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August 23, 2005

Ms. Paula M. Blas
Acting Director
Government of Guam Retirement Fund
424 Route 8
Maite, Guam 96927

**Government of Guam Retirement Fund –
Actuarial Valuation as of September 30, 2004 – Final**

Dear Ms. Blas:

I am pleased to enclose 25 copies of our Actuarial Valuation as of September 30, 2004. If you have any questions, please call me at (415) 403-1333, extension 116.

Sincerely,

Richard A. Wright, F.S.A.

RAW:tah

enc.

cc: Pete Tajalle

Rosalia Bordallo

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**Government of Guam
Retirement Fund**

Actuarial Valuation as of September 30, 2004

Prepared by:

**Richard A. Wright, F.S.A.
Milliman**

August 2, 2005



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424 Route 8
Maite, Guam 96927

**Government of Guam Retirement Fund –
Actuarial Valuation as of September 30, 2004 – Final**

At the request of the Trustees, we have made an actuarial valuation of the Government of Guam Retirement Fund as of September 30, 2004. The purpose of this valuation is to determine the required contribution under the provisions of GCA 8137 and to provide the Fund with financial disclosures under GASB 25.

In preparing our report, we relied on financial information and employee data furnished to us by the Government of Guam Retirement Fund. While Milliman has not audited the financial and census data, they have been reviewed for reasonableness and are, in our opinion, sufficient and reliable for the purposes of our calculations. If any of this information as summarized in this report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The actuarial cost method and assumptions used as well as the supporting data and principal plan provisions upon which the valuation is based are set forth in the following report. In our opinion, each actuarial assumption, method, and technique used (a) is reasonable taking into account the experience of the Plan and reasonable expectations or (b) would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions.

The results of this valuation are applicable only for the current year and are intended to be used only by the plan sponsor for the specific purposes described herein. Accordingly, this report may not be distributed outside the Fund except as required by law. Reliance on information contained in this report by anyone for anything other than the intended purpose puts the relying entity at risk of being misled.



Government of Guam Retirement Fund
August 2, 2005
Page 2

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, all costs, liabilities, and other factors under the Plan were determined in accordance with generally accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. We further certify that, to the best of our knowledge, the report is complete and accurate and the information presented herein, in our opinion, fully and fairly discloses the actuarial position of the Plan.

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

A handwritten signature in black ink that reads "Richard A. Wright". The signature is written in a cursive, flowing style.

Richard A. Wright, F.S.A.
Consulting Actuary

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SECTION I. VALUATION SUMMARY

Introduction

Milliman, Inc. has been retained by the Government of Guam Retirement Fund to provide an actuarial valuation of the retirement fund. In our valuation we:

- Summarize the membership data.
- Calculate the accrued liability and normal cost.
- Determine the contribution requirements.
- Provide financial information required by GASB No. 25.
- Project the fund balance and security ratio forward 40 years.

The results contained in this report represent our best estimates. However, it is likely that actual experience will vary from these estimates. To the extent that actual experience differs from the anticipated experience, actual plan costs will vary as well.

Highlights

- The required contribution under GCA 8137 increased from 24.89% of total payroll in the actuarial valuation as of 9/30/2003 to 26.00% of total payroll as of 9/30/2004. The required calculation consists of an 8.33% rate applied to defined benefit payroll and a 21.36% rate applied to total payroll.
- The defined benefit payroll for the year ending September 30, 2004, was \$203.6 million compared with \$221.8 million for the 2002-03 fiscal year. The total defined benefit and defined contribution payroll for the year ending September 30, 2004, was \$353.2 million compared with \$364.9 million for the 2002-03 fiscal year.
- The unfunded accrued liability decreased from \$1.408 billion as of September 30, 2003, to \$1.354 billion as of September 30, 2004. The payment under GCA 8137 towards the unfunded accrued liability has decreased slightly from \$79.3 million for the 2003-04 fiscal year to \$78.1 million for the 2004-05 fiscal year. However, due to the decrease in total payroll, the payment as a percentage of payroll has increased from 19.93% for 2003-04, to 21.36% for 2004-05.
- The investment return on the market value of assets equaled 9.3% for the fiscal year ending September 30, 2004. The average annual return on the actuarial value of assets for the last 4 fiscal years is 4.7%.
- The Fund's administrative expenses for the defined benefit plan were \$2,599,657 for the year ending September 30, 2003, net of the adjustment for bad debts. We have used this as the expense assumption for future years. The prior valuation assumed administrative expenses of \$3,533,184 per year, and was prior to the adjustment for bad debts.
- There have been no changes in plan provisions or actuarial assumptions since the prior actuarial valuation.



SECTION I. VALUATION SUMMARY

Results of Valuation

The following table summarizes the principal valuation results and compares them with the prior year.

	<u>9/30/2004</u>	<u>9/30/2003</u>
Participant Counts		
Active – Non-Uniformed	4,671	5,188
– Uniformed	<u>442</u>	<u>469</u>
– Total	5,113	5,657
Retired	<u>6,822</u>	<u>6,809</u>
Total Actives and Retirees	11,935	12,466
Inactive and Terminated Members with Accumulated contributions	7,034	7,025
Actual Payroll for Prior Fiscal Year		
	<i>(\$millions)</i>	<i>(\$millions)</i>
Defined benefit (DB) payroll	\$203.6	\$221.8
Total payroll (DB and DC)	353.2	364.9
Expected Payroll for Next Fiscal Year		
Defined benefit (DB) payroll	\$203.6	\$224.2
Total payroll (DB and DC)	365.6	398.1
Financial Status		
Accrued liability	\$2,599.7	\$2,614.8
Actuarial value of assets	<u>1,245.3</u>	<u>1,206.9</u>
Unfunded accrued liability	\$1,354.4	\$1,407.9
Security ratio	47.90%	46.16%
Normal Cost		
	<i>% of DB</i>	<i>% of DB</i>
	<u>Payroll</u>	<u>Payroll</u>
Total normal cost	\$ 36.3 17.83%	\$ 41.0 18.30%
Estimated employee contributions	<u>(19.3) (9.50%)</u>	<u>(21.3) (9.50%)</u>
Government normal cost	\$ 17.0 8.33%	\$ 19.7 8.80%
Required Contribution per GCA 8137		
	<i>% of Total</i>	<i>% of Total</i>
	<u>Payroll</u>	<u>Payroll</u>
Government normal cost	\$ 17.0 4.64%	\$ 19.7 4.96%
Government unfunded liability cost	<u>78.1 21.36%</u>	<u>79.3 19.93%</u>
Required contribution	\$ 95.1 26.00%	\$ 99.1 24.89%
Yield on Market Value of Assets		
Current year	9.3%	9.9%
Average since 10/1/2000	4.7%	3.3%



SECTION I. VALUATION SUMMARY

Actuarial Assumptions

The following assumptions should be reviewed for reasonableness. To the extent that actual experience differs from the assumptions below, future pension costs will differ as well.

Interest Rate: The interest rate used as of September 30, 2004, was 7.0%. Milliman's expected long-term returns on various asset classes is shown below. The target asset allocation is from the proposed new investment management guidelines.

<i>Asset Class</i>	<i>Expected 1 Year Nominal Return</i>	<i>Target Asset Allocation</i>
U.S. Equities	9.49%	38%
Non-U.S. Equities	9.65%	16%
Non-U.S. Equities (emerging markets)	12.05%	3%
U.S. Fixed Income (aggregate)	5.23%	38%
Non-U.S. Fixed Income	4.63%	4%
Cash	3.51%	1%
Expected Average Return (1 yr)	7.72%	
Expected Geometric Average Return (30 yrs)	7.15%	
25 th to 75 th Percentile Return	5.76% to 8.52%	

The current assumption of 7.0% is about equal to the geometric average return over 30 years, and is within the 25th to 75th percentile of expected results. Note that if investments fail to achieve the assumed interest rate, future pension costs will increase.

Mortality. The mortality table used as of September 30, 2004, was the Uninsured Pensioner 1994 Table (UP94), with male mortality rates set forward 2 years. The mortality table used for disabled lives is the UP94 table with a 10-year set forward for males and an 8-year set forward for females. This assumption is unchanged from the prior valuation.

Salary Increases. Salaries are assumed to increase 8.5% per year for employees in their first 5 years of service, 7.0% for service between 6 and 10 years, 6.0% for service between 11 and 15 years, 5.0% for service between 16 and 20 years, and 4.0% for service after 20 years. This assumption is unchanged from the prior valuation.

Total Payroll Growth. Total payroll for defined benefit and defined contribution members is assumed to increase 3.5% per year. This assumption is unchanged from the prior valuation.

Retirement Age. We have assumed 50% of employees will retire when first eligible for unreduced retirement. Thereafter, 20% of employees will retire at each year until age 70, at which time all remaining employees are assumed to retire. This assumption is unchanged from the prior valuation.



SECTION I. VALUATION SUMMARY

Return of Contributions. We have assumed 100% of employees who withdraw prior to retirement and who have less than 20 years of service will elect of return of contributions in lieu of a deferred benefit. This assumption is unchanged from the prior valuation.

Administrative Expenses. Annual administrative expenses are assumed to be \$2,599,657, which is the amount of defined benefit plan expenses for the year ending September 30, 2004, as reported in the Fund's audited financial statements, and is net of the adjustment for bad debts. The prior valuation assumed annual expenses of \$3,533,184.

A summary of actuarial assumptions is in Appendix B.

Alternative Funding Strategies

GC Section 8137 requires a contribution sufficient to fully fund the unfunded liability by 2031 (within 80 years from May 1, 1951). The required contribution shown in this report includes a payment for the normal cost of active members of the Fund, and amortizes the unfunded liability over the remaining 26.58 years as a level percentage of total payroll (including both defined benefit and defined contribution members).

Any change in contribution requirements requires legislative action. One alternative strategy is to achieve a funding target of less than 100% after a certain number of years. Another strategy recognizes the decreasing size of the active population and develops contribution requirements that decrease as a percentage of payroll.

Exhibits 18 and 19 project the employer and employee contributions, fund balance, accrued liability and security ratio forward 40 years under the current funding requirements. Any change in funding requirements should consider the effect on the projected fund balance and security ratio.



SECTION II. FUND ASSETS

Exhibit 1. Summary of Fund Assets

Listed below are the assets reported in the Fund's audited financial statements as of September 30, 2004, excluding certain receivables and liabilities whose payments are deducted from employer contributions to the Fund.

	<u>9/30/2004</u>	<u>9/30/2003</u>
Investments		
Common stocks	\$ 590,471,874	\$ 529,489,480
U.S. Government securities	280,041,882	207,036,448
Corporate bonds and notes	272,326,917	342,432,781
Money market funds	<u>38,729,970</u>	<u>54,539,441</u>
Total investments	1,181,570,643	1,133,498,150
Receivables		
Employer contributions, net	18,331,507	20,479,533
Member contributions	6,922,201	7,872,191
Accrued investment income	5,618,196	7,220,281
Due from brokers for unsettled trades	9,467,943	11,152,068
Notes receivable for service credits	7,635,763	8,807,252
Notes receivable ERIP	11,115,954	12,498,071
Interest and penalties	4,299,453	0
Supplemental/insurance benefits advanced	4,604,359	0
Other receivables	2,582,849	12,854,115
Due from DC plan	<u>419,722</u>	<u>419,722</u>
Total receivables	70,997,947	81,303,233
Cash and cash equivalents	4,707,675	15,409,299
Property and equipment	<u>1,352,815</u>	<u>1,440,829</u>
Total assets	\$ 1,258,629,080	\$ 1,231,651,511
Liabilities		
Bank overdraft	\$ 0	\$ 411,663
Accounts payable and accrued expenses	2,557,836	3,224,330
Due to brokers for unsettled trades	<u>7,442,975</u>	<u>2,730,786</u>
Total liabilities	\$ 10,000,811	\$ 6,366,779
Valuation Assets	<u>\$ 1,248,628,269</u>	<u>\$ 1,225,284,732</u>
Excluded Assets		
Receivable – ERIP employer share	\$ 12,625,667	\$ 17,080,487
Supplemental/COLA benefits receivable	99,296,144	103,675,964
Deferred revenue for service credits	<u>(31,377,384)</u>	<u>(38,385,810)</u>
Total excluded assets	\$ 80,544,427	\$ 82,370,641

Exhibit 2. Asset Allocation



SECTION II. FUND ASSETS

The allocation of assets among various investment classes is an important determinant of expected future investment returns.

	<i>Asset Allocation</i>	
	<i>9/30/2004</i>	<i>9/30/2003</i>
Common stocks	50.1%	46.7%
U.S. Government securities	21.2%	18.3%
Corporate bonds and notes	25.4%	30.2%
Money market funds	<u>3.3%</u>	<u>4.8%</u>
Total	100.0%	100.0%



SECTION II. FUND ASSETS

Exhibit 3. Changes in Fund Assets

Fund assets increase or decrease each year due to employer contributions, investment income, benefit payments to retiring participants, plan expenses paid by the trust fund, and any realized and unrealized gains and losses from investments.

	<i>Fiscal Year Ending</i>	
	<u>9/30/2004</u>	<u>9/30/2003</u>
Beginning Balance	\$ 1,225,284,732	\$ 1,189,500,855
Contributions		
Employer contributions	61,561,461	61,667,848
Member contributions	20,176,135	22,339,675
Decrease/(increase) in excluded assets	<u>1,826,214</u>	<u>1,817,872</u>
Total contributions	83,563,810	85,825,395
Investment Income		
Net appreciation in fair value	72,376,615	68,955,855
Interest	31,092,905	41,147,525
Dividends	11,396,669	8,441,013
Other investment income	1,522,685	631,605
Investment expenses	<u>(3,350,907)</u>	<u>(2,727,823)</u>
Total investment income	113,037,967	116,448,175
Benefit Payments		
Age and service annuities	133,401,910	128,189,391
Disability annuities	8,976,389	9,276,164
Survivor annuities	14,300,943	13,617,180
Insurance	66,489	0
Refunds to separated employees	11,443,283	10,239,383
Interest on refunded contributions	679,621	546,733
Balances transferred to DC plan	<u>1,789,948</u>	<u>1,640,404</u>
Total benefit payments	170,658,583	163,509,255
Administrative Expenses		
Administrative expenses	3,082,551	3,533,184
Bad debts (recoveries)	<u>(482,894)</u>	<u>(552,746)</u>
Net administrative expenses	2,599,657	2,980,438
Ending Balance	\$ 1,248,628,269	\$ 1,225,284,732



SECTION II. FUND ASSETS

Exhibit 4. Actuarial Value of Assets

The actuarial value of assets equals the market value of Fund assets, excluding certain receivables and liabilities whose payments are deducted from employer contributions to the Fund, and valuing fixed income investments at their amortized cost instead of market value.

	<u>9/30/2004</u>	<u>9/30/2003</u>
Valuation assets	\$ 1,248,628,269	\$ 1,225,284,732
Amortized cost of bonds	549,046,005	531,095,369
Market value of bonds	<u>552,368,799</u>	<u>549,469,229</u>
Adjustment to valuation assets	(3,322,794)	(18,373,860)
Actuarial value of assets	\$ 1,245,305,474	\$ 1,206,910,872
Actuarial value as % of market value	99.7%	98.5%



SECTION II. FUND ASSETS

Exhibit 5. Historical Returns on Fund Assets

The following table shows the historical return on Fund assets over the last 4 years:

<i>Fiscal Year Ending 9/30</i>	<i>Return on Market Value</i>	<i>Return on Actuarial Value</i>
2004	9.3%	10.4%
2003	9.9%	13.0%
2002	(0.5%)	(2.7%)
2001	n/a	(2.3%)
Average since 2001	4.7%	4.3%

The actuarial valuation rate is 7.00%.



SECTION III. MEMBERSHIP DATA

Exhibit 6. Active Employees

	<u>9/30/2004</u>	<u>9/30/2003</u>
Reconciliation of Census		
Members reported in raw data	12,147	12,682
Number excluded due to:		
Reported as inactive	5,062	5,121
Reported as terminated	274	314
Zero earnings	1,427	1,418
Refund of contributions	<u>271</u>	<u>172</u>
Total exclusions	7,034	7,025
Active employees in valuation	5,113	5,657
Active Employees – Non-Uniformed		
Number vested	4,592	5,095
Number not vested	<u>79</u>	<u>93</u>
Total	4,671	5,188
Average age	46.5	45.9
Average service	17.0	16.4
Average earnings	\$ 38,966	\$ 39,066
Average accumulated contributions	\$ 60,081	\$ 56,556
Active Employees – Uniformed		
Number vested	442	468
Number not vested	<u>0</u>	<u>1</u>
Total	442	469
Average age	41.5	40.6
Average service	17.3	16.3
Average earnings	\$ 48,752	\$ 45,830
Average accumulated contributions	\$ 75,654	\$ 69,268
Active Employees – Total		
Number vested	5,034	5,563
Number not vested	<u>79</u>	<u>94</u>
Total	5,113	5,657
Average age	46.1	45.5
Average service	17.0	16.4
Average earnings	\$ 39,812	\$ 39,627
Average accumulated contributions	\$ 61,427	\$ 57,610



SECTION III. MEMBERSHIP DATA

Exhibit 7. Active Employees by Agency

	<u>9/30/2004</u>	<u>9/30/2003</u>
None listed	5	0
Agency For Human Resources Development	13	15
Bureau Of Budget & Management Research	13	13
Bureau Of Planning	27	28
Chamorro Land Trust	4	5
Chief Medical Examiner	1	2
Civil Service Commission	5	6
Commissioner's Council	28	38
Customs & Quarantine	54	51
Dept Of Administration	79	82
Dept Of Agriculture	45	65
Dept Of Commerce	1	1
Dept Of Corrections	81	91
Dept Of Education	1,667	1,864
Dept Of Labor	31	36
Dept Of Land Management	38	40
Dept Of Law	60	70
Dept Of Mental Health & Substance Abuse	48	51
Dept Of Military Affairs	14	14
Dept Of Parks And Recreation	49	59
Dept Of Public Health & Social Services	191	208
Dept Of Public Works	278	306
Dept Of Revenue And Taxation	91	101
Dept Of Vocational Rehabilitation	18	19
Dept Of Youth Affairs	41	44
Government Of Guam Retirement Fund	20	23
Governor's Office	23	27
Guam Airport Authority	124	128
Guam Caha	3	3
Guam Community College	110	124
Guam Economic Development Agency	11	14
Guam Election Commission	1	1
Guam Energy Office	4	4
Guam Environmental Protection Agency	17	19
Guam Fire Dept	180	186
Guam Housing & Urban Renewal Agency	43	45
Guam Housing Corporation	9	9
Guam Legislature	35	37
Guam Memorial Hospital Authority	335	356
Guam Police Dept	146	160
Guam Power Authority	282	321
Guam Reparation Commission	7	7
Guam Telephone Authority	147	176
Guam Visitors Bureau	11	12
Guam Waterworks Authority	131	151
KGTF	7	7
Lt. Governor's Office	2	
Nieves M. Flores Memorial Library	6	10
Port Authority Of Guam	154	170
Public Defender	26	26
Superior Court Of Guam	128	140
Supreme Court Of Guam	8	9
Territorial Auditors	3	2
University Of Guam	257	280
Veteran's Affairs Office	<u>1</u>	<u>1</u>
TOTAL	<u>5,113</u>	<u>5,657</u>



SECTION III. MEMBERSHIP DATA

Exhibit 8. Retired Employees

	<u>9/30/2004</u>	<u>9/30/2003</u>
Service Retirees		
Count	4,878	4,756
Average age	62.9	62.5
Average benefit	\$27,248	\$26,811
Disabled Retirees		
Count	508	505
Average age	60.6	60.0
Average benefit	\$18,438	\$18,465
Survivors		
Count	1,152	1,236
Average age	66.7	67.0
Average benefit	\$10,958	\$10,638
Child Pensioners		
Count	284	312
Average age	15.8	15.1
Average benefit	\$2,160	\$2,160
Total Retirees and Survivors		
Count	6,822	6,809
Average age*	63.4	63.2
Average benefit*	\$23,693	\$23,085

* Excludes child pensioners.



SECTION III. MEMBERSHIP DATA

Exhibit 9. Terminated and Inactive Members

	<u>9/30/2004</u>	<u>9/30/2003</u>
Reported as Inactive		
Count	5,062	5,121
Accumulated contributions	\$2,228,403	\$2,495,808
Reported as Terminated		
Count	274	314
Accumulated contributions	\$929,306	\$1,659,776
Zero Earnings		
Count	1,427	1,418
Accumulated contributions	\$7,316,665	\$6,814,580
Refund of Contributions		
Count	271	172
Accumulated contributions	\$226,506	\$173,822
Total Terminateds and Inactives		
Count	7,034	7,025
Accumulated contributions	\$10,700,880	\$11,143,985



SECTION IV. VALUATION EXHIBITS

Exhibit 10. Accrued Liability

The accrued liability has been calculated using the Entry Age Normal actuarial cost method, and is equal to the present value of benefits for all members less the present value of future normal costs for active employees.

	<u>9/30/2004</u>	<u>9/30/2003</u>
Present Value of Benefits		
Active employees –		
Retirement	\$ 975,505,112	\$ 1,053,962,128
Disability	81,527,115	88,319,683
Death	29,777,628	31,794,656
Withdrawal	<u>40,229,243</u>	<u>42,317,749</u>
Total active PVB	1,127,039,098	1,216,394,216
Retirees and Survivors		
Retirees	1,517,797,495	1,470,737,897
Disabled retirees	88,985,958	89,858,927
Survivors	<u>143,438,575</u>	<u>149,827,310</u>
Total retirees and survivors	1,750,222,028	1,710,424,134
Terminated and inactive members	10,700,880	11,143,985
Total PVB	\$ 2,887,962,006	\$ 2,937,962,335
Present Value of Future Normal Cost		
Active employees –		
Retirement	\$ 206,917,438	\$ 232,777,106
Disability	37,920,546	42,436,189
Death	14,996,589	16,616,207
Withdrawal	<u>28,380,636</u>	<u>31,292,690</u>
Total active PVFNC	\$ 288,215,209	\$ 323,122,192
Accrued Liability		
Active members	\$ 838,823,889	\$ 893,272,024
Retirees and survivors	1,750,222,028	1,710,424,134
Terminations and inactives	<u>10,700,880</u>	<u>11,143,985</u>
Total accrued liability	\$ 2,599,746,797	\$ 2,614,840,143



SECTION IV. VALUATION EXHIBITS

Exhibit 11. Calculation of Unfunded Accrued Liability

The unfunded accrued liability is used to determine the funding requirements. The unfunded accrued liability equals the accrued liability less the valuation assets.

	<u>9/30/2004</u>	<u>9/30/2003</u>
Accrued Liability		
Active members	\$ 838,823,889	\$ 893,272,024
Retirees and survivors	1,750,222,028	1,710,424,134
Terminations and inactives	<u>10,700,880</u>	<u>11,143,985</u>
Total accrued liability	\$ 2,599,746,797	\$ 2,614,840,143
Actuarial Value of Assets	1,245,305,474	1,206,910,872
Unfunded accrued liability	\$ 1,354,441,323	\$ 1,407,929,271
Security Ratio = (Assets/AL)	47.90%	46.16%



SECTION IV. VALUATION EXHIBITS

Exhibit 12. Calculation of Actuarial Gain/Loss

	<u>9/30/2004</u>	<u>9/30/2003</u>
Unfunded Accrued Liability, beginning of year	\$ 1,407,929,271	\$ 1,242,733,000
Additions:		
Normal cost	17,869,769	18,280,861
Interest to end of year	<u>99,805,933</u>	<u>94,576,040</u>
Total additions	117,675,702	112,856,901
Deductions:		
Employer contributions for year	63,387,675	63,485,720
Interest on contributions	<u>2,181,046</u>	<u>2,337,675</u>
Total deductions	65,568,721	65,823,395
Other Changes:		
Plan amendments	0	0
Changes in assumptions	<u>0</u>	<u>135,339,435</u>
Net other changes	0	135,339,435
Expected UAL, end of year	\$ 1,460,036,252	\$ 1,425,105,941
Actual UAL, end of year	<u>1,354,441,323</u>	<u>1,407,929,271</u>
Actuarial Gain/(Loss)	\$ 105,594,930	\$ 17,176,670
Components of Actuarial Gain/(Loss):		
Investment gain/(loss)	\$ 41,687,678	\$ 64,069,477
Other changes	<u>63,907,252</u>	<u>(46,892,807)</u>
Total actuarial gain/(loss)	\$ 105,594,930	\$ 17,176,670



SECTION IV. VALUATION EXHIBITS

Exhibit 13. Normal Cost

The normal cost has been calculated using the Entry Age Normal actuarial cost method.

	<u>9/30/2004</u>		<u>9/30/2003</u>	
Expected defined benefit payroll for fiscal year following	\$ 203,634,762		\$ 224,246,929	
Normal cost ¹ –		<i>% of DB</i>		<i>% of DB</i>
Retirement	\$ 24,402,403	<u>11.98%</u>	\$ 27,307,755	<u>12.18%</u>
Disability	4,226,771	2.08%	4,651,646	2.07%
Death	3,361,743	1.65%	3,662,412	1.63%
Withdrawal	<u>1,715,256</u>	<u>0.84%</u>	<u>1,880,555</u>	<u>0.84%</u>
Total active normal cost	\$ 33,706,173	16.55%	\$ 37,502,368	16.72%
Assumed administrative expenses	<u>2,599,657</u> ²	<u>1.28%</u>	<u>3,533,184</u> ³	<u>1.58%</u>
Total normal cost and expenses	\$ 36,305,830	17.83%	\$ 41,035,552	18.30%
Expected member contributions	<u>(19,345,301)</u>	<u>(9.50%)</u>	<u>(21,303,458)</u>	<u>(9.50%)</u>
Government portion of normal cost	\$ 16,960,529	8.33%	\$ 19,732,094	8.80%

¹ Includes interest to mid-year.

² Administrative expenses shown for FY 2004 are net of bad debt collections. Total administrative expenses were \$3,082,551.

³ Administrative expenses shown for FY 2003 are gross of bad debt collections.



SECTION IV. VALUATION EXHIBITS

Exhibit 14. Amortization of Unfunded Liability

Pursuant to GCA Section 8137, the unfunded liabilities of the Government of Guam Retirement Fund are to be completed funded within 80 years from May 1, 1951. As of September 30, 2004, there are 26.58 years remaining in the funding period. The amortization of the unfunded liability is calculated as a constant percentage of total payroll, which is assumed to grow at 3.5% per year.

	<u>9/30/2004</u>	<u>9/30/2003</u>
Total payroll (DB and DC) for fiscal year following	\$ 365,592,458	\$ 398,111,817
Unfunded accrued liability	1,354,441,323	1,407,929,271
Remaining funding period	26.58 years	27.58 years
Annual amortization	78,090,704	79,347,419
As % of total payroll (DB and DC)	21.36%	19.93%



SECTION IV. VALUATION EXHIBITS

Exhibit 15. Contribution Requirements

The contribution requirement is equal to the sum of the government normal cost (allocated to defined benefit payroll) and the amortization payment towards the unfunded liability (allocated to both defined contribution and defined benefit payroll).

	<u>9/30/2004</u>	<u>9/30/2003</u>
Defined benefit (DB) payroll for fiscal year following	\$ 203,634,752	\$ 224,246,929
Total payroll (DB and DC) for fiscal year following	365,592,458	398,111,817
Government normal cost As % of DB payroll	16,960,529 8.33%	19,732,094 8.80%
Annual amortization As % of total payroll (DB and DC)	78,090,704 21.36%	79,347,419 19.93%
Required contribution As % of total payroll (DB and DC)	95,051,233 26.00%	99,079,513 24.89%



SECTION IV. VALUATION EXHIBITS

Exhibit 16. GASB No. 25 Schedule of Funding Progress

Government Accounting Standards Board (GASB) Statement No. 25 – Financial Reporting for Defined Benefit Pension Plans requires disclosure of the Schedule of Funding Progress.

<i>Actuarial Valuation Date</i>	<i>Actuarial Value of Assets</i>	<i>Entry Age Normal Actuarial Accrued Liability (AAL)</i>	<i>Unfunded Actuarial Accrued Liability (UAAL)</i>	<i>Funded Ratio</i>	<i>Total Government Covered Payroll</i>	<i>UAAL as a Percentage of Covered Payroll</i>
9/30/1989	\$ 372,820,000	\$ 934,253,000	\$ 561,432,000	39.9%	\$272,710,000	205.9%
9/30/1991	532,031,000	1,151,610,000	619,578,000	46.2%	321,580,000	192.7%
9/30/1993	703,443,000	1,429,839,000	726,395,000	49.2%	368,900,000	196.9%
9/30/1995	865,014,000	1,417,190,000	552,176,000	61.0%	356,990,000	154.7%
9/30/1997	1,213,706,000	1,824,868,000	611,161,000	66.5%	390,000,000	156.7%
9/30/1998	1,287,157,000	1,770,852,000	483,694,000	72.6%	407,550,000	118.7%
9/30/1999	1,346,205,000	2,096,617,000	750,412,000	64.2%	363,711,000	206.3%
9/30/2000	1,348,761,000	2,126,150,000	777,389,000	63.4%	374,551,000	207.6%
9/30/2001	1,265,001,000	2,333,862,000	1,068,861,000	54.2%	403,061,000	265.2%
9/30/2002	1,135,666,000	2,378,399,000	1,242,733,000	47.7%	395,967,000	313.8%
9/30/2003	1,206,911,000	2,614,840,000	1,407,929,000	46.2%	398,112,000	353.7%
9/30/2004	1,245,305,000	2,599,747,000	1,354,442,000	47.9%	365,592,000	370.5%



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Exhibit 17. GASB No. 25 Schedule of Employer Contributions

Government Accounting Standards Board (GASB) Statement No. 25 – Financial Reporting for Defined Benefit Pension Plans requires disclosure of the Schedule of Employer Contributions.

<i>Fiscal Year Ending</i>	<i>Annual Required Contribution</i>	<i>Employer Contribution</i>	<i>Percentage Contributed</i>
September 30, 1989	\$ 56,145,000	\$ 33,799,000	60.2%
September 30, 1990	58,952,000	39,441,000	66.9%
September 30, 1991	83,988,000	51,612,000	61.5%
September 30, 1992	88,187,000	54,111,000	61.4%
September 30, 1993	94,552,000	59,117,000	62.5%
September 30, 1994	99,280,000	80,965,000	81.6%
September 30, 1995	67,650,000	66,904,000	98.9%
September 30, 1996	71,187,000	68,969,000	96.9%
September 30, 1997	67,521,000	81,546,000	120.8%
September 30, 1998	61,929,000	81,877,000	132.2%
September 30, 1999	63,985,000	96,134,000	150.2%
September 30, 2000	52,463,000	85,831,000	163.6%
September 30, 2001	75,494,000	73,386,000	97.2%
September 30, 2002	75,906,000	78,087,000	102.9%
September 30, 2003	100,758,000	63,486,000	63.0%
September 30, 2004	116,663,000	63,388,000	54.3%



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Exhibit 18. 40-Year Projection of Fund Balance (\$\$millions)

<i>Year Ending</i>	<i>ER+EE Contributions</i>			<i>Investment Gain ²</i>	<i>Benefits & Expenses</i>	<i>Fund Balance</i>
	<i>Payroll ¹</i>	<i>Amount</i>	<i>ER %</i>			
2004						\$ 1,245.31
2005	\$ 365.59	\$ 95.47	20.81%	\$ 84.07	\$ (162.85)	1,261.99
2006	378.39	117.27	26.00%	85.76	(168.56)	1,296.45
2007	391.63	119.66	25.85%	88.05	(173.82)	1,330.34
2008	405.34	121.60	25.55%	90.31	(178.32)	1,363.92
2009	419.53	123.81	25.29%	92.58	(182.18)	1,398.13
2010	434.21	126.08	25.04%	94.92	(185.64)	1,433.49
2011	449.41	128.62	24.85%	97.34	(189.26)	1,470.19
2012	465.14	131.10	24.63%	99.85	(192.87)	1,508.27
2013	481.42	133.66	24.45%	102.43	(197.43)	1,546.93
2014	498.26	136.13	24.26%	105.01	(202.80)	1,585.27
2015	515.70	138.50	24.05%	107.55	(208.51)	1,622.81
2016	533.75	140.88	23.84%	110.02	(214.54)	1,659.18
2017	552.44	143.39	23.66%	112.41	(220.72)	1,694.26
2018	571.77	145.91	23.45%	114.72	(226.52)	1,728.37
2019	591.78	148.47	23.26%	116.94	(233.07)	1,760.71
2020	612.49	151.21	23.11%	119.02	(240.25)	1,790.68
2021	633.93	153.86	22.94%	120.91	(247.76)	1,817.69
2022	656.12	156.64	22.78%	122.59	(255.54)	1,841.39
2023	679.08	159.54	22.62%	124.08	(262.42)	1,862.58
2024	702.85	162.66	22.46%	125.46	(267.86)	1,882.85
2025	727.45	166.08	22.31%	126.85	(271.52)	1,904.26
2026	752.91	169.96	22.18%	128.41	(273.42)	1,929.21
2027	779.26	174.18	22.06%	130.31	(273.11)	1,960.59
2028	806.54	178.85	21.95%	132.75	(271.17)	2,001.02
2029	834.77	183.91	21.86%	135.87	(268.07)	2,052.73
2030	863.98	189.29	21.78%	139.85	(263.60)	2,118.28
2031	894.22	118.67	13.18%	142.22	(258.30)	2,120.86
2032	925.52	3.82	0.35%	138.69	(252.19)	2,011.17
2033	957.92	3.52	0.32%	131.27	(245.32)	1,900.64
2034	991.44	3.29	0.30%	123.82	(237.76)	1,789.99
2035	1,026.14	3.11	0.28%	116.40	(229.45)	1,680.06
2036	1,062.06	2.97	0.27%	109.04	(220.83)	1,571.24
2037	1,099.23	2.88	0.25%	101.78	(211.57)	1,464.33
2038	1,137.70	2.82	0.24%	94.67	(202.05)	1,359.77
2039	1,177.52	2.78	0.23%	87.74	(192.09)	1,258.19
2040	1,218.74	2.75	0.22%	81.02	(181.99)	1,159.97
2041	1,261.39	2.72	0.21%	74.55	(171.75)	1,065.49
2042	1,305.54	2.71	0.21%	68.34	(161.49)	975.06
2043	1,351.23	2.70	0.20%	62.41	(151.26)	888.91

¹ Payroll is assumed to increase 3.5% per year.

² Investment earnings are assumed to be 7.0% per year.



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Exhibit 19. 40-Year Projection of Security Ratio

<i>Year Ending</i>	<i>Employer Contributions</i>			<i>Fund Balance</i> ²	<i>Accrued Liability</i>	<i>Security Ratio</i>
	<i>Payroll</i> ¹	<i>Amount</i>	<i>ER %</i>			
2004				\$ 1,245.31	\$ 2,599.75	47.90%
2005	\$ 365.59	\$ 76.08	20.81%	1,261.99	2,650.14	47.62%
2006	378.39	98.38	26.00%	1,296.45	2,697.05	48.07%
2007	391.63	101.23	25.85%	1,330.34	2,740.64	48.54%
2008	405.34	103.56	25.55%	1,363.92	2,781.71	49.03%
2009	419.53	106.12	25.29%	1,398.13	2,820.72	49.57%
2010	434.21	108.72	25.04%	1,433.49	2,858.18	50.15%
2011	449.41	111.66	24.85%	1,470.19	2,893.60	50.81%
2012	465.14	114.56	24.63%	1,508.27	2,926.95	51.53%
2013	481.42	117.71	24.45%	1,546.93	2,956.81	52.32%
2014	498.26	120.88	24.26%	1,585.27	2,981.85	53.16%
2015	515.70	124.05	24.05%	1,622.81	3,001.23	54.07%
2016	533.75	127.26	23.84%	1,659.18	3,014.22	55.04%
2017	552.44	130.68	23.66%	1,694.26	3,020.02	56.10%
2018	571.77	134.10	23.45%	1,728.37	3,018.56	57.26%
2019	591.78	137.68	23.26%	1,760.71	3,008.56	58.52%
2020	612.49	141.54	23.11%	1,790.68	2,988.49	59.92%
2021	633.93	145.40	22.94%	1,817.69	2,957.29	61.46%
2022	656.12	149.46	22.78%	1,841.39	2,913.72	63.20%
2023	679.08	153.60	22.62%	1,862.58	2,857.88	65.17%
2024	702.85	157.84	22.46%	1,882.85	2,790.54	67.47%
2025	727.45	162.26	22.31%	1,904.26	2,713.05	70.19%
2026	752.91	167.00	22.18%	1,929.21	2,626.62	73.45%
2027	779.26	171.87	22.06%	1,960.59	2,533.31	77.39%
2028	806.54	177.06	21.95%	2,001.02	2,434.57	82.19%
2029	834.77	182.51	21.86%	2,052.73	2,331.44	88.05%
2030	863.98	188.21	21.78%	2,118.28	2,225.21	95.19%
2031	894.22	117.84	13.18%	2,120.86	2,116.61	100.20%
2032	925.52	3.21	0.35%	2,011.17	2,006.40	100.24%
2033	957.92	3.07	0.32%	1,900.64	1,895.34	100.28%
2034	991.44	2.97	0.30%	1,789.99	1,784.15	100.33%
2035	1,026.14	2.89	0.28%	1,680.06	1,673.65	100.38%
2036	1,062.06	2.82	0.27%	1,571.24	1,564.24	100.45%
2037	1,099.23	2.77	0.25%	1,464.33	1,456.72	100.52%
2038	1,137.70	2.75	0.24%	1,359.77	1,351.51	100.61%
2039	1,177.52	2.73	0.23%	1,258.19	1,249.25	100.72%
2040	1,218.74	2.72	0.22%	1,159.97	1,150.30	100.84%
2041	1,261.39	2.71	0.21%	1,065.49	1,055.05	100.99%
2042	1,305.54	2.70	0.21%	975.06	963.78	101.17%
2043	1,351.23	2.70	0.20%	888.91	876.75	101.39%

¹ Payroll is assumed to increase 3.5% per year.

² Investment earnings are assumed to be 7.0% per year.



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Appendix A. Summary of Plan Provisions

The following description is only a brief summary of the more important provisions of the retirement plan. Actual plan provisions are contained in Chapter 8 of the Guam Code.

Membership Conditions and Exclusions: All employees of the Government of Guam hired on or before September 30, 1995 are required to participate as a condition of employment, except:

- a) Persons who are compensated on a fee basis;
- b) Independent contractors;
- c) Persons employed for a specific project;
- d) Persons employed in the Senior Citizens' Community Employment Program; and
- e) Persons with less than 20 years of service prior to September 30, 1995 who elect to transfer to the Government of Guam Defined Contribution Fund. Participants have an annual opportunity to transfer.

Membership is optional for:

- a) Temporary, seasonal, intermittent and part-time employees;
- b) Persons employed for a specific period of time and not domiciled in Guam; and
- c) Employees of a public corporation of the Government of Guam.

Membership is also applicable to members of the Legislature with special provisions for:

- a) The determination of average annual salary for pension computation purposes; and
- b) Contributions.

Pension Credits: Employees are entitled to pension credit for:

- a) Service rendered to the Government prior to May 1, 1951 when the Fund began operations.
- b) Service on or after May 1, 1951 for which contributions are required to be made by the employees.
- c) Casual or part-time employment under prescribed conditions for which contributions must be made.
- d) Unused and accumulated sick and annual (vacation) leaves with 12 days of service counted as a full month; 6 to 11 days, ½ month; and less than 6 days disregarded.
- e) For employees hired before June 1, 1989, pension credit is granted up to a maximum of 5 years for Federal service, provided the employee terminates membership in the Federal Civil Service Retirement Fund and makes a contribution to the Government of Guam Retirement Fund equal to the amount contributed by the member and his employer during the period which is equal in length to the period for which service credit is requested, and which ends on the member's termination date of such employment with interest from the date of such termination to the date of payment.
- f) For employees hired before June 1, 1989, educational leave time or periods of termination for educational training purposes, if contributions are made to the Fund with interest. Members who first joined the fund prior to January 31, 1987, may receive credit for up to the normal



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period of time required to complete degree without having been employed by the government prior to the period during which the degree was earned.

- g) Military service prior to May 1, 1951, if not considered for any Federal Government Pension other than for disability. If entry into military service occurred after May 1, 1951, total pension credit is limited to 5 years in the aggregate, provided the employee was in the service of the Government of Guam at date of entry into military service and returned to the Government of Guam service within one year following discharge from military service under conditions other than dishonorable, or within 6 months after completion of education under the various education benefits programs for veterans; otherwise the total credit is limited to three years.

Schedule for Computing Service: The following schedule shall govern the computation of pension credit: 12 days or more during any month constitutes a month of service; 6 to 12 days, $\frac{1}{2}$ month; less than 6 days is disregarded. Nine months or more during any year constitutes a year of service.

Vesting of Pension Credit: If entrance to service was prior to October 1, 1981, vesting occurs after at least 3 years of service. If entrance to service was on or after October 1, 1981, vesting occurs after at least 5 years of service.

Upon separation from service, an employee may optionally leave the contribution credits in the Fund and qualify for a deferred retirement annuity, based upon the total pension credit. If the pension credit is 20 years or more, no refund of contributions is payable and the employee must accept a deferred retirement annuity.

Conditions for Service Retirement: With respect to any employee who originally became a member of the Fund prior to October 1, 1981:

- a) Such member may retire on a service retirement annuity at age 60 or over, or at age 55 in the case of a member of the uniformed personnel after at least 10 years of service. Upon retirement, a member of the uniformed personnel shall be considered one grade above that held at date of retirement.
- b) A member with at least 25 years of service may retire at any age on an unreduced retirement annuity.
- c) Any retired employee with at least 25 years of credit service shall be entitled to the full retirement annuity on and after September 30, 1981.
- d) Any member, active or inactive, may retire after 20 years of service, regardless of age. In such case, the retirement annuity shall be reduced $\frac{1}{4}$ of 1% for each month that the age of the member is less than 60 years (3% per year).

With respect to an employee who became a member of the Fund on or after October 1, 1981, and prior to August 22, 1984, the following provisions shall govern:

- a) Such member may retire on a service retirement annuity at age 60 or over, or at age 55 if a member of the uniformed personnel after at least 15 years of service and upon retirement shall be considered one rank grade above that held at such date.



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- b) A member with at least 30 years of service shall be eligible for service retirement, regardless of age, without reduction for early retirement.
- c) Any member, whether in an active or inactive status, may retire after 25 years of service, at any age, on an annuity reduced $\frac{1}{4}$ of 1% per month (3% per year) for each month member's age is less than 60.

With respect to any employee becoming a member of the Fund on or after August 22, 1984:

- a) Such member may retire on a service retirement annuity at age 65 or over, or at age 60 in the case of a member of the uniformed personnel after at least 15 years of service. Upon retirement, a member of the uniformed personnel shall be considered one grade above that held at date of retirement.
- b) A member with at least 30 years of service may retire at any age on an unreduced retirement annuity.
- c) Any member, active or inactive, may retire after 25 years of service, regardless of age. In such case, the retirement annuity shall be reduced $\frac{1}{4}$ of 1% for each month that the age of the member is less than 65 years (3% per year).

Amount of Service Retirement Annuity: A basic annuity of 2.00% of "average annual salary" for each of the first 10 years of credited service; and 2.5% of "average annual salary" for each full year of pension credit above 10 years, plus twenty dollars (\$20.00) multiplied by years of credited service reduced by an amount equal to one hundredth of one percent (.01%) of said amount for each one dollar (\$1.00) that a member's average annual salary exceeds the amount of six thousand dollars (\$6,000).

The minimum amount of service retirement annuity payable by the Fund is \$1,200 per year. The maximum retirement annuity is 85% of "average annual salary."

Average Annual Salary: Average of three highest annual salaries received by a member during the entire period of pension credit, or \$6,000, whichever is greater.

The annual salary of the member shall include the basic rate of salary on which contributions were made by the member and any salary on which the member made contributions as required under GCA, Section 8136(a). Effective October 1, 1986, salary can include payment for unused annual leave upon retirement.

In case of members of the Legislature, the average annual salary is the salary of the Director of Administration at the member's date of retirement, or the average of the three highest annual salaries received by the member during the period of membership credit, whichever is greater.

Automatic Increase in Annuity: Effective July 1, 1984, any member retiring from service and entitled to benefits after September 1, 1972, is to receive each year, on the anniversary date of retirement, an increment of \$600 if the annual annuity is \$3,500 or less; \$400 if the annuity is between \$3,500 and \$6,300 per year; \$300 if the annuity is between \$6,300 and \$10,100; and \$200 if the annuity exceeds \$10,100 per year.



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Disability Retirement: Upon total and permanent disability due to physical or mental causes, an employee under age 65 is entitled to a disability retirement annuity. For employees hired prior to August 22, 1984, the amount of the disability retirement annuity will be 66-2/3% of the employee's salary in effect on the date of disability. Subsequent employees will have an annuity amount based on 66-2/3% of the average of the highest three years of salary. If the disability was not due to occupational causes, the employee must have Government of Guam service credit of at least six years, or five years in the case of terminal illness, in order to qualify, except that new members since May 28, 1985, may not retire if a disability arises from impairment or conditions existing prior to employment.

A disability retirement annuitant must submit to a medical examination at least once a year during the first five years of disability, and at least once every three years thereafter, by a physician or physicians designated by the Board in order to establish continuing disability and entitlement to benefits. Should a disability annuitant resume gainful employment in a position other than the particular job in which he was engaged when declared disabled, the disability retirement benefit shall continue as initially determined.

A member receiving disability retirement benefits since December 1, 1972, is entitled to receive on the anniversary date of retirement, an annual increase of \$300 if the benefit is \$3,000 per year or less; \$250 per year where the annuity is between \$3,000 and \$6,000 per year; \$200 per year where the annuity is between \$6,000 and \$10,000 per year; and \$100 if the annuity exceeds \$10,000 per year.

Re-entry Into Service: A member on retirement who re-enters services as an employee eligible for membership shall have the annuity suspended during the period of employment without losing rights to automatic increases in the retirement annuity during the period of re-employment. This provision does not apply to Department of Education employees who occupy positions dealing with the Chamorro Language and Culture Program in Guam schools, persons employed as classroom teachers, guidance or health counselors when critical need arises, nor elected officials.

Benefits to Survivors: Benefits are payable to a surviving spouse and children under age 21, upon the death of a member while in service after at least three years of service, or occurring while on retirement. The benefit to children of an annuitant or member whose death occurs while in service, after at least three years of service is payable until age 24, if they are full-time students in an accredited educational institution and for disabled children regardless of age, if disability occurred before age 21.

If only a spouse survives the active or retired member, the annuity payable is 50% of the service or disability retirement annuity earned by the member, subject to a minimum of \$1,200 per year.

The annuity to a child is \$2,160 per year, subject to a maximum payment to five or more minor children of \$10,800 per year. The term "child" or "children" includes any natural child or adopted child under age 21, or any permanently disabled child whose incapacity began before the child attained age 21.



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A survivor annuitant is entitled to an automatic increase in annuity each year on the anniversary date of the annuity of \$600 if the annuity is \$3,500 per year or less; \$400 if the annuity is between \$3,500 and \$6,300 per year; \$300 if the annuity is between \$6,300 and \$10,100; and \$200 if the annuity is more than \$10,100 per year.

A surviving spouse or minor child surviving the member is entitled, in addition to the above, a death benefit of \$1,000 payable in a lump sum.

A survivor's annuity terminates upon death or re-marriage under the age of 40, attainment of age 21 of the child, or the termination of the incapacity of a disabled child.

Optional Privilege at Retirement: Upon retirement from service, any unmarried employee, if in good health as determined by medical examination, may elect to receive, on an actuarial equivalent basis in lieu of the full retirement annuity, a reduced retirement annuity payable during the annuitant's lifetime, plus an annuity to a designated beneficiary to become payable at death of the annuitant. The annuity to the beneficiary is to be paid at the same rate and under the same conditions that apply to a survivor of a married member whose death occurs while in service.

Death Benefit – Active and Retired Members Without Survivors: Upon death of a member while in service, leaving no survivors eligible for annuities, the designated beneficiary or estate is entitled to a refund of the contribution credits, plus interest, together with a death benefit of \$1,000 payable in a lump sum.

Upon death of a retired member, if no survivors' annuities are payable, the death benefit to a designated beneficiary or the estate of the member consists of the excess, if any, of: (1) the total contribution credits of the member at retirement, plus interest, over (2) the total amount of annuity payments made to the retired member, plus the sum of \$1,000.

Death Benefit – Inactive Members: Upon the death of an inactive member with at least 20 years of pension credit, and survived by a spouse or minor children, the following benefit options are provided: (a) the surviving spouse or children, as the case may be, may elect to receive the annuities prescribed if the death of a member occurs while in service; or (b) a refund of the deceased member's total contribution credits, plus interest.

Refund of Members' Contributions: Upon complete separation from service, or transfer to the Government of Guam Defined Contribution Fund, a member may receive a refund of the total contributions, plus interest (except that no interest is payable if the total pension credit is less than one year).

Contributions by Members: Each member shall contribute to the Fund 9½% of salary earned and accruing after October 1, 1997; and at the member's option, 10½% of non-base pay subsequent to October 1, 1997.



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Appendix B. Actuarial Cost Method and Assumptions

	<u>September 30, 2004</u>		<u>September 30, 2003</u>	
Actuarial Cost Method	Entry Age Normal		Entry Age Normal	
Interest Rate	7.00%		7.00%	
Salary Increases	<u>Service</u>	<u>% Increase</u>	<u>Service</u>	<u>% Increase</u>
	0 – 5	8.5%	0 – 5	8.5%
	6 – 10	7.0%	6 – 10	7.0%
	11 – 15	6.0%	11 – 15	6.0%
	16 – 20	5.0%	16 – 20	5.0%
	Over 20	4.0%	Over 20	4.0%
Total Payroll Growth	3.50%		3.50%	
Cost of Living Adjustment	Specified in Plan		Specified in Plan	
Mortality	1994 U.S. Uninsured Pensioners for Males +2 for males +0 for females		1994 U.S. Uninsured Pensioners for Males +2 for males +0 for females	
Disability Incidence	1974-78 SOA LTD Non-Jumbo with rates increased for males by 30%		1974-78 SOA LTD Non-Jumbo with rates increased for males by 30%	
Post-disability mortality	1984 U.S. Uninsured Pensioners +10 for males +8 for females		1984 U.S. Uninsured Pensioners +10 for males +8 for females	
Withdrawal Rates	Graded rates based on actual experience (see attached)		Graded rates based on actual experience (see attached)	
Retirement Age	50% assumed to retire at earliest eligibility for unreduced benefits.		50% assumed to retire at earliest eligibility for unreduced benefits.	
	20% per year thereafter until age 70		20% per year thereafter until age 70	
	100% at age 70		100% at age 70	



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	<u>September 30, 2004</u>	<u>September 30, 2003</u>
Return of Contributions	<p>100% withdrawing before retirement with less than 20 years of service are assumed to elect a return of contributions</p> <p>All employees who have previously withdrawn are assumed to elect a return of contributions.</p> <p>Contributions earn 4.5% interest</p>	<p>100% withdrawing before retirement with less than 20 years of service are assumed to elect a return of contributions</p> <p>All employees who have previously withdrawn are assumed to elect a return of contributions.</p> <p>Contributions earn 4.5% interest</p>
Marital Status	<p>Retiree data included spouse information. 65% of non-retires are assumed to have spouses</p>	<p>Retiree data included spouse information. 65% of non-retires are assumed to have spouses</p>
Sick Leave Adjustments	<p>Assumed to add 1.5 years of service and increase average earnings by 10% at retirement</p>	<p>Assumed to add 1.5 years of service and increase average earnings by 10% at retirement</p>
Administrative Expenses	<p>\$2,599,657 per year, net of adjustment for bad debts</p>	<p>\$3,533,184 per year, prior to adjustment for bad debts</p>
Asset Valuation Method	<p>Market, except fixed income investments at amortized cost</p>	<p>Market, except fixed income investments at amortized cost</p>
Data Inconsistencies	<p>None</p>	<p>None</p>



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Probabilities of Separation from Active Service (per 10,000 working at each age)

<i>Male</i>				<i>Female</i>			
<u>Age</u>	<u>Withdrawal</u>	<u>Death</u>	<u>Disability</u>	<u>Age</u>	<u>Withdrawal</u>	<u>Death</u>	<u>Disability</u>
20	731	6	13	20	967	5	10
21	699	6	13	21	936	6	10
22	671	7	13	22	901	6	10
23	641	7	13	23	866	6	10
24	619	7	13	24	832	7	10
25	599	8	13	25	797	7	10
26	578	8	13	26	761	7	10
27	559	8	13	27	731	8	10
28	542	9	13	28	704	8	10
29	526	9	13	29	680	8	10
30	512	9	13	30	658	9	10
31	497	9	13	31	637	9	10
32	483	9	13	32	616	9	10
33	469	9	13	33	596	9	10
34	454	9	13	34	578	9	10
35	439	10	13	35	560	9	10
36	422	10	13	36	543	9	10
37	404	11	13	37	527	10	10
38	386	12	13	38	511	10	10
39	367	12	13	39	495	11	10
40	348	13	26	40	480	12	20
41	336	15	26	41	465	12	20
42	329	16	26	42	457	13	20
43	323	17	26	43	436	15	20
44	318	19	26	44	422	16	20
45	313	20	47	45	407	17	36
46	299	23	47	46	392	19	36
47	280	25	47	47	375	20	36
48	259	28	47	48	356	23	36
49	236	31	47	49	325	25	36
50	211	35	82	50	287	28	63
51	176	39	82	51	244	31	63
52	136	43	82	52	202	35	63
53	95	48	82	53	163	39	63
54	64	53	82	54	132	43	63
55	42	60	138	55	108	48	106
56	0	68	138	56	0	53	106
57	0	76	138	57	0	60	106
58	0	86	138	58	0	68	106
59	0	97	138	59	0	76	106
60	0	109	196	60	0	86	151
61	0	123	196	61	0	97	151
62	0	139	196	62	0	109	151
63	0	156	196	63	0	123	151
64	0	175	196	64	0	156	151



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Appendix C. Summary of Participant Data

Active Non-Uniformed

<i>Age</i>	<i>Count</i>			<i>Annual Salaries</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Under 20	-	-	-	-	-	-
20 – 24	-	1	1	-	*	*
25 – 29	22	14	36	499,078	*	810,445
30 – 34	205	181	386	6,050,223	5,596,701	11,646,924
35 – 39	360	354	714	12,979,962	12,687,393	25,667,355
40 – 44	473	506	979	18,181,127	19,282,408	37,463,535
45 – 49	432	482	914	17,993,059	19,324,465	37,317,524
50 – 54	319	417	736	13,990,422	16,701,553	30,691,975
55 – 59	214	283	497	9,864,626	10,748,076	20,612,702
60 – 64	102	141	243	4,879,838	5,951,146	10,830,984
65 – 69	52	50	102	2,144,322	2,089,971	4,234,293
70 & Over	28	35	63	1,024,393	1,687,024	2,711,417
Total	2,207	2,464	4,671	87,607,050	94,402,129	182,009,179

* Not shown if less than 20 members.

<i>Age</i>	<i>Service</i>									<i>Total</i>
	<i>0 - 4</i>	<i>5 - 9</i>	<i>10-14</i>	<i>15-19</i>	<i>20-24</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40+</i>	
Under 20	-	-	-	-	-	-	-	-	-	1
20 – 24	1	-	-	-	-	-	-	-	-	1
25 – 29	8	6	21	1	-	-	-	-	-	36
30 – 34	18	82	256	29	1	-	-	-	-	386
35 – 39	14	44	380	254	22	-	-	-	-	714
40 – 44	17	57	308	327	249	20	1	-	-	979
45 – 49	14	37	245	220	245	133	19	1	-	914
50 – 54	10	27	194	181	157	97	67	3	-	736
55 – 59	1	24	129	151	105	50	30	7	-	497
60 – 64	4	9	72	62	44	30	18	2	2	243
65 – 69	-	2	24	36	26	9	2	-	3	102
70 & Over	-	4	20	11	13	11	1	1	2	63
Total	87	292	1,649	1,272	862	350	138	14	7	4,671



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Active Uniformed

<i>Age</i>	<i>Count</i>			<i>Annual Salaries</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Under 20	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-
25 – 29	5	-	5	*	-	*
30 – 34	55	3	58	2,110,622	*	2,172,372
35 – 39	106	4	110	5,024,397	*	5,204,190
40 – 44	138	7	145	7,135,396	*	7,430,324
45 – 49	74	3	77	4,058,947	*	4,213,580
50 – 54	33	-	33	1,638,387	-	1,638,387
55 – 59	7	-	7	*	-	*
60 – 64	6	-	6	*	-	*
65 – 69	1	-	1	*	-	*
70 & Over	-	-	-	-	-	-
Total	425	17	442	20,857,085	*	21,548,189

* Not shown if less than 20 members.

<i>Age</i>	<i>Service</i>									<i>Total</i>
	<i>0 - 4</i>	<i>5 - 9</i>	<i>10-14</i>	<i>15-19</i>	<i>20-24</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40+</i>	
Under 20	-	-	-	-	-	-	-	-	-	-
20 – 24	-	-	-	-	-	-	-	-	-	-
25 – 29	-	4	1	-	-	-	-	-	-	5
30 – 34	-	9	45	3	-	1	-	-	-	58
35 – 39	-	-	56	46	8	-	-	-	-	110
40 – 44	-	1	34	53	56	1	-	-	-	145
45 – 49	-	1	12	16	29	18	1	-	-	77
50 – 54	-	-	6	12	10	3	2	-	-	33
55 – 59	-	-	2	2	-	1	2	-	-	7
60 – 64	-	-	-	3	1	1	-	-	1	6
65 – 69	-	-	-	-	-	1	-	-	-	1
70 & Over	-	-	-	-	-	-	-	-	-	-
Total	-	15	156	135	104	26	5	-	1	442



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Active Total

<i>Age</i>	<i>Count</i>			<i>Annual Salaries</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Under 20	-	-	-	-	-	-
20 – 24	-	1	1	-	*	*
25 – 29	27	14	41	654,632	*	965,999
30 – 34	260	184	444	8,160,845	5,658,451	13,819,296
35 – 39	466	358	824	18,004,359	12,867,186	30,871,545
40 – 44	611	513	1,124	25,316,523	19,577,336	44,893,859
45 – 49	506	485	991	22,052,006	19,479,098	41,531,104
50 – 54	352	417	769	15,628,809	16,701,553	32,330,362
55 – 59	221	283	504	10,190,423	10,748,076	20,938,499
60 – 64	108	141	249	5,219,629	5,951,146	11,170,775
65 – 69	53	50	103	2,212,516	2,089,971	4,302,487
70 & Over	28	35	63	1,024,393	1,687,024	2,711,417
Total	2,632	2,481	5,113	108,464,135	95,093,233	203,557,368

* Not shown if less than 20 members.

<i>Age</i>	<i>Service</i>									<i>Total</i>
	<i>0 - 4</i>	<i>5 - 9</i>	<i>10-14</i>	<i>15-19</i>	<i>20-24</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40+</i>	
Under 20	-	-	-	-	-	-	-	-	-	-
20 – 24	1	-	-	-	-	-	-	-	-	1
25 – 29	8	10	22	1	-	-	-	-	-	41
30 – 34	18	91	301	32	1	1	-	-	-	444
35 – 39	14	44	436	300	30	-	-	-	-	824
40 – 44	17	58	342	380	305	21	1	-	-	1,124
45 – 49	14	38	257	236	274	151	20	1	-	991
50 – 54	10	27	200	193	167	100	69	3	-	769
55 – 59	1	24	131	153	105	51	32	7	-	504
60 – 64	4	9	72	65	45	31	18	2	3	249
65 – 69	-	2	24	36	26	10	2	-	3	103
70 & Over	-	4	20	11	13	11	1	1	2	63
Total	87	307	1,805	1,407	966	376	143	14	8	5,113



SECTION V. APPENDICES

Service Retirees

<i>Age</i>	<i>Count</i>			<i>Annual Benefits</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Under 25	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	-	-	-	-	-
35 – 39	5	1	6	*	*	*
40 – 44	30	13	43	839,121	*	1,212,080
45 – 49	168	117	285	5,643,736	3,281,517	8,925,253
50 – 54	450	358	808	15,551,811	10,143,048	25,694,859
55 – 59	484	414	898	16,740,434	11,959,291	28,699,725
60 – 64	418	369	787	13,783,212	9,537,304	23,320,516
65 – 69	370	364	734	10,209,276	8,191,235	18,400,511
70 – 74	312	302	614	7,157,577	6,365,427	13,523,004
75 – 79	230	193	423	4,811,796	3,615,069	8,426,865
80 – 84	104	88	192	1,819,628	1,354,258	3,173,886
85 – 89	29	39	68	504,364	536,719	1,041,083
90 & Over	9	11	20	*	*	348,166
Total	2,609	2,269	4,878	77,366,240	55,548,218	132,914,458

* Not shown if less than 20 members.

<i>Age</i>	<i>Annual Benefit Level</i>									<i>Total</i>
	<i><\$5k</i>	<i>\$5-10k</i>	<i>\$10-15k</i>	<i>\$15-20k</i>	<i>\$20-25k</i>	<i>\$25-30k</i>	<i>\$30-40k</i>	<i>\$40-50k</i>	<i>\$50k+</i>	
Under 40	-	-	-	1	1	4	-	-	-	6
40 – 44	-	5	1	4	6	6	16	4	1	43
45 – 49	-	6	12	26	50	48	79	46	18	285
50 – 54	-	25	29	64	136	143	238	103	70	808
55 – 59	-	10	44	83	161	170	236	112	82	898
60 – 64	4	19	76	111	131	146	147	85	68	787
65 – 69	8	54	136	114	110	102	117	47	46	734
70 – 74	1	59	169	119	80	74	62	26	24	614
75 – 79	-	33	156	83	47	41	41	8	14	423
80 – 84	-	18	93	48	15	6	6	5	1	192
85 – 89	-	1	49	8	5	-	3	1	1	68
90 & Over	-	-	11	4	4	-	-	-	1	20
Total	13	230	776	665	746	740	945	437	326	4,878



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Disabled Retirees

<i>Age</i>	<i>Count</i>			<i>Annual Benefits</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Under 25	-	-	-	-	-	-
25 – 29	-	-	-	-	-	-
30 – 34	-	1	1	-	15,981	15,981
35 – 39	4	3	7	92,852	51,494	144,346
40 – 44	6	10	16	134,736	182,919	317,655
45 – 49	30	26	56	652,870	445,344	1,098,214
50 – 54	38	42	80	790,178	698,303	1,488,481
55 – 59	38	39	77	812,655	744,434	1,557,089
60 – 64	53	44	97	1,081,908	767,325	1,849,233
65 – 69	32	32	64	627,308	614,570	1,241,878
70 – 74	24	33	57	402,344	518,372	920,716
75 – 79	15	22	37	228,768	303,895	532,663
80 – 84	4	5	9	48,091	73,103	121,194
85 – 89	2	4	6	20,909	47,794	68,703
90 & Over	-	1	1	-	10,299	10,299
Total	246	262	508	4,892,619	4,473,833	9,366,452

* Not shown if less than 20 members.

<i>Age</i>	<i>Annual Benefit Level</i>									<i>Total</i>
	<i><\$5k</i>	<i>\$5-10k</i>	<i>\$10-15k</i>	<i>\$15-20k</i>	<i>\$20-25k</i>	<i>\$25-30k</i>	<i>\$30-40k</i>	<i>\$40-50k</i>	<i>\$50k+</i>	
Under 40	-	-	-	6	-	1	1	-	-	8
40 – 44	-	-	3	6	4	1	2	-	-	16
45 – 49	1	3	7	22	14	2	5	2	-	56
50 – 54	1	4	20	27	17	6	3	2	-	80
55 – 59	-	1	14	27	20	8	7	-	-	77
60 – 64	-	6	25	32	17	9	6	1	1	97
65 – 69	1	5	15	13	16	7	6	1	-	64
70 – 74	1	1	26	14	10	3	2	-	-	57
75 – 79	-	-	25	6	4	2	-	-	-	37
80 – 84	-	1	4	4	-	-	-	-	-	9
85 – 89	-	-	6	-	-	-	-	-	-	6
90 & Over	-	-	1	-	-	-	-	-	-	1
Total	4	21	146	157	102	39	32	6	1	508



SECTION V. APPENDICES

Surviving Spouses and Child Pensioners

<i>Age</i>	<i>Count</i>			<i>Annual Benefits</i>		
	<i>Males</i>	<i>Females</i>	<i>Total</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Under 25	132	139	271	285,120	300,240	585,360
25 – 29	2	2	4	*	*	*
30 – 34	2	4	6	*	*	*
35 – 39	1	15	16	*	*	*
40 – 44	3	34	37	*	338,171	356,946
45 – 49	10	48	58	*	603,315	699,733
50 – 54	13	88	101	*	1,116,141	1,231,594
55 – 59	19	110	129	*	1,300,041	1,504,838
60 – 64	30	100	130	320,667	1,259,921	1,580,588
65 – 69	25	136	161	266,346	1,515,083	1,781,429
70 – 74	34	143	177	336,251	1,481,637	1,817,888
75 – 79	34	135	169	348,296	1,375,069	1,723,365
80 – 84	18	95	113	*	914,129	1,116,607
85 – 89	2	46	48	*	459,681	482,460
90 & Over	2	14	16	*	*	*
Total	327	1,109	1,436	2,267,012	10,970,228	13,237,240

* Not shown if less than 20 members.

Surviving Spouses Only

<i>Age</i>	<i>Annual Benefit Level</i>									<i>Total</i>
	<i><\$5k</i>	<i>\$5-10k</i>	<i>\$10-15k</i>	<i>\$15-20k</i>	<i>\$20-25k</i>	<i>\$25-30k</i>	<i>\$30-40k</i>	<i>\$40-50k</i>	<i>\$50k+</i>	
Under 40	3	12	4	1	-	-	-	-	-	20
40 – 44	4	21	7	3	1	-	-	-	-	36
45 – 49	4	19	18	9	4	1	-	1	-	56
50 – 54	2	40	38	9	9	2	1	-	-	101
55 – 59	3	43	54	20	3	2	1	-	-	126
60 – 64	3	49	52	12	10	1	2	1	-	130
65 – 69	2	67	68	15	5	2	1	-	-	160
70 – 74	5	85	73	9	3	1	1	-	-	177
75 – 79	1	84	74	9	1	-	-	-	-	169
80 – 84	2	60	47	2	1	1	-	-	-	113
85 – 89	-	23	22	3	-	-	-	-	-	48
90 & Over	-	5	10	-	-	-	1	-	-	16
Total	29	508	467	92	37	10	7	2	-	1,152



SECTION V. APPENDICES

Appendix D. Glossary of Key Terms

Accrued Liability. The Present Value of Future Benefits allocated to past service in accordance with the actuarial cost method.

Actuarial Cost Method. A method of allocating the present value of benefits to past and future periods. Actuarial cost methods take into consideration the effect of wage inflation.

Actuarial Gains and Losses. Changes to the Accrued Liability due to deviations from the actuarial assumptions. These can include gains and losses from investments, employee turnover, disability, retirement, mortality, and administrative expenses.

Actuarial Value of Assets. A method of valuing Fund assets that smooths gains and losses that occur in the market value.

GASB. Government Accounting Standards Board. GASB No. 25 and No. 27 are accounting standards issued by GASB that require certain items be disclosed in the Fund's financial statements.

Normal Cost. The value of benefits earned for one year of service. The normal cost is calculated in accordance with the actuarial cost method. The accumulation of all normal costs assigned to past service equals the Accrued Liability.

Present Value of Benefits. The sum of all benefits expected to be paid in the future by the retirement system, with the payments discounted to the present using the valuation interest rate. This includes benefits to be earned in the future for current employees.

Present Value of Future Normal Cost. The sum of all future normal costs expected for current employees, with the costs discounted back to the present using the valuation interest rate.

Security Ratio. The percentage of the Accrued Liability that is funded by the Fund assets. A fully funded plan will have a security ratio of 100%.

Unfunded Accrued Liability. The dollar value of the Accrued Liability that exceeds the value of the Fund assets. A fully funded plan will have no unfunded accrued liability.