other than disability or misconduct with five years of service in the Force and five years of pensionable service and is not entitled to a full immediate annuity.

If a former contributor entitled to an annual allowance commencing at age 50 becomes disabled before reaching age 50, his or her entitlement changes from an annual allowance deferred to age 50 to an immediate annuity.

Note 11: Eligible Children

The expression "eligible children under 25" includes all children of the contributor under age 18, and any child of the contributor age 18 or over but under 25, unmarried and in full-time attendance at a school or university, having been in such attendance substantially without interruption since he or she reached age 18 or the contributor died, whichever occurred later.

Note 12: Annual Allowances

"Annual allowances", in the case of the surviving spouse and children of an active or former contributor, means annuities that become payable immediately upon the death of the contributor. The amounts of the allowances are determined with reference to a basic allowance and are ordinarily payable in equal monthly instalments.

The basic allowance is equal to 1 per cent of the average annual pay of the deceased contributor in respect of any selected six-year period of his or her pensionable service multiplied by the number of years of pensionable service not exceeding 35.

A surviving spouse is entitled to an annual allowance equal to the basic allowance except under the following circumstances:

- (a) If the age of the contributor exceeded that of the surviving spouse by 20 or more years, the allowance is reduced as prescribed by RCMPs Regulations.
- (b) If the contributor dies within one year after marriage, no allowance is payable to the surviving spouse if the Treasury Board is not satisfied that the contributor was at the time of that marriage in such a condition of health as to justify his or her having an expectation of surviving for at least one year thereafter.
- (c) If a surviving spouse remarries, the payment of any allowance is suspended but is resumed in the event of dissolution or annulment of that marriage or death of her or his spouse by that marriage. In lieu of any further claim to the payment of the allowance, an amount equal to the return of contributions less the total amount of benefit payments made to the contributor and to his or her surviving spouse and children may be paid to the surviving spouse at any time before the dissolution or annulment of that marriage or the death of her or his spouse by that marriage, if there is no child of the contributor entitled to an allowance under the RCMPSA.

- (d) If a member of the Force marries after age 60, his or her surviving spouse is not entitled to any annual allowance, unless after marriage the member became or continued to be a contributor\*.
- (e) No allowance is payable to a widower of a contributor who was not a member of the Force on or after December 20, 1975.

The annual allowance for an eligible child is equal to 20 per cent of the basic allowance or, if the contributor died leaving no spouse or the spouse is dead, to 40 per cent of the basic allowance, provided that when the number of eligible children of a deceased contributor exceeds four the total amount of allowances to such children shall not exceed the amount that would be payable if there were only four. Allowances are not payable to children of a spouse who is not entitled to an allowance as the result of death of a contributor within one year of marriage under circumstances stated in paragraph (b) of this note. Except as provided by regulation, allowances are not payable to a child who was born, adopted or became a stepchild of a member of the Force when the member was over 60 years of age, unless he or she became or continued to be a contributor\* after attaining 60 years of age.

Note 13: Minimum Benefit

If upon the death of a contributor there is no person to whom an allowance provided under the terms of the RCMP SA may be paid, or if the persons to whom such allowances may be paid die or cease to be entitled thereto and no other amount may be paid to them, there is paid to the estate of the contributor

- (a) if the contributor was not a member of the Force on or after December 20, 1975, any amount by which the amount of return of contributions exceeds the aggregate of all amounts paid to those persons and to the contributor,
- (b) if the contributor was a member of the Force on or after December 20, 1975, an amount similar to (a) above except that in respect of the RCMP SA the "return of contributions" is taken as at least equal to five times the immediate annuity to which the contributor was or would have been entitled at the time of his or her death.

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\* Includes a person who has ceased to be required to contribute to the RCMP S Account.

APPENDIX 3

Promotional Salary Scale

<u>Attained Age</u>	<u>Scale</u>
19	0.453
20	0.484
21	0.514
22	0.542
23	0.570
24	0.597
25	0.622
26	0.644
27	0.661
28	0.675
29	0.687
30	0.697
31	0.707
32	0.716
33	0.725
34	0.733
35	0.742
36	0.751
37	0.760
38	0.769
39	0.778
40	0.788
41	0.797
42	0.807
43	0.816
44	0.826
45	0.836
46	0.846
47	0.856
48	0.867
49	0.877
50	0.888
51	0.898
52	0.909
53	0.920
54	0.931
55	0.942
56	0.953
57	0.965
58	0.976
59	0.988
60	1.000



APPENDIX 4

Rates of Decrement for Active Contributors

<u>Age</u>	<u>Return of Contributions</u>	<u>Disability</u>	<u>Retirement</u>	<u>Mortality</u>
15	0.0432	0.0036	0.0000	0.000318
16	0.0432	0.0036	0.0000	0.000318
17	0.0432	0.0036	0.0000	0.000318
18	0.0432	0.0031	0.0000	0.000318
19	0.0432	0.0026	0.0000	0.000326
20	0.0407	0.0021	0.0000	0.000336
21	0.0381	0.0016	0.0000	0.000347
22	0.0356	0.0010	0.0000	0.000359
23	0.0332	0.0008	0.0000	0.000372
24	0.0309	0.0005	0.0000	0.000387
25	0.0288	0.0003	0.0000	0.000404
26	0.0267	0.0002	0.0001	0.000420
27	0.0246	0.0001	0.0001	0.000440
28	0.0226	0.0001	0.0001	0.000459
29	0.0206	0.0002	0.0002	0.000483
30	0.0187	0.0002	0.0002	0.000508
31	0.0169	0.0002	0.0003	0.000530
32	0.0151	0.0003	0.0003	0.000552
33	0.0134	0.0003	0.0003	0.000578
34	0.0119	0.0003	0.0004	0.000606
35	0.0104	0.0004	0.0005	0.000637
36	0.0091	0.0005	0.0006	0.000677
37	0.0079	0.0006	0.0006	0.000721
38	0.0068	0.0006	0.0007	0.000786
39	0.0058	0.0008	0.0110	0.000824
40	0.0049	0.0009	0.0231	0.000874
41	0.0043	0.0011	0.0342	0.000921
42	0.0038	0.0013	0.0435	0.000980
43	0.0036	0.0015	0.0506	0.001054
44	0.0036	0.0017	0.0552	0.001142
45	0.0036	0.0019	0.0573	0.001248
46	0.0038	0.0021	0.0574	0.001408
47	0.0040	0.0024	0.0559	0.001595
48	0.0043	0.0027	0.0535	0.001811
49	0.0045	0.0030	0.0516	0.002061
50	0.0049	0.0035	0.0520	0.002338
51	0.0052	0.0042	0.0569	0.002630
52	0.0055	0.0049	0.0678	0.002944
53	0.0059	0.0059	0.0850	0.003276
54	0.0064	0.0071	0.1074	0.003624
55	0.0068	0.0084	0.1750	0.003985
56	0.0073	0.0101	0.2000	0.004381
57	0.0078	0.0123	0.2050	0.004792
58	0.0082	0.0147	0.2100	0.005218
59	0.0087	0.0176	0.2400	0.005661
60			1.0000	

APPENDIX 5

Rates of mortality assumed applicable in 1986 for former contributors  
and surviving spouses and projection factors for rates after 1986

Age	Rates for 1986		Reduction % P.A.		Age	Rates for 1986		Reduction % P.A.	
	Males	Females	Males	Females		Males	Females	Males	Females
20	.000375	.000186	0.15	0.50	65	.015015	.006802	1.25	1.25
21	.000390	.000198	0.14	0.50	66	.016954	.007528	1.20	1.25
22	.000406	.000209	0.13	0.50	67	.019129	.008360	1.15	1.25
23	.000422	.000222	0.12	0.50	68	.021503	.009343	1.10	1.25
24	.000443	.000234	0.11	0.50	69	.024043	.010517	1.05	1.25
25	.000463	.000249	0.10	0.50	70	.026712	.011926	1.00	1.25
26	.000485	.000264	0.18	0.55	71	.029452	.013625	1.00	1.20
27	.000509	.000278	0.26	0.60	72	.032379	.015608	1.00	1.15
28	.000536	.000295	0.34	0.65	73	.035591	.017878	1.00	1.10
29	.000565	.000313	0.42	0.70	74	.039188	.020434	1.00	1.05
30	.000598	.000334	0.50	0.75	75	.043272	.023279	1.00	1.00
31	.000634	.000355	0.55	0.85	76	.047994	.026377	0.95	1.00
32	.000675	.000377	0.60	0.95	77	.053293	.029761	0.90	1.00
33	.000720	.000401	0.65	1.05	78	.059144	.033436	0.85	1.00
34	.000769	.000428	0.70	1.15	79	.065527	.037404	0.80	1.00
35	.000841	.000458	0.75	1.25	80	.072416	.041669	0.75	1.00
36	.000885	.000482	0.80	1.35	81	.079664	.046240	0.75	1.00
37	.000942	.000512	0.85	1.45	82	.087325	.051126	0.75	1.00
38	.001011	.000547	0.90	1.55	83	.095347	.056346	0.75	1.00
39	.001096	.000587	0.95	1.65	84	.103679	.061912	0.75	1.00
40	.001201	.000631	1.00	1.75	85	.112272	.067841	0.75	1.00
41	.001325	.000679	1.10	1.75	86	.121581	.074408	0.70	0.95
42	.001473	.000735	1.20	1.75	87	.131276	.082199	0.65	0.90
43	.001649	.000798	1.30	1.75	88	.141495	.089611	0.60	0.85
44	.001852	.000872	1.40	1.75	89	.152318	.098941	0.55	0.80
45	.002086	.000958	1.50	1.75	90	.163825	.109254	0.50	0.75
46	.002361	.001061	1.50	1.70	91	.175819	.120509	0.45	0.70
47	.002666	.001177	1.50	1.65	92	.188184	.133002	0.40	0.65
48	.002999	.001301	1.50	1.60	93	.200883	.146901	0.35	0.60
49	.003357	.001436	1.50	1.55	94	.215949	.162394	0.30	0.55
50	.003736	.001574	1.50	1.50	95	.232335	.179696	0.25	0.50
51	.004139	.001714	1.45	1.50	96	.246948	.199346	0.20	0.40
52	.004558	.001862	1.40	1.50	97	.262768	.220051	0.15	0.30
53	.004992	.002025	1.35	1.50	98	.279961	.242439	0.10	0.20
54	.005442	.002212	1.30	1.50	99	.298705	.267381	0.05	0.10
55	.005904	.002428	1.25	1.50	100	.319185	.295187	0.00	0.00
56	.006373	.002683	1.25	1.45	101	.341086	.325225	0.00	0.00
57	.006875	.002974	1.25	1.40	102	.365052	.358897	0.00	0.00
58	.007433	.003304	1.25	1.35	103	.393102	.395842	0.00	0.00
59	.008074	.003674	1.25	1.30	104	.427255	.438360	0.00	0.00
60	.008819	.004084	1.25	1.25	105	.469531	.487816	0.00	0.00
61	.009691	.004528	1.25	1.25	106	.521945	.545886	0.00	0.00
62	.010721	.005017	1.25	1.25	107	.586518	.614309	0.00	0.00
63	.011932	.005555	1.25	1.25	108	.665268	.694884	0.00	0.00
64	.013354	.006149	1.25	1.25	109	.760215	.789474	0.00	0.00

APPENDIX 6

Assumed Rates of Remarriage for Surviving Spouses

Widows

Age at becoming widow	<u>Select Rates*</u>			Age	Ultimate Rates*
	Year of Widowhood				
	<u>1st yr.</u>	<u>3rd yr.</u>	<u>5th yr.</u>		
25	.050	.148	.132	40	.025
30	.029	.086	.076	45	.014
35	.018	.048	.042	50	.008
40	.011	.027	.023	55	.004
45	.006	.015	.012	60	.002
50	.004	.008	.006		
55	.002	.004	.003		

Widowers

Age at becoming widower	<u>Select Rates*</u>			Age	Ultimate Rates*
	Year of Widowerhood				
	<u>1st yr.</u>	<u>3rd yr.</u>	<u>5th yr.</u>		
25	.071	.258	.258	30	.198
30	.065	.215	.198	35	.139
35	.047	.130	.116	40	.094
40	.031	.078	.069	45	.059
45	.019	.048	.040	50	.027
50	.013	.028	.022	55	.014
55	.008	.014	.011	60	.009

Proportions of Students Entitled to Allowances  
Remaining Eligible for Allowances  
at the End of the Year of Age

<u>Age</u>	<u>Proportion</u>
18	0.50
19	0.65
20	0.80
21	0.60
22	0.50
23	0.50
24	0.30

\* Rates are duration-specific (select) for 14 years for widows,  
5 years for widowers.

APPENDIX 7

Proportions of Deceased Contributors Married at Death  
and  
Average Age of Spouse Corresponding to Age  
of Contributor at Death

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<u>Age at Death</u>	<u>Proportions Leaving Eligible Spouses</u>	<u>Average Age of Spouse</u>	
		<u>Female</u>	<u>Male</u>
20	0.175	20	21
25	0.550	24	26
30	0.839	29	32
35	0.896	34	37
40	0.919	38	42
45	0.957	43	47
50	0.963	47	53
55	0.965	52	58
60	0.964	56	63
65	0.792	61	67
70	0.729	65	72
75	0.635	69	76
80	0.513	73	79
85	0.378	76	82
90	0.251	78	86
95	0.129	79	89
100	0.012	80	94

APPENDIX 8A

Male Contributors as at December 31, 1985

<u>Age/Service*</u>	<u>Number of Contributors and Average Current Pay</u>								
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	0-39
20-24	428	45							473
	30740	34893							31135
25-29	789	1613	54						2456
	32144	34832	35239						33977
30-34	260	1076	2294	100					3730
	32014	34719	35823	37434					35282
35-39	70	279	1220	2342	130				4041
	31192	34545	36242	38720	41090				37629
40-44	42	79	273	471	1335	83			2283
	31166	34200	35324	39246	42547	44943			40591
45-49	25	66	105	61	269	780	65		1371
	30595	32427	35136	39536	42949	46513	48858		43775
50-54	18	51	102	26	39	121	371	31	759
	31791	31589	33975	40166	39639	45392	51191	55700	45388
55-59	2	21	54	20	12	23	72	32	236
	34590	32521	33012	38827	36850	39010	51694	53672	42755
60-70	1	1	19	5	2	1	-	-	29
	<u>39348</u>	<u>41232</u>	<u>32553</u>	<u>33470</u>	<u>32394</u>	<u>51780</u>	-	-	<u>33897</u>
15-70	1635	3231	4121	3025	1787	1008	508	63	15378
	31670	34641	35791	38780	42389	46083	50963	54670	37719

Average Age: 36.5

Average Service: 13.8

\* Age and service are calculated to the nearest year.

APPENDIX 8B

Female Contributors as at December 31, 1985

<u>Age/Service*</u>	<u>Number of Contributors</u>							<u>0-34</u>
	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	
20-24	171	16						187
	28763	32408						29075
25-29	209	269	3					481
	29690	32592	27424					31299
30-34	80	215	122	-				417
	29385	32380	33337	-				32085
35-39	44	71	81	14	3			213
	27826	30998	33195	32780	31956			31309
40-44	22	25	20	15	-	-		82
	27740	29489	33567	37593	-	-		31497
45-49	8	25	24	8	5	3	-	73
	28928	29025	31983	33357	32443	37728	-	31053
50-54	2	14	15	7	6	3	-	47
	23808	29230	31120	34620	33036	36232	-	31338
55-59	2	7	9	7	6	4	1	36
	29718	29342	27213	31498	35030	36615	30924	31050
60-70	-	3	4	11	1	1	-	20
	-	<u>29588</u>	<u>31125</u>	<u>33641</u>	<u>28776</u>	<u>34032</u>	-	<u>32306</u>
15-70	538	645	278	62	21	11	1	1556
	29085	31960	32782	34235	33107	36579	30924	31251

Average Age: 32.7

Average Service: 6.6

\* Age and service are calculated to the nearest year.

APPENDIX 9A

Retired Contributors as at December 31, 1985

Age	<u>Other than Disability Pension</u>					<u>Disability Pension</u>				
	<u>Number</u>			<u>Annual Pension*</u>		<u>Number</u>			<u>Annual Pension*</u>	
	<u>M</u>	<u>F</u>	<u>Total</u>	<u>RCMPSA</u> ( <u>\$</u> )	<u>SRBA</u> ( <u>\$</u> )	<u>M</u>	<u>F</u>	<u>Total</u>	<u>RCMPSA</u> ( <u>\$</u> )	<u>SRBA</u> ( <u>\$</u> )
29-31	-	-	-	-	-	1	-	1	5,014	65
32-34	-	1	1	5,580	2,064	-	-	-	-	-
35-37	3	-	3	15,600	3,428	4	-	4	17,542	3,282
38-40	9	-	9	60,078	13,082	1	1	2	7,245	2,559
41-43	64	-	64	555,691	61,334	10	-	10	60,856	16,826
44-46	229	1	230	2,410,558	489,755	9	2	11	60,779	20,733
47-49	386	2	388	4,492,930	1,327,351	11	1	12	94,044	42,095
50-52	401	2	403	4,230,796	2,154,689	12	-	12	112,492	49,682
53-55	528	2	530	5,658,607	3,444,990	23	1	24	205,868	90,257
56-58	309	1	310	3,690,019	1,914,370	23	3	26	189,975	108,811
59-61	145	11	156	1,626,504	892,617	5	2	7	36,178	23,457
62-64	121	18	139	1,138,944	885,480	9	1	10	34,422	52,190
65-67	89	8	97	747,753	804,234	5	2	7	25,719	42,386
68-70	65	8	73	419,639	598,166	8	-	8	30,183	57,255
71-73	68	6	74	359,177	646,059	-	-	-	-	-
74-76	42	4	46	178,764	372,231	1	-	1	1,044	2,499
77-79	27	1	28	83,148	192,646	1	-	1	1,812	5,287
80-82	19	1	20	69,959	167,312	-	-	-	-	-
83-85	8	-	8	27,636	71,163	-	-	-	-	-
86-88	-	-	-	-	-	-	-	-	-	-
89-91	<u>2</u>	<u>-</u>	<u>2</u>	<u>3,900</u>	<u>12,228</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	2,515	66	2,581	25,775,283	14,053,199	123	13	136	883,173	517,384

\* RCMPSA benefits deferred to age 60 as well as SRBA benefits deferred to the earlier of age 60 and the age when age plus service equal 85 are included in these amounts. Benefit amounts also reflect accrued indexation to January 1, 1986, and CPP offsets for ages greater than 64 or for disability pensions where applicable.

APPENDIX 9B

Surviving Spouses as at December 31, 1985

<u>Age</u>	<u>Number</u>	<u>Annual Allowance</u>	
		<u>RCMPSA</u>	<u>SRBA</u>
		\$	\$
20-22	-	-	-
23-25	-	-	-
26-28	1	1,002	638
29-31	4	6,594	245
32-34	11	15,750	5,037
35-37	15	31,860	8,633
38-40	13	23,034	13,052
41-43	13	33,996	21,065
44-46	14	45,870	24,455
47-49	38	136,878	91,635
50-52	24	86,832	76,542
53-55	36	132,450	109,646
56-58	8	18,264	18,370
59-61	15	49,128	55,432
62-64	14	32,400	60,195
65-67	26	64,722	107,405
68-70	25	43,638	87,175
71-73	18	30,480	70,752
74-76	22	36,942	88,435
77-79	18	27,018	66,811
80-82	11	14,628	38,507
83-85	3	2,856	8,231
86-88	1	1,002	3,079
89-91	1	1,368	3,696
92-94	<u>1</u>	<u>1,476</u>	<u>3,988</u>
Total	332	838,188	963,024